

**FISHERS AND FISH TRADERS OF LAKE VICTORIA: COLONIAL
POLICY AND THE DEVELOPMENT OF FISH PRODUCTION IN KENYA,
1880-1978.**

by

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submitted in accordance with the requirement for the degree of

DOCTOR OF LITERATURE AND PHILOSOPHY

in the subject

HISTORY

at the

UNIVERSITY OF SOUTH AFRICA

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10 February 2011

DECLARATION

I declare that 'Fishers and Fish Traders of Lake Victoria: Colonial Policy and the Development of Fish Production in Kenya, 1895-1978 ' is my original unaided work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. I further declare that the thesis has never been submitted before for examination for any degree in any other university.

Paul Abiero Opondo

DEDICATION

This work is dedicated to several fishers and fish traders who continue to wallow in poverty and hopelessness despite their daily fishing voyages, whose sweat and profits end up in the pockets of big fish dealers and agents from Nairobi. It is equally dedicated to my late father, Michael, and mother, Consolata, who guided me with their wisdom early enough. In addition I dedicate it to my loving wife, Millicent who withstood the loneliness caused by my occasional absence from home, and to our children, Nancy, Michael, Bivinz and Barrack for whom all this is done.

ABSTRACT

The developemnt of fisheries in Lake Victoria is faced with a myriad challenges including overfishing, environmental destruction, disappearance of certain indigenous species and pollution. All these problems can be located within the social, economic and political systems that exists today and in the past. This thesis, **‘Fishers and Fish Traders of Lake Victoria : Colonial Policy and the Development of Fish Production in Kenya, 1880-1978’**, argues that the Luo fishers had their own indigenous techniques of fishing, modes of preservation and systems of management that ensured sustainable utilisation of fisheries. The thesis examines the role of the Luo fishers in the sustainable usage of the Lake Victoria fisheries.

The British colonial settlers came up with new policies of plantation and commercial farming, taxation and forced labour, all of which encouraged the Luo fishers to partially break with their pre-colonial systems and create new ways of responding to the demands of the colonial state. The study argues that the coming of colonialism and its attendant capitalism introduced new fishing gear as well as new species, such as *mbuta*, that were inimical to the sustainable utilisation of the Lake Victoria fisheries. The colonial regime also introduced new practices of fisheries management such as scouts, licensing, closed seasons and the numbering of boats, practices geared towards ensuring the commercial production and development of the fisheries. This commercialisation led to cut-throat competition between Asian, European and African fish traders. The coming of independence in 1963 brought some changes, such as the provision of credit facilities, new technology, and attempts by the new African government to more effectively control and manage the fisheries. However, not much changed in terms of policy objectives, and most of the colonial policies remained unchanged. New industries were established around the fisheries, but most remained in the hands of Asians and a few African middlemen. The small-scale fishers continued to struggle against the commercialisation of fishery production, remaining voiceless and marginalised. The study recommends an all inclusive participatory approach to solve the problems currently affecting the Lake Victoria fisheries.

LIST OF KEY TERMS

Social history, Luo fishers, small-scale fishers, indigenous technology, coping strategies, colonial regulations, overfishing, open access, commercialisation, new fish species.

ACKNOWLEDGEMENTS

In the performance of a task of this nature many people, ranging from my oral informants along the beaches of Lake Victoria, to fisheries researchers and scholars, were consulted and their advice absorbed. In this regard there are several names that have sensitised, encouraged and guided me in researching and writing this thesis. Of great significance among the scholars is my Promoter, Dr. Muchaparara Musemwa of the University of South Africa (Unisa), who read my proposal numerous times, re-read it then read the several drafts of this study so often that I nearly lost count. His astuteness and academic exuberance was a fundamental contribution, without which this work would not have been what it is. In doing this onerous task, he was ably assisted by my co-promoter, Prof. Lance van Sittert of the University of Cape Town, who guided me by infusing new ideas, editorial work and corrections that tremendously improved the quality of this work. For more editing work, I am also acknowledging Tanya Barben of UNISA. Then there is Prof. B.A. Ogot, a pioneer Kenyan historian, the Chancellor of Moi University and a Professor Emeritus of History at Maseno University, near the shores of Lake Victoria, who not only encouraged me, but also read my first proposal at the outset telling me that the topic was 'doable'. The opportunity to enrol for this course at Unisa was made possible by the generous link between the Kigali Institute of Education (K.I.E.) in Rwanda and Unisa in South Africa. This link gave me the chance to register, and provided me with the invaluable computer and internet connection that gave me access the all important data and networking as well as the opportunity to communicate with my supervisors. To all my informants along the beaches of the Lake I am forever grateful. The same

gratitude goes to staff members at the Kenya National Archives (K.N.A.), notably Peterson Kithuka, Evans Kiiru and Richard Ambani, for assisting me in locating crucial archival material. At Moi University, Kenya, I am grateful to the encouragement given to me by Prof. John J. Okumu, the Head of the Department of History, Political Science and Public Administration. As for my oral informants, I am forever indebted to them. To all of you keep up the good work and, God bless.

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ABBREVIATIONS AND ACRONYMS

A.R.-Annual Report

B.M.U.-Beach Management Unit

A.D.C.-African Development Councils

C.P.U.E.-Catch per Unit of Effort

D.C.-District Commissioner

E.A.C.-East African Community

E.A.P.-East African Protectorate (Name of Kenya before 1920)

E.A.R.-East African Railways

E.A.R.O.-East African Research Organisation

F.D. - Fisheries Department

F.O. - Fisheries Officer

GOK-Government of Kenya

I.B.E.A.Co.-Imperial British East African Company

I.T.Q.-Individual Transferable Quota

K.L.B.-Kenya Literature Bureau

K.M.F.R.I.-Kenya Marine and Fisheries Research

KMG-Kakamega

K.N.A.-Kenya National Archives

L.B.D.A.-Lake Basin Development Authority

L.N.C.-Local Native Councils

L.V.E.M.P.-Lake Victoria Environmental Programme

L.V.F.B.-Lake Victoria Fisheries Board

L.V.F.S.-Lake Victoria Fisheries Services

L.V.P.U.-Lake Victoria Protection Unit

M.S.Y.-Maximum Sustainable Yields

NZA-Nyanza

P.C.-Provincial Commissioner

A Glossary of Luo Fishes of Lake Victoria

Name in Luo Language	Biological Name of Species
Duru (Mudfish)	<i>Clarias gariepinus</i>
Fuani/odhadho	<i>Barbus altrialis sp.*</i>
Fulu	<i>Haplochromis sp.</i>
Kamongo (Lung fish)	<i>Protopterus aethopicus</i>
Mbuta (Nile perch)	<i>Lates niloticus sp</i>
Mumi (Cat fish)	<i>Clarus mossambicus sp</i>
Ndhira/Nyawino	<i>Xenoclarus sp.</i>
Ngege (indigenous tilapia)	<i>Oreochromis esculentus sp.*</i>
Ningu	<i>Labeo victorianus</i>
Nyamami (Nile tilapia)	<i>Oreochromis niloticus sp.</i>
Okoko	<i>Synodontis afroscieires sp.</i>
Omena	<i>Restriobela argentus</i>
Osoga	<i>Alestes jacksoni sp.</i>

Seu (Cat fish)	<i>Bagrus docmac sp.*</i>
Sire	<i>Schilbe mystus sp.</i>
Suma	<i>Momyrus kannume sp.*</i>

SOURCE: Obiero Ong'ong'a, *Lake Victoria and its Environs: Resources, Opportunities and Challenges*, Kisumu, OSIENALA (Friends of the Lake), 2005, p.31

Note: * Indicates that the fish species that were plentiful many years ago were either absent, rare or extinct by the year 2000.

Glossary of Luo Terms/Words Used in Fishing

Abila - Rental accommodation for fishing crew

Aunga - Basket used to scoop fish

Banda - Kiswahili/Luo term used to refer to a fish landing and buying structure

Biero rech - A process in which the fishers gave pieces of fish to the poor in the Luo society especially along the beach

Chike - Laws/mores in general

Chike Lupo - Rules to be obeyed by fishers

Chir - A kind of an informal school among the Luo

Chwir - A period of heavy rains

Gogo - A fishing vessel

Jalowo/Jalupo - S/he who fishes

Jolupo - Fishers

Jonam - People living along the lake

Jokamiyo - Children of the same mother within a polygamous family

Joramba - People who work in the fishing industry but come from outside the lake region

Jokawuoro - Children of the same father within a polygamous family

Kilua - A fishing voyage

Kira - A fishing basket, conical in shape

Kiru - A small hut for drying fish

Kiboko - A rhino whip used by European settlers to beat African labourers

Kipande - An identity card introduced by the colonial government

Kuon - Maize gruel

Libamba - A sub clan

Liguru - A Luyia term for patriarchal elders

Lupo - To come after

Luw - To follow

Luw dhok - Come after cattle

Luwo - Follow

Mabati – Iron sheet

Machoka - A generous collector e.g. the new fishing nets were *machoka*

Mzungu- A European

Mwasia mar yie - Captain, team leader in charge of a canoe on a fishing voyage

Ndonyo - Iron ore

Ngai - A rowing stick for the canoe

Nyagot - A hoe used for farming, which was bought from the Samia in exchange for fish

Nyanza - A name used to refer to Lake Victoria by the local communities. The term also refers to the name of a province in the lake region

Nyuomo Yie - The payment to the boat owner of ten percent of the catch

Obambla - Dried tilapia

Ober - *Albizia coraria*, hard wood used for making canoes

Ondhoro - Fish Scouts

Onera - *Taminalia brauni*, hard wood for making canoes

Osadhi - Spear for fishing

Osero - Woven basket for fishing

Orindi - Canoes used for river fishing

Oringi - The bicycle boys

Ruoth - A leader

Ssesse - An island on Lake Victoria where Ssesse canoes were made

Sienyu - A fish trap

Yugni - Marshes and algae that cover the lake in the cold season, making fishing impossible

Wath - A beach where fish are landed

Uhuru - Kiswahili/Luo for independence

CHAPTER ONE

INTRODUCTION

FISHERIES DEVELOPMENT, INDIGENOUS KNOWLEDGE AND AGENCY

Post-colonial governments in Kenya, and East Africa in general, have pursued various policies, programmes and projects intended to optimise the utilisation and management of fisheries, environmental protection and economic development of the Lake Region. Projects such as the Lake Basin Development Authority (L.B.D.A), the Lake Victoria Environmental Management Programme (L.V.E.M.P.) and the Lake Victoria Protection Unit (L.V.P.U.), however, have not fully accounted for the relationship between history, culture and the environment. Historians and other social scientists have also been slow to examine how this link influenced choice of technology and mode of production. This process can be usefully illuminated through a historical study of change and movement among the fishing people of Lake Victoria. It is important, therefore, to discover how communities such as the Luo and Luyia who live around the lake co-existed historically within and with their environment by adopting technological innovations to exploit resources around them and to overcome constraints and problems encountered. This study emphasises the role of these communities in the preservation of the lake resources and the environment in general. Indeed, to the fishing community, the environment was not merely a backdrop but a fundamental source of livelihood in which culture and technology were inextricably intertwined.

From the time they occupied their present settlements in about the 1880s, the Luo who live along Lake Victoria have practised fishing as an aspect of their subsistence. Fishing in the pre-colonial period was not only a source of food but was, at times, a major economic activity especially for those communities which lived around the Lake. As an economic activity fishing promoted commercial exchange and interaction between neighbouring communities. Though what Kenya owns of the

Lake today represents only about six per cent of its total area, fishing directly and indirectly supports close to 40,000 people.¹ Before colonialism, fishers gained access to the Lake through membership of a lineage group or a clan. They were unconstrained by the modern nation state boundaries and free to fish and exchange their catch in any part of the Lake.

So far, most of the literature on fishing in Lake Victoria has been produced by scientists not historians. There is, therefore, a need to integrate the development of fishing, government policy and technological changes over time. This calls for a historical analysis of fishing in the Lake in order to identify programmes in the colonial and post-colonial periods aimed at developing the fishing industry and to determine whether and why there was continuity or change over time. This thesis demonstrates that there was both change and continuity.

Technology is a useful measure of change in fishing. Gordon asserts that '[f]ishers in Africa have utilised new technologies and developed new forms of resource exploitation [but] without becoming typical capitalist entrepreneurs'.² This study interrogates how Luo fishers responded to the new technologies, nets and policies introduced by colonialism, and if these changes made them capitalist producers or impoverished them. The *historicisation* of Lake fishing will facilitate a study of the interaction of African and the foreign technology introduced by colonial settlers. In this way the impact of the articulation between indigenous and colonial technologies and their effects can be understood. The preference for, or use of, one form of technology over another was based on the existing dominant relations of power. By understanding the nature of this articulation, the effect on the indigenous systems of knowledge among the fishing community of the capitalist mode of production and new technology that came with colonialism, can be determined. According to James

¹ The Lake has always been a source of fish and water. However, since the early 1960s, after the coming of the Nile perch species (local name, *mbuta*), the number of fishers began to increase and since the 1970s when commercialisation led to the popularisation of fish, for local and foreign markets, the number of fishers and dependents has increased tremendously.

² D. Gordon, "Growth without Capital: A Renascent Fishery in Zambia and Katanga, 1960s to Recent Times" in *Journal of South African Studies*, Vol. 31, No. 3, September, 2005.

McCann, the role of colonialism and global capitalism cannot be ignored in discussing agricultural change, of which fishing is a part.³ This study, however, is also a social and environmental history of fishing among the Luo. In addition to the social realm, it addresses fundamental environmental and ecological issues such as the impact of the new conservation policies, fish species and technology, not just on fish output, but also the Lake Victoria ecosystem. The mixture of social, political and environmental parameters in this study makes it more nuanced and diverse than previous studies which have been purely economic and technical.

To date, no study has explored the history of fishing, colonial policy and fishers' lived experiences. Most studies of Lake Victoria have only emphasised fishery management, economics and marketing. Environmental aspects and, in particular, the impact of pollution on fishing have also been analysed. Most scholars have looked broadly at the economic sustainability and environment of the Lake Region. The economists, for example, have been interested in supply and demand functions of fish with specific analyses of supply factors (equipment, labour, technology and time). Equally, they have examined the structure and marketing of fish, delineating hurdles to fish marketing in Kenya: middlemen exploitation and poor infrastructure being the main factors hindering market accessibility.⁴

This study of the history of fishing in Lake Victoria is partially influenced by the peasant literature and theories of agrarian change.⁵ Indeed the study of the present fishing techniques can help in extrapolating past practices. McCann supports this view when he asserts that 'the use of present agricultural systems to help understand

³ J. McCann, "Agriculture and African History" in *The Journal of African History*, (London, Cambridge University Press, 1991), Vol. 32, No. 3, 507-513; contends that 'colonialism and the world economy in the late 19th century were primarily responsible for interrupting ecologically balanced and progressive forms of African agriculture', see p. 511.

⁴ See Oduor-Otieno, 'Study of the Supply Function for Fish in Kenya Waters of Lake Victoria and on the Kenya Coast,' Working Paper No. 346 (1978) Institute of Development studies (IDS), University of Nairobi. The paper discusses factors that affect the demand and supply of fish within the context of price mechanism. Also see J.K. Byaruhanga, "Structure and Performance of Fish Marketing in Lake Victoria Region," (unpublished PhD thesis, Maseno University, 2002).

⁵G. Hyden, *Beyond Ujamaa in Tanzania: Underdevelopment and the Uncaptured Peasantry*, (Berkeley: University of California Press, 1980). Also F. Ellis, *Peasant Economics: Farm Households and Agrarian Development* (New York: CUP, 1988)

systems of the past is a necessary step'.⁶ It is vital to relate present fishing or agricultural practices to the past in order to find out how those systems affected the 'ecological equilibrium in which the fishers worked'.⁷ The peasant literature helped to sharpen the focus of this study on how local economic and environmental histories of the Luo fishers shaped historical and contemporary household and community politics over the Lake's resources.

Fishing was one economic activity among many engaged in in pre-colonial Lake society. Acheson has pointed out that 'the most common strategy used by fishers to adapt to uncertainty is to combine occupations'.⁸ Thus the Luo did not practice fishing exclusively. As Acheson reminds us, 'fishing is almost always combined with hunting, agriculture or other occupations'. 'Swedish peasants', he commented, 'often combined fishing and farming to such an extent that it was difficult to tell their major occupation'.⁹ Diversifying subsistence strategies provided insurance against environmental volatility and unpredictability. When crops failed people would survive by fishing and trade or when fishing was poor, they could depend on cultivation or livestock. In this study fishers may be thought of as similar to peasant farmers except that they obtained the bulk of their livelihood from the Lake rather than the soil. Luo fishers were also peasant farmers who straddled the land and the Lake and moved seasonally between the two. For this reason Geheb and Binns note that the dividing line between fishers and farmers on the Kenyan shores of Lake Victoria is 'as difficult to demarcate as that between certain cultivating and pastoral groups in other parts of Africa'.¹⁰ While Luo fishers were also farmers, fishing was prioritised in areas where farming was difficult due to poor soils. Thus Geheb and Binns's note of the contemporary Lake shore that, 'farming [was] also generally regarded as being more reliable and more easily monitored, whereas fishing was

⁶ See James C. McCann, 'Agriculture and African History' in *The Journal of African History*, (London: Cambridge University Press, 1991) Vol.32, No. 3, 507-513.

⁷ J. McCann, 'Agriculture and African History', 510.

⁸ J. M. Acheson, 'Anthropology of Fishing' in *Annual Review of Anthropology*, Vol. 10, 1981, p. 291

⁹ Acheson, 'Anthropology of Fishing', p. 291.

¹⁰ K. Geheb and T. Binns, 'Fishing Farmers' or 'Farming Fishers'? The Quest For Household Income and Nutritional Security on the Kenya Shores of Lake Victoria,' in *African affairs*, Vol. 96, No. 382 (Jan. 1997) p. 91.

increasingly perceived as a ‘hit and miss’ activity. The land is now felt [sic] to offer more security than the lake, given the problems of declining fish yields, the greater incidence of theft and the rising prices of fishing gear’.¹¹ This may also have been true for the pre-colonial Lake Victoria economy.

Fishers, like their farming counterparts, relied on the family labour of women and children supplemented with that of additional workers who were paid in kind, though some could be hired by canoe owners. The distinguishing feature of the pre-colonial Luo fishers was their subsistence nature, meaning that the household consumed the bulk of the catch rather than exchanged it in the market. Some fishers, though, were catching for exchange but the degree of integration into the market varied in accordance with differences in the Luo fishing community. According to Ellis, peasants should never be conceptualised as subsistence producers caught in a timeless vacuum.¹² They come from somewhere and are subject to forces outside their experiences such as colonialism, in a continuous adaptation to the changing world around them.¹³ It is important to shift the debate from the ‘agrarian question’ to the ‘aquarian question’ in order to critically analyse the daily struggles and long term trajectory of the Lake Victoria fishers and traders, and how they survived on the Lake under the onslaught of the changes that came with British colonialism.¹⁴ The principal focus of this study, therefore, is on the Lake fishery as the primary resource base of a peasant-cum-fisher community. The same people who catch fish also have to work the land in order to cultivate millet, maize, potatoes and other subsistence crops.

¹¹ K. Geheb and Binns, ‘‘Fishing Farmers’ or ‘Farming Fishermen’?’’, p. 90 and for more data on colonial economic policies see R. M. A van Zwanenberg, *Colonial Capitalism and Labour in Kenya, 1919-1939* (Nairobi, EALB, 1975) p. xix.

¹² F. Ellis, *Peasant Economics: Farm Households and Agrarian Development* (New York: CUP, 1988), p. 5.

¹³ F. Ellis, *Peasant Economics: Farm Households and*, p. 5.

¹⁴ See Barbra Walker, ‘‘Engendering Ghana’s Seascape: Fanti Fish Traders and Marine Property in Colonial History’’ in *Society and Natural Resources*, Vol 15, (New York: Taylor and Francis, 20002), p. 391.

The few scholars who have examined the resource politics of peasant fishing communities tend to view them in isolation from regional and global patterns of economic and environmental change.¹⁵ These studies tend to trivialise ideas of common property and indigenous knowledge in sustainable resource management. Common property has been criticised as being wasteful of resources.¹⁶ For instance, Gordon blames the management problems of fisheries on common property, by saying that ‘the [poor] plight of fishers and the inefficiency of fisheries production stems from the common-property nature of resources of the sea’.¹⁷ When resources are shared communally it is believed that there will be over-utilisation. There is, therefore, a general preference for private property in natural resource utilisation. The proponents of private property argue that it is better to have some ‘rules’ of access in order to increase predictability.¹⁸ In addition,, these rules supposedly ensure conservation of the resources. Gordon, however, highlights a major criticism of private property advocates. ‘Common property resources’, he contends, ‘are not synonymous with open access resources; the latter are a subset of the former’.¹⁹ Indeed, in relation to traditional African property practices, Walker asserts that European colonialism regarded European fishing methods as superior, alleging that African fishers regarded Lake fisheries as an infinite source of food and profit. In the light of these contrasting perceptions, this study seeks to highlight the central role of ordinary fishers and the place of common property rights in African fishing traditions.

¹⁵ See E. S. Atieno-Odhiambo, “Rise and Decline of the Kenyan Peasant, 1888-1892” in Atieno-Odhiambo, ed, *The Paradox of Collaboration and Other Essays*, (Nairobi, East African Literature Bureau, EALB, 1974), pp.90-102 and B. Walker, “Engendering Ghana’s Seascape,” p. 391. Also see M. Holden, *The Common Fisheries Policy: Origin, Valuation and Future*, (London, Buckland foundation, 1994) and Carl-Christian Schmidt, “The Net effects of Overfishing” in *The OECD Observer* No. 184, Oct/Nov. 1993 and H. Fearn, *An African Economy: A Study of Economic Development of nyanza Province, 1903-1955*, (London, OUP, 1956) pp. 111-116

¹⁶ D. Wilson, ‘Fisher’s Attitudes toward Management on Lake Victoria: Preliminary Findings’, A paper presented at the annual meeting of the American Fisheries Society, 31 August to 4 September, 1993 p. 12-13. Wilson has argued that ‘common property’ is destructive to the fisheries.

¹⁷ H.S. Gordon, ‘The Economic Theory of a Common-Property Resource: The Fishery’ in *The Journal of Political Economy*, Vol. 62, No. 2 (April 1954), p. 134.

¹⁸ E.P. Durrenberger and G. Palsson, ‘Ownership at Sea: Fishing Territories and Access to Sea Resources.’ in *American Ethnologist*, Vol. 14, No.3, (Aug. 1987), p. 508-522.

¹⁹ D. Gordon, ‘Growth without Capital: A Renascent Fishery in Zambia and Katanga, 1960s to Recent Times’ in *Journal of Southern Africa Studies*, Vol. 31, No. 3, September 2005, p. 496.

This study, therefore, is significant in that it is a departure from prevailing local and foreign analyses that have failed to recognise local people's knowledge and capacity and portrayed them instead as destroyers of the ecosystem and purveyors of irrelevant ideas.²⁰ Rather, it recognises and analyses the contribution of indigenous people towards sustainable exploitation and innovation in the Lake Victoria fishery through a detailed consideration of their response to colonialism and alien technology on their established fishing practices.

1.1 The Study Area

In Kenya, fishing is carried out at the coast, on inland water bodies and in the Lake Victoria region. The focus area of this study is on fishing by the communities in the Lake region. The area covered by the study includes beaches in the districts of Bondo and Kisumu (see Maps 1 and 2 below), predominantly occupied by the Luo community, the third largest ethnic group in Kenya. The two districts are found in Nyanza Province in Western Kenya. A beach is a zone above the water line at a shore of a body of water marked by an accumulation of sand, stone or gravel that has been deposited by the tide or waves.²¹ It is on this land along the edge of the Lake that the Luo practised fishing. For them the beach was the means of accessing fish and other organisms on which they depended for their livelihoods. As one fisherman put it, 'the *wath* or beach was for life. We spent most of our life there talking and working, looking for food and livelihood'.²² Beaches remain an important resource because they provide employment opportunities to those who are employed in the fishing industry. The other reason why this study focuses on the estimated 300 beaches along the Kenyan shore of Lake Victoria, is that they are also an important natural resource in the tourist industry. This notion of the beach is in sharp contrast with the Luo

²⁰ See McCann (1991). 'Agriculture and African History', p.510.

²¹ Definition of the beach, courtesy of www.answers.com and Whittow, J.B., *The Penguin Dictionary of Physical Geography*, (London, Penguin, 2001)

²² Interview with Ben Omollo, a fisherman, at Dunga Beach in Kisumu on 18/12/05.

conception of the beach and Lake as a resource: a source of food and fresh water for people, livestock and cultivation.²³

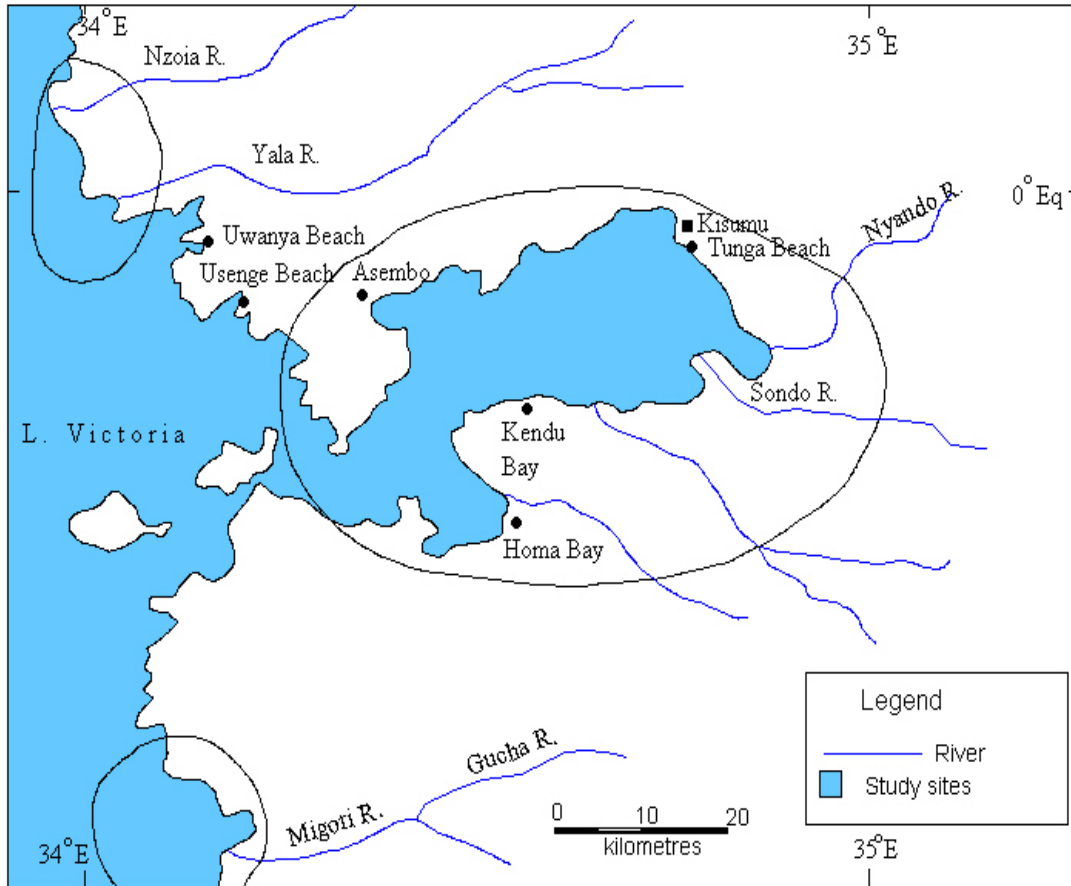
It is hard to determine the number of beaches in pre-colonial Kenya, but there was an increase in the number of fishing beaches in the period under study. The choice of beach for fishing was influenced by a number of factors. Traditionally, every clan desired to have its own beach so that fish caught was shared in an agreed way by the clan beach owners. However, when the British introduced the Fisheries Act (1949) all beaches had to be registered and gazetted under the management of the Beach Management Units (BMU). As a result many beaches 'died' due to poor management which made fishers leave in search of other beaches. Mireri, a man born in a fishing family and now a fishery scientist with Kenya Marine Fisheries, states that, 'sometimes when fishers disagreed on sharing the catches that landed on their beaches, they deserted and created others'. Other beaches also 'died' when certain species of fish vanished. In addition, soil erosion and flooding are said to have 'killed' many beaches on the Gwasi Islands in the 1960s. Thus the number of beaches fluctuated due to social and physical factors. For instance in the 1970s fishers moved from Kagor beach in Gwasi division and migrated to Ogwang and Osoi beaches in Suba division.

²³ For more discussion on the religious activities on the lake region see Atieno-Odhiambo, E.S. 'Some Aspects of Religious Activity among the Uyoma Fishers: The Rights Connected with the Launching of a Fishery Vessel,' *Mila*, 1, 2 (1970), p.14-21.



Map 1: Map of Kenya showing Study Area and Lake Victoria Region.

region.



Map 2: Showing Bondo and Kisumu Districts and Fishing Beaches

Lake Victoria straddles the Equator lying between 0°21' N and 3° 0'S. In terms of physical appearance, the Lake region is divided into high plateau uplands consisting of the Gwasi and Homa Hills. Then there is the Lake's lowland area, which, traditionally, has been used for cattle grazing. This lowland is made up of rich alluvial soils and many river valleys like Yala, Nyando, Sondo, Awasi and Nzoia that empty their waters into the Lake. In the windy months of September to January the whole depth is mixed while from January to May, the water is clear and distinctly stratified.

The third region, the long grass zone, lies higher up. It has two rainy seasons a year made up of hot and rainy periods. This study is based on the principal fishing beaches in Bondo and Kisumu districts along the Lake shore, namely, Dunga, Uhanya, Usenge, Nyamware, Kusa, Kaloko, Asembo Bay, Lwanda Kotieno and Wichlum. Kisumu is a particularly important town boasting three characteristics. Firstly, it is the largest town along the Kenyan lake shore; secondly, it is the third largest town in Kenya; and thirdly, it is, or was, the most prosperous Lake town in the East African lake region.

It was - and is- within this geographical environment that the Luo have engaged in fishing, farming, hunting and livestock keeping. Numerous rivers assured the people of abundant water for watering their livestock, which was also an important economic activity. The rich soils deposited by the rivers from upstream also allowed for the cultivation of crops. Oral evidence from fisher Peter Omondi confirms that since the Luo were mixed farmers the environment around the Lake suited their economy.²⁵. Today the beaches are more important as a source of fish and as tourist attractions and hence remain an important contributor to employment and foreign exchange in both the local and national economies.

1.2. Social and Political Organisation

The nature of Luo settlement along the beaches needs examination. The name 'Luo' derives from the people of that name's settlement along the Lake Victoria beaches. One interpretation of the meaning of the word 'Luo' manifests a close affinity between the people, the Lake and fishing activities. An illustration by Ochola-Ayayo may clarify this point further:

The word 'Luo' also needs interpretation, because it has more than one meaning. If we say Luo we often refer to the Southern Luo people or refer to Luo language, or to the people we generally call Nilotes. But

²⁴ See J. Butterman, 'Luo Social Formation and Change: Karachuonyo and Kanyamkago: 1800-1945,' (unpublished PhD thesis, Wisconsin University, 1979).

the word ‘*Luwo*’, ‘*lupo*’, ‘*luw*’ means to follow or come after. From the linguistic evidence, the word ‘*Joluo*’ [Luo in plural] comes from ‘*Jolupo*’, which means fishers, or ‘*luw dhok*’, come after cattle. If a traveller comes to a village at any time of the day and turns his eyes towards the lake or river, he will certainly be curious, and [will] ask who those ‘people’ are; and the answer to that question will definitely be ‘*jolupo*’ or ‘*jalowo*’ or ‘*jonewo*’ (plural for fishers) since a traveller will be seeing many such groups he/she will call them *Joluo* (Luo people).²⁶

In Luo language, Jo- means ‘people of’. So *Jalowo* means he who fishes. Hence the term Luo could mean people who follow (a lake or river or cows). In their migrations and settlements, the Luo had strong attachments to their cattle which had great social and cultural significance for them. They have always settled in the vicinity of a lake or river, thus explaining why many have called them river-lake people.²⁷ The name Nilotes itself comes from the Nile River, where it is claimed the Luo lived since the dawn of history.²⁸ These etymologies stress the importance of river and lake as regards fishing production.

As a result, the Luo developed some form of ‘religiosity of the boat’.²⁹ Among many fishing communities there was a prevailing perception that fishing did not only concern the rational but the whole self. It taught the spirit of perseverance and self-restraint alongside ethics. Fishing is ‘looking for answers to questions, finding the right bait, the right hole and the right timing’.³⁰ The Luo’s settlement along the Lake deeply influenced their world view along similar lines. Fishing became a crucial economic activity chiefly because of their proximity to the Lake. When the Luo settled along the Lake in the late 15th century, they met the pygmoid people known

²⁵ Interview with Peter Omondi, a fisherman at Uhanya Beach on 20/07/2005 .

²⁶ A.B.C. Ocholla-Ayayo, *Traditional Ideology and Ethics among the Southern Luo* (Uppsala, Scandinavian Institute of African Studies, 1976), p. 14.

²⁷ B.A. Ogot, *A History of Southern Luo*, pp. 1-4, and pp. 46-49.

²⁸ A.B.C. Ocholla-Ayayo, *Traditional Ideology and Ethics among the Southern Luo*, p. 22.

²⁹ A.B.C. Ocholla-Ayayo, *Traditional Ideology and Ethics*, p. 22.

locally as Wahenye whom they referred to as ‘the owners of fish’.³¹ It is these people, together with the Banyala, who ‘taught’ the Luo how to fish. According to Ogot, the Luo ‘had always fought to occupy lowlands where they could get access to water and pasture grounds because of their pastoralism which was reflected in the almost religious esteem in which they had held their cattle’.³² Not all Luo, however, were fishers as some settled far from the beaches and concentrated on agriculture and farming. Geheb and Binns have discussed the duality of the Luo economy by analysing how it straddles both peasant farming and fishing at different seasons of the year.³³ Ocholla-Ayayo states that, ‘the Luo of Kenya inhabited the territories bordering Lake Nyanza, to the north and south of Nyanza gulf, extending into Tanzania’.³⁴ Due to their preference for lowlands, the Luo settled along the Lake shore. That enabled them to partake in fishing in tandem with pastoralism and cultivation.

The nature of the social, economic and political organisation of the Luo fishers needs discussion. Many studies have been done of Luo socio-economic and political organisation.³⁵ The proto-Luo migrated in three groups of jok-Owiny, jok-Omolo and Luo-Basuba from southern Sudan in the 14th century. They settled along Lake Victoria and throughout what is today Western Kenya. In their migration they followed the River Nile up to Nyanza, around the shores of the Lake Victoria. However, their settlement around the Lake was not motivated by the search for fish although, according to oral tradition, fishing later became an important economic activity. They were, as noted above, basically cattle keepers who wanted water and grazing for their livestock and land for farming. All these activities were organised by the household embedded within the kinship networks of clans.

³⁰ Interview with Joyce Oruko at Dunga Beach on 20/01/2007.

³¹ Most respondents accept the view that the Luo, who were mainly pastoralists, learnt fishing from the Bantu communities such as the Banyala and the Wahenye.

³² See B.A. Ogot, *A History of the Southern Luo*, (Longman, Nairobi, 1967), p. 220.

³³ L. Geheb and T. Binns, ‘Fishing farmers’ or ‘Farming Fishers?’: The Quest for Household Incomes and Nutritional Security on the Kenyan Shores of Lake Victoria’ in *African Affairs*, Vol. 96 No. 382 (Jan., 1997) pp. 73-93.

³⁴ A.B.C. Ocholla-Ayayo, *African Ideology and Ethics*, p. 17.

³⁵ See H.O. Okello-Ayot, *Historical Texts of the Lake Region of East Africa*, (Kenya Literature Review, Nairobi, 1977).

According to Claude Meillassoux, kinship is usually taken to be the bedrock of social organisation in the so-called African societies.³⁶ Kinship ties among the Luo determine the rights to property, access to land and even the beach in the case of fishing. In pre-colonial Luo society, kinship expressed the relations of production and reproduction and the division of labour. The household was the primary unit of social organisation as it provided the children with basic education and socialisation. Butterman's study among the Luo found that they were organised in territorial maximal lineages.³⁷ Below the maximal lineage were several levels and divisions of segmentation. The *jokawuoro* segment was made up of the children of the same father regardless of the mother, whereas the *jokamiyo* segment consisted of people from the same mother. It was within this socio-cultural set-up that the youth were socialised and learnt fishing skills from their fathers as discussed in the next chapter.

On the division of labour in the pre-colonial era, John Omollo, a fisherman of many years, explains that men, women and children had various duties to perform as far as the fishery was concerned.³⁸ Men were in charge of making and repairing boats. They also set the nets in the evening and checked them for fish in the morning. In addition, they embarked on the canoes in the morning for fishing voyages as crewmen and brought home fish in the evening. Women's chores were equally clear. They waited for the fish on the beaches and collected it from canoe owners and crewmen when the canoes landed. They split the fish and dried it by roasting or sun drying. They then marketed the fish in the nearby markets and villages. Kitching informs us that in pre-colonial society both men and women were engaged in [the fish] trade but he also points out that women traded within the nearby markets.³⁹ He asserts that 'the women

³⁶ See C. Meillassoux, "The Social Organisation of the Peasantry: The Economic Basis of Kinship" in *Journal of Peasant Studies*, 1973, Vol.1, No.1 Also see David Seddon (ed), *Relations of Productions: Marxist Approaches to Economic Anthropology*, (London, Frank Cass and Co., 1980), pp. 159-171

³⁷ See Butterman, J., "Luo Social Formation and Change: Karachuonyo and Kanyamkago: 1800-1945, PhD thesis, 1979. The thesis encompassed a deep discussion of the social and economic aspects of Luo community before the coming of colonialism.

³⁸ Interview with John Omollo at Uhanya beach on 22/11/05.

³⁹ G. Kitching, *Class and Economic Change in Kenya: The Making of an African Petite Bourgeoisie, 1905-1970*, (London, Yale University Press, 1980), p. 12.

were generally restricted to those kinds [of trade] that could be practised near the homesteads, the barter of foodstuffs. Men seemed to have monopolised the long distance trade in both livestock and food crops'.⁴⁰ Mireri explains the important role of elders in managing fish in pre-colonial Luo society by saying:

Traditionally *wath* (beach) was owned by elders. They regulated fishing in terms of access and seasonal use of the lake water. They closed the use of the lake during the weeding season on the farms and this was when the rains were heavy (*chir*) and there was heavy breeding of fish.⁴¹

This closed season for fishing during the fish breeding season was generally adhered to because the Luo took both fishing and farming seriously. As far as farming was concerned, millet and other grains were the necessary accompaniments to fish in their diet. Thus during the rainy season most fishers participated in crop farming, leaving the fish to breed unmolested and thus ensuring the sustainability of the fishery.

Fishing bridged barriers so that people from different communities interacted and exchanged skills, techniques and commodities. It fostered an appreciation for the environment and enhanced Luo knowledge of fish ecology.⁴² As they moved from southern Sudan up the Nile, the Luo developed an interest in the river as an important economic and livelihood resource. By the time they arrived at the shores of Lake Victoria in the late 14th century, they had interacted not only with the physical environment in general and the Nile in particular, but also with other communities such as the Wahenye and the Baganda. In the process, they acquired fishing skills and were exposed to fishing technology that was passed on from one generation to the next. Fishing initiated the young into societal culture through stories and traditions that helped socialise young people and introduce them to the norms and mores of the household and the clan.⁴³ These were founded on generational responsibilities and a

⁴⁰ G. Kitching, *Class and Economic Change*, p. 12.

⁴¹ Interview with Peter Mireri at Dunga beach on 26/1/2007.

⁴² J.M. Acheson, 'Anthropology of Fishing', p. 292.

⁴³ See J.M. Acheson, 'Anthropology of Fishing', p. 292.

division of labour based on age, gender and professional orientation. Boys assisted their fathers and elder brothers in removing fish from the canoes when they landed, after which they cleaned the boats preparing them for the next fishing voyage. All these duties were organised within households in those Lake shore villages where fishing was a common seasonal occupation.

1.3. Statement of the Problem

There has not as yet been a detailed historical analysis of the Lake Victoria fisheries. This despite the fact that Lake fish resources earn Kenya close to five billion Kenya shillings (USD 70, 000,000 in today's rates) annually, and support over 40,000 people. Not enough research has been done to explicate the relationship between culture, livelihoods, technology and fish production. Studying this intersection and taking a long historical view enables us to integrate indigenous forms of technology, knowledge and management with modern methods of fishery management with a view to enhancing fishery development and production. Such an enquiry also allows us to analyse the articulation or disjuncture between indigenous knowledge and the modern or colonial modes of knowledge. It also focuses on the response of the ordinary Luo fishers to colonial state policies and environmental challenges. The ordinary fishers had common characteristics: they were men, women and children with few worldly possessions. They had no motorised boats or nets for fishing, only their labour and skills which they hired out to boat owners in return for remuneration in cash or kind. The many economic studies of the Lake fisheries ignore the voices of the many men and women whose livelihoods depended on fishing before, during and after the colonial era. It is the experiences of such people that will be at the heart of this study.

Many historians have looked at economic change, but very little of this work has focused on fishing⁴⁴. Indeed, some historians have analysed economic change

⁴⁴ See M. J. Hay, 'Economic Change in Luoland: Kowe 1890-1945', (unpublished PhD thesis, University of Wisconsin an, 1972). This work analyses the effects of colonial policies on the Luo especially their response to these policies. Also G. Kitching, *Class and Economic Change in Kenya: The Making of an African Petite Bourgeoisie, 1905-1970*, (London, Yale University Press, 1980). G.

through a discussion of cash crops without giving much attention to the response of ordinary people.⁴⁵ The few historians and economists who have looked at fisheries have focused on fish production and marketing and have ignored the historical constraints on both as well as the local peoples' input in terms of technology and adaptation to change. We need, therefore, to deepen our understanding of the role of ordinary fishers in the technological and regulatory changes in the Lake Victoria fisheries that followed colonialism.

Furthermore, very little work has been done on how the colonial decision to introduce the new gear and fish to the Lake affected the indigenous methods of fishing. We need to interrogate these effects on both fishers and fish traders. The fact that so far there is no documentary information on the impact of colonial policies on fishers, or of the fishers' response to these policies, calls for an exhaustive discussion and analysis of the history of fisheries development in the colonial era

1.4 Research Question

- i) What were the social, economic and political effects of colonial fisheries' management policies on the Luo people of the Lake Victoria Region, and how did they respond to these policies?

1.5 Objectives

⁴⁵ G. Kitching, *Class and Economic Change in Kenya: The Making of an African Petite Bourgeoisie, 1905-1970*, (London, Yale University Press, 1980), p. 12. and M. J. Hay, 'Economic Change in Luoland: Kowe 1890-1945', (unpublished PhD thesis, University of Wisconsin an, 1972) G. Kitching had also analysed economic change in the Nyanza region of Lake Victoria, highlighting the introduction of alien crops such as cotton, sisal, and new maize varieties without even mentioning changes brought by the colonial state on fishing.

This study has three main objectives:

Firstly, it seeks to examine the development of indigenous fishing practices, and to investigate the long-established fisheries management practices of the Luo.

Secondly, the study analyses the Luo peoples' responses to the fisheries management policies introduced by the British colonial administration.

Thirdly, the study elucidates the socio-economic impact of colonial and post-colonial fisheries management policies on the fishers of the Lake Region.

1.6 Periodisation

Finally, a justification for selecting the 1880-1978 as the period of study in this work is given below.

The study focuses on the period 1880 to 1978. The choice of this period was not accidental. We chose the year 1880 as our starting point because by that time, the Luo had begun a sedentary life as fishermen and grain cultivators having arrived in Kenya by 1490s. The year 1895 marks the period when Kenya was declared the British East African Protectorate (E.A.P.) under the administration of the Imperial British East African Company (I.B.E.A.C.), while 1920 is the year Kenya became a colony. The period 1895-1920, thus, was dominated by colonial efforts in laying the foundation of Kenya as a settler colony. In 1927 the Governor of Kenya commissioned a major study by Michael Graham to ascertain the state of fish production in the Lake Victoria region. The Graham Report influenced all subsequent colonial fisheries' development efforts. Fishing was recognised as a separate department only in 1949, prior to that it fell under the Wild Life section. This was because white settlers were mainly interested in cash cropping in the central highlands and not in the Lake fisheries. The first substantial fisheries legislation was the Fisheries Act of 1949, which dealt principally with policing and the mesh sizes of the fishing nets. The period 1954-1962 saw a determined British policy of land

reorganising and consolidation in the settler-dominated areas of Central Kenya and the Rift Valley. The Lake Victoria region's weather was considered 'unfriendly': white settlers found it too 'hot' to live there on account its high humidity and temperatures. Furthermore, colonial policies favouring agriculture at the expense of fisheries severely disadvantaged Luo fishers. The study ends in 1978, the year of the death of the first president of Kenya, Mzee Kenyatta, fifteen years after Kenya became independent. Also after that there some policy changes in the fisheries sector. After 1978 there was also a huge explosion in the population of the Nile Perch and its commercial exploitation. This make the tracing of continuities and discontinuities between colonial and post-colonial Kenya possible, as does, in particular, the examination of for fisheries development during the first fifteen years of independence.

1.7 Justification of the Study

There is need to investigate the development and change in the Lake Victoria fisheries during the colonial period in order to determine whether there were continuities or discontinuities between colonial and post-colonial policies and practices.

This study is important because it enhances an understanding of the role played by local indigenous knowledge in fisheries development and how this body of knowledge is – and was - relevant to the conservation and management of fish resources. The study also endeavours to shed light on the technological changes and constraints imposed by colonial administration on the Lake fisheries, and how these affected fish production.

This study is a significant addition to the discipline of history as it demonstrates how colonial policies on technology affected resource usage in the colonies. The study reveals that most environmental problems and resource depletion were accelerated by colonial technology and policies that ignored the indigenous modes of conservation and management. These findings will alert policy makers to the need to take into

consideration historical problems that hinder research and the development of fisheries. They will also suggest solutions to such challenges that are not exclusive to the fishing industry. The solutions suggested will go a long way towards facilitating poverty reduction, sustainable environmental management, economic development and, possibly wealth creation in Kenya especially within the fishing community.

1.8 Hypotheses

1. That pre-colonial modes of fish production engendered technological innovations and modes of fish exploitation that were environmentally sustainable.
2. That colonialism introduced new fish species, management policies and forms of technology which marginalised and undermined the indigenous knowledge systems and harvesting methods of the Luo fishers in the fishing industry and, in consequence, so altered the ecosystem as to create the unsustainable utilisation of fish exemplified by the loss of certain historical fish species.
3. That the Luo fishers responded and adapted differently to colonial fisheries policies.

1.9 Methodology

This research is based on an examination of oral, archival and secondary sources.

1.10 Colonial Archival Documents

The existence of unpublished information and data in government research institutions such as the Kenya Marine and Research Institute (K.M.F.R.I.) and Lake Victoria Development Authority (L.V.D.A.), both based in Kisumu, made the study a viable project. There vital documents that we used in this study were found at the Kenya National Archives (K.N.A.), they included reports such as the Fishing Survey,

Game and Fisheries, provincial annual reports and district annual reports and many other reports on the economic aspects of Lake Victoria. These reports contained a lot of relevant data and much information germane to this study. The archival sources consulted were mostly public records produced during the colonial administration and like all such archives, they represented the official colonial perspectives and tend to be biased against the Luo. As Henige has argued most conventional history is elite history being written by the victors who choose what is to be remembered.⁴⁶ It was for this reason that fieldwork interviews were conducted to capture and corroborate the history of ordinary people not represented in the official archive. The archive can also be read against the grain for its silences. These silences also provide clues about the ordinary people under colonialism. It is for this reason that the study combines written with oral sources in order to reconstruct the history of the Lake Victoria fisheries from the beach up.

1.11 Oral Interviews

The use of oral sources is of paramount importance in Africa history for two reasons. First, due to high levels of illiteracy the majority of Africans did not keep written records; and, second, oral sources allow us insight into the history of ordinary people around the Lake who have been marginalised and do not really have a voice in the official record. Since B. A. Ogot's pioneering work on the Luo history in 1965, oral tradition enabled the reconstruction of the Luo history.⁴⁷ Among the Luo, time is measured by important events in the society such as their migration from Sudan in the 1470s, their dispersal from Alego location to other parts of Kenya⁴⁸. The Luo also relied on generations and seasons such dry, wet and floody seasons as well as locust invasions to remember their past and measure chronology⁴⁹. Time, from birth to death, among the Luo, was measured in generational terms. According to Cohen, all

⁴⁶ D. Henige, *Oral Historiography*, (London, Longman, 1988), p 25 .

⁴⁷ B. A. Ogot, *A History of the Southern Luo*, (Nairobi, EAPH,1967), p. 231 and B.A. Ogot, *A History of the Luo speaking Peoples of Eastern Africa* (Nairobi, Anyange Press, 2009), pp. 7-23

⁴⁸ B. A. Ogot, *A History of the Southern Luo*, p. 233

historical interpretation flows from the dialogue between the subjectivity of the authors of the sources and that of the interpreter.⁵⁰ As Kusimba argues through oral sources, the informants are involved in a dynamic production of knowledge or systems of thought in which their interest or those perceived to be researcher's plays a critical role. He asserts that the major challenge to oral sources is that social, economic, class, gender, religious and political affiliation influence informants' responses. Another demerit, which affected Luo memory in this research was, time lapses and at times memory loss on the remote past and also how to locate the original inhabitants of a place, all of which were time consuming and difficult tasks⁵¹. Yet the interviews done were consistent and corroborated with the written sources. Although the Luo were illiterate upto the 1920s when missionaries opened schools in Nyanza, they kept their collective memories well. Issues were suggested and debated again and again until people agreed. This is supported by pioneer of oral research, Vansina when he writes: 'reminiscences are part of an organised whole of memories that tend to project a consistent image of the narrator to provide a justification of his or her life.'⁵² Thus among the Luo, like other Africans, the authority of their historical traditions was constructed, debated and revised within a specific cultural, political and social settings, despite some problems to do with inconsistency of chronology.⁵³

Written sources tended to reflect the views of the powerful in society. Oral sources, on the other hand, tell us more about the experiences and lives of the ordinary people such the Luo fishers thus enabling the voice of the voiceless to be heard. In the words of Cohen, the oral history approach emphasises the possibility of reconstructing the

⁴⁹ For more information on the Luo sense of time which has been problematic in this study see M. Dietler and I. Herbich, "Living on Luo Time Reckoning, Sequence, Duration, History and Biography in a Rural African Society" in *World Archeology*, 25 (2), October, 1993, pp. 248-260.

⁵⁰ D. Cohen, "African Historians and African Voices" in E. S. Atieno-Odhiambo, ed, *African Historians and African Voices: Essays Presented in Honour of B.A. Ogot*, (Basel, P. Schlettwein, 2001), p. 53

⁵¹ A. Munslow, *Decoconstructing History*, (London, Routledge, 1997). Munslow is critical on the subjective nature of historical methodology. He poses on p. 1, 'Can the professional historian be relied upon to reconstruct and explain the past objectively?' Certainly historical methodology has challenges which we must try to overcome.

⁵² J. Vansina, *Oral tradition as History*, (Madison, Univ of Wisconsin press, 1985) p. 8

past from the first-hand oral testimonies and tradition from a vast array of people who are the inheritors of the pre-colonial past.⁵⁴ The approach also challenges the strongly held view of Eurocentric historians that people without writing could have no histories, nor even a sense of history.⁵⁵ The use of oral sources goes beyond filling the gaps in the written record, but contains information that is unique. By incorporating the memories of local Luo informants through oral history this study has enabled them to influence the way in which their history is written and interpreted. However, as Uzoigwe points out, a major weakness of oral sources remains its inability to provide dates for events in the remote past.⁵⁶ Another challenge is interpretation of oral traditions, which may close or hide the meanings of the past. Yet my advantage is that I am part of the Luo culture and a speaker of Dholuo language hence my ability to understand the Luo past. Indeed all those interviewed in this work were Luo speakers and fishermen who were interviewed along the beaches as they did their fishing. As Munslow argues, historical evidence is chosen for what it can tell us about the unique past.⁵⁷

Fieldwork research was conducted with people residing along the fishing beaches around the Lake including Dunga, Uhanya, Usenge, Wichlum, found mainly in the Bondo and Kisumu districts of Nyanza Province in Western Kenya. These areas were divided into different zones and visited according to a defined schedule. Oral histories are a crucial source because they made possible the recording of the voices and lived experiences of fisher folk whose otherwise silent stories must be collected to corroborate and also challenge official representations of local history.⁵⁸ In highlighting the crucial role of oral history, Henige posits that it provides an

⁵³ D. Cohen, "African Historians and African voices", p. 50

⁵⁴ For a Eurocentric view of Kenyan history see E. Huxley, *White Man's Country: Lord Delamere and the Making Of Kenya, 1870-1914*, (London, Chattoand Windus, 1935). Also see D.W. Cohen, "African Historians and African Voices" in E.S. Atieno Odhiambo, (ed) *Africans and African Voices*, p. 51

⁵⁵ E. Huxley, *White Man's Country: Lord Delamere and the Making Of Kenya, 1870-1914*, (London, Chattoand Windus, 1935)

⁵⁶ G.N. Uzoigwe, "Pre-Colonial Markets in Bunyoro-Kitara" in B.A. Ogot, *Economic and Social History of East Africa*, (Nairobi, KLB, 1979), p. 26

⁵⁷ A. Munslow, *Deconstructing History*, (London, Routledge, 1997), p. 4

opportunity to explore and record the views of the under-privileged, the dispossessed and the defeated, those who by virtue of being historically inarticulate have been overlooked in past studies.⁵⁹

In this study both individual interviews as well as group discussions with fishers were used to clarify certain issues. Face-to-face interviews using a standard schedule of questions were conducted with fishers, and selected other informants that live around the beaches as well as businessmen and industrialists involved in fishing. The selection of oral informants to be interviewed was based on age, and preference was given to people born between 1900 and 1950. This choice was dictated by the assumption that those born during this period were old enough to have lived experience of the colonial period and hence colonial fisheries policies. Secondly, informants from this age group, having lived along the lakeside for generations, were likely to be in possession of important information passed on to them by word of mouth from earlier generations.

This experience in the field prompted a number of observations, first, that women were not amenable to being interviewed. This was because either they refused due to cultural inhibitions against talking to strangers or was mostly too busy with domestic chores. This was the pattern, both at the beaches and in the homes of fishers where most of the interviews took place. Secondly, there were very few elderly men along the beaches, as they had either retired or died and the young fishers and women knew very little, if anything, about indigenous fishing systems.

Nonetheless some information from the surviving practitioners about pre-colonial practices was collected. Their memories, however, were strongest on more recent issues, and this agrees with Vansina's opinion that 'people tend to report what they expect to see or hear. Memory typically selects certain features from the successive

⁵⁸ See D. Henige, *Oral Historiography* and also Jan Vansina, *Oral Tradition as History* (Madison, Univ. of Wisconsin Press, 1985). These books give critical views as to the value of carrying out field surveys and the collection of oral history, an important ingredient in studying African history.

⁵⁹ D Henige, *Oral Historiography*, p. 107.

perceptions and interprets them according to expectations.’ Indeed a major critique of the oral informants is that they tend to be biased and prejudiced, to forget the exact dates when events took place and exaggerate their stories. Yet the oral sources allowed the historian in Africa to write his story despite the problems. Finally, although most of those interviewed had a great deal to say, most of what was said concerned their recent experiences and problems, and fell outside the scope of this study.

During the face-to-face interviews, questions were put orally to informants with the help of research assistants and the responses recorded both in writing and on tape-recorders. Informants were especially sought from among those who lived and worked along the fishing beaches and, at one time, participated in fishing either as boat owners, traders or fishing assistants. At the end of the day recorded information from the field was transcribed and analysed. The data was used in conjunction with archival material in the writing up process.

In order to avoid regional, gender, ethnic or social prejudice, research assistants were used. This made it necessary to divide up the research area into zones to be covered by five assistants. The collected oral information was corroborated with archival and written information from libraries and research institutes.

Written sources were collected from national libraries and universities’ history departments. Near the conclusion of the project the Institute of Development Studies (IDS) at the University of Nairobi, and other national and private universities were visited. Several visits to these institutions and ‘Africana’ sections at Maseno, Moi, Egerton and Nairobi universities yielded abundant information useful to this research problem.

1.12 Theoretical Framework

This study is based on a theoretical framework that seeks to highlight African agency in the history of fishery development in the Lake Victoria region. This approach

emphasises the experiences of ordinary fishers, men and women, their perceptions and attitudes. Anderson has argued strongly that African history should emphasise African agency as opposed to previous historical writings that portrayed Africans purely as victims of colonialism.⁶⁰ The new approach, he suggests, has to demonstrate the multiple means by which ordinary African fishers and farmers 'delayed, deflected and avoided the intentions of the colonial state'.⁶¹ In essence, Africans ought to be seen as people who lived in an environment that they knew where they were masters and shapers of their own destiny. This historiographical shift has enabled this study to determine the role of the fishers of Lake Victoria in their own history. This conviction was born out of a belief that what had been previously written about Africans 'denied the indigenous dynamic' of their lived experience.⁶² In emphasising the crucial role of social agency, Thompson avows that 'all history depends ultimately upon its social purpose'.⁶³ He argues, further, that social history can give back a central place to the people who made and experienced that history, through their own words. In that way, the ordinary fishers seek to understand the changes which they experience in their own lives, social transformations like the changing position of the youth and elderly, alongside the more obvious technological and political changes.

In discussing social history, Richard Bernstein states that social theory has the task of providing conceptions of the nature of human social activity and of the human agent which can be placed in the service of empirical work.'⁶⁴ In supporting this opinion, Atieno Odhiambo asserts that 'historians of Africa have shifted some of their attention from kings and courts to the population at large, and their perspectives have

⁶⁰ David Anderson, *Eroding the Commons: The Politics of Ecology in Baringo, Kenya: 1890-1963*, (Nairobi, EAEP, 2002), p. 5.

⁶¹ D. Anderson, *Eroding the Commons*, P. 5

⁶² E. S. Atieno-Odhiambo, (ed) *African Historians and African Voices: Essays Presented in Honour of B.A. Ogot*, (Basel, P. Schlettwein, 2001) and I. Dinesen, *Out of Africa*, (New York, Vintage books, 1965).

⁶³ P. Thompson, *The Voice of the Past: Oral History*, (New York, OUP, 1988), p. 2.

⁶⁴ R. J. Bernstein, 'Social Theory as Critique' in R. Bernstein (ed) *Social Theory of Modern Societies: Anthony Giddens and his Critics*, (Cambridge, CUP, 1991), p. 29.

shifted from ‘top-down’ to ‘bottom-up’.⁶⁵ There was a need to bring ‘marginalized’ groups into the historical frame. John Dunn points out that, ‘human agents are the subject matter of human history and the constituents of human society’.⁶⁶ Such subject matter opens up ‘important areas of research ranging from gender and class relations and household structures to social protests and crime patterns and urban history’.⁶⁷ The advantage of this approach is that those at the bottom are able to bring out the silences in their own history. For this reason, then, this study seeks to base its conceptual framework on social history with analyses of class, and generational faultlines. These concepts are essential in analysing and comprehending the various developments in the fishing industry in Kenya’s Lake Region during the colonial and post-colonial periods with the aim of relating past history to present circumstances. By listening to the stories of the local fishers and women, the study seeks to highlight the dominant narratives of those who wielded decision-making power in fishing, and of the middlemen who made sure that the catch reached the market many miles from the beach. According to Redclift and Woodgate, social history is built around the notion of social structure and society is usually conceptualised as a system of social relations. Social production, thus, involved relations between individuals and between people and nature.⁶⁸

By looking closely at the historical development in fisheries the same patterns of change in fishing history as in agricultural history can be seen. In support of this view, McCann argued that the central problem of agricultural or fishing history requires a deeper understanding of the technical and social bases than one that just begins with colonialism and the penetration of capital as the primary agents of change in African agricultural history.⁶⁹ In other words, any analysis of African economic

⁶⁵ D.W. Cohen and E.S. Atieno-Odhiambo, *Siaya: A Historical Anthropology of an African Landscape*, (London, James Currey, 2001), p. 16.

⁶⁶ J. Dunn, ‘Practising History and Social Science on Realist Assumptions’ in Hookway, C. and Pettit, P. (eds), *Action and Interpretation, Studies in the Philosophy of the Social Sciences* (London, CUP, 1978), p. 152.

⁶⁷ D.W. Cohen and E S Atieno Odhiambo, *Siaya*.

⁶⁸ M. Redclift and G. Woodgate, “Sociology and the Environment” in M. Redclift and T. Benton (Eds), *Social Theory and Global Environment*, (London and New York, Routledge, 2004), p. 52.

⁶⁹ J. McCann, ‘Agriculture and African History, 1991,’ p. 511.

change must necessarily take into account the social relations of production. Basing the theoretical framework on class and race enables this study to discuss the relationships of African fishers with Indian middlemen on the one hand, and the European administrators on the other. These last, as the agents of the colonial state, played a crucial role in the introduction of new fish species and fishing gear as well as being the harbingers of new approaches to the management of the fisheries. Similarly, gender analysis as an approach in social history takes into account the relationship between men and women in the whole process of fish production, preservation, marketing and management. Of equal significance is how the benefits from fishing were shared between men, women and children. Attention to inter-generational relations gives an indication of how fishing skills and indigenous knowledge were passed down through time. More importantly still, is an awareness of how knowledge changed over time and how roles and responsibilities differed between the old and the young within, for instance, the household. Finally, by emphasising the agency of ordinary fishers, the social history approach, provides a glimpse into how they reacted to the new fishing policies and practices introduced by the colonial state. In essence, the thesis focuses on the peoples' responses to the introduction of new nets, new fish species such as Nile perch (*mbuta*) and other varieties of tilapia and the foreign modes of management. The study also confirms that the colonial mode of fisheries production and management did not necessarily replace the traditional modes, but rather that both coexisted on the Lake.

Pim, commenting on the intentions of colonial economic policies asserted that, 'they were intended to serve the declared aim of raising the standards of income and of living for the colonial people'.⁷⁰ He adds, however, that in pursuing this aim, there was a conflict between a policy of 'native' production and an extension of industrial capitalist enterprise. It is therefore crucial to critically analyse how the Nyanza fishers of the Kenyan Lake Region experienced this contradiction in colonial policy and their reactions to it. In doing so it is fundamental to stress the African voice in these experiences, as is seen below.

Isaacman and Roberts in, *Cotton, Colonialism and Social History in Sub-Saharan Africa*, discuss at length the social history of African farmers and their reactions to colonial cotton programmes across the continent.⁷¹ They stress the importance of not ignoring the voices of ordinary people and their reactions to the economic trajectory pursued by the colonial state. The book asserts that Africans make their own history but not necessarily under conditions of their own choosing.⁷² Depelchin endorses the importance of the 'African voice' when he asserts that 'there is need to give the African audience a greater voice in determining how African history should be written'. This is certainly true in respect of the Luo fishers whose voice was silenced by colonial and post-colonial policies that failed to acknowledge their indigenous systems.⁷³ Historians, he suggests, should collect bits and pieces of evidence from the ordinary voices hitherto silenced by the colonial system. He laments the fact that African historians continue to 'unwittingly write history for the same (European) audiences rather than their own national populations', and 'implicitly looked for approval of their work in Europe or North America as a guarantee to its high technical standard'.⁷⁴

Africans could not ignore the immense influence that the colonial state exerted and students of the social history of rural change in Africa need to take into account the colonial pressures that affected ordinary people in their daily struggles with their environment in order to bring to focus, their changing experiences. In this connection, Isaacman and Roberts remind us 'that social historians have a duty of putting ordinary Africans firmly into their scholarships in order to try and capture the meanings of their experiences'.⁷⁵ In introducing their new ideas about agriculture and

⁷⁰ A. Pim, *Colonial Agricultural Production: Contribution Made By Native Peasants and Foreign Enterprises*, (London, OUP, 1946), p. 4.

⁷¹ A. Isaacman and Richard Roberts (eds) *Cotton, Colonialism and Social History in Sub-Saharan Africa*, (London, James Currey, 1995).

⁷² A. Isaacman and Richard Roberts, (eds) *Cotton and Colonialism*, p. 2.

⁷³ J. Depelchin, *Silences in African History: Between the Syndromes of Discovery and Abolition*, (Dar Es Salaam, Mkuki na Nyota Publishers, 2004), p. 222.

⁷⁴ J. Depelchin, *Silences in African History*, p. 221.

⁷⁵ J. Depelchin, *Silences in African History*, 3.

fishing, colonial agents and officers ignored the contribution of African indigenous knowledge to environmental sustainability. It is important, therefore, to recover how African producers perceived European colonial policies in order to understand why most of colonialism's interventions in the countryside failed to garner popular support. Having failed to persuade African farmers to accept alien modes of production and management, the colonial state resorted to 'benevolent intervention',⁷⁶ or imposing such modes by force. In the mind of the Europeans, force was needed in order to 'develop' African societies, albeit against their will.⁷⁷ The European colonisers overrode local practices of utilising labour seasonally because of their desire to introduce capitalism. For instance, in their demand for cash crop production, the European colonial agents overlooked 'domestic struggles over household social relations and gender tasks'.⁷⁸ It is in this connection that social history should seek to appreciate the dynamic nature of African societies and the rich and divergent patterns of social, economic, and political change occurring throughout the nineteenth and early twentieth centuries. African societies had their own ways of doing things that European colonialism ignored.

The social history approach does not ignore gender and relations of production. Commenting on gender, Redclift and Benton state that the role of social norms and cultural practices is to maintain gender relations of power and 'gender relations are fundamental to understanding patterns of resource use'.⁷⁹ Cecil Jackson asserts that 'it is men who are associated with nature and for women respect for nature is inextricably bound up with respect for men by women'.⁸⁰ In many cases these practices begin when children are young and they are socialised to accept gendered societal norms and roles. Jackson says that this societal orientation occurs in many

⁷⁶ See R. Roberts, "The Coercion of Free Markets: Cotton, Peasants and the Colonial State In French Soudan, 1924" in A. Isaacman and R. Roberts, *Cotton, Colonialism*.

⁷⁷ R. Roberts, "The Coercion of Free Markets," pp. 224-243.

⁷⁸ A. Isaacman and Roberts, *Cotton, Colonialism*. The book states that the main objective of the colonial state was to consolidate the political and cultural power in the hands of the Europeans at the expense of the local African leaders on the ground.

⁷⁹ M. Redclift and T. Benton, *Social Theory and Global Environment*, p. 136.

⁸⁰ C. Jackson, 'Gender Analysis and Environmentalism' in M. Redclift and T. Benton, *Social Theory and the Global Environment*, p. 136.

different forms such as language, toys and general stereotypes. Among fishers, this prompts us to find out how children were trained and socialised in the fishers' households. In view of this, Ferguson⁸¹ looks at how kin labour was exploited in Zanzibar clove plantations. These kinsmen were mostly children. In his opinion, the plantation owners intensified kin exploitation to gain further property 'for that is the character of expansion in simple commodity production'. This study intends to find out whether the same kin exploitation happened in the Lake Victoria fishing economy. This goes hand in glove with relations of production labour relations. In this study, relations of production ought to be viewed through the lens of kin relations, the relations between boat owners and crew and owners and Indian middlemen. According to Akua Britwum, family and kinship as well as other social considerations dominated relations of production. He perceptively comments that these relations were contracted and operated on a social level at which rights and obligations were insisted on. In some instances, as among the fishers, apprenticeship and seasonal casual labour formed part and parcel of training the youth and inculcating in them fishing skills.

Finally, Isaacman and Roberts have posited that in discussing issues to do with the social history of agriculture (and fishing) a number of broad issues should be examined. These are the encounter between dynamic local process in Africa and the world capitalist system; the impact of colonial policies such as cotton production and new fishing policies on the organisation of rural work; the ways in which the colonial interventions exacerbated social differentiation; the effects of new policies in the fisheries on household food security; and the efforts of fishers and other crop producers to cope with and, at times, to struggle against the onerous demands of new colonial policies.⁸² In a nutshell, while explaining the development of fishing in the

⁸¹ For more on kin relations in production see E. Ferguson, "Value Theory and Colonial Capitalism: The Case of Zanzibar, 1897-1947" in *African Economic History*, no. 18, (Boston University, 1989), p. 30.

⁸² See Isaacman and Roberts, *Cotton, Colonialism*, p. 30.

colonial period, it is incumbent upon the study to discuss how the new policies in fishing led to both ‘class and economic change’ in the Lake Region.’⁸³

1.13 Literature Review

The literature review focuses on the themes related to the study objectives, namely the analysis of colonial reforms in fisheries and how these affected the indigenous fishing practices and fishers’ responses to these reforms. The role of artisan or ordinary fishers is also examined. These canoe fisheries, are small-scale in nature (only occasionally using powered boats), with low investment trends and with most of their catch being sold on the beach before being loaded onto refrigerated lorries and taken to industries in major towns such as Nairobi and Kisumu.

One very important theme in this work is the consequences of the penetration of capitalism into the fisheries. Goldschmidt’s *Darwin’s Dreampond*, a study based on the Mwanza Gulf in Tanzania’s section of Lake Victoria, is relevant to this issue.⁸⁴ The author examines the pre-colonial fishery regime in which the lake was rich and diverse with ‘several species of *haplochromine cichlids*’.⁸⁵ The indigenous fish species included ‘tilapia, elephant snout fish, the walking cat fish and the lung fish (all known as *furu*)’. In chapter eight the author points out that the Nile perch was not indigenous to the Lake as it was introduced by the Europeans to create a more lucrative commercial fishery. He alleges that, ‘a number of British colonial officials who had been hired to improve the Uganda fisheries considered introducing a large fish’.⁸⁶ The coming of the Nile perch according to him, had ‘disastrous consequences’ very little being known about the Lake’s flora and fauna. Between 1957 and 1970 the results of this biological experiment became spectacularly evident as the commercial

⁸³ For more discussion on class and economic change see G. Kitching, *Class and Economic Change in Kenya; The Making of an African Petite Bourgeoisie: 1905-1970*, (London, Yale University Press, 1980) The author had devoted a large part of the work looking at how class differentiation evolved in Nyanza (Lake Region) and Central Province. Throughout his discussion, however, very little is mentioned about the development of fishing.

⁸⁴ T. Goldschmidt, *Darwin’s Dreampond: Drama in Lake Victoria*, (Amsterdam, MIT Press, 1998).

⁸⁵ T. Goldschmidt, *Darwin’s Dreampond: Drama in Lake Victoria*, p. 6.

⁸⁶ T. Goldschmidt, *Darwin’s Dreampond*, p. 194.

production of Nile perch rose from 4,500 tons to nearly 49,000 tons, a 1000 per cent increase in little over a decade. This was a huge boost for the commercial fishery but one that came at some cost. The number of *furu* in the Kenyan Winam Gulf declined rapidly and other species disappeared most likely eaten to extinction by Nile Perch. Goldschmidt concludes that in total, 'more than 80 per cent of the 123 species (70 per cent) had disappeared in Mwanza Gulf'.⁸⁷ In this thesis it is argued, rather, that the coming of new fish species, such as the Nile perch, had both advantages and disadvantages.

In his outstanding critical analysis of canoe fishing among the Fanti of Ghana, Vercrujisse points out that while canoe fishing contributed greatly to fish production in Ghana it remained largely 'traditional'. By traditional he means an economic system unaltered by new foreign modes of production. The indigenous methods of fishing and management along the fishing beaches in Africa and other developing parts of the world have not changed significantly in appearance from pre-colonial times to the present, and fishers continue doing things the way they have always done. Vercrujisse points out,

That far from decades of official neglect, the canoe fisheries were transformed towards a more capitalist form of production, but this does not mean that they were converted into anything resembling a modern form, capital-intensive fishing industry.⁸⁸

Implicit in this statement is the fact that, despite the coming of colonialism the traditional approaches remained superficially intact and were only partially and gradually transformed. This study attempts to find out why the same was true among the fishing communities in Lake Victoria Region. Despite their neglect during the colonial era, artisanal canoe fishing contributed greatly to fish production in Kenya.

⁸⁷ T. Goldschmidt, *Darwin's Dreampond*, p. 206.

⁸⁸ E. Vercrujisse, *The Penetration of Capitalism: A West African Case Study*, (London and The Hague, Zed Books, 1984), p. 6.

As a result of the failure by the colonial state to engineer substantive changes, the co-existence of modern fishing techniques alongside the indigenous canoe fishing can still be seen, with the latter accounting for more than 50 per cent of fish landed in the country. According to Vercrujssse the increased productivity in canoe fishing was a result of greater labour productivity, achieved by replacing a large fleet of smaller canoes with large ones, and by introducing multipurpose nets and outboard motors. This assertion is in agreement with Gordon's analysis of fishing in Zambia, in which he emphasises the role of technology in enhancing fishers' ability to exploit the fisheries. He contends, further, that the loophole remained the official neglect of indigenous fishers. Fisheries' development was encouraged in the modern sector, but not in the traditional sector. The former witnessed the application of modern techniques through the introduction of motorised fishing vessels while the latter was entirely neglected. The same pattern is found in the Lake Victoria fisheries, whose potential remained untapped long after independence.

Vercrujssse argues that the traditional fishing sector was neglected for the following reasons; its industrial structure was inflexible; the capital invested in it was immobile; and, finally, 'its inflexibility was intensified by the vested interests of fish traders, by superstition and tradition, by relative isolation of fishing villages and by the difficulties in disseminating information to illiterate fishers'.⁸⁹ During the colonial period in Ghana the British colonial authorities seem to have fallen victim to the dominant modernisation ideology and assumed that ordinary fishers had no desire to enter the modern fishing sector. In the case of Kenya, the main objectives in the fisheries management were the regulation of mesh size of nets, closed seasons, and punishing African offenders. Not much was done by the colonial or post-colonial states to provide infrastructure, credit, markets, or to improve the living standards of the Luo fishers.

Tvedten and Hersoug point out that state intervention in fisheries has been based on the idea that development can best be initiated from above and that 'modernisation' is

⁸⁹ E. Vercrujssse, *The Penetration of Capitalism*.

the best strategy.⁹⁰ Yet this is not the case in African inland fisheries. ‘Modernisation’ usually ‘means industry-based fishing vessels, where the existing fishing fleet and methods are considered obsolete, backward’.⁹¹ Yet despite the above policy, in many developing countries artisanal fishing and related activities still exist and play an important role in the growth of fish production and exports and contribute significantly to employment. Writing on the lake tenure system in Malawi, Allison, Mvula and Ellis state that there were ‘historically, traditionally and naturally no tenurial rights on the lake’.⁹² They add that the prevailing narrative on Lake Malawi reiterates that fisheries there were an ‘open access’ resource whose ultimate fate ‘would be a tragedy of the commons’. In forty years of colonial rule in Malawi, the colonial state made no attempt to regulate or stimulate development of the fisheries sector. Despite this, the fisheries sector in Malawi grew. The theme of state intervention is further amplified by Obiero Ong’ong’a. Writing about the history of agriculture, he points out that indigenous knowledge has successfully sustained fishery exploitation in the past and provided the country with food security.⁹³ He laments the fact that poverty among fishers in Nyanza increased because food and agricultural policymakers over the years have consistently and intentionally marginalised indigenous knowledge, not only in Kenya but in Africa as a whole. The failure to synchronise traditional knowledge with scientific education in environmental and resource management as well as in food production programmes has produced socio-economic delinquencies that are not helpful to a developing country. In addition, he says that current events in the fisheries sector have also proven that science and technology are not the only schools of knowledge to progressively, proactively and successfully manage the fishery sector.

⁹⁰ I. Tvedten and B. Hersoug (eds), *Fishing for Development: Small-scale Fisheries in Africa*, (Uppsala, Scandinavian Institute of African Studies, 1992), p. 19.

⁹¹ Inge Tvedten and Bjorn Hersoug (eds), *Fishing for Development*, p. 19.

⁹² E H Allison, P. Mvula and F Ellis, ‘Conflicting Agendas in the Development and Management of Fisheries on Lake Malawi’ in Kim Geheb and Marie-Theresa Sarch (eds), *Africa’s Inland Fisheries: The Management Challenge*, (Kampala, Fountain Publishers, 2002), pp. 43-73.

⁹³ O. Ong’ong’a, *Lake Victoria and its Environs: Resources, Opportunities and Challenges*, (Homabay, Africa Herald, 2005), p 141-143.

Krings and Theresa-Sarch, in looking at the situation in respect of Lake Chad in the 1960s, assert that the Lake attracted many fishers in West Africa especially from Nigeria, Niger, Chad and Mali. Most were Hausa from the riverine areas of Kebbi/Sokoto and Hadejia⁹⁴. They argue that ‘this influx was stimulated by a combination of several factors, namely improved infrastructure, a growing market for fresh water fish and the introduction of nylon lines, nets fish hooks etc.’ Further, despite the importance of the contribution of inland fisheries to Nigeria’s fish consumption, the management of Lake Chad is only a recent concern of the federal government with no national legislation regarding the licensing of fishers. It is this type of state non-intervention in fisheries management which forms part of this thesis.

For the sector to be efficient and effective in development its management should incorporate the indigenous knowledge of traditional fisher communities. The search for practical solutions to end hunger and poverty in Africa cannot succeed in isolation but through collaboration with other knowledge systems. It is true that for the past 50 years the penetration of capitalism in Kenya’s traditional fishery sector has disrupted indigenous ecological initiatives and exposed local economies to external cultural influences. A good example is the increasing list of marine and lake species extinctions, which have degraded the food security system, causing famines and raising food prices beyond the reach of the majority. There is a need for fisheries policymakers to incorporate the ideas of traditional fishers into their working strategy of alleviating hunger and poverty in our communities. In the case of Kenya, the Kenya Fisheries Research Institute could develop a holistic and a cohesive policy together with local fisher communities that focused on domestic needs instead of foreign markets. Ong’anga’ pointed out that policymakers should not allow European technologies that are destructive to mislead Africans, and instead remember that indigenous knowledge is never lost but only subdued by new knowledge. His theme is supported by Abila who decries the fact that, as a result of the government’s open policy in Kenya, foreign technology and managerial policies have replaced

⁹⁴ M. Krings and Marie-Theresa Sarch, ‘Institutional Evolution at Lake Chad: Lessons for Fisheries Management’ in Kim Geheb and Marie-Theresa Sarch (eds), *Africa’s Inland Fisheries*, p. 215.

indigenous systems of management, thus leading to the adoption of alien technology, a dwindling fish production and the general destruction of the Lake environment with far-reaching consequences for its ecosystem.

J.K. Byaruhanga studied the problems encountered in marketing fish in the Lake Victoria Region.⁹⁵ The thrust of his enquiry was the structure of fish marketing and its challenges in post independence Kenya. He ably evaluates the performance of fish marketing systems in the Kenyan portion of Lake Victoria. He concedes that most research work had tended to concentrate on limnology, taxonomy and the biology of major fish species while ignoring the question of distribution and marketing. However, his work on fishing, like that before it, fails to explore the link between history, culture, environment and colonialism. This is the gap that this study intends to fill. Oduor-Otieno et al., in a seminar paper analysed the supply function for fish in Lake Victoria. They have come to the conclusion that the main hindrance to fishing has been the cost of nets caused by lack of funds, small boat capacity and the lack of capital as well as unrestricted entrance to the fishing industry.⁹⁶ The study also found that traditional fishing methods such as the use of hooks, traps, spears and baskets were still predominant, and, in addition, most of the fish produced was for the market not subsistence. This study seeks to review these findings, and also examine the technological constraints facing the exploitation of fisheries. It is a truism that technological limits can determine how much can be produced with a given amount of effort.

In his study R.O. Abila dealt with the question of co-operatives and their socio-economic influence on the development of fisheries in Lake Victoria Region.⁹⁷ He ably elucidates a wide range of issues and factors that affect the management of co-

⁹⁵ J.K. Byaruhanga, “Structure and Performance of Fish Marketing in Lake Victoria Region”, (unpublished PhD Thesis, Maseno University, 2002).

⁹⁶ M.L. Oduor-Otieno *et al*, “Study of the Supply Function for Fish in Kenya Waters of Lake Victoria and on the Kenya Coast”, Working Paper No. 346, (Institute of Development Studies, University of Nairobi, 1979)

⁹⁷ R.O Abila, ‘A Socio-Economic Analysis of Fishery Co-operatives of Lake Victoria,’ Kenya, (unpublished PhD thesis, 2002, University of Hull).

operatives while also reviewing Kenya's economic policy towards co-operatives from the colonial period onwards. At the same time he looks at the evolution of technology in the Lake Region and fishery regulation regimes from the pre-colonial era to the post-colonial epoch. In his discourse he identifies four important evolutionary periods in the regulatory systems of the fishery, these being pre-colonial, colonial, early independence and post-colonial. Recognising the revolutionary role played by the introduction of the Nile perch (*mbuta*) from late 1950s, he highlights the economic benefits that this fish brought to Lake fishers. He states that the development of co-operatives in the fishery is a recent phenomenon and that, despite their formation, the fishers have not benefited from them. To him 'co-operatives have not helped much in the development of the fishery'. He asserts that the reason for this is poor management by retired civil servants who themselves were not fishers. Another factor was the decision by immigrant fishers to join the co-operatives, which led to the loss of homogeneity and cohesiveness among members. Despite its shortcomings, Abila's study illuminates important elements on which this present study can be hinged.

Vercrujisse has made a large scale study on the capital penetration in the Ghanaian fisheries. He claims that the expansion of industrial fishing led to the increasing separation of fishers from the means of production and their transformation into a wage labour force. This study will discuss the different categories and classes of fishers involved in production and marketing. Following Vercrujisse, it is important to analyse the pre-colonial modes of production and determine whether the coming of a new technology partially or completely transformed the indigenous modes of production. In tandem with this, the study will examine pre-colonial forms of regulation and control over fish production and reproduction. This is fundamental to assessing the impact of new technology on the people in the Lake Region, and whether and why they accepted or rejected the new forms of fishing technology.

Another vital question in this study relates to the introduction of new fish species to Lake Victoria from the 1950s and their effects on the Lake's fauna. According to a study by Chege 'the recent history of the Lake is one of dramatic change in

limnological parameters and native fishery stocks from the 1960's to the present'.⁹⁸ This study aims to identify the causal factors behind the problems that the Lake faces today. It asks if colonialism is responsible for some of the problems currently threatening to kill the Lake. Chege postulates that the mass extinction of indigenous fishes was caused by, among others, 'over-fishing, exotic species introduction, deleterious land use practices, and pollution'. This this study seeks to test these allegations. Chege agrees with Goldschmidt that the introduction of new fish species led to the impoverishment of the local people and the disappearance of 200 of an original 400 native species from the Lake.⁹⁹

Chege's study claims that today the principal issue facing the Lake Region and its people is the loss of native species, partially caused by the introduction of the Nile perch which, in turn, led to an export boom from the Lake. The export of the perch created a shortage of protein for local consumption and concomitant nutritional problems among the people of the Lake Region. This contention is supported by *Darwin's Nightmare*, a documentary film by Hubert Sauper and which deals with the impact of Nile perch on the ecology and society of Lake Victoria (Tanzania) fisheries.¹⁰⁰ The continued production and export of perch led to a high demand for firewood locally and the consequent deforestation of the Lake shore. As fish exports rise local fishers are impoverished in terms of biodiversity and nutrition by the related ecological and economic disaster caused by the fish's introduction to the Lake. This study argues that the export processing of Nile perch has also had positive effects on the Lake Region. Indeed, *Darwin's Nightmare* has been criticised for its sensational publicity and possible negative effects on perch exports to Europe. Critics have also condemned several inaccuracies and the lack of objectivity in the film. We intend to use these criticisms to examine the socio-economic impact of the introduction and commercial harvesting of Nile perch and Nile tilapia.

⁹⁸ TED Case Studies: Lake Victoria Case No. 388 on <http://www.american.edu/ted/victoria.htm> as consulted on April 3, 2005.

⁹⁹ N. Chege, 'Lake Victoria: A Sick Giant' (1995) at www.cichlid.forum/articles/lake_vic_sick.php as seen on 24/10/2004.

¹⁰⁰ Hubert Sauper, *Darwin's Nightmare*, a film released on 1 September, 2004 at the Venice Film Festival (See Internet: Wikipedia, the free encyclopedia).

It is necessary to establish how people reacted to the introduction of new fishing technology. It is alleged that fishing pressure exploded on the Lake in 1905 when the British introduced flax gill nets to replace local villagers' papyrus nets and baskets.¹⁰¹ Later fishers are said to have turned to the use of nets with even smaller meshes thus decimating both the breeding adults and young of many native species. No research has been done by historians to explain the reasons for people changing their traditional methods of fishing in favour of new ones. Was the change driven by colonial capitalism and commercialisation or was it a form of innovation? Of even more importance is what the effect that these changes on the fish and human populations of the Lake was., and what effect on the indigenous fish populations did the Nile perch and tilapia have, and how this increased productivity and income because of the new methods alter fisher society.

The colonial administration is accused of having introduced new *Oreochromis* species and suppressed the native *Haplochromine*, such as *ngege* and *omena*, and being indifferent to the impact of the new predator species on the Lake and its people. The study investigates the allegation that by the 1950s the native *ngege* was commercially extinct, courtesy of a colonial policy favouring Nile perch and tilapia over local bony 'trash' fish. Through covert colonial efforts by the mid-1950s, Nile perch began appearing in commercial catches, and colonial officials increased the introduction of the fish into the Lake even further in the 1960's. These changes went on during the post colonial period so that by 1980 an abrupt change became evident in the Lake, as 'Nile perch suddenly jumped to 80% of the Lake's biomass while the native species dropped to 1% and *ngege* virtually disappeared'.¹⁰² This study plans to discover, through historical analysis, the cause of these 'sudden changes'.

¹⁰¹ TED Case Studies: 'Lake Victoria'.

¹⁰² N. Chege, 'Lake Victoria: A Sick Giant' (1995) at www.cichlid.forum/articles/lake_vic_sick.php as seen on 24/10/2004.

An ecologist, Houston, analysed the co-existence of species in a changing environment ¹⁰³. He developed a conceptual framework that utilises traditional theories of species diversity to explain both patterns of diversity and apparent exceptions to these patterns. The focus of Houston's book is on the components of biological diversity that are influenced by the number and identity of species present in a given area. He, like Chage, examines the ecological regulation of species diversity, the interaction of ecological process with geological and evolutionary processes, and the consequences of these interacting processes for the large-scale spatial and temporal patterns of landscape. This study, too, intends to examine the possible impact of the interaction between indigenous and new species in historical perspective. Houston's work is relevant to this study as it explains the cause of species extinction resulting from human activities, and the impact of this disappearance on social and economic well being. However, Houston's monograph, though explicit in examining the co-existence of species and competition, does not consider how colonialism affected the Lake Victoria environment. Indeed, the book's emphasis is on the biological aspects of fish rather than the social, dimension, which is what this study seeks to unravel.

Alain Marcoux discussed the intertwined themes of over fishing and over-exploitation.¹⁰⁴ Writing for a 1997 workshop on change in fishing communities he asserted that the rapid growth in numbers of fishing communities contributed to the over-exploitation of fisheries resources and degradation of coastal and lake environments. However, he paid scant attention to the socio-economic and demographic characteristics of, and changes in, fishing communities. Moreover, Marcoux pointed out that fishing communities had rarely been considered for population education programmes and rarely benefited from state health and social welfare programmes. Rapid population increase and the entry of new participants contributed to high levels of exploitation of fish resources. He suggested that there is

¹⁰³ M.A. Houston, *Biological Diversity: The Co-existence of Species on Changing Landscapes*, (London, OUP, 1998).

need to promote consultative approaches and evolve participatory management strategies such as in the Bay of Bengal where the local people are involved in fisheries' programmes.

Mather and Chapman¹⁰⁵ for their part, concentrate on the technology and commercialisation that led to the increased harvesting of fish without regard to a Maximum Sustainable Yields (MSY) which, in theory, allows for the reproduction of fish stocks in perpetuity and ,hence, a sustainable fishery. Failure to abide by the MSY led to over-exploitation, according to their argument. Mather and Chapman consider Atlantic cod and Peruvian anchovy as two fish species threatened by the application of state of the art technology and pursuit of profit.¹⁰⁶ The concept of MSY is a useful measure for good stock management in Lake Victoria provided it can be accurately determined and is relatively stable over time. Mather and Chapman also tackle the problem of territoriality in fishing. The problem of territoriality has arisen in East Africa in the recent past, with Kenya being accused, by Uganda and Tanzania of taking more than her share of Lake Victoria's fish.¹⁰⁷

Perman *et al.* examine the twin themes of open access (common property theory) and over-fishing, which they claim is either caused by the failure of the state to put in place institutional checks, or its reluctance to enforce policies that protect natural resources.¹⁰⁸ They recommend the institutionalisation of a tax system or other legal checks, and the enforcement of a Total Allowable Catch (TAC), particularly for commercial fish species. This study will examine colonial state fisheries' management of Lake Victoria and assess its enforcement. It will also examine the

¹⁰⁴ A. Marcoux (1997). *Population Characteristics and Change in Fishing Communities and Sustainable Exploitation of Fisheries Resources*. The article is available at the Internet. See www.panafishingandcatching.com/Introd.html .

¹⁰⁵ A.S Mather and K. Chapman (eds), *Environmental Resources*, (London, Longman, 1999), p. 213.

¹⁰⁶ A.S. Mather and K. Chapman (eds) *Environmental Resources*, p. 213.

¹⁰⁷ D.C. Wilson *et al.*, 'The Implications for Participatory Fisheries Management of Intensified Commercialisation on Lake Victoria,' in *Rural Sociology*, 64 (4) p. 554-572.

¹⁰⁸ R. Perman *et al.*, *Natural Resources and Environmental Economics*, (London, Longman and Pearson Educational, 1999), p. 217.

1964 Fish Act, which restricts the use of small seine nets on the Lake and has been effective in reducing overfishing

The vital role of the fishing industry is explicitly spelt out by the Kenyan government's *Economic Survey* of 1996, which declares its continued support for the sustainable use of fish resources as a major source of protein and export earnings. To this end it continues to enforce controls, and endeavours to improve the management skills of both fishers and fisheries' co-operatives. The overall performance of the sector in 1996 was affected by a 'declined fish catch and fisheries related activities'.

¹⁰⁹ This study aims to identify to what this decline can be attributed.

Also relevant to this study is the work of Pitcher and Hart.¹¹⁰ They look at fish as components of balanced ecosystems and, in the case of the Great Lakes of Africa, note that 'the cichlids have radiated to form numerous species that have between them exploited every conceivable way of gaining food'.¹¹¹ This explains why cichlids were the dominant species in Lake Victoria historically before the introduction of those alien species, which disrupted the Lake's ecosystem. Pitcher and Hart claim that there are over 208 known species of fish in the Lake mostly derived from east-west flowing rivers, such as the Nyando, Kuja, Sondu-Miriu, Yala or even the Nile, which drained the Kenya Highlands during the Plio-Pleistocene period.¹¹² However the book is too biological in its approach and fails to explain how colonial policies disrupted the ecosystem, and the people's role in the management of fisheries. This study is concerned with the impact of new species on the indigenous ones, the causes of the disappearance of many indigenous species, and the reduction in the Lake's biodiversity. It also establishes whether the introduction of Nile perch and tilapia caused the chichlids to disappear.

¹⁰⁹ Republic of Kenya, *Economic Survey, 1996*.

¹¹⁰ T.J. Pitcher and J.P. Hart, *Fishery Ecology*, (London, Chapman and Hall, 1992), p.1.

¹¹¹ Pitcher and Hart, *Fishery Ecology*, p. 1.

¹¹² Pitcher and Hart, *Fishery Ecology*, p.2.

Barbara Walker, in her study of Ghana's Fanti fish traders, discusses modes of production in the fishery and the role of women and pre-colonial lake tenure.¹¹³ She posits that fish traders in Ghana's central region had been organised into labour and marketing co-operatives for at least a century before colonialism. These co-operatives allowed them to leverage their position through collective actions such as price controls, boycotts and demonstrations. This created a modern context in which many fish traders are owners of fishing equipment such as canoes, motors and nets, and also the principal source of loans for fishers wanting to purchase equipment or cover fuel and maintenance costs. Discussing the mode of distribution of the catches, she notes that the fish was shared immediately it reached the shore, being divided among the crew on a share system, with extra shares going to the canoe, net and motor owner. Prior to colonialism and mechanisation, a fisherman's catch was typically consigned to his wife, mother or other female relative.¹¹⁴ Fanti artisanal fishers were also free to fish anywhere in the lake, regardless of where they were from or what type of gear they were using. The only recognition of the right of an individual to a fishing area was the prohibition on fishing in the path of another canoe's net.

The Fanti case will be used to analyse the nature of property ownership and accessibility in the Lake Victoria region. Walker asserts that property 'is not a thing but a right in or to a thing'.¹¹⁵ Conversely, what distinguishes property from mere momentary possession is that property is a claim that can be enforced by society, or the state, custom or law. Property in this sense can be thought of as a political relation between persons, Walker concludes.¹¹⁶ In this study, we intend to analyse the class and gender identities of the Lake Victoria fish traders and their place in the division of labour in the fishery between fishing labour and boat owners.

¹¹³B. Walker, "Engendering Ghana's Seascape: Fanti Fish traders and Marine Property in colonial History" in *Society and Natural Resources*, 2002, Vol. 15: New York, Taylor. See also "Dividing and Conquering the Sea: The Colonial History of Marine Fishing and Property Rights in Ghana" in the Internet at www.globetrotter.berkeley.edu/mcarthur/marine/papers/walker-1a.html.

¹¹⁴ B. Walker, 'Engendering Ghana's Seascape', p. 391.

¹¹⁵ B. Walker, 'Engendering Ghana's', p. 392.

¹¹⁶ Walker, 'Engendering Ghana's', p. 392.

Ominde discusses the climatic and ecological changes in Lake Victoria. He points out that by using carbon-14 dating technique the pattern of climatic oscillations as represented by the changing level of Lake Victoria can be understood.¹¹⁷ He states that there were exceptionally high Nile floods between about 12,000 and 11,000 years ago, but that about 10,000 years ago 'the lake level sank to about 12 metres below the present level'.¹¹⁸ From between about 3000 to 2000 years ago, a reduction in forest covers occurred in the Lake Region as a result of human and climate-induced change. Thus the Lake experienced both wet and dry spells, which would in turn, have affected fish reproduction and ,consequently, population levels This study analyses how fish reproduction was affected by the oscillation of water levels in the Lake and how people reacted to these changes.

Ogutu's edited collection looks at the challenges and opportunities facing artisan fishers and fish traders along the shores of Lake Victoria,¹¹⁹ it contains various papers that are relevant to this study. One of the issues raised is the need for policies to upgrade the socio-economic status of fishers. The main issues facing fishers, as listed by Ogutu 'et al'., are their displacement by capitalists using capital-intensive modern methods of fishing; the lack of basic infrastructure such as ice plants; and the mortgaging of their catches to commercial firms, all of which has dramatically reduced their household income.¹²⁰ These problems prevail among Luo fishers on Lake Victoria, where Indian middlemen have monopolised the fish trade. Ogutu et al argue that the bulk of the catch is sold to commercial traders and agents who have the capital - beyond the means of artisanal fishers - to afford freezers and transport to Nairobi. Rising investment in the fishery leads to increasing catch size and raises the spectre of overfishing. For local fishers and traders it also means reduced incomes because of the low prices paid by wholesale buyers leading to diminished self-reliance and upward mobility. Ogutu et al. advocate the empowerment of production

¹¹⁷ S H Ominde, 'Ecology and Man in East Africa' in B A Ogot, (ed) *Ecology and History in East Africa*, (Nairobi, KLB, 1975), p. 16.

¹¹⁸ S H Ominde, 'Ecology and Man', p. 17.

¹¹⁹ G.E.M. Ogutu (Ed), *Artisanal Fisheries of Lake Victoria, Kenya: Options for Management, Production and Marketing*, (Nairobi: Shirikon Publishers, 1992).

¹²⁰ Ogutu (Ed) *Artisanal Fisheries*.

and marketing co-operatives as solution to these problems, but conclude that most of the co-operatives remain weak.

They also noted the high level of spoilage due to delays between fishing and landing, poor fish handling at the beach, and poor transport to market. They further suggest that the government develop the fishing sector as an integrated part of the Lake Region economy, because of its potentially strong backward linkages with agriculture and small-scale industry, and revise outdated protection, processing and marketing policies. Collaboration with Tanzania and Uganda in the spirit of the East African Community (EAC) - to formulate common fisheries development policies would also be beneficial. Although the Ogutu collection is informative, it lacks theoretical rigour and fails to analyse the genesis of the challenges that face the Lake, fishers and managers. Indeed the collection turns a blind eye to the historical background of these problems, ignoring the role of colonial capitalism, class and gender in the Lake fisheries and how these influenced changes in gear, the size of the catch, and the marketing of fish commodities in Kenya, all of which encouraged this study.

1.14 Conclusion

This chapter provided the background and introduction to this study. It noted that the history of fishing in Kenya has not received the academic attention it deserves. Until now most historians have chosen to discuss terrestrial political economies and terrestrial aspects of the history of the Lake Region of Western Kenya, while neglecting the fishers. Most of the studies done by environmentalists and economists also ignored the plight of the fishers. They have concentrated instead on the introduction of cash crops such as new varieties of maize, cotton, coffee, tea, sisal, etc. While analysing the efforts of colonial agents in encouraging the production of these crops, the literature has simultaneously paid very little attention to colonial policies on fishing and how people responded to these policies. The chapter also outlined the objectives and hypotheses of the study. Also examined in this chapter is

the range of literature relevant to this area of study as well as its gaps – most notably a present-mindedness and near total absence of a historical dimension. The social history approach to the study of history is centred on the voice of ordinary people as opposed to the official-cum-elite view that dominates so many of the other approaches. By focusing on oral history in its methodology this study is, in effect, committed to recovering the marginalised voices of fishers and their everyday activities along the beaches of Lake Victoria.

CHAPTER TWO

Pre-Colonial Fishing Practices in Lake Victoria: 1880-1894

2.1. Introduction

This chapter discusses the indigenous fishing methods and fish management practises of the Luo who lived and fished around the shores of Lake Victoria from 1880. It highlights the various types of fishing gear, such as *gogo* and *kira*, which ensured the sustainability of the fisheries before colonialism brought with it new fishing technologies. It also explains how fishing was organised and elucidates, in particular, the gender and age divisions in the fishery. It suggests that age and gender underpinned the division of labour within the fishery and looks at the evolution of technology especially fishing gear and canoes and preservation techniques such as sun drying and smoking. The chapter emphasises that before the coming of colonialism, African fishers (*Jo-Lupo*) had developed mechanisms of fishing, management, preservation and marketing of catches. It also discusses the introduction of gill nets in 1905 and the impact of this net on fishing and fisher livelihoods. Finally, the chapter looks at early efforts by the colonial state to conserve and manage the Lake fisheries, as well as the fishers' response to these state interventions.

2.2 Patterns of Luo Settlement

From southern Sudan the Luo moved up the Nile and interacted with the peoples they encountered en route, learning new techniques of agriculture, livestock-keeping and fishing. Ehret states that by 1800 Western Kenya was beginning to take on the ethnic and linguistic appearance of the present. In linguistic terms Luo had largely replaced the Luyia dialects as the speech of Central Nyanza.¹²¹ Ehret observes that the interaction between Luo and other peoples in the Elgon-Nyanza region between 500

¹²¹ C.Ehret, 'Aspects of Social and Economic Change in Western Kenya, A.D. 500-1800' in B.A. Ogot, *Kenya Before 1900*, (Nairobi, EAPH, 1986), p. 8.

C.E. and 1800 brought widespread and far-reaching social and economic change.¹²² Due to their preference for lowlands, the Luo settled along the lakeshore, which gave them the opportunity to include fishing in their repertoire of economic pursuits alongside cultivation and cattle keeping. It is necessary, however, to ask what the nature of the social, economic and political organisation of the Luo fishers was.

Numerous studies have investigated Luo socio-economic and political organisation.¹²³ According to Ogot, the Luo 'had always fought to occupy lowlands where they could get access to water and pasture grounds because of their pastoralist lifestyle, which was reflected in the almost religious esteem in which they had held their cattle'.¹²⁴ Having migrated in three groups, namely jok-Owiny, jok-Omolo and Luo-Basuba from southern Sudan in the fourteenth century, the Luo settled along Lake Victoria and throughout Western Kenya. Although they followed the Nile to Lake Victoria, their settlement around the Lake was not motivated by the search for fish although fishing, according to oral tradition, later became an important economic pastime.¹²⁵ Gedion Were asserts that by the middle of the seventeenth century the Luo were already occupying parts of their present country in Western Kenya. Eric Baker, writing in 1950, asserts that the Luo and related peoples came "from south Sudan and moved southwards towards modern Kenya between 700 and 800 years ago."¹²⁶ He points out that in the course of these migrations, the Luo and their Nilotic cousins split into various ethnic groups as follows:

the Acholi remained in Northern Uganda, the Alur moved westwards into the present west Nile District of Uganda and the Belgian Congo, the Paluo settled in North Bunyoro, Padhola went south-east as far as

¹²² C. Ehret, 'Aspects of Social and Economic Change,' p. 8.

¹²³ See B.A. Ogot (1968) *A History of Southern Luo* and H.O. Ayot, *Historical Texts of the Lake Region of East Africa*, (Nairobi: Kenya Literature Bureau, KLB, 1977). Also B. Ogot, *My Footprints on the Sands of Time*, (Kisumu, Anyange Press, 2003) and E. Baker, *A Short History of Nyanza*, (Nairobi, East African Literature Bureau, 1950), pp. 7-9

¹²⁴ See B.A. Ogot, *A History of Southern Luo: Migrations and Settlements, 1500-1900* Volume 1, (Nairobi, East African publishing House, EAPH, 1968), p. 220.

¹²⁵ Interview Okulo Komollo at Uhanya beach on 15/12/06. This opinion is supported by B.A.Ogot, *A History of Southern Luo* and G.S. Were, *A History of the Abaluyia*, (Nairobi, EAPH, 1967), p. 52.

¹²⁶ E. Baker, *A Short History of Nyanza*, p. 7

Tororo (in Uganda) and the Jalu of Kenya crossed the lake. Some of them landed around Kisumu and settled in the Nyando Valley and the area along the lake shore as far as Uganda border and others settled in Tanganyika.¹²⁷

As noted above, the Luo, as they migrated from Sudan, were basically cattle keepers in search of pasture and water for their livestock and arable land for cultivation. Those people who lived on the islands in the Lake such as the Luo-Basuba no doubt spent most of their time fishing. Some people moved from the mainland to the islands and returned only after accumulating enough fish. According to Ayot, the Suba people broke from the Buganda kingdom in modern Uganda. They came to the islands of Rusinga and Mfangano in Lake Victoria to catch and enjoy their favourite fish, bagrus or *sematundu*. Their arrival along the lakeshore was a blessing to the Luo, introducing them to Suba techniques of fishing and boat making.

2.3 Social and Political Organisation of the Luo

The Luo's social life was closely intertwined with their environment and economic system. The basic social unit was the family including relatives living in close proximity. According to Claude Meillassoux¹²⁸, kinship is usually taken to be the bedrock of social organisations in so-called traditional societies. Among the Luo, kinship ties, which were based on primordial clans, determined the individual's rights to property, access to land and even the beach in the case of fishing. Clans were vital components of the Luo social order. For instance, when they first settled in their present homeland, the Luo did so as clans. That is, the pioneer Luo, who settled in the Lake Region, around the 14th century, were members of clans whose names, such as Josuba, Jokano, Jouyoma etc, with taboos they retained after migrating. Were confirms that the clan was also the most important social and political unit among the

¹²⁷ E. Baker, *A Short History of Nyanza*, p. 7

neighbouring Luyia community.¹²⁹ However, within the clan there were numerous segments such as the *libamba* (sub-clan) consisting of several autonomous and exogamous clans that had formed some kind of military alliance, usually for purposes of defence from rival neighbouring communities.¹³⁰

In the traditional society, according to Meillassoux, kinship expressed the relations of production and reproduction. To begin with the family was the basic unit of social organisation as it provided the children with basic education and socialisation. Ogot states that education for Luo youth was organised through *chir* which were classrooms for instructions.¹³¹ He asserts that by the eighteenth century a kind of an informal school, the *chir*, had evolved among the Luo. This educational forum was always situated under a big tree at the junction of a number of paths and it lasted from 10h00 to 14h00 and was mainly attended by young boys and girls between 10-20 years. Ogot points out that it was at such gatherings that Luo society's long-held educational and social beliefs were passed on to the next generation through oral tradition. In fishing communities, fishing skills were taught practically to boys. They learnt fishing techniques and mores from the elders by attending fishing sessions, and doing chores like cleaning fish or cleaning the canoes and nets once the fish had been landed at the beach. The result of this gendered approach of only equipping the boys with fishing skills marginalised women from the mainstream of fisheries management.

Butterman reported that the Luo were organised in territorial maximal lineages.¹³² Below the maximal lineage there existed several levels, or relations of segmentation. The *jokawuoro* segment was made up of the children of the same father regardless of

¹²⁸ See C. Meillassoux, "The Social Organisation of the Peasantry: The Economic Basis of Kinship" in *Journal of Peasant Studies*, 1973, Vol 12, No. 1.

¹²⁹ G. S. Were (ed) *Kenya: Socio-cultural Profiles Busia District*, (Institute of African Studies: University of Nairobi, 1986), p. 45.

¹³⁰ W.R. Ochieng, *An Outline History of Nyanza Up to 1914*, (Nairobi, KLB, 1974), p. 34.

¹³¹ See Ogot's article on "Oral History among the Luo" in L. White, S. Miescher and D.W. Cohen, *African Words, African Voices: Critical Practices in Oral History*, (Bloomington and Indianapolis, Indiana University Press, 1999), p. 30-31.

¹³² J. Butterman, *Luo Social Formation and Change: Karachuonyo and Kanyamkago, 1800-1945*, (unpublished PhD thesis, Wisconsin University, 1979).

the mother whereas the *jokamiyo* segment consisted of people from the same mother. These segments existed side by side within a household. The household was therefore the basic unit of social organisation. In traditional Luo society one interviewee, James Oracho Wire, argued, that households were competitive units whenever family resources were allocated.¹³³ In a nutshell, both *jokawuoro* and *jokamiyo* competed and co-operated depending on economic circumstances. This internal competition and co-operation within the Luo lineage system was enhanced by the coming of capitalist modes of production creating growing social conflict within the household economy.

In the political realm, the kinship system and lineage structure represented the ideological and political form of relations between people. Luo society was paternalistic and male elders apportioned its resources, including land. This was similar to social relations in other sedentary agricultural societies. Women also played an important role in farming and the fish trade, though this was always subject to the authority of senior men.¹³⁴ Buttermen asserts that a senior male perpetuated this system to retain control of production and the distribution of wealth, including women.¹³⁵ Luo elders thus played a similar role to that played by elders in the pre-colonial era among the Lugoli people of Kenya. They were, according to Crowley, ‘trustees of unallocated lands, patriarchal elders (*liguru*) were responsible for land distribution and dispute arbitration, for the protection of saltlicks, watering places, thatch grass reserves, pathways and other common natural resources. They were also entitled to tribute from hunting and fishing’.¹³⁶

It is clear from the above that it was Luo senior males, not women, who were in charge of fishing, the beaches, the catch, markets and profits from fishing activity as well. This is confirmed by Medard and Wilson who report that men had the exclusive

¹³³ Interview with Oracho Wire at Uhanya beach on 21/11/05.

¹³⁴ Interview with Margaret Oduor at Dunga beach on 26/1/07.

¹³⁵ For more information on gender and division of labour see P.T. Zeleza, *A Modern Economic History of Africa*, Vol.1: (Dakar, Codesria, 1993), p. 145.

¹³⁶ E.L.Crowley, *Agrarian Change and the Changing Relationships Between Toil and Soils In Kakamega, Western Kenya, 1900-1994*, Presented at the 38th Annual Meeting of the African Studies Association, (Orlando, Florida, 1995), p. 3.

right to catch the larger more valuable species such as lungfish, tilapia and catfish.¹³⁷ Male dominance of the fishery was tempered by notions of reciprocity and complementarity based on egalitarianism. Otieno Omuga states that through a process of *biera rech*, ‘fishers were expected to be generous and gave fish to those who did not have’.¹³⁸ This meant that, on reaching the beach, a fisherman would give a few pieces of fish to all those waiting there in agreement with the Swahili proverb which says that those who walk along the beach do not miss a morsel.

2.4 The Role of Women

Luo fishing culture was exclusively male and forbade women from entering a canoe to go fishing. Several justifications – ranging from the physical demands, discomforts and dangers of Lake fishing, to the demands of childcare and taboos against men and women working together particularly as fishers often worked naked - were offered for this gender discrimination. Instead women were restricted to the terrestrial sphere of the fishery, to processing and selling the catch. Madanda asserted about neighbouring Uganda that ‘women were engaged mainly in the subsistence farming and household work and fish smoking was the core of women’s’ role’, particularly of small species like *omena* and *fulu*.¹³⁹ Oral information from Oracho-Wire confirms that women were not allowed to enter the canoe for fishing. Instead their role was mainly in the preparation of fish after landing; splitting, cleaning, scaling and sun drying the fish for market. He adds that they sat far from the canoe as they waited for landed fish, which the men had caught. Since fishing was not the only economic activity practised at the lakeshore, women only came in the morning after performing other domestic or farming chores.

¹³⁷ See M. Medard and D. Wilson, ‘Changing Economic Problems for Women in the Nile Perch Fishing Communities on Lake Victoria’ (1996), in *Anthropolgia*, p. *xiii* .

¹³⁸ Interview with Otieno Omuga at Dunga beach on 23/10/05.

¹³⁹ A. Madanda, ‘Commercialisation and Gender Roles among Lake Victoria Shore Fishing Communities of Uganda’, Addis Ababa and Makerere University, OSSREA, Dec., 2003. See www.wougnnet.org/Documents/CommercialisationGenderRolesLakeVictoria.doc as consulted on 25/10/2006.

Women, men and the youth each had a vital role to play as prescribed by African society. This division of labour also existed among the Luo fishing community. Oracho Wire, a fisherman almost all his life, pointed out that, women participated in cleaning, scaling and splitting the fish catches once they were landed by male fishers on the beach. But he further points out that women were not allowed to enter the canoe and go fishing, because the lake could be very precarious and dangerous. Joyce Oruko, who was a fish trader or a fisher for most of her life, largely agreed with the cultural prohibitions against women going canoe fishing. She states, that there 'were cultural laws that guided fishing. The laws (*chike* in Luo) forbade us women from going onto the canoe. The canoes were forbidden for us during our menstrual period as we were considered dirty during this time of the month, but otherwise we could go onto the canoe if we were fine'.¹⁴⁰ Mary Ngambo also stressed the central role of culture when she noted that, 'women assented to these *chike* (rules) as there was nothing we could do to oppose long held societal tradition, which we had found our mothers obeying'.¹⁴¹ Male Luo fishers named a long list of prohibitions against women in the fisheries:

Women were not allowed to board a fishing canoe because if they did so, the catches will be low. Women were not allowed to touch *ngai* (rowing stick for the canoes). It was a misfortune. It was a taboo for women to be naked while at the Lake. Men were not allowed to have sex with their wives while going for fishing for fear of bad omen.¹⁴²

This is not to deny that Lake fishing was at times dangerous. Mary Ngambo asserts that women feared going far into the Lake because they were afraid of encountering a crocodile, a hippo or a floating dead human body.¹⁴³ When a canoe capsized with loss of life, it was not used for fishing until the body was recovered and then

¹⁴⁰ Interview with Joyce Oruko at Dunga beach on 27/1/07.

¹⁴¹ Interview with Mary Ngambo at Dunga beach on 27/1/07.

¹⁴² Group interview with Margaret Oduor, Joyce Oruko and Maria Ngambo at Dunga beach on 27/1/07

cleansed. Mohammed Okulo reports that the person who found the body was rewarded with a goat and also cleansed.¹⁴⁴ The body was buried at the beach, and not taken home. An interviewee, Nyareje, explains that dying on the Lake was a bad omen and the body was not taken home for burial as it had ‘run away from home by dying in water’. The dead person was regarded as having deserted the community.

In patriarchal Luo society it was men who were expected to face these threats while women waited for the catches to land and saw to the cleaning and marketing. Others, like Margaret Were, rejected the taboos, reporting that, ‘there were women like my mother who went fishing, smoked fish and took it to the market’.¹⁴⁵ In families where there were no sons, women and girls also went fishing. Maria Orido was one who went fishing because her father had no sons. ‘I also went fishing on a canoe. My feet were tied by a rope to make me not fear water’.¹⁴⁶ Agola Okulo, a veteran fisher of forty years, also reported that women fished near the shore using *sienyo* (baskets).¹⁴⁷ The majority of women, however, participated in the fishery as fishwives, cleaning and portering the catch to the market for sale.

Nor were all men skillful and bold enough to go Lake fishing. Agola Okulo explained that his father, uncle and elder brother taught and emboldened him before he had enough courage to face the Lake as a fisher.¹⁴⁸ Boys, according to Manas Osur, ‘were allowed to learn how to use the paddle when they were teenagers’.¹⁴⁹ They waited for the canoes to return with fish, and were then allowed to clean the boat after removing the catch. They also cleaned the nets as a way of gaining experience, but they were not paid anything substantial, since they worked for the family and it was an internship for them’.¹⁵⁰ Nor were all adult men treated equally in the fishery, but those who owned canoes and nets commanded the lion’s share of the fish caught.

¹⁴³ Interview with Mary Ngambo at Dunga beach on 28/01/07.

¹⁴⁴ Interview with M. Okullo at Dunga beach on 27/1/2007.

¹⁴⁵ Interview with Margaret Were at Dunga beach on 26/1/07.

¹⁴⁶ Interview with Maria Orido at Dunga beach on 27/1/07.

¹⁴⁷ Interview with Agola Okulo at Dunga beach on 27/01/07.

¹⁴⁸ Interview with Agola Okulo at Dunga beach on 26/1/07.

¹⁴⁹ Interview with Manas Osur at Uhanya beach on 21/04/05.

¹⁵⁰ Interview done with Manas Osur at Uhanya beach on 21/4/05.

Douglas has stated that ‘the system used to share [divide] the fisheries was used to legitimise increased exploitation’.¹⁵¹ Although the fish caught were shared by owners and crew according to an agreed ratio, this was determined by, and thus heavily favoured, the owners and the wealth gap between them and the crew was substantial. The male crew in turn appropriated most of the value of their share in the catch from the women who cleaned and processed the fish.¹⁵² The reason for this low payment could be traced to the patriarchal nature of Luo society, where men controlled main sectors of the economy and modes of rewards and payment. The women were paid a standard weight in fish (one kilo) by every canoe they serviced in a day. This was in stark contrast to the male crew who received a percentage (ten per cent) of all the fish caught by their canoe. This skewed class and gender distribution of the catch created inequality between owners and crew and men and women.

2.5. Indigenous Systems of Management and Organisation

The Luo practised modes of fishing and resource management prior to colonialism. Ochieng asserts that by 1850 the Lake Victoria Region had a rich culture, based on fishing, simple crop production and increased craft specialisation.¹⁵³ He further claims that the Bantu civilisation in Yimbo, which influenced the Luo near the Lake, was based on fishing and primarily oriented exclusively towards Lake Victoria.¹⁵⁴ During this period, the Lake communities developed their own ethics and rules of fishing (*Chike Lupo*), which were adhered to by all fishers. Bokea and Ikiara state that ‘the fishing community had traditional and territorial rules and regulations which ensured that the fishery was exploited in a sustainable manner’.¹⁵⁵ They further argue that the use of traditional fishing technology such as traps and spears exerted only minimal fishing pressure on the resource. In addition, there were rules governing the

¹⁵¹ D. Wilson et al., ‘The Implications of Participatory Fisheries Management’, p. 12.

¹⁵² Interview with Elijah Okumbe at Uhanya beach on 21/4/05.

¹⁵³ W.R.Ochieng, *A History of Kenya*, (London, Macmillan, 1985), p. 16.

¹⁵⁴ Ochieng, *A History of Kenya*, p.16.

¹⁵⁵ See Crispin Bokea and Moses Ikiara (2000) “The Macroeconomy of the Export Fishing Industry in Lake Victoria” at www.iucn.org/places/earo/pubs/wetlands/macroeco.pdf as accessed on 25/10/2002.

use of nets, hooks, baits and canoes, which further ensured the sustainable use of the Lake's fish resources.

Fishers were thus regulated as to when and how to fish. They respected the closed season adherence being facilitated by its coinciding with the period of working the farms. Access to the Lake was controlled by clan elders and during the closed season canoes were forbidden to beyond a certain distance on the Lake.¹⁵⁶ One interviewee, Mireri, points out that there was a closed period when elders prohibited fishing along the beach (*wath*). This was the same season, February to June, when fishers would turn to crop farming. He asserts that, '[y]ou could not fish and the same time work on the farm because you have to cultivate grains which you eat with fish'.¹⁵⁷ However, those households that had adequate labour resources could easily practice fishing and farming, even during the peak cultivation season on the land. They were forbidden, however, from venturing more than a few metres from the shore. The conservation of immature fish was ensured, principally because 'the grain farming season was also the closed season for fishing, the season for the breeding of fish, the rainy season. The elders would decree that there was no fishing until after farming season. The breeding zones were then protected from greedy fishers'.¹⁵⁸ The elders could punish those who failed to adhere to the closed season by banning them from the fishery for many months. In addition, only certain species and sizes of fish were allowed to be caught at certain seasons and locations. A total ban on fishing at certain times of the year was practised to protect heavily fished grounds and to give heavily fished species an opportunity to reproduce.¹⁵⁹ The Luo controlled and managed the Lake fisheries using remarkably similar methods to the later colonial administration.¹⁶⁰ The mesh size and catch of traditional papyrus nets were carefully controlled so that only a certain number of fish of particular species were allowed to be caught. By the mid-nineteenth century, then, Luo fishers did not have to go very far into the Lake for

¹⁵⁶ Interview with Peter Mireri at Dunga beach on 27/1/07.

¹⁵⁷ Interview with Peter Mireri at Dunga beach on 27/1/07.

¹⁵⁸ Interview with Maria Ngomba and Joyce Okulo at Dunga beach on 26/1/07.

¹⁵⁹ Interview with Josephine Okulo done at Dunga beach on 27/1/07.

¹⁶⁰ Interviews with Oracho Wire, Okullo, Joyce Oruko confirm that the Luo fishers had their own indigenous modes of fishing and fish conservation.

fish. The closed season and other restrictions allowed the resource to reproduce itself ensuring abundant catches.¹⁶¹ A fisher could catch enough to meet his subsistence needs within a short time and the fish were of a good size.

In terms of technology, the Luo were skilled fishermen who used lines, hooks, nets, traps, baskets and spears depending on the type of fish. Fishing on the shores of Lake Victoria was well organised. The various Luo clans 'owned' the beaches adjacent to their homelands and individuals acquired access to the fishery through their membership of the clan. Beyond the beach, however, there were no boundaries to their movement on the Lake. 'We freely roamed the lake catching fish and preparing it for sale'.¹⁶² According to Lazarus Ogiwire, a fisherman for over forty years, 'there were no borders indicating Uganda or Tanzania'. Ouko Okullo expressed similar sentiments, saying, 'we believed that the Lake belonged to God'.¹⁶³ These testimonies indicate that *Jo Nam*, the people of the Lake, moved freely across the Lake before the coming of colonialism. During this era, *ngege* (Nile tilapia) was a very important species which was traded with neighbouring communities, like the Samia and Gusii, for grains, pots and iron implements such as the *nyagot* hoe, used for farming¹⁶⁴. This metal hoe was an important factor in increasing agricultural productivity. Since money was scarce, cattle were used as the medium of exchange and by selling fish one was able to acquire cattle, which could, in turn, be traded for the important farming hoe.¹⁶⁵

2.6 Conservation Rules and Regulations

¹⁶¹ E. Jansen, *Rich Fisheries-Poor Fisherfolk: Some Preliminary Observations About the Effects of Trade and Aid in The Lake Victoria Fisheries*, (Nairobi, IUCN, 2000), p. 3.

¹⁶² Interview with Lazarus Ogiwire at Uhanya beach on 21/10/2005.

¹⁶³ Interview with Mohammed Ouko Okullo at Dunga beach on 27/1/07.

¹⁶⁴ Also see G. Kitching, *Class and Economic Change in Kenya: The Making of an African Petite Bourgeoisie, 1905-1970*: (London, Yale University Press, 1980) p. 40.

¹⁶⁵ P. Opondo, "An Economic History Of Ugenya, 1895-1963", (unpublished M.Phil. thesis, Moi University, 1997), p. 46.

In the pre-colonial period Luo fishers observed restrictions which helped ensure that the fishery was exploited in a sustainable manner by limiting access to specific species and areas. Fishing was based on clan or kin membership.¹⁶⁶ In Jansen's opinion, *Jo-Lupo* had developed clan-based rules (*chike lupu*) that had to be observed by all fishers. As has been seen, these rules, stipulated who should fish where and when, with what and for what species and size of fish.¹⁶⁷ In the pre-colonial period, institutions were developed by local Luo communities to enforce these rules and transgressors were either banned from the Lake or had their nets confiscated. In most cases these rules were not explicit or widely publicised, but they were adhered to nonetheless, and enforced by the clan elders.

Fishers understood well the seasonality of the Lake fishery. Ogwire argues that between February and June, fish went upstream to hatch in the adjacent rivers. In his words, 'juvenile fish were bred in April during heavy rains and floods so allowing the sea to rest during this period was good because it allowed young fish to grow'.¹⁶⁸ Aware that taking immature fish was detrimental to the sustainability of the fishery, fishers left the Lake to rejuvenate. Ogwire observed that, 'during this season one could see several fish jumping near the beach'. This corroborates Agola Okullo's claim that, 'sustainability was ensured. During the rainy season, we fished with very little effort, by taking floating fish near the Lake shore and left the juvenile fish to grow'.¹⁶⁹ In effect, the closed season in the pre-colonial period was intended to ensure a continued supply of fish in the future. The Lake also experienced a cold season, a kind of a winter, 'when marshes (*yugni*) covered the Lake surface in June, it became very cold and movement became very difficult on the Lake surface and we said the Lake had closed itself'.¹⁷⁰ Fish was also more abundant during the low moon,

¹⁶⁶ See Erik G. Jansen (1996) "Rich Fisheries-Poor Fisherfolks: Some Preliminary Observations about the Effects of Trade and Aid in the Lake Victoria Fisheries." Available on the internet at www.iucn.org/themes/wetlands/docs/Report3.doc as accessed on 21/11/2004.

¹⁶⁷ Jansen, 'Rich Fisheries-Poor Fisherfolks', p. 14.

¹⁶⁸ Interview with Lazarus Ogwire at Uhanya beach on 22/1/05.

¹⁶⁹ Interview with Agola Okullo at Dunga beach on 27/1/07.

¹⁷⁰ Interview with Amos Amollo and Samuel Odhiambo at Dunga beach on 26/1/07.

probably because they could not see the fishers in the darkness. Pre-colonial management of the Lake fisheries thus relied heavily on self-policing by local fishers. The Lake was as important to them as their land, being both a major source of food and also of ritual significance.

Apart from the underdeveloped technology that minimised the exploitation of fish resource, culture was also fundamental in preserving the the lake's fauna. Jane Awino, for instance, explains that there were practical rules that were adhered to in order to protect the lake habitat from damage.¹⁷¹ Fishers were also required to observe ritual practices when entering the fishery. According to Oracho Wire:

The lake god had to be respected. Before a canoe could go for a fishing voyage, the team leader, *Mwasia mar Yie*, had to take some water into his mouth and spray it on the canoe, beseeching [the] god for blessings. Besides, there were gifts given to the sea god. The first fish to be caught was handed over to *Mwasia* to offer to the god. Among the taboos to be taken seriously was not to use strongly smelling bathing soaps while going for fishing, neither was a person who had eaten lemon allowed into the canoe.¹⁷²

This was probably because fish could detect strong smelling substances and thus avoid capture. The Luo fishers also believed that the use of malodorous soaps polluted the rivers damaging the ecosystem and ultimately killing fish.¹⁷³ Joyce Oruko explains that most fishers sold their fish to a limited number of fishmongers with whom they developed long-standing trade links.¹⁷⁴ There was limited outside interference in the fisheries in the pre-colonial era. This system of local management and adherence to *chike lupo* (rules) was later threatened with advent of colonialism

¹⁷¹ Interviews with Jane Awino and Alice Awino at Usenge beach on 20/1/05.

¹⁷² Interview with Oracho Wire at Uhanya beach on 23/10/04.

¹⁷³ Interview with Margaret Were and Alice Awino at Dunga beach on 27/1/07.

¹⁷⁴ Interview with Joyce Oruko at Dunga beach on 26/1/07.

and, in particular, the introduction of commercial fishing after the First World War, as will be seen in chapter six.

The most important species in the Luo Lake fishery included *ngege* (tilapia), *fuani*, *ningu*, *soga*, *okoko*, *sote*, *suma* and *mumi*, but the most common and abundant of these was tilapia. It was also the most popular fish among traders and consumers alike. It was caught and sold fresh or split or smoked or dried and sold as *obambla* (dried fish). Henry Ondiek states that before the introduction of *mbuta* (Nile perch), there were many varieties of fish in the Lake and fish were plentiful.¹⁷⁵ Because of this the traditional papyrus nets could catch hundreds of fish in a short time and fishers sold them very cheaply. For instance, Oracho explains that 30 pieces of tilapia was sold for as little as Ksh 1/-¹⁷⁶, and that is equivalent to 35 pieces of *mbiru* and 15 pieces of *ningu* and 50 pieces of *suma*.¹⁷⁷ Amos Amollo confirms that the ‘traditional’ indigenous species were plentiful, had little commercial value and served as a much needed source of protein.¹⁷⁸

Manas Osur stated that ‘the indigenous methods of fishing necessitated the use of only a few canoes, as they were scarce. One canoe could, for instance, be used by up to five people or even more each with his nets’.¹⁷⁹ The implication is that fishers co-operated during the pre-colonial period. This is confirmed by the evidence of Lazarus Ogwire who asserts that [f]ishers co-operated a lot at work. They shared fishing secrets like which islands to go to for fish and on sighting the position of the moon, which was an important factor in fishing. They did the same things and discussed similar issues such as which beach had a type of a given specie, all for the betterment of their trade’.¹⁸⁰ The Luo were guided by their customs and rules on how to share their catches but that is not to romanticise the pre-colonial era. There was harmony

¹⁷⁵ Interview with Henry Ondiek at Dunga beach on 28/1/07.

¹⁷⁶ For currency see G. Kitching, *Class and Economic Change*. Kitching states that up to independence the local currency was pegged to the British sterling pound. He says, ‘Kenyan pounds and pounds sterling were at strict parity up until Independence’ (p. xv).

¹⁷⁷ Interview with Oracho Wire at Uhanya beach on 21/1/05.

¹⁷⁸ Interview with Amos Amollo at Dunga beach on 20/1/05.

¹⁷⁹ Interview with Manas Osur at Uhanya beach on 18/10/2005.

¹⁸⁰ Interview with Lazarus Ogwire at Uhanya beach on 21/11/2005.

rather than conflict, at the end of the trip, as the day's catch was peacefully shared among the fishers, the canoe owner having received ten percent of each fisher's catch as boat share.¹⁸¹

There was also an element of co-operation in the setting up of the boats. Lazarus Ogowire tells us that setting a fishing trap like *gogo* was a communal affair and that Luo fishers set the nets on the canoe together. Fish traps were set very early in the morning at 4h00, and checked for catches the following day. Once the net was full, it was pulled together, with eight young men on either side of the *gogo*. He appreciated the efficiency of the *gogo* nets. 'It was good and could catch lots of fish hence it was referred to as *machoka* (generous collector).' However, this view is disputed by Abila who showed that the *gogo* nets were not as generous and the amount caught was not so excessive as to threaten the sustainability of the fishery.¹⁸²

Another aspect of co-operation, according to Oracho, was the system of sharing catches that operated in the fishery.¹⁸³ There was reciprocity at two levels. Firstly, he points out that fishers who had done well gave out a few pieces of fish to those whose nets had not caught any fish that day. Secondly, orphans and the destitute could also wait for the canoes to land and they too were assured of receiving donations of fish. This system of sharing ensured that no households within the community would starve.

Pre-colonial Lake fishing remained primarily a subsistence activity practised by those Luo who lived near the shores of the Lake. This is not to say that surplus fish were not sold. Marketing was done on the beach as buyers congregated there from the nearby villages. Kenya became a British protectorate in 1895. Oguyo Mahira (who learnt fishing from his grandfather) asserts that:

¹⁸¹ Interview with Ogowire done at Uhanya beach on 21/11/2005.

¹⁸² R.O. Abila, "A Socio-Economic Analysis of Fishery Cooperatives", p. 35.

¹⁸³ Interview with Oracho Wire at Uhanya beach on 23/10/2005.

There were no marketing agents like we have today. Everybody sold his own fish. You fished and took your commodity to the market or gave it to your wife to sell it for you. After a fishing voyage (*kilua*), fishers set up small huts (*kiru*) where they stored their catch as they waited for buyers to come to the beach to buy.¹⁸⁴

Thus before the introduction of a monetary economy, taxation and improved transport by colonialism, fish marketing was done locally, especially by women. However, fish marketing was not the domain of women alone. They sold fish in the nearby markets, but men took over the marketing when it involved travelling long distances to far away centres.¹⁸⁵ For instance Abila has pointed out that, ‘a typical artisanal fish processor-trader in [pre-] colonial Kenya was likely to be female, with nearly half of them engaged in subsidiary activities to supplement the income from fish trade.’¹⁸⁶

The towns near to the Lake became centres of trade primarily in fish. Ochieng suggests that fish was a common commodity of trade, adding that most of the people who lived along the Lake exported smoked fish to the interior where it was usually exchanged for grain.¹⁸⁷ Writing on the existence of trade on Lake Victoria’s islands by 1890, Ochieng asserts that:

It [trade] was possible along the Lake islands such as Mageta, Rusinga and Mfang’ano for *ruoth* (a leader) due to riches that accrued from trade and these islands [were] very much influenced by Buganda political ideas. A ruler was supposed to be a rich man who could freely provide food for the needy in his society.¹⁸⁸

¹⁸⁴ Interview with Oguyo Mahira at Uhanya beach on 19/11/04.

¹⁸⁵ R. Abila, ‘A Socio-Economic Analysis of Fishery Cooperatives’.

R. Abila, ‘Impacts on international Fish Trade: A Case Study of Lake Victoria Fisheries,’ (unpublished paper, Kisumu, KMFRI), p. 36

¹⁸⁷ W.R. Ochieng’, *An Outline History of Nyanza up to 1914*, (Nairobi, Kenya Literature Bureau, 1974), pp. 68-69.

¹⁸⁸ W.R. Ochieng’, *An Outline History of Nyanza up to 1914*, (Nairobi, KLB, 1974), p. 70.

He further points out that by 1890 one of the richest fisher families was the Gaunya family who, 'exported fish to the neighbouring territories like Sakwa and Alego, and got grains and cattle in return'.¹⁸⁹

Women played an active role in the fish trade because most trading centres were near the beaches. Naturally, women had a longer day than men. This was because, apart from trade, women also had domestic duties as well as child-rearing to take care of.¹⁹⁰ Kitching claims that there was 'under-utilised labour in pre-colonial Africa.'¹⁹¹ This, however, may not be true of Luo lakeshore society. Kitching states further that there was greater emphasis on production of the annual cereal crops mainly millet and elusine. Yet Africans worked on the beaches as fishers, in the fields as farmers and herded livestock. Fishing was a full-time activity, unlike hunting and raiding. Vercrujsee asserts that canoe fishing required a substantial amount of labour and capital equipment such as nets and gear, when compared to other pre-capitalist forms of production such as farming.¹⁹² It is thus incorrect to claim that African labour was under-utilised especially where agro-pastoralism was combined with fishing as in the case of the Luo. This ensured efficient use of local resources and, Ayayo claims, made the Luo a largely self-sufficient group.¹⁹³

2.7 Indigenous Fishing Technology

It is imperative at the outset to make a distinction between a fishing gear and fishing methods. To Luo fishers, gear and method were not the same. Whereas gear referred to the tool with which aquatic resources were harvested, method referred to how the

¹⁸⁹ Ochieng', *An Outline History*, p. 70.

¹⁹⁰ See Kitching, *Class and Economic Change in Kenya*, 1980, 14-15. He argues that while women had fuller 'labour day', men had 'a great deal of under-utilised male labour time among older married men, between 35-45, whose labour was no longer used in war or hunting, which were the main chores'.

Hence fishing could consume most of this under-utilised labour.

¹⁹¹ Kitching, *Class and Economic Change*, p. 14.

¹⁹² Vercrujsee, *The Penetration of Capitalism: A West African Study*, p.27.

¹⁹³ A.B.C. Ocholla-Ayayo, *African Ideology and Ethics among the Southern Luo*, (Uppsala, Scandinavian Institute of African Studies, 1976), p.22.

gear was used or manipulated to harvest the fish. While fishing gear was fairly uniform in the Lake fisheries, fishing method varied from place to place depending on the the species of fish, the natural environment and the prevailing fishing culture.¹⁹⁴ Fishing gear ranged from a simple hook attached to a line (*lupo*) to mid-water trawls or purse seines operated by large motorised boats introduced during the colonial and post-colonial periods. The Luo used lines made from flax fibres and sinkers from stones. Hooks were made from wood, bones, stones or shells.¹⁹⁵ A great variety of nets and fish traps were made from flax, fibres or vines. The design depended on the type of fish and the depth of water. Some lake nets were very long and needed large numbers of fishers to work. Gear also varied seasonally with water quality and Lake level.

Zezeza argues that that in eastern Africa, the lake became high in the 1870s. Quoting from the studies carried out by Dalby, Zezeza states that ‘the Lake’s level fell between 1880 and 1890, then recovered and rose to a higher level from 1892 to 1895 and then fell steadily by 0.76 metres in the seven years to 1902.’¹⁹⁶ Due to the nature of these seasonal variations, the level of Lake Victoria was 2.4 metres higher in 1880 than in 1868.’¹⁹⁷ Sylvester Ogendero, a fisherman for fifty years, remembers, from his grandfather that Luo fishing technology between the 1880s and 1890s, when the British came, remained unchanged.¹⁹⁸ The first fishing technology he used was *gogo mar omena* (technology for catching *omena*). This was mainly used to catch the smallest fish known as *omena* in the rivers that surrounded the Lake. He explains that they used papyrus to make the small *gogo* (net) that was used to surround the *omena* fish and scoop the catch into baskets. Mireri, another fisher, states that the papyrus and reeds technology were used for catching mudfish and lungfish.¹⁹⁹ Osogo, himself

¹⁹⁴ G.S. Were, *A History of the Abaluyia of Western Kenya*, (Nairobi, E.A.P.H., 1967), p. 52 and O. Aseto and Ong’ang’a, *Lake Victoria and its Environs*, pp. 60-65.

¹⁹⁵ Interview with Sylvester Ogendero done on 26/1/2007.

¹⁹⁶ P. T. Zezeza, *A Modern Economic History of Africa*, Vol. 1, (Nairobi and Kampala, E.A.E.P. and Codesria, 1993), p. 30 and D.Dalby *et al*, (ed) *Drought in Africa*, (London, International African Institute, 1977), p. 47

¹⁹⁷ Zezeza, *A Modern Economic History of Africa*, p. 30

¹⁹⁸ Interview with Sylvester Ogendero at Dunga beach on 26/1/07.

¹⁹⁹ Interview with Peter Mireri at Dunga beach on 27/1/07.

a fisherman since his childhood and a historian, argues that these indigenous fishing tools were ‘easily manoeuvred in the rivers, swamps and wetlands that is why they remained dominant in the 1880s’.²⁰⁰ Technology was still basic and local, with the Luo borrowing ideas from their neighbours such as the Banyala and Baganda.²⁰¹ Another example of fishing technology was the *kira*. This was a basket-like scoop, which was set up at the point where a river entered the Lake. The largest fishing gear was the *nyamang’ura*, a bigger form of *gogo*. According to Ogendo, it was made from papyrus, had small stones tied around it, and required twelve people to work. The gear was pulled through the water with ropes and swept up almost all the fish in its way. Because of this the ‘big *gogo* was only used during the rainy season (*chiri*) when fish was plentiful’.²⁰² Fishers also caught fish with bows and arrows. This method was usually practised when the rivers were at their lowest and it was easier to see fish. The bows were one and half metres long while the arrow held a metal head. Another common method was the use of the spear (*osadhi*). Spears two-and-a-half to three metres long were prepared from lightweight flat reeds. A homemade metal barbed spear point was attached to it. Fishers used the spears along rivers bank where the water was shallow and large fish were easily detected among the reeds. Mireri explains that ‘[i]f you had *osadhi* two or three of them, you could catch a few pieces of fish compared to the colonial nets that later caught lots of fish. *Osadhi* only caught the big fish, it was set up near the Lake shore to catch only the floating fish and it ensured sustainability’.²⁰³

When interviewed, the historian B.A. Ogot pointed out that the fishing gear used in the Lake Victoria Region was not confined within the borders of the modern nation states surrounding the Lake.²⁰⁴ The Lake belonged to all neighbouring groups, as there were no state borders in the pre-colonial era. There was thus a similarity in the types of canoes used by the Luo and Banyala of Kenya, the wa-Sukuma of Tanzania

²⁰⁰ J Osogo, *The Peoples of East Africa*, (Nairobi, Heinemann, 1973), 15.

²⁰¹ Osogo, *The Peoples of East Africa* (Nairobi, Heinemann, 1973), p. 15.

²⁰² Interview with Sylvester Ogendo at Dunga beach on 26/1/07.

²⁰³ Interview with Peter Mireri at Dunga beach on 27/1/07.

²⁰⁴ Oral interview with B.A. Ogot at Maseno University, near Lake Victoria on 4/6/05.

and the Baganda of Uganda.²⁰⁵ This similarity reflected the trade relations linking the different communities around the Lake. However, the Baganda people were known for their expertise in boat making. The most common boats were the Ssesse canoes and dugouts measuring up to 40 feet in length with a three-and-half foot beam. They were unstable in rough water and had limited carrying capacities but were used across the whole Lake. Dugouts had very short working lives, mainly due to the poor quality of timber and workmanship employed in their construction.²⁰⁶

2.8 The Evolution of Fishing Canoes

Canoe technology changed over time. These changes ranged from a single log canoe that was predominantly used to fish on the rivers Kuja and Nyando, to the Ssesse canoes which came from Buganda during the Suba Migrations in 1850s or even earlier.²⁰⁷ Ochieng' supports the idea that the Luo borrowed their canoe-making technology when he notes that, 'the Luo of Nyanza were very poor boat builders, so for their fishing boats they relied heavily on the Samia who seem to have acquired the art of making boats from Baganda. The Luo would normally pay five bulls for a boat'.²⁰⁸ Yet it is also true that the Luo never made their own boats. The arrival of the Suba people, who fled the Buganda kingdom's dictatorship, was important. This is because they were expert canoe-makers who improved Luo canoe-making technology. In the words of Mireri, a fishery researcher who was brought up in a fishing family on Rusinga Island, 'the Suba migrated from Uganda with boat making technology and they brought us the Ssesse canoes'.²⁰⁹ At the same time the Ukerewe people from the Tanzanian part of the Lake also lent the Luo the popular Ukerewe boat-making technology from southern Tanzania. This led to the coming of Taruna

²⁰⁵ J. Osogo, *The Peoples of East Africa*, p.15.

²⁰⁶ J. Osogo, *The Peoples of East Africa*, p. 16.

²⁰⁷ Interview with Peter Mireri at Dunga beach on 27/1/07 (He knows this from his grandfather who was a fisherman).

²⁰⁸ W.R. Ochieng', *An Outline History of Nyanza Up To 1914*, (Nairobi, Kenya Literature Bureau,1979), p. 68.

²⁰⁹ Interview with Peter Mireri at Dunga beach on 27/1/2007.

canoes in the 1880s.²¹⁰ Data on the exact date of these changes in boat-making technology is hard to find, but what is clear is that this craft existed in the Lake fisheries from the time the Luo settled in the Lake Region and began trading with their neighbours in the mid-eighteenth century.²¹¹ In fact, of all the canoes that came to Luoland from their neighbours, it is the Ssesse canoe that had the greatest influence. The Ssesse is known as *yie nyaluo* (Luo traditional canoe). It is regarded as the most important culturally and the Luo regarded the Ssesse boat as their own (despite the fact that its design might have come from Uganda via the Suba). It was a slimmer vessel that moved, moved and sailed well and was easy to handle on the water. All Luo traditions associated with boat-making, naming and cleansing are based on the Ssesse canoe. As Mireri put it, ‘the Ssesse canoes were everlasting’.²¹² The most important indigenous timber used in the making of these canoes were the *ober* (*albizia coraria*) and *onera* (*taminalia brauni*). Mireri added that these ‘were trees honoured by tradition. They could float and were used for making the kiln (base of the canoe)’. He asserted that:

The kiln was very special because it was the power of the canoe. If you just used any ordinary timber, it would not last for even one year. Timber for boat making was chosen for their hardness and durability in water. The African *onera* tree could be re-used even three times before they gave in to water erosion. But modern trees such as eucalyptus or cypress can only last for six months, but these African trees were durable and available and the canoes were everlasting.²¹³

As Abila found that ‘fishers depended on their own skills and knowledge acquired through many generations and years of internship between parents and their

²¹⁰ O. Aseto and O. Ong’onga’, *Lake Victoria and its Environs, Resources, Opportunities and Challenges*, (Kisumu, Osienala, 2003), p. 23.

²¹¹ W R Ochieng, *An Outline History*, p. 43.

²¹² Interview with Peter Mireri at Dunga beach on 27/1/2007.

²¹³ Interview with Peter Mireri at Dunga beach on 26/1/07.

children'.²¹⁴ Luo fishers took years to develop their fishing methods. Oguyo Mahira says that there were specialists in canoe-making in Uhanya village, in that 'certain homes and families were specialists in the making of boats using the local *powo* tree. They also used ropes from banana trees and *peda* trees which acted as *mabati* (iron sheets). *Ndonyo* (iron ore) was melted over a fire and then used to tie the boat parts as well'.²¹⁵

By 1885, Luo fishers used craft such as dugout canoes, made from grooved logs of wood, and rafts made from buoyant logs tied together with reeds and papyrus stalks for wading or swimming through the shallow parts of the lake.²¹⁶ Mireri, claims that in the pre-colonial period the Luo were using seine nets made from papyrus stalks. The papyrus gear was used to catch the larger fish such as *kamongo* (mud fish). Mireri posits that the first canoes were dugout canoes that existed by 1800. Osogo²¹⁷, Ehret²¹⁸ and Ochieng,²¹⁹ who have discussed the pre-colonial fisheries in the Lake Victoria Region, corroborate this claim. Osogo, for example, states that 'rafts were used from very early times to cross the water body (Lake Victoria)'.²²⁰ He further argues that 'sewn canoes are mentioned in the early writings on East Africa, which could appear to indicate that they were used along the East African coast well before 1000 C.E.'²²¹ Ochien'g tells us that, 'by 1500 the Samia culture (which later influenced the Luo), was based on fishing'.²²²

²¹⁴ R.O. Abila, 'A Socio-Economic Analysis of Fishery Co-operatives of Lake Victoria,' Kenya, unpublished PhD thesis, (University of Hull, 2002).

²¹⁵ Oral information from Oguyo Mahira at Uhanya beach on 20/11/04.

²¹⁶ G. Were, *A History of the Abaluyia*, p. 52.

²¹⁷ J. Osogo, *The Peoples of East Africa*, Nairobi, Heinemann, 1973.

²¹⁸ C. Ehret, 'Aspects of Social and Economic Change in Western Kenya, AD 500-1800' in B.A. Ogot, *Kenya Before 1900*, Nairobi, E.A.P.H., 1986.

²¹⁹ W.R. Ochien'g, *A History of Kenya*, (London, Macmillan, 1985), p. 16.

²²⁰ J. Osogo, *The Peoples of East Africa, Nairobi*, (Heinemann, 1973, p. 15.

²²¹ Osogo, *The Peoples of East Africa*, p. 15.

²²² Ochieng', *A History of Kenya*, p.16.

According to Abila, ‘seining even at this early period was deemed dangerous’²²³ to the fish stocks and was thus used only in sandy parts of the lake. According to John Nyenje, the fishing community utilised locally available gear which was simple and did not endanger the future of the fishery. In fact the demand for fish was low being confined to the neighbouring communities which did not necessitate overfishing. Secondly, fishing was mainly a subsistence activity. This view is supported by Abila who remembers that hand nets made in the form of baskets were dipped into the water and lifted out or pushed by hand in order to trap fish. The people also caught fish by making weirs as barriers across streams.

It is imperative to note that fishing gear described above evolved over time and out of the long-term interactions between the people and their environment, especially between 1850 and the 1890s. As noted above, boats and other fishing technologies used on the lakeshore were similar and shared certain characteristics. However, various clans among the Luo specialised in various aspects of fishing. For instance, between the Luo of Suba Island, the Kakimbi clan of Mfangano and the Kaswanga clan, boat-making was a serious occupation.²²⁴ The people living around the Lake made use of the locally available materials in the making of fishing gear. Traps, hooks and nets made from local materials were commonly used.²²⁵ The traps were made of sets of sticks that were stacked together. Once put together, these sticks were then positioned in strategic locations along the fast-moving water rapids. The common traps used by Luo fishers included *sienyu* and *ounga*, which were used together with spearlike harpoons.²²⁶ Joyce Oruko further states that the *kira* traps could also be set at river mouths, the confluence point at which the river entered the lake.²²⁷ The hoop and hyke nets were also commonly used in catching smaller quantities of fish, including species such as ningu, labeo (*odhadhu*) and barber species. Due to their indiscriminate nature, these traps were dangerous as they could

²²³ For more information on the early threats of over fishing see C.M. Dobbs, “Fishing in the Kavirondo Gulf,” *Lake Victoria Journal of East Africa and Uganda Natural History Society*, 30 (July 1927), pp. 97-109.

²²⁴ Interview with Peter Mireri at Dunga beach on 27/1/07.

²²⁵ Interview with Tom Mboya at Kenya Marine and Fisheries on 4/10/05.

²²⁶ Interview with Joyce Oruko at Dunga beach on 27/1/07.

catch under-age fish and destroy expectant *ngege* going upstream to lay eggs, hence endangering future catches.²²⁸

However, before the coming of colonialism in the late nineteenth century, the most common nets in use were the nets made from cotton fibre. Tom Mboya, a fishery researcher with the Marine Institute in Kisumu, attested that the nylon nets later replaced the fibre nets in the colonial period.²²⁹ According to him, the most fundamental change in traditional technology was the evolution of the canoes, *orindi*. Originally fishers made canoes by simply putting logs together. Mboya added that many logs, once put together, were able to float on water and fishers used them on their fishing voyages. Together with these simple canoes came hooks, spears, traditional nets and baskets. However, the *orindi* boat could not move fast enough and cover long distances as winds, rapids and air resistance hampered them. Ogendo pointed out that, in response to this problem, the fishers became more innovative and found a way of digging through a huge tree log to create a dugout canoe. Most of these made from logs lasted between five and ten years and were highly reliable as tools for travelling on the lake and facilitating fishing. This was dependent on the type of wood used in the making the canoes. To ensure reliability and longevity, the right type of hard wood was used. It was from this dugout canoe that the current canoes evolved.²³⁰ The Ssesse Islands on Lake Victoria in modern Uganda seemed to have been the original home for the canoe building technology and, because of that by 1870 most of these boats became known as Ssesse canoes, as explained above²³¹. Holmes supports the theory about Ssesse as an important place of origin of Ssesse canoes when he argues that ‘by 1870 the Arab traders who crossed the Lake to trade

²²⁷ Interview with Joyce Oruko at Dunga beach on 26/1/07.

²²⁸ Interview with S. Ogendo at Dunga beach on 25/1/2007.

²²⁹ Interview with Tom Mboya at Kenya Marine and Fisheries Institute on 20/11/2004. Mboya is a researcher with the Kenya Marine and Fisheries Institute (KMFRI).

²³⁰ Interview with S. Ogendo at Dunga beach on 26/1/07.

²³¹ That the Ssesse Islands could have been home to many canoes on Lake Victoria is supported by C.F. Holmes, *Zanzibar Influence at the Southern End of Lake Victoria: The Lake Route* in African Historical Studies, Vol. 4, No. 3, 1971, p. 488.

with the Buganda kingdom had to depend on Ssesse Islanders for the supply of their canoes'.²³²

Ogendo asserted that the joining together of logs to make the *orindi* canoe provided the fishers with a more versatile vessel than the rafters used before as they could move faster than the logs.²³³ The dugout canoe also assured the fishing community of speed and distance. Furthermore, by placing sails on them, canoes now gained more acceleration like the modern motorboats. More speed meant more distance covered and subsequently greater catches. One common characteristic of these original canoes was that they were pointed at both ends with flat bottoms. These flat-bottomed canoes were a bit less stable in rough waters and difficult to manoeuvre due to air resistance. According to Mboya, in order to increase speed and stability on the canoes, 'the flat-bottomed boats further evolved to the U-shaped and finally, V-shaped bottoms'.²³⁴ With more speed achieved it became necessary to use the cotton fibre nets to catch fish. Cotton-fibre nets, he asserted, were multifilament strands which were effective but were visible under water and seen by fish from far. So led to smaller catches. As a result, by 1895 the fishers had replaced cotton fibre with synthetic nylon fibre as Arab and British influence was beginning to be felt.²³⁵ Another problem was that cotton-fibre nets were less durable, thus explaining the preference for nylon nets that were coloured to conceal their visibility and increase their efficiency. Compared with the traditional cotton nets, the modern net is monofilament, essentially colourless and brutally efficient and effective.²³⁶ Its efficiency and durability is such that even if it lost under water it continues to catch fish, destroying some in the process.²³⁷

²³² Holmes, *Zanzibar Influence at the Southern End of Lake Victoria*, p. 448.

²³³ Interview with S. Ogendo at Dunga beach on 28/1/07.

²³⁴ Interview with Tom Mboya on 20/10/04 at Uhanya.

²³⁵ O.Aseto and O. Ong'onga' *Lake Victoria and its Environs, Resources, Opportunities and Challenges*, (Kisumu, Osienala, 2005) p. 23-24.

²³⁶ Abila, "A Socio-Economic Analysis of Fishery Co-operatives".

²³⁷ Interview with Tom Mboya at Kenya Marine and Fisheries Offices on 21/10/05.

Ironworkers, such as the Samia people, who lived adjacent to the lake, specialised in the making of harpoons and other metal gear.²³⁸ It was this metal gear that they exchanged for fish with the traders. A huge variety of fishing gear generally in use on Lake Victoria included dragnets, weirs, traps, harpoons, and long lines and fishing rods. The dragnets were always made of papyrus stems (*togo*), fastened closely together and were five feet deep or high. They were of two sizes, the larger being locally referred to by the Luo as *gogo* and the smaller type as *ogoda* (smaller papyrus fishing nets). The large *gogo* (papyrus net) was the one most commonly used. Christopher Nyawade states that during a fishing session one of the nets was towed out by men in canoes some distance into the Lake and was taken around in half circles so as to enclose a considerable area of water and fish.²³⁹ Nyawade further points out that the two ends were then drawn towards the shore so that the net brought in with it any fish that had been entrapped. When it was fairly close in, men waded into the water carrying long baskets known in Luo as *aunga* and captured the fish. Agola Okulo explains that these baskets were forms of traps and included a large cone of basket work about 6 feet long with a smaller cone inside it pointing in the same direction.²⁴⁰ The inner cone was open at the end so that when a fish entered at the wide mouth of the basket it swam through the hole at the end of the inner cone and got imprisoned in the space between the two cones.

Both Margaret Were and Alice Awino point out that fishers used a small form of *aunga*, which was also known as *aunga kitenga*.²⁴¹ There were two varieties of this style with the double cone and one with only a single cone. When using the double cone ones they placed three or four in a line at the bottom of the Lake. They add that fishers then travelled some distance in front and frightened the fish into the traps. The Luo used the single cone trap differently. They held the baskets in both hands with the wider part facing towards them and used them as a float. Fish species such as

²³⁸ See G.S Were (ed), *Kenya: Socio-Cultural Profiles (Busia District)*: Institute of African Studies: (University of Nairobi, 1968), p. 45.

²³⁹ Interview by Christopher Nyawade on 16/10/2004 at Usenge beach.

²⁴⁰ Interview with Nyawade at Usenge Beach on 16/10/04.

²⁴¹ Interview with M. Were and A. Awino at Dunga beach on 27/1/07.

nyawino, *nthira*, *osoga* and *sire* were caught in this way. The bait used was *oniambo* (worms) or pieces of insects, ants or groundnuts.

Another 'native' gear was the use of a strong woven basket (*osero*), used to scoop fish from shallow water areas near the bank of the Lake or as the boat moved. In his discussion of the fishing methods used, Ayot argues that the principal methods included *gogo*, *ounga* and *kira*.²⁴² The most important gear according to him was *gogo* which was similar to a moving fence made of papyrus reeds. Some were 250 metres long. At one end was a fold which was left floating on the water close to the shore. In the words of Ayot:

gogo was taken into the lake from a raft made of papyrus stalks and was brought around in a half circle to enable the ropes attached onto the end to reach the shore again. The whole thing was drawn towards the shore and a number of non-return baskets were placed into the water and the fish driven into them. The basket and whatever they caught were taken to the shore.²⁴³

However, since the gear was made from papyrus, it was not durable. Although it took a many people to make it, its life was short.²⁴⁴ As a result, it created opportunities for a special group of artisans who had always to be on call to repair or make new ones.

There were also smaller *gogo* which differed from the large ones. It was also made to form a circle as it folded on itself into a smaller size. Once it formed a smaller circle with enclosed fish, the fish were then scooped out with a basket. This type of *gogo*, as a result of its small size, caught mainly the *fulu* *hiptochomis*.²⁴⁵ Young men while on the shore could make their own toy canoes. These they used to catch young fish as

²⁴² H.O. Ayot, *Historical Texts of the Lake*, p. 102.

²⁴³ H.O. Ayot, *Historical Texts of the Lake*, p. 102. This point is also confirmed by oral information supplied by Oguyo Mahira. He states that 'gogo or rimba was set like a net into water, and standing eight people on either side we pulled the fish. As we pulled we sang, everybody with his song'.

²⁴⁴ Interview with Mohammed Ouko Okullo at Dunga beach on 26/1/07.

²⁴⁵ H. Ayot, *Historical Texts of the Lake Region*, 102.

they acquired more skills on the job.²⁴⁶ To make the *gogo* more effective, another smaller basket called an *ounga* was used alongside it. The *ounga* was a non-return basket that was very useful for trapping fish. The smaller baskets were made of a wicker work and were connected with more elongated cones that could go deeper into the lake to scoop up more fish. *Ngege* fish was in no way endangered by the *gogo*. Nylon twine nets came into use in the 1940s but were used only in open seasons when there was plenty of fish, not during the closed seasons when fish were not plentiful. The use of trawl nets, which became controversial, increased only after the introduction of the Nile perch from the mid-1950s when there was also an increase in fishers and growth of fish factories around the Lake. Tilapia was preserved for later consumption, being caught and then smoked or split, and hung to dry in the sun. An advantage of pursuing fishing as an economic activity was that diseases, drought and locusts did not affect it.²⁴⁷ Traders acting as middlemen travelled long distances along the length of the Lake but not too far from the beach distributed dried fish. They used bicycles which were introduced after World War II.

Another common gear was the *kira*. Charles Onaga suggests that the construction of *kira* was a male domain and was done using a simple technique. The men looked for the papyrus and then dried them before sewing them to make the *kira*.

We cut reeds, mould them together to form a *kira*, which looked like a hut, then we removed three reeds from the wall to create into the *kira* that would allow the fish to enter and be trapped.²⁴⁸

Even women could make their own fishing *kira*. Women especially loved using basket fishing communally. Women from one village or neighbourhood usually gathered together and walked, singing, to the Lake, where they fished in groups sharing the spoils amongst each other. Maria Ngambo, an elderly woman who fished

²⁴⁶ Interview with Alice Onyango at Dunga beach on 25/1/07.

²⁴⁷ G. Kitching, *Class and Economic Change*, p. 15.

²⁴⁸ Interview with Charles Onaga at Uhanya beach on 4/6/2005.

almost all her life, explains that she made her own *kira* because she had no brothers to assist her.²⁴⁹ Ayot's evidence corroborates the above description. He points out that the gadget was made of sticks or reeds fastened together closely so that they formed a wall that the fish could not pass through once they were trapped.²⁵⁰ The sticks, once put together, formed a strong barrier and were able to catch grown tilapia. He further states that the reed fence consisted of many chambers with narrow entrances. Once trapped the fish was easily caught by hand. *Kira* moved on the Lake like a large fence, covering an area of water of about 600 square metres.

Another method was the use of huge weirs (or *kek* in Luo) also used in the rivers flowing into Lake Victoria. The use of traps and weirs required the co-operation of many people.²⁵¹ Weirs were generally latticework devices that were set across streams. Fish passed through openings in the weir: they could easily be captured in traps of open basketwork manufacture. Large traps of stone or pilings were used separately from weirs usually along inshore environments. Ayot states that some of these were built of wood and some with stones extending right across rivers or shallow parts of them from bank to bank.²⁵² There were gaps at intervals in the weir and basket traps (*musathi*) were used on the upper side of these holes to catch the fish as they passed upstream. The *musathi* were similar in principle to the double-coned *aunga* but were made of reeds fastened together longitudinally.²⁵³

Yet another form of basket fish trap was the *sienyu*. This was also a conical basket with a hole at the top or narrow end.²⁵⁴ The fisherman used it when they waded along in shallow water pushing it down at intervals on to the bottom of the Lake or river.²⁵⁵ If a fish happened to be imprisoned it was heard splashing about inside and the fisher would put his arm through the top hole and pull it out. The *sienyu* was also made of reeds fastened together longitudinally.

²⁴⁹ Interview with Maria Ngambo at Dunga beach on 26/1/07.

²⁵⁰ H.O. Ayot, *Historical Texts of the Lake Region*, p. 287.

²⁵¹ Interview with Joyce Oruko at Dunga beach on 27/1/07.

²⁵² Ayot, *Historical Texts of the Lake Region*, p. 287.

²⁵³ Interview with S. Ogendo at Dunga beach on 26/1/07.

²⁵⁴ Interview with Agola Okullo at Dunga beach on 26/1/07.

Also commonly used were the harpoons. Those fishers who used it waded in the water and at times harpooned fish, or caught fish by hooking using the hooks. The harpoon used was narrow, had no barb, and was known locally as *bedhi*. In fact *mumi* and *kamongo* could be caught this way. There was also the use of rod and line. The young people fished as an amusement, with rod and line. Men used long rods made from a tree called *poo*. The use of hooks started at the end of World War I, when Kenyan soldiers returning from abroad introduced them.²⁵⁶ Later, an improved hook from Norway began to appear. Hooks or *olowo* in Luo were easily available at the local bazaar. The bait used was a worm (*oniambo*) found in the marshes or mud. The line was made from papyrus fibre.²⁵⁷

Children used small rods made from a tree called *osire*. According to Odhiambo, this method was suitable for children because it was simple to use and it did not require the effort of more than one person.²⁵⁸ Again children used it because they often fished when they took the cattle to water. He states that a piece of dried millet stalk was used as a float. The bait used could be a worm, the maggots of certain flies, groundnuts, small fish or bread paste. Some groups, like the Gusii people of Kenya who lived in the Lake's neighbourhood, exchanged agricultural and pottery products with fishing communities, notably the Luo, which shows that trade in Nyanza existed long before the coming of colonialism.²⁵⁹ The varieties of fish species found in the Lake offered a rich variety of fish products that in turn encouraged trade between different communities in the Lake region.

2.9 Fish Species in Lake Victoria

²⁵⁵ Ayot, *Historical Texts of the Lake Region*, p. 287.

²⁵⁶ Interview with Boniface Odhiambo at Dunga beach on 26/1/06.

²⁵⁷ Interview with S. Ogendo at Dunga beach on 26/1/2007.

²⁵⁸ Interview with Boniface Odhiambo at Dunga beach on 26/1/07.

²⁵⁹ W.R. Ochieng,' *An Outline History of Nyanza Up to 1914*, (Nairobi, KLB, 1974), pp. 69-70.

The Luo recognised several fish types in the Lake Victoria but not all of them were regarded as desirable and edible. Joyce Oruko, informs us that *kamongo* (mud fish) and *ningu* (*labeo victorianus*) were so delicious and that they were respected as food fit for marriage ceremonies.²⁶⁰ Named *labeo victorianus* in 1902 but known locally as *ningu*, it had an average length of 41 cm.²⁶¹ It was abundant in rivers and shallow inshore waters of the Lake. It has been described as endemic to catchments, meaning that it is one of the species which is overfished and threatened with extinction. The Suba fishers who migrated from Uganda in the eighteenth century loved *Seu* (*Bagrus*) while their Luo neighbours looked down on this fish, believing that it caused not only ‘itching’ but also led to gonorrhoea.²⁶² The fishers stated that their love for a given fish as food was driven by cultural beliefs and the amount of flesh available on it.²⁶³ The *ngege* (tilapia) species was the most prized when it came to the quality of flesh. It was a substitute for meat whenever respected visitors came to a home, especially during funeral and marriage ceremonies.²⁶⁴ Aseto and Ong’ang’a observed that by the 1880s the most dominant and endemic fish species were those generally known as the cichlids.²⁶⁵

The other native fish in the Lake Region included *mumi*, lungfish or *clearis mossambias*. The *mumi*, black in colour, was also a popular dish among fishers for its flesh.²⁶⁶ The most popular species were the tilapias of which there were variants and varieties, such as *esculenta* and *nilotica*. Some types of fish such as *fulu* (*haplochromis*) and *omena* (*engraulicypins argentus*) were so tiny in size that fish eaters never regarded them highly as fit for respected visitors. People in the poor householders ate the two, very small in size, while *mbiru* (*oreochromis variabilis*) was eaten in ceremonies and in informal gatherings.²⁶⁷ A fisherman of long-standing,

²⁶⁰ Interview with Maria Ngambo and Joyce Oruko at Dunga beach on 26/1/07.

²⁶¹ O. Aseto and O. Ong’ang’a, *Lake Victoria (Kenya) and its Environs: Resources, Opportunities and Challenges*, (Kisumu, Osienala, 2003), pp. 21-22.

²⁶² Interview with Oracho Wire at Uhanya on 21/10/04.

²⁶³ Interview with Alice Awino done at Dunga beach on 27/1/07.

²⁶⁴ Interview with Joyce Oruko and Margaret Ngambo at Dunga beach on 26/1/07.

²⁶⁵ O. Aseto and O. Ongonga, *Lake Victoria (Kenya) and Its Environs*, p. 32

²⁶⁶ Interview with Margaret Aseto at Dunga beach on 21/1/07.

²⁶⁷ See R O Abila, *A Social-Economic Analysis of Fishery*, 2002, p. 76

Jacob Okullo, argues that the best fish for food is the smaller one.²⁶⁸ He asserts that in Luo fishing culture smaller fish were always considered more delicious than fish of a bigger size.

Seu has very small scales and a fleshy mouth. It grows to a large size and when cooked has a firm flesh. The fish eaters did not like this species because they got 'itchy' from eating it.²⁶⁹ Oracho-Wire, recalling information from his ancestors, stated that during the 1880s and after the coming of colonialism in the 1890s this species was commonly sold to the Baganda community as it was considered a disease-causing fish as well as having an unpleasant smell. The Lake had several other varieties of fish that were very bony and could not be taken by the net.²⁷⁰ It appears that in pre-colonial era some fish species such as *seu*, which were not popular with Luo fish-eaters, were caught mainly to be sold outside the land of the Luo for foreign consumption.²⁷¹

Another very important fish species in Lake Victoria is the famous Nile perch (*lates niloticus* in Latin), which we will study in chapter six. It was first discovered and named by Europeans in 1758. On average it was 190 cm in length. It is known as *mbuta* (or *mputa*) in Uganda, Tanzania and Kenya. It was introduced in Lake Victoria in the late 1950s from the shallow waters of Lake Albert in Uganda and Lake Turkana in northern Kenya. Though introduced only fifty years ago, it turned out to be the most valuable fish species in terms of trade. At the same time, the fish threatened the existence of some 300 ancient species in the lake by preying on them. Another species was *ngege*, Nile tilapia (*oreochromis niloticus*). Its original home appears to have been the River Nile from where it found its way into the Lake. Later on, the colonial government introduced some more species of *ngege*, which potentially was the most valuable trade commodity for the fishers.

²⁶⁸ Interview with Jacob Okullo at Dunga beach on 21/1/07.

²⁶⁹ Interview with Oracho Wire at Uhanya on 21/10/04.

²⁷⁰ KP/4/7 of 1927: Kenya National Archives (KNA) in Nairobi. This file contains a report by *the East African Standard* dated January 21st 1929 that highlights the dangers of over-fishing at this time, following the introduction of the gillnet by a Norwegian, Mr. Aarup in 1905.

2.10 Indigenous Methods of Preservation

Because food from the lake could decompose quickly it was important to avoid waste by either sharing a large catch or preserving it. Asked if fish perishability was a problem in the 1890s during the onset of colonial rule, Joyce Oruko states, '[p]erishability was an issue, for fish was immediately split and dried into *obambla* (dried fish)'.²⁷² Traditional methods for preserving fish catch are still in use today. The main methods used were smoking, drying and/or salting. Ojwang' Oyiengo points out that preservation was an important task that was done immediately the fish arrived on the beach.²⁷³ Rosemary Atieno states that as 'soon as the fish landed it was removed from the canoe and taken to women to clean and scale it'.²⁷⁴ Oruko explains that:

During fish smoking session, we scaled fish, wash it then dry it in the sun. We placed it on a piece of metal sheet (*mabati*) and fire was made below the metal sheet to dry up the split fish. Since firewood was plentiful in those days we would just go and gather papyrus and cactus, which was durable and burnt for long.²⁷⁵

The neighbouring Samia Bantu were ironmongers and sold the iron to the Luo. The women split the fresh *ngege* into *obambla* (dried fish), which was then sundried. The practice among the Luo fishers was that the catch could either be consumed locally or exchanged for grains with the neighbouring communities, such as the Gusii, Luyia, Nandi, Samia etc. Since fish is by nature highly perishable, it was crucial for the fisher folk to preserve their fishery products before taking them to the market. Dried fish were kept in large pots or baskets for future consumption or trade.

²⁷¹ Interview with Maria Ngambo at Dunga beach on 26/1/07.

²⁷² Interview with Joyce Oruko at Dunga beach on 21/1/07.

²⁷³ Interview with Ojwang' Oyiengo at Usenge beach on 18/11/05.

²⁷⁴ Interview with Rosemary Atieno at Uhanya beach on 18/11/05.

²⁷⁵ Interview with Joyce Oruko at Dunga beach on 26/1/07.

The dried fish was the most prized commodity by the long distance traders. They carried it for many days, as they exchanged it, in the main, for agricultural commodities from the neighbouring communities. The dried fish lasted longer, especially if there were no immediate buyers and demand was low. The drying of fish was a storage/preservation technique as such fish was very useful during famines and was sold to distant villages far from the Lake. It was common for the neighbouring communities such as the agriculturally oriented Gusii and Samia communities, who lived far from the Lake, to travel to the market places of Uhanya, Nyamonye, Usenge, and Dunga.²⁷⁶ During famines such as the Nyadiema (1850s) and Otuoma famines of 1900, fish traders dealt in dried fish such as tilapia, which they took and sold in the hinterland.²⁷⁷

Sun drying, the domain of women, was mainly practised for small haplochromis, which were merely washed, and stacked in series that were about 2 feet long. According to Jennifer Akinyi, it was women who scaled, salted and looked for firewood for roasting of fish. After the fish was split they were arranged onto the mats or alternatively left hanging in the open air. It took about six days to dry and was eaten with *kuon* (maize gruel).

Agola Okulo informed us that even men could assist women, especially in felling huge trees for firewood.²⁷⁸ Their young daughters or sons could assist them in this. They looked for smaller sticks that were preferred for roasting. These were also more prevalent along the beaches, where most of the roasting was done. Margaret Opiyo states that 'firewood was plentiful around the beach so we merely collected as much as we needed and within a short time'.²⁷⁹ Over time, however, the continued system of gathering firewood led to environmental change and fuel shortage. Opiyo rejects

²⁷⁶ Interview with Oracho Wire at Uhanya at 21/10/04. Most of these market centres where dried fish was sold were within a short distance from the fishing beaches and fish traders from other parts of the country and beyond came there to buy the commodity which was taken there by traders who had bought the fish from the beaches.

²⁷⁷ P.A. Opondo, 'An Economic History of Ugenya: 1850-1963,' (unpublished M.A. thesis, Moi University, 1997), p. 90.

²⁷⁸ Interview with Agola Okulo at Dunga beach on 21/1/07.

²⁷⁹ Interview with Margaret Opiyo at Dunga beach on 21/1/07.

this argument, pointing out that by the time colonialists were entering Kenya in the 1890s this shortage of firewood was not yet evident.

Salting, though not very common, was also practised as a fish preservation technique. Some communities did not like salted fish but the method was still used. The fish was gutted and washed, mainly by women. Fish were cut longitudinally to allow for deeper penetration during salting. The fish was then rubbed with salt and then packed in vats. According to Ojwang' Oyiengo, women predominantly did the salting.²⁸⁰ A thin salt layer was spread on the mats before the fish were laid down. These fish layers were alternated with layers of salt but the uppermost fish layer was arranged with skinside down.²⁸¹ The drying place could be constructed inside a shed or could be in the open, in which case papyrus mats were used to cover them. After about three days in salt the fish was dried in the open air on slanting racks raised above the ground. The drying time varied with the weather but the fish would be stored away in the evening and spread out again the following morning until it was dry.

Machumirwa, who studied preservation in the Ugandan part of Lake Victoria, argues that smoking was probably the most popular method of preserving fish.²⁸² Hot smoking was practised and the construction of smoke-kilns varied from one area to another. He further says that in some cases the kiln was a deep pit of about 8 feet square with one side open and forming the smoke chamber about 3½ feet below ground level. He added that, for effective smoking, clay pipes about 1½ inches were laid across the pit and it was on these pipes that a rack made of weld mesh or expanded metal was placed. The fish to be smoked were gutted, scaled and washed before being allowed to drip dry. The fish were then placed on the rack with heads facing of the smoke chamber in rows separated by one or two papyrus or reed stems were laid horizontally between the fish. Logs were used to provide a hot fire. The

²⁸⁰ Interview with Ojwang' Oyiengo on 4/7/2004 at Usenge beach.

²⁸¹ Interview with Margaret Opiyo at Dunga on 21/1/07.

²⁸² KP/8/111:KNA: Nairobi. The file contains an article by Z.B Machumirwa entitled "Development of Design and Construction of Fishing Boats in Uganda:1962-64". The article discusses types of boats used in traditional society in Uganda and by extension across the Lake as a whole since in most cases the boat making technology was similar.

type of wood varied with the locality, but generally there was no preference for any particular type.²⁸³

Wire states that, especially on the Kenyan side, the whole smoke chamber was built inside a mud and wattle shed with grass thatched and sometimes corrugated iron-sheet roofs.²⁸⁴ A modification of the above was found in the area where fishing was much cherished. Here the smoke kiln was built off the ground with concrete walls, retaining similar patterns to the one above. The whole structure was again inside a mud and wattle hut as described above. The variations in the smoke kiln invariably led to variations in the smoked products.

According to Machumirwa ‘during rainy season the fish being smoked got wet and water usually got into the smoking pits and did not allow quick smoking, which leads to losses’.²⁸⁵ The final product, in many cases, was contaminated by soot to varying degree, and its quality was affected. Smoking cots varied from region to region, depending on firewood availability. Machumirwa further states that when properly smoked and stored in a dryplace, the fish would keep about six weeks, otherwise it was susceptible to attack by beetles, rats and ants and,, when smoking was not done thoroughly, by mould. However, the traditional method of smoking was wasteful as regards the use of firewood. This was because it was believed that firewood was plentiful and could not be exhausted, though with time this belief proved inaccurate as wood supplies began to dwindle.

2.11 Conclusion

The chapter has examined evolution of indigenous technology, the role of kinship in the relation of production, preservation techniques and the role of women in pre-colonial fishing among the Luo. The Luo fishers and women had their own

²⁸³ KK/8/111

²⁸⁴ Interview with Oracho Wire at Uhanya beach on 21/11/2005.

²⁸⁵ K.N.A: KP/8/111 The file contains an article by Z.B. Machumirwa, ‘Development of Design and Construction of Canoes’.

organisation and management skills before the coming of colonialism. This organisation was based mainly on household and kinship ties within the clan. The Luo had migrated and settled along the Lake Region where they learnt fishing from the neighbouring communities because they dwelt near the Lake (*Jo-Nam*). Trade in fish was enhanced by the different ecological resources found in the Lake Region. The Samia and Gusii were farmers but the Luo were fishers. This necessitated the development of trade between farmers and fishers. Women were the primary fish traders because such activity did not involve their travelling far from home. Thus small trading centres developed near the Lake. The technology used in fishing was simple and ensured sustainability in the exploitation of Lake resources. We have argued that the Luo were skilled fishers who used lines, hooks, nets, traps, baskets and spears. Technology was basic, borrowed from the Banyala and Baganda neighbours. There was similarity in the types of canoes used in the Lake region ranging from single log canoes used on river fishing to the Ssesse, borrowed from Buganda kingdom. Also, a huge variety of fishing gear existed. While men went far into the Lake, women waited for fish to be brought to the beach for them to split dry, salt clean and smoke. This led to a symbiotic relationship between men and women. The chapter also discussed the preservation techniques. Luo fishers basically used splitting, sun drying and smoking as the main methods of preservation. In the following chapter we discuss the introduction of gill net and its effects on the fishing economy. The net improved the catching capacity of the fishers and encouraged trade in fish up to Nairobi, many miles from the Lake. Later the colonial authorities in Kenya introduced Mbuta (Nile perch) and new fishing gear that had far-reaching repercussions on fishing and on the environment, as shall be seen.

CHAPTER THREE

The Colonial Policy and the Coming of New Gear, 1895-1920

3.1 Introduction

In this chapter the objective is to discuss the introduction, use and effects of new technology, particularly the gill net that was introduced in the period 1905-1908. It is also important to explain the implications of making Kenya a protectorate in 1895. The coming of the new gill nets had far-reaching consequences, and was met with mixed reactions from the fishers. The reaction of the Luo fishers to colonial policy pertaining to the new nets will also be examined. At the end of the World War I, as certain species of fish, especially tilapia, became more profitable, fishing gained more prominence attracting bicycle-riding traders (*oringi*) from the surrounding townships such as Nyamonye, Alego, Ugenya, Sio Ujuang'a, and as far afield as Lugazi in neighbouring Uganda.²⁸⁶ Also the hook and the bicycle were introduced, later, being brought by ex-soldiers returning home after the War. The introduction of the 5-inch net, according to the colonial paradigm, was probably one of the best things that had ever happened to the Lake Victoria fishers. The fishers, nevertheless, had their own opinions about this, opinions that differed markedly from the settlers' point of view, as will be seen. The chapter, thus, will explore the response of the Luo to the new technology. Equally crucial was the attempt by the colonial state to regulate the management of the fishery by promulgating various policies whose intention was allegedly that of raising the standards of income and living of the African people.²⁸⁷ How some of these policies affected the fishing sector of the economy between 1895 and 1920 will be determined. This period is important as it makes possible an analysis of those factors that influenced the increased pressure of fishing, such as new technology, the coming of the railway, and by the role of the colonial state in the management of overfishing and access to the fishery.²⁸⁸ In

²⁸⁶ Interview with Oguyo Mahira at Uhanya beach on 19/11/04.

²⁸⁷ A. Pim, *Colonial Agricultural Production: Contribution Made by Native Peasants and Foreign Enterprises*: (London, OUP, 1946), p. 4.

²⁸⁸ G. Kitching, *Class and Economic Change in Kenya*, 1980. At the level of the provincial administration, the LNCs played the role of checking the mesh sizes, licensing and taxing the fishery, a role they continue to play in modern state.

particular, the implications of Kenya being declared a colony in 1920 will be discussed.

3.2 The Coming of Colonial Rule

Britain declared Kenya a protectorate in 1895 and a colony in 1920 after a long process of crushing resistance from the indigenous population. They started their capitalist penetration by allowing the Imperial British East African Company (I.B.E.A.Co.) to run Kenya as a protectorate. What eventually became the Kenyan Colony had been known as the East African Protectorate (E.A.P.) up to 1920. When the Company went bankrupt, the Colonial Office (C.O.) in London decided to take over the control of Kenya. Lonsdale asserts that 'by 1895 the British had no option but to annex what was then the East African protectorate by putting it under the care of the British consul-general in Zanzibar'.²⁸⁹ In 1905, the E.A.P. was transferred from the British Foreign Office to the Colonial Office. The colonial army subdued Kenyans who put up a heroic resistance, such that between 1895 and 1905, as the British attempted to exert their control on Kenya. 'Kenya was transformed from a footpath of 600 miles long into a colonial administrative edifice'.²⁹⁰ What followed after the establishment of the colonial state were efforts to make the enterprise self-supporting. The institution of tax policies, a coercive labour system and a tough line of administration ensured the 'success' of colonial programmes.²⁹¹ The period from 1902 onwards witnessed the consolidation of colonial administration through the establishment of a provincial administration that marked the control of African productivity, including the fisheries.²⁹² There were deliberate efforts to bring in white settlers and hence the era saw the beginning of settler agriculture rather than peasant farming. In 1905, the British Foreign Office urged the Kenyan Protectorate to 'move

²⁸⁹ J. Lonsdale, 'The Conquest of Kenya, 1895-1904' in Bruce Berman and John Lonsdale (eds), *Unhappy Valley, Conflict in Kenya and Africa: Book One*, (London, James Currey and Nairobi, Heinemann, 1992), p. 16.

²⁹⁰ J. Lonsdale, 'The Conquest State, 1895-1904' and W.R. Ochieng', ed, *A Modern History of Kenya, 1895-1905*, (Nairobi, Evans Bros, 1989), p. 6.

²⁹¹ Tiyambe Zeleza, 'The Establishment of Colonial Rule, 1905-1920' in W.R. Ochieng, *A Modern History*, p. 35.

²⁹² Zeleza, 'The Establishment of Colonial Rule', p. 37.

towards being self sufficient and pay for itself'. The British Treasury wanted ways of 'recovering 5 ½ million pounds it had sunk into the Kenya-Uganda railway'.²⁹³ Both the protectorate and the railway were made to pay yet there was virtually no freight for the new railway to carry. In 1902 the European settlers, supported by Sir Charles Elliot, the first Commissioner, promoted a settler colony to encourage European immigration.²⁹⁴ The aim was to bring in European farmers, who were keen to control tax, labour and land and, eventually, the fishing industry. Subsequently, in 1907, the Colonialist Association pressurised the colonial government to promote land alienation in favour of white farmers.

The policies were made in favour of settler production through the provision of forced taxation, forced labour and forced evictions of African farmers from land. Berman has argued that the colonial state was performing its duty as a 'subordinate instrument of metropolitan interests'.²⁹⁵ He further asserts the colonial government should be seen as 'the coercive instrument of the metropole subduing and controlling the indigenous population [and production]'.²⁹⁶ The institution of the chief was created and enhanced to assist the state in enforcing its policies by force. Lonsdale observed that the African chiefs became obedient followers of orders as 'colonial rulers entrenched power'.²⁹⁷ He asserts that the conquest between 1901 and 1908 was the most ruthless, underpinned by 'new taxes, punitive expeditions and livestock confiscations from hundreds of people because colonial officials needed tax, labour and exportable produce'.²⁹⁸ As a result of these new regulations, 'by 1910 up to 1/3 of all adult men in Nyanza were out to work mostly in public works and portrage for government officials'.²⁹⁹ Even though hard evidence is rare, there is no doubt that these coercive measures affected labour supply to the fishing sector in the Lake Nyanza (Victoria) Region. As Berman and Lonsdale argue, the coming of the

²⁹³ P. Zeleza, 'The Establishment of Colonial Rule', p. 39.

²⁹⁴ P. Zeleza, 'The Establishment of Colonial Rule', p.39.

²⁹⁵ B. Berman, *Control and Crisis in Colonial Kenya: The Dialectic of Domination*, (London, James Currey, 1992), p. 2.

²⁹⁶ B. Berman, *Control and Crisis in Colonial Kenya*, p. 3.

²⁹⁷ J. Lonsdale, 'The Conquest State, 1895-1904' in W.R. Ochieng, *A Modern History of Kenya*, p. 7.

²⁹⁸ J. Lonsdale, 'The Conquest State, 1895-1904', p. 27.

²⁹⁹ J. Lonsdale, 'The Conquest State, 1895-1904', p. 27.

railway to the Lake Region led to a number of administrative decisions.³⁰⁰ They also state that with the coming of the railway, the number of British officials increased, and with it colonial control of Nyanza fishers activities. Next was the introduction of the new gill net.

3.3 The Coming of the Flax Gill Net

Probably the most fundamental technological transformation to take place in fishing on Lake Victoria was the introduction of the gill net. This followed a series of extensive experiments, conducted between 1905 and 1908 by a Scandinavian researcher, P. M. Aarup who had been commissioned by the British Government.³⁰¹ It was a fundamental innovation, a revolution, because of its great and far-reaching impact as will be seen. The *East African (EA) Standard* reported that Arup 'went on to experiment with different sizes of mesh and different thickness and colours of twine until he arrived at the 5-inch flax gillnet'.³⁰² After establishing the efficacy and effectiveness of this net, he went ahead and secured a deal in Ireland 'with fabulously successful results'. His nets were designed to catch, the 'prime fishes' of the Lake, not the juvenile fish. It is reported that due to the immediate and instant success of this net, 'many fishers joined in the gathering of the harvest, the news spread and now everywhere, the fishers are using the new net'.³⁰³ Finally, the report concluded that the gill net had forever changed conditions on the Lake that had existed for thousand of years. Mohammed Okullo, a veteran fisherman remembers the merits of the new nets with guarded nostalgia.³⁰⁴ He states that, compared with the indigenous nets, the 5-inch net was faster and made fishing easier because 'we now worked for a shorter time and caught lots of fish, we did not need to tie many nets together'.³⁰⁵ He adds

³⁰⁰ B. Berman and J. Lonsdale, *Unhappy Valley: Conflict in Kenya and Africa*, Book One: (Nairobi, Heinemann, 1992), p. 52.

³⁰¹ *The East African Standard* of November 10th 1927 reports that 'Aarup was a well known researcher. Twenty years ago he was building boats in Mombasa. Later he pinned his faith in a guano deposit in Lake Naivasha, which never materialised'.

³⁰² *The East African Standard*, 10 November 1927.

³⁰³ *The East African Standard*, 10 November 1927.

³⁰⁴ Interview done with Mohammed Okullo at Dunga beach on 26/1/2007.

³⁰⁵ Interview done with Mohammed Okullo at Dunga beach on 26/1/2007.

that they were forced by the colonial state to use the new nets, and did so to avoid being arrested and persecuted. This new net, coupled with the arrival of the Mombasa-Uganda Railway in Kisumu in 1901, encouraged the trade in fresh fish in Nairobi. The new or introduced methods included the use of different flax gill net sizes, seines nets and the trawl. The common variants of gill nets were the 5-inch, 3-inch, 2.5-inch and the 1-inch mesh nets.³⁰⁶

The colonial government preferred the 5-inch mesh size because it would not catch the underage fish. While the new gear later proved inimical to the quantity of fish, the indigenous methods ‘in no way endangered the stock of *ngege* or tilapia. Native methods did not catch *ngege* in any appreciable numbers’.³⁰⁷ That the ‘native’ methods did not endanger fish caught was confirmed by the fact that the quantity harvested using the traditional methods were always minimal as compared with the new methods that came with colonialism. The danger posed by the gill net to the fisheries in general was first anticipated by Captain B. Whitehouse in the late 19th century when he surveyed Lake Victoria between 1898 and 1909. He was the first white man to use a net on the Lake.³⁰⁸

The 5-inch gill net gradually became the most common gear used on the lake by Indian businessmen. It was being used alongside Africans’ papyrus nets (*osero*). The new larger net took many varieties of fish while the smaller papyrus net took fish of the very smaller size. The gill net was made of fine flax twine whose thickness was known as 35/3 ply. It was 100 yards long before being mounted and 26 meshes deep. The net reached Kenya as a small bundle weighing about one pound. It was then uncoiled and mounted between two ropes. The head rope floated by means corks or floats of ambatch wood and the foot rope weighed down with iron rings or small stones. When mounted the net was from 40 to 60 yards long.³⁰⁹ Between three and twelve of these nets were fastened together in a fleet. In fishing the fleet was attached

³⁰⁶ The East African Standard, Nairobi, 10 Novemeber 1927.

³⁰⁷ See AG/4/3: The Victoria Nyanza Province Fish Protection Rules of 1928-29: KNA, Nairobi. This file entitled ‘ The Victoria Nyanza Fish Protection Rules’ has a report by Michael Graham, in which he highlights the state of the Lake fisheries and emphasised the importance of *ngege* (tilapia) in the economy of the fishing communities at this time.

³⁰⁸ AG/4/3; The Victoria Nyanza Fish Protection Rules

to fixed vertical ropes at either end. These ropes were anchored to the bottom of the lake by a heavy stone, and a buoy at the end of the rope marked the position of the net.

These nets were attached to the buoy ropes to hang with their foot rope about one fathom (six feet) from the bottom of the lake.³¹⁰ The fleet usually put out in the evening, allowed to remain out overnight and hauled in early in the morning. They caught only those fish which swam into them. Such a net was called a 'set net'. The origin of this new technology and fishing gear is discussed below.

A British naturalist, Michael Graham³¹¹ confirmed it was the Scandinavian, P. M. Aarup, who pioneered the use of gill nets on Lake Victoria. The Graham Report published in *The Standard* on 10 November 1927, asserted that Aarup began his research in 1908 on methods of fishing and the use of gear on Lake Victoria. This led him first to boat building in Mombasa and on Lake Naivasha, before he came to Lake Nyanza (Victoria). He invented the first net out of a cobbler's twine and tried to use it on Lake Victoria. Encouraged by his findings and success he experimented further with different sizes of mesh thickness and colours of twine until he arrived at the 5-inch flax gill net that came to be commonly used in fishing on the Lake.³¹² Even before the coming of the new nets, however, the Luo fishers had their own nets made from locally available materials, such as reeds and papyrus, which were environmentally suitable and beneficial to the preservation of the immature fish. *Yore lupo machon* (old fishing methods) had their own merits. Alfred Mumbo, a man who has fished many years of his life, argues that they never caught underage fish, and since fishing was for subsistence, there was no rush to make money.³¹³ Another

³⁰⁹ AG/4/3: The Victoria Nyanza Fish Protection Rules

³¹⁰ According to the Oxford Advanced Learners Dictionary, 'a fathom is a unit for measuring the depth of water equal to six feet or 1.8 metres.'

³¹¹ KP/4/7 of 1929. This file contains a newspaper report by the *East African Standard*, which discussed the research findings by Michael Graham, who was conducting an investigation into fishing problems and Lake Victoria resources on behalf of the governments of the British colonies of Uganda, Kenya and Tanganyika.

³¹² KP/8/111: K.N.A.

³¹³ Interview with Alfred Mumbo at Uhanya beach on 22/10/2005.

seasoned fisherman, Okulo Ouko, claimed that the Luo African nets were also large enough and were specialised, so that those nets with mesh sizes of between four and five inches were used near the river confluences to catch bigger fish species, such as *okoko* and *ningu*. He points out that ‘we took a short time to catch fish, we chose the biggest fish for our food and returned smaller ones back to the lake’.³¹⁴

The nets were afterwards manufactured in Ireland and imported to Kenya.³¹⁵ The net was very successful in catching *ngege* or tilapia, the prime fish of the Lake at the time.³¹⁶ This success encouraged many Luo to acquire set nets and increase their catches. This technology consequently spread around the Lakeshore as more and more people adopted the new gear with subsequently far reaching repercussions.³¹⁷ The use of the new gear changed the fishers’ perception regarding the old gear and technology and the quality and quantity of the lacustrine harvest, changing conditions that had existed for thousands of years.

As more fishers adopted the new gear it soon became clear to policymakers that the use of the 5-inch net would impact negatively on the resource. The resident European provincial administrators began to realise that the supply of fish in the Lake town of Kisumu and its environs was ‘no longer sufficient’, due to the efficacy of the new net.³¹⁸ The efficiency of the net led to substantial catches, despite the interferences of many hippos and crocodiles that caused far-reaching damages to some of the set nets.³¹⁹ As catches increased large quantities of fish began to be transported to Nakuru and Nairobi, more than five hundred kilometres from the lakeshore. The following chapters will examine the effects of the new fishing technology on the lacustrine environment, and the responses of fishers to the technology.

³¹⁴ Interview with Okulo Ouko done at Uhanya beach on 22/10.2005.

³¹⁵ KP/8/111:K.N.A.

³¹⁶ KP/1/111:K.N.A.

³¹⁷ Aseto and Ong’ong’a, *Lake Victoria (Kenya) and its Environs*, p. 67.

³¹⁸ Aseto and Ongon’ga, *Lake Victoria and it Environs*, p. 62.

³¹⁹ KP/1/111: K.N.A.

3.4 The Colonial State and Fish Production

The establishment of the colonial state resulted in the introduction of restrictive fishing policies and programmes by the British colonial government. The colonial programmes were contradictory because the administration in Kenya had to wait for orders to come from the Colonial Office in London and on several occasions this delay did not serve the interests of the colonial state. Indeed, this period witnessed the development of what Berman and Lonsdale have called a ‘contradiction of articulation’ in so far as the promotion of the development of both peasant and settler economies were concerned.³²⁰ While the need for tax revenue made the colonial administrators support peasant production, the settlers in Kenya always appealed for special treatment from the metropole in London.³²¹ This led to a contradiction as to which sector should be given state support. As a corollary, the attention given small-scale farming and fishing sectors was meagre enough to constitute neglect. Pim has argued that the colonial policies ‘were intended to serve the declared aim of raising the standards of income and of living of the colonial people’.³²² Kitching looking at these policies in relation to Nyanza Province in the Lake Victoria Region, posited that from 1905 onwards the main objective of the British Government in Kenya was the promotion of agriculture as the major mode of production for both subsistence and exchange. In pursuit of this agricultural policy, the government had, by 1910, attempted to encourage the production of ‘economic’ crops, such as sesame, improved varieties of maize, peas and beans, in the Lake region.³²³ This aim could only be achieved by encouraging the adoption of an improved cultivation technology.

In the fishing sector this technology, as seen in the previous chapter, was gill netting. Pim, however, adds that in achieving these policies, ‘there was an antagonism in choice between a policy of native production and an extension of industrial and

³²⁰ B. Berman and J. Lonsdale, *Unhappy Valley: Conflict in Kenya and Africa*, Book Two, (London, James Currey), 104.

³²¹ Bruce Berman and John Lonsdale, *Unhappy Valley*, p. 104.

³²² A. Pim, *Colonial Agricultural Production*, p. 4.

³²³ G. Kitching, *Class and Economic Change*, pp. 39-50.

capitalist enterprises'.³²⁴ In response to this contradiction, Lord Hailey argued that 'it had been an outstanding tenet of British colonial policy that peasant production is to be preferred to any of those forms of development involving the use of imported capital and management'.³²⁵ He stated, in support of the local peasant production, that 'a more experienced peasantry will be better qualified to take over new fields of agricultural [and fishery] production'.³²⁶ He suggests, further, that peasant farmers could be encouraged to enhance their productivity if they received such training and scientific assistance that could raise their standard of production to a level comparable with that in more advanced agricultural countries, and if they were given adequate security of tenure and facilities for credit.³²⁷

With that aim in mind, one of the policies in Kenya was the betterment of crop and fish varieties. The betterment programme was indeed a controversial policy pursued by the colonial state to improve agriculture.³²⁸ This new policy was an assault on the indigenous systems of knowledge and ways of doing things. It involved the introduction of new varieties of crops and animals to replace the ones that Africans had used since time immemorial. By doing this, argues Fiona Mackenzie, the state presumed an African farmer to be 'ignorant, incompetent and economically undifferentiated'. Yet the main reason behind 'the introduction of new seeds, of genetic uniformity in the interest of market value'³²⁹ was 'to legitimise its presence as a colonial power and to justify the vastly inequitable distribution of land ...along lines of race'.³³⁰ It is in connection with this policy of supporting the small farmer and introducing new species and products in Africa that a great effort was made to

³²⁴ A. Pim, *Colonial Agricultural Production*, p. 4.

³²⁵ A. Pim, *Colonial Agricultural Production*, p. 5.

³²⁶ A. Pim, *Colonial Agricultural Production*, p. 184.

³²⁷ A. Pim, *Colonial Agricultural Production*, p. 184.

³²⁸ F. Mackenzie, "Betterment and Gendered Politics of Maize Production, Murang'a District, Central Province, Kenya, 1880-1952" in *Canadian Journal of African Studies*, Vol. 333, No 1 (1996), p.64-97. She asserts that "colonial rule drew on principles and practices of European science to create 'crisis narratives' in areas of African settlement in Kenya and to generate discourses of Betterment and later Environmentalism", p. 64.

³²⁹ F. Mackenzie, 'Betterment and Gendered Politics of Maize Production, Muranga,' p. 65.

³³⁰ F. Mackenzie, 'Betterment and Gendered Politics of Maize Production, Muranga,' p. 65.

introduce trout fish species into Kenyan rivers and lakes.³³¹ The first British settlers believed that trout could do better in Kenya due to climatic conditions that prevailed in the Central Kenyan Highlands that were similar to those in the United Kingdom. Consequently, the first and earliest successful stocking was done on the River Gura in Central Kenya. The stock was alien, brought from Hueytown Fisheries, Dumfries in Scotland.³³² The first stocking was completed in 1910. Settlers led by Major Ensert Grogan, attempted to spread trout to other parts of the country. On account of the need to use the trout for food and game, a new genus known as rainbow trout, was brought to the Kenya protectorate in 1912. Thus as a government-supported project all rivers 'flowing through alienated land', were stocked with trout. This was later done on private lands and in forest areas on government land. However, trout's success as a commercial fish was questionable. When World War I broke out in 1914, stocking work ceased and resumed again only after the War.³³³ There was another problem in the manner in which the trout was introduced. The genus was really fit for the climatic conditions in the Highlands of Kenya and not the Lake Region of Nyanza which never experienced the winter conditions found in Central Kenya, thus it was not suited for Lake Victoria's environment. Furthermore, the introduction of the fish was also driven by the need to support the angling and sport fishing interests of the European settlers, practices unknown to the people of the Lake Victoria Region. The new fish was introduced into settler-occupied zones for sport - a luxury that African fishers and women could not indulge in at that time. The settlers resolved, after 1919, that money be raised to push aggressively for the continued spread of trout. Little was done to develop the African fishers who continued to prefer the indigenous fish species as had been the practice in the past.

³³¹ *The Concise Oxford Dictionary* (1987) defines trout as a 'small fish of genus Salmon in northern rivers and lakes, esteemed as food and game.'

³³² KP/8/22 Trout Committee Report of 1937, KNA, Nairobi.

³³³ KP/8/22 Trout Committee Report.

Economic development in agriculture due to state support took place during the pre-Great War period in Kenya and the Lake Region, in particular³³⁴. For instance, in Nyanza among the Luo, the local Commissioner, John Ainsworth, 'placed a high priority on economic development'.³³⁵ To this end he encouraged the 'introduction of Indian and European settlers',³³⁶ and pursued this strategy by marginalising the African peasant farmers. Up to then no substantial assistance had been given to the African fishers because of a lack of interest in the development of fishery resources in the Lake Region. Ainsworth had visited many parts of Nyanza by 1906 and had encouraged cotton production, but the poor rains are said to have ruined his efforts.

The colonial state had up to 1910, especially in Nyanza, encouraged the cultivation of groundnuts, cotton and sesame to promote the export of economic products of value. The aim of the Colonial Office in London in the long run, was to make the Kenya protectorate pay for itself. As Maxon asserts, these crops were intended to be the mainstay of Nyanza's exports by 1908. The new Governor was interested in the prosperity of African small farmers in contrast to the government policy in Central Kenya that favoured settler plantations. Aside from urging the peasants to adopt 'better' methods of preparing land by using heavy hoes and ploughs, he sought to introduce more cash crops and better techniques of cultivation. The impact of introducing better varieties of maize, such as the Hickory king maize variety, was the production of a large surplus which could be exported. As a result, by 1910-11, the amount of maize exported from Kenya, largely from Nyanza, rose by an astounding 237%.³³⁷ This local production was done in tandem with the objective of the colonial state, which was to encourage 'export revenues so as to remove the need for continued grants-in-aid from metropolitan Britain'³³⁸ In order to diversify the local

³³⁴ J. Overton "War and Economic Underdevelopment? State Exploitation and African Response in Kenya 1914-1918," in *The International Journal of African Historical Studies*, Vol. 22, No.2 (1989), 202-203.

³³⁵ See R. M. Maxon, *John Ainsworth and the Making of Kenya*: (University Press of America Inc., 1980) The author discusses at length the role of pioneer Governor, J. Ainsworth, in the economic development of Nyanza Lake Region and other parts of Kenya. See pp. 186-265.

³³⁶ R.M. Maxon, *John Ainsworth and the Making of Kenya*, p. 186.

³³⁷ R. M. Maxon, *John Ainsworth and the Making of Kenya*, p. 189.

³³⁸ R.M. Maxon, *John Ainsworth and the Making of Kenya*, p. 192.

economy after 1911, sisal and linseed were introduced to farmers in the Lake Region. Governor Ainsworth planted a few plants in Kisumu near the lakeshore. On top of these efforts the railway to Uganda reached Kisumu in 1901, and by 1912, Nyanza Province was ‘the railway’s best customer producing more than 28, 000 tons of freight in exports and imports’.³³⁹ This huge freight being transported from the Lake Region to Nairobi and Mombasa must have included fish commodities. In fact, according to Kalule and Ogutu Ohwayo, by 1916 the new nets and fishing skills, coupled with growth of a few urban centres and improved communication around the Lake, saw the commercialisation of fishing on the lakeshore.³⁴⁰

During this period, despite the fact that reliable data on fishing are not available, there was increased production of fish due to the above-mentioned efforts and their multiplier effects. By 1910 most fishers in the Nyanza Lake region had adopted the new gill net which had boosted production. Indeed Bokea and Ikiara, in supporting this view, have suggested that in the period before the World War I, and even after, ‘the harmony between resource users and resource base started to crumble as a result of escalating fishing pressure’ caused by numerous factors.³⁴¹ One of the factors was the expansion of the market and the demand for fish as a result of the extension of the railway line from the port of Mombasa to Kisumu in 1901. Lonsdale states that until 1901, the Nyanza represented for the British little more than a section of the caravan route, and a most important refreshment station, on the way to their colony of Uganda. He points out that:

It was not until the arrival of the railway at the new lake port of Kisumu in 1901 that the British felt safe and comfortable enough to lay an administrative structure for Nyanza. With the coming of the railway the number of the British and their purposes increased. Until then there had

³³⁹ R.M. Maxon, *John Ainsworth and the Making of Kenya*, p. 189.

³⁴⁰ N. Kalule and O. Ohwayo, “Conservation and Improvement of the Stocks of the originally most important Lake Victoria Tilapia” in LVEMP, *Knowledge and Experiences Gained from Managing the Lake Victoria Ecosystems*, (Nairobi and Kampala, World Bank, 2005), p. 287.

³⁴¹ See C. Bokea and M. Ikiara, “The Macroeconomy of the Export Fishing Industry in Lake Victoria”: Nairobi, IUCN, 2000, 8. Available on the Internet at www.iucn.org/places/earo/pubs/wetlands.PDF

rarely been more than three or four white officials in Nyanza and their chief duties concerned the safe passage of mails, buying food from passing caravans, who passed through Nyanza to Uganda.³⁴²

Commenting on the influence of the railway on fishing, Doug Wilson asserts that, the 'Lake Victoria bounty [in fish] came to an end with the building of the Kenya-Uganda railway at the turn of the century'.³⁴³ He further points out that as a result of the railroad, fish from the Lake became an important source of food for railway workers. Subsequently, long-distance trade in fish began to expand rapidly. By 1920 there were already store-keepers stationed in Port Victoria dealing in fish and other commodities.

Up to 1903, however, there was still little political and economic enthusiasm for the Lake Region. Lonsdale attributes this to the fact that, 'the people of Nyanza presented no major threats to the British position in eastern Uganda, their lands were not coveted by their white settlers'.³⁴⁴ This assertion cannot, in fact, be true because by 1903 the British had sent several military expeditions in an attempt to subdue the people in the Lake Region.³⁴⁵ Like the rest of Kenya, the British interest in conquering Nyanza was the accumulation of economic and political control. By 1894 the Swahili from the coastal part of Kenya had 'introduced to Kenya a source of external alliance and a form of currency, the Indian rupee', and this together with increased British demand for food supplies as well as the coming of the railway and the arrival of new crops stimulated market demand in the region. Lonsdale supports this by agreeing that as a result of the arrival of the railway, specifically the opening of the Kenya-Uganda railway in 1902 and its associated Lake steamer services,

³⁴² J. Lonsdale, 'The Politics of Conquest in Western Kenya, 1894-1908' in B. Barman and J. Lonsdale, *Uhappy Valley: Conflict in Kenya and Africa*, (London, James Currey, 1992) p. 52.

³⁴³ D. Wilson (2002) "The Global in the Local: The Environmental State and the Management of the Nile Perch Fishery on Lake Victoria" in *The Environmental State under Pressure*, Vol. 10, pp. 171-192

³⁴⁴ J. Lonsdale, 'The Politics of Conquest in Western Kenya, 1894-1908'

³⁴⁵ The Luo were indeed a threat to the British because by 1920 they had mounted a resistance war against them in many parts of Central and Northern Nyanza districts

‘commercial costs were reduced both directly by the importation of coastal trade goods and the development of pack-animal and ox cart transport’.³⁴⁶

Also relevant was the coming of Indian traders and the rapid monetisation of the economy. The coming of the Indians is inextricably linked to the arrival of the railway in Nyanza. Their coming gave a new lease of life to Luo fishers and traders. As Mangat points out, ‘the Indians pioneered the establishment of *dukas* [shops], of local trading centres and Indian bazaars in different districts, and by introducing the local populations to a variety of imported goods and the rupee currency, they promoted demand for fish and other commodities’.³⁴⁷ In doing this, the Indians provided ‘an incentive to greater local production and trade as well as the transition from barter to a money-based economy’.³⁴⁸ They promoted commerce in the Lake region when they ‘established temporary *dukas* along the expanding railway line where the presence of a large body of Indian immigrants, and later, African workers provided a ready market for fish and other commodities’.³⁴⁹ In Nyanza and Western Kenya, Kisumu served as the principal base for the expansion of the Indian commercial enterprise into various districts. Later, however, through networking, the same Indians monopolised trade in fishing, nets and acted as middlemen who exploited Luo fishers, leading to their eventual marginalisation.³⁵⁰

Secondly, the introduction of taxation by the colonial state, especially the hut and poll taxes, made more people migrate and work in major towns in order to raise cash to pay taxes. Maxon informs us that the East African Protectorate’s agricultural prosperity depended on African cultivation of crops of economic value and the provision of African labour on European farms, especially in Nyanza Province.³⁵¹ Taxation also forced more fishers to join the cash economy by selling fish to accumulate cash. The Luo, unsurprisingly, opposed these new poll and hut taxes,

³⁴⁶ J. Lonsdale, ‘The Politics of Conquest,’ p. 52

³⁴⁷ J.S. Mangat, *A History of the Asians in East Africa, 1886-1945*, (London, O.U.P., 1969), p. 55

³⁴⁸ J. Mangat, *A History of the Asians in East Africa, 1886-1945*, p.59

³⁴⁹ J. Mangat, *A History of the Asians in East Africa, 1886-1945*, p.59

³⁵⁰ Interview done with Peter Mireri at Dunga beach on 26/1/2007.

³⁵¹ R.M. Maxon, *John Ainsworth and the Making of Kenya*, (Washington, OUP, 1980), p. 172.

which were a means of capital accumulation by the British imperialists. As Lonsdale posits, ‘Africans resisted this demand by 1898 and refused to pay taxes enforced by Chief Nabongo Mumia’.³⁵² Nabongo Mumia was the British-friendly chief and a collaborator who was in charge of Western Kenya by 1895. Thirdly, pressure to produce came from more efficient technologies, as we have seen above. Due to the pressure for cash and migration from the villages to the beaches there was a more rapid growth in the number of people involved in fishing. The other reason for increased pressure on fishery exploitation during this period seemed to have been the displacement of people from their land in the Lake Region and the surrounding areas, such as the Sosian Highlands, by the colonial state. The inhabitants were removed from their ancestral land to pave the way for cash crop plantations, as discussed above. All these causes, coupled with the lack of alternative employment, marked the subtle beginnings of the decline in fishing output following the escalation of the pressure on fishing.³⁵³

As a corollary, the catch per unit of effort (C.P.U.E.) and the average size of individual fish started to fall as the ‘African regulatory mechanisms were subjected to increasing pressure’.³⁵⁴ Commenting on the success of the new net, Abila wrote that, ‘by 1920, 20,000 nets were imported annually and boats fished only about a mile from the shoreline, each catching an average of 25 fish per 100 yards’.³⁵⁵ That it was a major revolution in the increased productivity of fish not in doubt. This is not, however, to say that the new nets never posed problems. Mary Nyangiru argues that ‘the new nets set the stage for competition and over-fishing’.³⁵⁶ It was the beginning of the marginalisation of women from fishing because the new nets were expensive, and so the poor men and women could not compete with the rich Indians and

³⁵² J. Lonsdale, “The Politics of Conquest in Western Kenya, 1894-1908” in Berman, B. and Lonsdale, J., *Unhappy Valley: Conflict in Kenya and Africa*, Book One, (Nairobi, Heinemann, 1992), p. 57

³⁵³ This form of exploitation of labour through taxation, monetisation of the economy, and the ejection of peasants from their land so as to channel them towards urban and industrial labour markets was not a phenomenon unique to Kenya only. Examples of this trend can be found in settler colonies such as South Africa and Southern Rhodesia.

³⁵⁴ C. Bokea and M. Ikiara, ‘The Macroeconomy of the Export Fishing Industry’, 2000, p. 8.

³⁵⁵ J. Abila, *A Socio-Economic Analysis of Fishery Co-operatives*, 2002, pp. 65-72.

³⁵⁶ Interview with Mary Nyangiru at Uhanya beach on 12/11/04.

Africans. Lazarus Ogwire disagrees with this view when he asserts that the new net was successful in hauling big quantities within a short time because during this period fish were plentiful.³⁵⁷ He emphasised that ‘nets were set in such a way that up to ten of them were tied on one boat just near the lake bank as we did not have to go far into the lake’.³⁵⁸ As a result of the increasing adoption of the new technology, more fish traders on bicycles started arriving at the beaches to purchase the commodity. The effect was that by 1930 they now had to wait longer for the fish to arrive. Wilson highlights this point. As time went by, he noted, ‘whole-fish traders [sic] on bicycles now wanted larger fish to sell in the interior. They now had to wait or ‘bicycle’ [ride] farther to compete with the factory agents’.³⁵⁹ Probably this marked the beginning of some subtle signs of overfishing that was starting to surface, especially as a result of the coming of the gill net.³⁶⁰

By the 1920s the fisheries could have become one of the sectors to raise the colony’s foreign exchange earnings during the depression. The colonial government, however, failed to promote this sector, preferring instead to encourage plantation farming by the settlers. By merely introducing the gill net and monitoring use of mesh sizes, the colonial state neglected the fishers in one major sector. Kitching highlights this problem when he asserts that, ‘the rate of expansion in commercial production was constrained by the degree of subsistence pressure on land’.³⁶¹ The point is that by about 1920, the colonial state had done very little to promote the fishing sector apart from the few directives on the management of the fishery coming from Nairobi. In fact, for a long time the fishing sector was managed by the Wild Life Department. As we have seen the colonial state in these early days, had its eyes set on the promotion of settler agriculture and less on the development of the fishing industry.

³⁵⁷ Interview with Lazarus Ogwire at Uhanya beach on 12/11/04.

³⁵⁸ Oral information by Lazarus Ogwire on Uhanya beach on 12/11/04,

³⁵⁹ D. Wilson (2002) ‘The Global in the Local,’ pp. 9-10.

³⁶⁰ Interview with Margaret Akinyi at Dunga beach on 27/1/07.

³⁶¹ G. Kitching, *Class and Economic Change*, p. 46.

The state was busy introducing into the Lake Region ‘economic’ cash crops that could generate money for the colony. The African cultivators, however, would not accept alien crops which they knew would interfere with the production of their food crops. Women provided most labour in farm cultivation especially in food production, yet the same labour was used in the production of cash crops such as cotton. Kitching points out that those African peasants believed more in food security. He argued that cotton ‘was an inedible or ‘pure’ cash crop, and thus commitment of land and labour power to it did not carry the element of built-in security inherent in the production of increased food crop surpluses’.³⁶² This seemed to have been the trend in most settler colonial states, for instance, in Mozambique and Angola, where cotton cultivation was stressed, but with little success.³⁶³ Isaacman and Roberts further assert that, in the case of cotton, the colonial policy rested on the erroneous assumption that there was an under-utilised labour that could be drawn into cotton production.³⁶⁴ Finally, they state that ‘colonial cotton promoters throughout the continent ignored the heavy labour demands of local agrarian systems, the interplay of different African crops and seasonal tasks, and the ways in which adding or expanding production of a cash crop could cause real hardships and even famines’.³⁶⁵

3.5 First World War and Fishing

The period of World War I witnessed the increased role of the colonial state through the Provincial Administration in the policing of the fishery following the introduction of the imported nets and hooks. The interwar period also saw an increase in the demand for fish to feed both soldiers and prisoners of war. Overton has discussed the effects of war on African economies, arguing that the role of the colonial state was of critical importance³⁶⁶. One of the manifestations of the colonial state’s presence was the nature and extent to which wartime labour recruitment was done and ‘the very

³⁶² G. Kitching, *Class and Economic Change*, p. 29.

³⁶³ A. Isaacman and R. Roberts, eds, *Cotton, Colonialism and Social History in Sub Saharan Africa*, (London, James Currey, 1995).

³⁶⁴ A. Isaacman and R. Roberts., eds, *Cotton, Colonialism and Social History*, p. 14.

³⁶⁵ A. Isaacman. and R. Roberts,eds, *Cotton, Colonialism and Social History*, p. 23.

heavy handed means of extracting labour from the reserves' such as the Nyanza Region'.³⁶⁷ Overton observes that the colonial state, through its different levels of power formulated and implemented policies with regard to control and exploitation of African produce, livestock, fish and labour resources. During this period, the state issued directives that affected fish production in numerous ways. For example, the 1908 regulation had given the governor of the Kenya protectorate the power to control fishing by registering boats and fishers, and issuing them with licences, to determine the times for fishing. At the outbreak of the Great War in 1914 the colonial state issued the Victoria Nyanza Fish Protection Rules, regulating all fishers to be registered and controlled.³⁶⁸ Nets of less than one inch were banned, and trawling was prohibited near the shore of the Lake.

On top of this, the state continued to control and regulate the migration of people to the beaches from the villages by issuing orders as to who should be a fisher and where fishing should be done. These directives led to 'a redirection of trade' towards an expanded domestic and export market. Military demands for food meant that fish and other agricultural produce fetched high prices. The unpopular demand for military labour meant that more labour was directed to the war effort and towards serving the settler economy.³⁶⁹ As a result, the African peasant economy suffered neglect compared with the period before the outbreak of the War when African farming and production did better. Consequently, fish production plummeted because of these new rules, albeit amidst increasing demand. For them to survive in the trade the retailers and wholesalers, who were also affected by the state rules, were to be registered and assumed to be the employees of the fishers. This meant that the fishers were forced by colonial labour demands to work harder, feeding themselves and catching fish for sale to meet state obligations and also to pay for the war effort. One colonial administrator observed that:

³⁶⁶ J. Overton, 'War and Economic Underdevelopment? State Exploitation and African Responses 1914-1918' in *The International Journal of African Historical Studies*, Vol. 22, No.2, (1989), p. 203.

³⁶⁷ J. Overton, 'War and Economic Development,' p. 23.

³⁶⁸ KP/4/7 Fish Protection Ordinance File: K.N.A., Nairobi.

The Africans living in Central and south Kavirondo, closer to the shores, spent large parts of their time fishing. It was estimated that between 2000 and 3000 people in each of these districts were more or less permanently employed in this work [fishing] and there were probably 1000 canoes in each district.³⁷⁰

In the words of Fiona Mackenzie, during the War ‘the native is being asked to do the impossible - feed himself and all his dependants, produce for export and at the same time keep all the Europeans estates going to the satisfaction of their owners’.³⁷¹ The point is that the state expected the African labourers to produce surplus for export while satisfying their household needs. Subsequently, the settler economy benefited during the war more than the peasant one. In view of this Nicholas Westcott has observed that the fact ‘that settler and plantation producers were able to benefit from the market more than African peasant producers was a result of the former’s ability to use their political strength in the colonial state to determine the marketing structure for their crops’.³⁷² In other words, political influence backed by the state was an important weapon in the struggle against political adversity as perceived by the settlers. Indeed, African labour was a crucial factor in the survival of the settler economy. This labour was acquired through the collaboration of colonial chiefs such as Nabongo Mumia in Nyanza. Lonsdale aptly points out that ‘officials and chiefs colluded in getting African labour and that chiefs were chosen for their ability get things done without question’.³⁷³ Coercion was part of the schemes employed in getting labour from rural Kenya. Out of this, as Zeleza explicitly states, ‘a coercive labour system was instituted’.³⁷⁴

³⁶⁹ J. Overton, “War and Economic Underdevelopment,” p. 205.

³⁷⁰ KP/4/7: Fish Protection Ordinance File, K.N.A.

³⁷¹ A. F. D. Mackenzie, (1999) “Betterment and the Gendered Politics of Maize Production, Muran’ga District, Central Province, Kenya, 1880-1952,” in *Canadian Journal of African Studies*, Vol. 33, No. 1, p. 64-97.

³⁷² N. Westcott, “The East African Sisal industry, 1929-1949: The Marketing of a Colonial Commodity during Depression and War”, in *The Journal of African History*, Vol. 25, No. 4, 446, 1984.

³⁷³ J. Lonsdale, “The Conquest of Kenya, 1895-1905”, p. 37.

³⁷⁴ P. T. Zeleza, “The Establishment of Colonial Rule” p. 37.,

Writing about the challenges that faced peasant producers in South Africa during the early days of colonialism, Bundy highlights the fact that the colonial state had favoured the white settlers in the provision of technical advice, transport network, credit facilities and the drain on human labour.³⁷⁵ Similar racial considerations existed in Kenya. Bundy further observed that that, ‘one must bear in mind the drain of human capital from the area in form of migrant labour, and the lack of social investment in terms of health, welfare, and education’.³⁷⁶ Bundy also talks of ‘outright discrimination against African raised produce which contrasted starkly with the responsiveness of the state to the needs of white farmers’.³⁷⁷ Isaacman and Roberts point out that in the case of Mozambique ‘the European demand for cash crop cultivation exacerbated declining domestic production of food crops’,³⁷⁸ and that ‘the peasant [and by extension the fishing] sector suffered an almost total dearth of public or private investment’.³⁷⁹ The point is that the colonial state in the case of fishing had failed to adequately serve the needs of the fishers in, for example, the provision of infrastructure and technical support. Cooper has pointed out that ‘much of the story of the penetration of capitalism into Africa is a story of failure, of the inability of governments, settlers and corporations to impose their conceptions of how labour and agriculture [or fishing] should be organised’.³⁸⁰ Zeleza argues that the colonial state did very little to reinforce African peasant production as it ‘tried to frustrate peasant production by creating marketing, licensing and transport conditions which presented obstacles to peasant capital accumulation’.³⁸¹ He further states that the economic structure that emerged in Nyanza during this early colonial period stifled increased productivity, investments, innovation and capital formation.³⁸²

³⁷⁵ C. Bundy “The Emergence and Decline of a South African Peasantry” in G. Maddox, and T Welliver, (eds), *Colonialism and Nationalism in Africa*: (New York and London, Garland Publishers, 1993), pp. 387-388

³⁷⁶ C. Bundy, ‘The Emergence and Decline of a South African Peasantry’, p. 387

³⁷⁷ C. Bundy, ‘The Emergence and Decline of a South African Peasantry’, p. 387

³⁷⁸ A. Isaacman and R. Roberts, *Cotton, Colonialism and Social History in Sub Saharan Africa*, (London, James Currey), p. 23

³⁷⁹ A. Isaacman and R. Roberts, *Cotton, Colonialism and Social History*, p. 17

³⁸⁰ F. Cooper, *From Slaves to Squatters: From Plantation Labour and Agriculture in Zanzibar and Coastal Kenya, 1890-1925*, (Nairobi, KLB, 1981), p. 18.

³⁸¹ Zeleza, ‘The Establishment of Colonial Rule’, p. 47.

Yet all these factors were mutually reinforcing and self-perpetuating in their effect on and hindrance of African economic advancement. As a result the fishers' capacity to generate surplus was curtailed to some extent. In addition, the attempts to issue regulatory measures and enhance state control over the fishery were 'lessened by peasants over the disposal of his income and the possibilities of accumulation was possibly restricted in the long run'.³⁸³ This meant that the the new regulations affected the production and therefore the income of the fishers and peasants. The outbreak of the War thus sharpened the state's appetite for the control of surplus production by restricting free access to the fishery, increasing taxation and instituting forced labour that led to loss of labour from the Lake Region to settler farms in Central Kenya.

More people could have been driven to fishing by the various policies which came into effect with the coming of colonisation and later, the War. Just before the War African producers had experienced some economic development when they adopted new varieties of crops and new gear and fishing techniques.³⁸⁴ Nevertheless, the War seemed to have eroded these gains. It is not only the War that worsened African production, but also the colonial policies that were heavily skewed towards fortifying the settler economy. The War affected both labour and fiscal policies. In the case of Kenya it is reported that during the War revenue from custom duties dropped as shipping shortages severely curtailed non-essential imports and some exports, yet the objective was that the colonial state pays for itself.³⁸⁵ As a result, there was heavy taxation of Kenyans as more new taxes were introduced. With such a slump in trade and a decline in the use of the railways and thus less revenue, the only option for the state was African taxation.³⁸⁶

³⁸² Zeleza, 'The Establishment of Colonial Rule', p. 49.

³⁸³ Bundy, 'The Emergence and Decline of a South African Peasantry', p. 388.

³⁸⁴ E.S Atieno Odhiambo, 'The Rise and Decline of the Kenyan Peasant, 1888-1922', 1972 in *East African Journal*, p. 9.

³⁸⁵ Overton, 'War and Economic Underdevelopment,' 1986, p. 205.

³⁸⁶ Overton, 'War and Economic Underdevelopment,' p. 205.

As concerns labour, the Lake Region and parts of Central Kenya supplied the most soldiers and labour for the settlers during the War. Further, most of the carriers were from those regions already supplying the bulk of migrant wage labour before the War. The War thus intensified colonial reliance on Luo, Luyia, Kamba and Kikuyu labour.³⁸⁷ Just as the colonial state did not take into account the opinion of African peasants while introducing new crops, forced labour and taxation, neither did it take the fishers' views into account when introducing management ordinances. This aspect will be discussed below.

3.6 The Colonial State Management Ordinances

The new management strategies were introduced during the 1920s. Whereas the Luo fishers had lived within their environment for a long time, their interests and opinions did not seem to matter to the colonial rulers. Changes were witnessed mainly in the fishing rules, mesh size of the nets and the policing of fisheries. Africans were losing the control of the fisheries to the Indian boat owners who could afford the new nets. Wilson has argued that, ideally, management should be concerned with enhancing the relationship between society and the environment.³⁸⁸ Ostrom asserts that good institutions with the right political support lead to effective management of resources.³⁸⁹ However, for effectiveness to be achieved there ought to be co-operation and interaction between governments and resource users, as well as community involvement due to the obvious benefits of sharing responsibilities and ownership.³⁹⁰ In the colonial era the continued investment in new technology created competitive pressure on fish as a natural resource and this necessitated the regulation of beach seines and management of mesh sizes in the Kenyan case. The colonial state's strategy in fish management included gear restrictions, closed areas and seasons, fisheries management and limits on access. Despite this strategy, the cardinal

³⁸⁷ Overton, 'War and Economic Underdevelopment,' p. 207.

³⁸⁸ Wilson, 'The Global in the Local, 2002,' p. 173.

³⁸⁹ E. Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, (London, Cambridge University Press), 1990, p. 2.

³⁹⁰ Ostrom, *Governing the Commons*, p. 2.

objective at this time was the control of the mesh size of the nets. In as much as these policies sought to reduce damage to the environment, most of them were top-down, a system where the government imposed the rules and policies on fishers irrespective of their views. Yet Wilson et al. have argued that ‘fishery policy resulted from political struggles between classes, ethnic groups and various sectors of the industry’.³⁹¹ In other words, the fishery management policies pursued had profound effects on the social relations between different races, classes and ethnicities that participated in fishing.

The response of the fishers to these coercive policies needs to be examined. One response was by either restricting or increasing production. Mireri stated that the fishers did not like some of the new colonial policies and they coped with them in various ways. He states that in response,

The fishers fished at night when the government officials were asleep. Also they boycotted the meetings called by the officials such fish scouts (*ondhoro*). The fishers also refused them entry to the beaches and on their canoes or they tied many nets on one canoe.³⁹²

By boycotting such meetings called by the state officials, they were rejecting state policies. Other fishers, such as Okullo, however, give a contrasting opinion when he argues that ‘some of these colonial rules were good especially the closing season, which allowed fish to breed and multiply’.³⁹³ Cooper reported that peasants ‘rose in response to the markets and fell before the onslaught of the state, which in turn was pushed by the forces of industrial and agricultural capital’.³⁹⁴ Although Cooper did not write on fishing, what he is saying could have greater resonance with the fate of fishers. Fishing production developed in response to the demands of the market

³⁹¹ D.C. Wilson, M. Medard, C. K. Harris and D.S. Wiley, ‘The Implications for Participatory Fisheries Management of Intensified Commercialisation on Lake Victoria’, *Rural Sociology* 64(4), 1999, pp. 554-572: The Institute for Fisheries Management.

³⁹² Interview done with Peter Mireri at Dunga beach on 26/1/07.

³⁹³ Interview with Jacob Okullo at Dunga beach on 26/1/2007.

following the coming of the railway and the monetisation of the economy, but state policies concerning access, licensing and labour movement impinged heavily on the nascent fishing sector, sometimes with negative consequences.

However, in promulgating these ordinances, the colonial state attempted to manage the fisheries by marginalising local African voices. This situation was not unique to the Kenya or to the post-World War I period. Syampeku, points out in respect of Zambia's Kariba Dam that 'the fish management structure excluded the participation of the local villagers.'³⁹⁵ He asserts that local fishers ought to have been consulted when enacting laws that directly affected them were introduced. They, after all, were more than anyone else interested in conserving fish. Despite this valid observation, there is no evidence that the Luo fishers were consulted about the policies that affected them. This view is echoed by Heck and others who stated that in the colonial days 'the government used to manage fisheries without direct involvement of fishing communities'.³⁹⁶ This led to the perception that the resources belonged to the government thus leading to destructive fishing practices and overfishing.

The Fish Protection Ordinance of 1908 gave the governor powers to regulate fishing, impose fees and register boats, issue licences and determine seasons for fishing.³⁹⁷ This Ordinance was an important piece of legislation since it sought to contain the nascent capitalist greed of the Asians dominating the industry and nefarious methods of fishing such as the use of engines and modern nets. Pursuant to this, and in order to regulate the industry, the colonial government published rules and regulations under the Victoria Nyanza Fish Protection Rules, which became the basis for the registration procedure for all alien fishers, such as Indians, and regulated the type of

³⁹⁴ F. Cooper, 'Peasants, Capitalists and Historians: A Review Article' in Maddox, G. and Welliver, T.K. (eds) (1993) *The Colonial Epoch In Africa*, p.107.

³⁹⁵ E. M. Syampaku (2000) "Sustainable Community Based Management of the Kariba Dam in Zambia" on the internet: See esyampaku@agric.unza.zm

³⁹⁶ See S. Heck, CT Kirema-Mukasa, B. Nyandat and JP Owino (2004)(eds) *The International Workshop on Community Participation in Fisheries Management on Lake Victoria: Beach Management Units (BMU) on Lake Victoria: NORAD/World Conservation Union.*

³⁹⁷ Colony of Kenya, *Government Official Gazette* No. 45, 1908, Chapter 2 on Victoria Nyanza Fish Protection Rules, 1908.

gear to be used. Accordingly, the 1914 Rules averred that ‘all persons fishing for sale were expected to register yearly for Kenya shillings 3000 for all non-natives of Africa’.³⁹⁸ Secondly, all registered fishers were required to register all boats, nets and stakes. Thirdly, no mesh was to be used if it had less than 1–inch. Fourthly, the rules outlawed trawling nearer than a quarter of a mile from the shore and in water less than sixteen feet deep. Lastly, all fishing grounds had to be buoyed.

There were attempts by the colonial state to control the movement of African fishers. This was done by enacting laws as to who was an African, where he was supposed to fish, market his catch, and which type of tools he was allowed to use. All in all, the colonial rules and ordinances sought to enhance racial superiority by referring to the African as a ‘native’ and defining his/her status as such. These rules were also intended to protect fish resources. It was for this purpose, probably, that the Victoria Nyanza Fish Protection Amendment Rules were promulgated in Government Notice 181 of 3 August 1914. Accordingly, a ‘native’ was defined as a person inhabiting south Kavirondo, Kisumu and north Kavirondo districts, all of which bordered the Lake Region. Furthermore, it asserted that Africans were any other person of African origin, not of European or Asiatic extract, who was fully engaged or employed in the fishery. In this law, then, Europeans were perceived as alien settler farmers and administrators. Another objective of this legislation could have been an attempt to stem the nascent rural-urban migration by the ‘Africans’ who could have intended to migrate from their settler farms and join the fishing industry. Conversely, the rules regulated and attempted to control the dominance of the non-African in the lucrative but still embryonic fishing industry. Despite this, the second objective was not attainable because Indians were already dominant and in total control of fish production and transportation to Nairobi.

³⁹⁸Colony of Kenya, *Government Official Gazette* No. 123 of 1914 on Victoria Nyana Fish Protection Rules KP/4/7, KNA.

Research has shown that all over Africa peasant farmers and fishers never completely accepted the new crops or technology without some resistance.³⁹⁹ There were, of course, exceptions, as in the case of Mohammed Okullo, a fisherman for most of his adult life, who is full of praise for the new nets. He states that, ‘the 5-inch net was good as it made the work of fishing easier and it was set 400-300 yards from the shore, so it caught fish far from the bank and deep inside the lake, and thus spared the juvenile fish’.⁴⁰⁰ The nets also ‘made the work easier because we worked only for a short time to catch lots of fish, you did not need to tie many nets and new nets caught mainly the big fish’.⁴⁰¹ He hastened to point out, however, that state officials used force to make sure that people complied with the regulations, and this put off some fishers. Joyce Oruko states that ‘if you failed to use the new nets you could be arrested by the government and you would suffer the consequences’.⁴⁰² Some of these included losses of the fishing gear which was confiscated, or the payment of fines to colonial state. It was for these reasons that Africans continued to use their indigenous techniques of production alongside the new nets. Indeed, some of the new nets could not catch certain fish species. Or, by continuing to use their usual fishing gear, the fishers were rejecting the new technology because of the fear that it would lead to overfishing.⁴⁰³

Oruko further asserts that, compared with the new nets, the African technology was friendly to the environment, so the fishers used them along with the new ones.⁴⁰⁴ Again, there was the problem of cost. The Africans had to pay for the new nets, licence and boats. This could have worked against the total acceptance of the new nets. For instance, in 1918 the District Commissioner (DC) for Central Kavirondo stated that the people of West Kano were using a fish trap known as *kira*

³⁹⁹ For more on this see A. Isaacman and A. Chilundo (1995) ‘Peasants at Work: Forced Cotton Cultivation in Northern Mozambique, 1938-1961’ in A. Isaacman, and R. Roberts, *Cotton, Colonialism and Social History in Sub-Saharan Africa: Social History of Africa*, (Portsmouth, Heinemann, and London, James Currey,), pp. 147-179. The chapter looks at how the colonial state enforced the policy of cultivation and peoples’ response in Northern Mozambique.

⁴⁰⁰ Interview with Mohammed Okullo at Dunga beach on 21/1/2007.

⁴⁰¹ Interview with Mohammed Okullo at Dunga beach on 21/1/2007.

⁴⁰² Interview with Joyce Oruko at Dunga beach on 21/1/2007.

⁴⁰³ Interview with Oracho Wire at Uhanya beach on 21/10/04.

⁴⁰⁴ Interview with Joyce Oruko at Dunga beach on 26/1/2004.

to catch lungfish (*kamongo*). There was also another type of fish trap called *gogo* that only caught minnows (*omena*) and *fulu*. This meant that the total number of fish eaten by West Kano residents was caught with seine nets though the government had prohibited them.⁴⁰⁵ At times the state issued decrees that were intended to regulate the movement of new migrants into the fishing industry. This, in turn, frustrated the freedom of the fishers to move freely, co-opt new entrants and optimally use the fishery resources. For instance, the 1919 Fish Protection Rule unequivocally stated that:

Any person other than native, who is exempt from registration under other rules [and] who employs natives to catch fish shall be liable to registration and to other provisions as if he were himself a person employed in catching fish and person buying or bartering fish for resale or barter either by wholesale or retail shall be registered as if he were employed in catching fish.⁴⁰⁶

As the colonial government placed more premiums on mesh size regulation and registration of fishers, it never imagined that, to some extent, the new nets were sometimes considered an irrelevant technology by the fishers. Sooner rather than later the fishers discovered that these nets could not catch certain species of fish.⁴⁰⁷ For example, the fish inspector informed the DC in Kisumu in 1927 that some of the new gill nets such as 1-and 2-inch sizes could not catch *ngege* and *mbiru* but only *kisinja* species, probably due to the size of the mesh⁴⁰⁸. Yet *ngege* was the most abundant and favourite species in the Lake. It was probably as a result of this anomaly that people reacted by tying more nets to the canoe to increase catching capacity. The 5-inch mesh nets efficiently caught *ngege*, *mbiru*, *mumi*, *kamongo*, *sewu*, *suma* and many other fish species.⁴⁰⁹ However, the 3-inch net was, at times, used to catch *ningu*, *sira* and *osoga*, while nets of any other size or thickness of thread would not catch fish

⁴⁰⁵ KP/4/7: Reports on Survey of Lake Victoria Fisheries, 1927: K.N.A.

⁴⁰⁶ KP/4/7 Report on Survey of Lake Fisheries

⁴⁰⁷ Interview with Margaret Agoya at Usenge beach 21/10/05

⁴⁰⁸ Interview with Margaret Agoya at Usenge beach on 21/10/05

and were disallowed through government ordinances. It was illegal to use a net that was not allowed by law, and it was clearly stated that transgressors would be punished. For instance, the 1927 Ordinance asserted that ‘it shall be lawful for any magistrate or police officer... to seize any appliances used for the capture of fish in contravention of these rules’.⁴¹⁰ It insisted that ‘any court in addition to any penalty [levied] can confiscate the appliances unlawfully used’.⁴¹¹ The new rules were more severe in the sense that a culprit would be taken to court, punished and also lose nets and canoes.⁴¹² Because the fishers were not consulted, they naturally resisted these rules in a number of ways, including boycotts, continued use of illegal and indigenous nets, and by tying many nets on one canoe. As John Omuga, a fisherman stated ‘we boycotted meetings called by fishery officers, we hid our canoes in the forests to avoid meeting the government people and we physically resisted them from accessing the beach. We were ready for any consequences afterwards.’⁴¹³

Another hurdle that faced the new technology was that of distribution. Due to the Asian monopoly over the nets only a few fishers had access to them. In accordance with their policy of net manufacture and distribution, the nets could only be obtained from the United Kingdom.⁴¹⁴ At this time nets were only obtainable from Messrs W.M. Barbour and Sons Ltd. of Dublin.⁴¹⁵ Besides, the inspector noted, since the introduction of the net, most fishers had resorted to their use due to their flexibility and efficiency.⁴¹⁶ This, in turn, had created a surge in demand at a time when distribution was not well handled.

These nets were available at Kisumu Bazaar by 1927 for Kenya shillings 17/- to 18/- for a 100 yards long net, with 5-inch mesh, 26 meshes deep, 35 twine 3 ply.⁴¹⁷ That

⁴⁰⁹ KP/4/7: Reports on Survey: K.N.A.

⁴¹⁰ KP/4/7: Reports on Survey on Lake Victoria Fisheries, 1927: K.N.A.

⁴¹¹ KP/4/7: Reports on Survey.

⁴¹² Interview with Lazarus Ogwire at Uhanya beach on 21/10/05’

⁴¹³ Interview with John Otieno Omuga at Uhanya beach on 22/11/05.

⁴¹⁴ KP/4/7: Reports on Survey.

⁴¹⁵ KP/4/7: Reports on Survey.

⁴¹⁶ KP/4/7: Reports on Survey.

⁴¹⁷ KP/4/7 Report on Survey

meant people from the large Lake Region and the riparian areas had to go to Kisumu town to purchase the all-important net. Most nets were colourless (drab) and made up of appropriate thread. The demand for the nets outstripped supply. For instance, the fish inspector's memorandum had alleged that as early as 1921, when fishing was flourishing, and overfishing not yet a reality, up to 20,000 nets were imported annually from Ireland. The average life of a net was said to be about 20 days when used by Africans, while it was between 2 to 3 months when used by the more 'careful' Europeans.⁴¹⁸ One of the possible reasons for this quick destruction of the net under African use was probably the frequency of use. In order to meet tax obligations and to compete with new entrants in the fishery, African fishers had to use as many nets as often as possible.⁴¹⁹ This meant that there was a high rate of net decay. It is incorrect, therefore, to imagine that the Europeans were more 'careful' users of the nets than the Africans.⁴²⁰ Oracho Wire argues that 'we had to put many nets together to compete with the Indian fish traders'.⁴²¹ The obvious truth is that the pressure to fish was greater on Africans than on non-Africans.

The adoption of the new nets seemed to have anticipated the problem of overfishing, as explained below. It was probable that as a result of the adoption and use of gill nets, fish production was drastically reduced as catches dwindled slowly but steadily. Trawling was seen as a threat to immature fish and disallowed accordingly, except in water depth of over sixteen feet and at a distance of not less than a quarter mile from the Lakeshore.⁴²² This meant that the trawl could not be used in shallow areas of the Lake. A District Commissioner's report had stated that during fishing, boats were capable of setting 10 to 20 nets of 1000 to 2000 yards per boat of 1000.⁴²³ However, the use of the new nets also impacted negatively on the fishery. In the early years of their adoption, the catch per unit of effort (C.P.U.E.) had been higher.⁴²⁴ This is to

⁴¹⁸ KP/4/7 Report on Survey of Lake Vostoria Fisheries of 1927.

⁴¹⁹ Interview with Oracho Wire at Uhanya beach on 22/10/05.

⁴²⁰ In a joint interview Jacob and Mohammed Okullo had argued that the Europeans were more strict and careful in using the nets.

⁴²¹ Interview with Oracho Wire at Uhanya beach on 22/10/05.

⁴²² KP/4/7 Report of 1927.

⁴²³ DC/Ksm/1/32/12 K.N.A. Report of 1941-44

⁴²⁴ This the amount caught in every *kilua* or fishing voyage.

say, less effort yielded higher amounts of fish. For instance, at this time the average catch was estimated to have been over 25 fish per 100 yards of net, with the boat moving at only about a mile from the shore.⁴²⁵

In the subsequent years, with the use of the flax gill nets having taken root, the C.P.U.E. fell as the catch was reduced to a paltry five fish per 100 yards of net and in order to successfully catch this paltry amount, the boats now had to go out twelve to fifteen miles from shore.⁴²⁶ The number of boats had also fallen drastically due their short lifespan. Yet at the height of the industry's prosperity, it is said that there were 2000 boats working on an average of 10 nets per boat. All in all, some boats could hold as much as 20 to 25 nets.⁴²⁷ This was done in order to satisfy the increased demand for fish for the market. Another reason for using many nets on one boat was likely the need to make more money in order to meet new demands such as payment for licences, buying of nets and earning more money to increase the catching capacity of individual fishers. Finally, more nets were used as a mode of protest. The logic was simple: if the state disallowed the use of indigenous nets by introducing new ones which were expensive, then the best way out was for the fishers to combine many nets on one boat so as to maximise production.⁴²⁸

Due to high overhead costs and the need for a high capital outlay which was beyond the means of most Africans, Indians, who could mobilise funds to purchase them, owned most of the boats.⁴²⁹ The Indians had originally come to Kenya as railway workers (coolies) during the construction of the East African Railway, though some worked as commercial agents for the Sultan in Zanzibar and on the Kenyan coast, but soon they began to control and monopolise the commercial sector in Kenya and the

⁴²⁵ DC/Ksm/1/32/12.

⁴²⁶ DC/Ksm/1/32/12.

⁴²⁷ The *East African Standard* of November 10, 1927. It was published in Nairobi from 1902 as the first newspaper in Kenya.

⁴²⁸ Interview with Sylvester Ogendero at Dunga beach on 26/1/2007.

⁴²⁹ J.S Mangat, *A History of Asians in East Africa*, p. 32.

East African region.⁴³⁰ Having remained after the completion of the railway, they created a niche for themselves in business. The poverty problem among African fishers was also exacerbated by state demands for increased taxation during the World War I, but another cause could have been the greed of the Indian middlemen who were in control of markets and even monopolised the supply of nets. This Indian monopoly was further buttressed by the support Indian traders received from the state. Berman reinforces this point by arguing that Asians had ‘dominated commodity [nets] trade [while] excluding African middlemen’.⁴³¹ On top of that the fishers had to contend with payment for licences. The erratic nature of fish catches and the subsequent declining licence sums collected could be viewed through the prism of the unpredictable nature of fishing activity itself. In other words, fishing activity was a seasonal activity, so that when the catches were good the prices went down and vice versa. Another factor that determined fish supply was the fact that the Indians and Europeans controlled the supply of modern nets to African fishers, and this inevitably affected fish supply which became erratic.

It was possible that fish productivity declined due to the fact that the fishers caught young immature fish near the shore under the impression that they were fully grown, but of a smaller type. As this was done continuously, year after year, fish numbers steadily decreased, almost to the point of being completely exterminated, thanks to the introduction of better boats and the flax gill net.⁴³² In real terms, therefore, the new net was a wonderful innovation in fishery production but at the same time could be an insidious weapon that could threaten the very reproduction of the fishery. The effect on African fishers was that the new nets marginalised their output of fish because they continued to rely mostly on the indigenous gear.

Graham’s report, however, allayed the fears of overfishing by suggesting that the five-inch net was not after all dangerous to the underage fish. This, he stated, was

⁴³⁰ J.S. Mangat, *A History of the Asians in East Africa, 1886-1945*, (London, OUP, 1969). For more activities of Indians in Kenya and East Africa see this source.

⁴³¹ Bruce Berman, *Control and Crisis in Colonial Kenya: The Dialectics of Domination*, (London, James Currey, 1992), p.170.

⁴³² AG/4/3.

because the five-inch net only caught *ngege* (tilapia) at a certain size, when the fish was large enough to get its head into it.⁴³³ Secondly, the net was not a threat to the fishery, especially *ngege*, for biological reasons, as pointed out by the Graham Report which stated that ‘after attaining sexual maturity, the tilapia grows slowly with most of its activities and energy concentrated on reproduction, which is continuous and independent [sic] of the time of the year’.⁴³⁴ The report adds that the *ngege*’s concentration on reproductive activity prevented them from growing so large as to be unable to pass into the gill net mesh. Consequently, fewer *ngege* were caught during the productive season. As a result of this biological peculiarity on the part of this fish species, the new gill net was not a big threat. The report further asserted that the experiments done with the four-inch net had shown that at any rate a huge number of *ngege* had had an opportunity of breeding before they attained sufficient size to be able to fall prey to the brutally efficient five-inch net.

Thus fish in areas neglected by the fishers were able to attain maturity and become older than the fish in the areas of vigorous fishing activity. Furthermore, overfishing and the diminution of fish was not so great by 1921. This was because large numbers of fish taken when the nets were first introduced included fish of many different ages or fish that were mature enough⁴³⁵. Besides this fact, even though the number of breeding fish could be greatly reduced due to overfishing, it did not automatically follow that the number of fish reaching maturity would be reduced. Further, because of the early spawning by the tilapia before they were eligible for capture by the dreaded five-inch net, it was considered safe to assume that the annual contribution of the spawning periods to the fishery had not been seriously affected by fishing.⁴³⁶

As far as the colonial administration was concerned, it was probably right to infer that the probability of overfishing was a possible and an unpalatable reality. The fear of over-fishing, and in order to control African fishers prompted the colonial state to

⁴³³ AG/4/3: The Victoria Nyanza Fish Protection Rules, 1928, K.N.A.

⁴³⁴ AG/4/3.

⁴³⁵ AG/4/3.

⁴³⁶ AG/4/3.

propose the enactment of tough government regulations and ordinances coupled with a strict enforcement of the rules on fishing to stem the gathering tide of commercialisation.⁴³⁷ Fear of excessive fishing and declining fish stocks in the future was a justifiable concern due to the limited topographical distribution of tilapia and the relatively small number of eggs produced by the female. This probability and uncertainty was exacerbated by the grim fact that ‘*ngege* only produced a few hundred eggs as opposed to four million by the cod fish’.⁴³⁸ The report by the *East African Standard* of 1 January 1929 played on these concerns when it reported that ‘the fishing industry seems to have fallen off so far as big catches go’.⁴³⁹

The Graham Report stated that ‘the fishing grounds are now a long way out, with the result that the fishing boats do not arrive at Kisumu until 11 a.m.’.⁴⁴⁰ The report alleged that the Kavirondo gulf was very heavily fished, and unless some restrictions were put in place, especially directed at the Africans’ methods of killing immature fish by their thousands, the gulf would soon become un-remunerative to fishers.⁴⁴¹ The situation was not improved by numerous contradictions in various government pronouncements and published reports regarding the true effect of the new technology, particularly the infamous five-inch net. While there was no doubt that the five-inch flax gill net enabled more fishers to increase fish production, at the same time it was a truism that the new net brought home the virtual certainty that it would lead to a decrease in the fisheries and especially in the prized tilapia. In an attempt to tame the avarice of potential capitalists, especially the Indians who operated most of the fishing boats, the colonial government had to come up with the necessary laws to ensure responsible exploitation of the fisheries, one that was profitable to both sellers and buyers.⁴⁴²

⁴³⁷ AG/4/3: The Victoria nyanza Fish Protection rules, 1928-29

⁴³⁸ AG/4/3.

⁴³⁹ See *East African Standard*, 1 January 1929 at K.N.A. The newspaper is also available in file AG/4/3.

⁴⁴⁰ KP/4/7.

⁴⁴¹ *The East African Standard*, Nairobi, 1 January 1929 at K.N.A..

⁴⁴² M.F. Hill, *Permanent Way: The Story of the Kenya and Uganda Railway*, (Nairobi and Kampala, EALB, 1976), p. 147.

Fishing in Lake Victoria was affected by the contradictory nature of British development policies. There were attempts to develop African economic production but at the same time the colonial state favoured the interests of the settler economy and used the bureaucracy to protect and promote it. Berman and Lonsdale observed that the 'early colonial state had to absorb contradictions of the economic level more directly into the bureaucratic sphere'.⁴⁴³ Thus programmes introduced to develop the fishery did not achieve much, Berman asserts that 'as the state moved to defend and sustain the settler sphere, it undermined its effective legitimacy and control in African areas'.⁴⁴⁴ Walker has analysed the British colonial policies on fishing in Ghana. She argued that, as in Kenya, the colonial state supported the introduction and use of new nets in Ghana. In the pre-colonial era the Fanti used the indigenous *adii* nets but when the Europeans came they encouraged the adoption of the *ali* nets, which were more 'efficient in the eyes of the European capitalists keen on more fish production'.⁴⁴⁵ The European view did not match the African vision and expectations. The African fish traders were concerned more with the long-term environmental impacts of the new nets than the short-term economic benefits of increased supply in the market.⁴⁴⁶

In Kenya conflicts arose from the failure of the colonial state to involve the local fishers in decision making while introducing policies on fishing especially on the mesh size and decisions on closed seasons.⁴⁴⁷ In Ghana these arose during the colonial period over the newly introduced *ali* nets and other similar nets. As in Kenya when new nets were introduced, some fishers opposed this because they thought it would result in over-fishing. These divergence issues revolved around unfair competition, profits, conservation, sustainability and equal distribution. Because these new nets caught previously unheard volumes of fish, fishing crews who used them

⁴⁴³ B. Berman and J. Lonsdale, *Unhappy Valley: Conflicts in Kenya and Africa, Book 2*, (London, James Currey 1992), pp. 80-81.

⁴⁴⁴ Bruce Berman, *Control and Crisis in Colonial Kenya: The Dialectic of Domination*, (London, James Currey, 1992), p. 128.

⁴⁴⁵ B. Walker, "Engendering Ghana's Seascape: Fanti Fish Traders and Marine Property in Colonial History," *Society and Natural Resources*, 2002, Vol. 15, p. 75.

⁴⁴⁶ Traditionally, the Fanti fishers in Ghana had used rectangular *adii* nets but later on, the colonial state introduced new *ali* nets.

⁴⁴⁷ Interview with Mohammed Okullo at Dunga beach on 26/1/07.

were able to reap greater profits, which was a source of discontent for their competitors.⁴⁴⁸ Whether in Kenya or any other part of colonial Africa, it goes without saying that the colonial rulers perceived European farming and fishing methods to be superior. The contradictory nature of colonial government policy in colonial Kenya was revealed by the many rules and ordinances that were promulgated to regulate fisheries. Zeleza, in respect of this contradiction, points out that ‘the economic structures that emerged in Nyanza [by 1918], stifled increased productivity, innovation and capital formation’.⁴⁴⁹

The rules above were a clear manifestation of the attempt by the colonial authorities to control and manage the Kenyan lacustrine fisheries. This was done in order to monopolise the surplus value for the state created by fishers. The means of enforcing these rules were at times exclusivist since in most cases the majority of Luo fishers were not consulted during their enactment. Their effectiveness remained questionable, as people did not feel part of colonial resolution. Siproza Abuya, a fisherwoman for many years, states that ‘Africans were arrested and their catches and nets confiscated leaving them poor and hopeless. Our old ways of fishing were now disappearing fast’.⁴⁵⁰ She recalls many names of those who resisted or were arrested. She asserts that:

There were those who rebelled against the colonial policies such as Mzee Onyango, Ougo, Odongo, Okiwa etc and in political arena there were those who supported the fishers like for example Agwanda. They [politicians] intervened when policemen confiscated their boats and nets.⁴⁵¹

To an appreciable extent the struggles by the Lake fishers and politicians from the Lake Region became part of the nationalist struggle for independence. These

⁴⁴⁸ B. Walker, ‘Engendering Gahana’s Seascape’.

⁴⁴⁹ P.T. Zeleza, ‘The Establishment of Colonial Rule, 1905-1920’, p.35.

⁴⁵⁰ Oral interview with Siproza Abuya at Wasaria village, Suba on 27/1/07.

⁴⁵¹ Oral interview with Siproza Abuya at Wasaria village, Suba on 27/1/07.

politicians formed political parties, which later united with leaders from other regions to form the Kenya African Union (K.A.U.) and later the Kenya African National Union (K.A.N.U.). In fact leaders such as Tom Mboya, Achieng' Ouko, Jonathan Okwiri and Oginga Odinga were inhabitants of Nyanza Province in the Lake Region.

Anderson has noted that during colonial rule 'development was widely seen in terms of western science with little or no sensitivity to indigenous African husbandry practices'.⁴⁵² The skewed nature of these ordinances ended up marginalising African participation, initiatives and technology in the fisheries. The Africans had no voice in respect of the new fishing rules, yet there was a need to appreciate the appropriateness of indigenous solutions in the management of the fishery and ecological systems in general.⁴⁵³ Indeed, the impact of these rules and regulations on fish production and management remained inconsistent. Due to a lack of organised fishing associations, poor fishers failed to compete effectively with their Indian counterparts who had substantial financial resources at their disposal. For instance, instead of encouraging the use of a local and environmentally friendly technology, the colonial government supported the use of gill nets manufactured in Ireland. This was done at the expense of local fishing gear. The result was that Africans were pushed to the periphery of the fishery, as Europeans and Indian capital dominated in the production, transportation and marketing of fish.

3.7 The Fishers' Responses to State Ordinances

According to colonial thinking by their very nature the new regulations were good for the development of fishery because they were intended to assist in defining the rules and rights of accessing and using lake resources. They defined the access and proffered prescriptions that either permitted or restricted fishing. They would, in turn, ensure resource sustainability for posterity. However, the fact that the state ignored

⁴⁵² David Anderson, *Eroding the Commons: The Politics of Ecology in Baringo, Kenya, 1890-1963*, (London, James Currey, 2002), 5.

the socio-cultural structure of African fishers put it in conflict with the Luo fishers. People's reactions to the new fishing regulations did not always match the government expectations, which made their successful enforcement almost impossible. Torell and Salamanca point out that in the colonial epoch the development of laws and structures for public administration reflected the views of those in power.⁴⁵⁴ A natural corollary for this was that the people who were expected to adhere to these rules opposed or ignored them and continued doing things as they had done before. The failure of these policies was premised on the fact that the objective of the state was opposed to that of the majority of its subjects.⁴⁵⁵ The fishers were hardly consulted before decisions affecting them were made. In fact, by 1914, as Berman contends, 'the African population had been relegated to the status of the labouring proletariat and [contributed nothing to policy]'.⁴⁵⁶

The colonial state, using the chiefs and members of the Provincial Administration, had monopolised all the powers over the fishery, thus marginalising the fishers. The issuing of fishing permits and licences was at the absolute discretion the fishery inspector who could, in writing, permit any licensed fisherman to use the appropriate net in fishing.⁴⁵⁷ There was, in addition, always the need to introduce some form of control to guide the catching and distribution of the fishery and yet the colonial government failed to have a properly focused policy on this matter. The controls were justified by the complaints of poor catches articulated by the officers in the provinces surrounding the lake. The fishery officers, supported by the state, instituted deliberate measures in order to restrict the number of permits issued and delivered prohibition notices over the use of appropriate nets and gear.⁴⁵⁸ In the long run, this firm grip over the fishing industry affected fish prices. Left to the market, the fishery would

⁴⁵³ David Anderson, *Eroding the Commons: The Politics of Ecology*, p. 5.

⁴⁵⁴ M. Torell and A. Salamanca, *Institutional Issues and Perspectives in the Management of Fisheries and Coastal Resources in Southeast Asia*: Penang, SIDA, 2001, 18-19.

⁴⁵⁵ For a penetrating discussion on this see B. Porter, *Critics of Empire: British Radical Attitudes to Colonialism in Africa: 1895-1914*, London, Macmillan, 1968. He states that 'The capitalist could not change his spots; all he wanted was cheap plentiful labour in the interests of bigger profits'.

⁴⁵⁶ B. Berman and John Lonsdale, *Unhappy Valley*, p. 83.

⁴⁵⁷ B. Berman and Lonsdale, *Unhappy Valley*, p. 52.

⁴⁵⁸ B. Berman and John Lonsdale, *Unhappy Valley: Conflict in Kenya and Africa, Book 2*, (London, James Currey, 1992), p. 36.

probably have attained its own equilibrium. Punishments were meted out to Africans who failed to obey the colonial fishing regulations. Drastic and arbitrary arrests of those found on the lakeshore soon became a common occurrence. Some were imprisoned or had their nets confiscated, actions that hardened Africans opposition to the new restrictions.⁴⁵⁹

Oracho Wire recalled their responses by saying that they ‘hated these new rules and regulations on net sizes and mesh restrictions. We would rather tie five or twenty nets on one boat and go ahead to use undersize nets than follow the new regulations... and have less catches’.⁴⁶⁰ Mireri, attested that when the Europeans came ‘they transformed our fisheries and referred to their fishing systems as modern’.⁴⁶¹ He asserts that Luo fishers rebelled against the colonial system by ‘using our own nets at night, rejecting their officers who came to inspect our nets and even fighting them’.⁴⁶² Some fishers, however, saw nothing wrong with the new methods. Ochieng pointed out that ‘no one rebelled against these rules. I am not aware of the politicians who incited the fishers to rebel and the new methods were better as they regulated fishing for the better.’⁴⁶³ Others confirmed that there were ‘those who rebelled against the colonial methods especially the older and poorer fishers who hated the new ways’.⁴⁶⁴ The truth of the matter is that politicians from the Lake Region were significant participants in a war of resistance against colonial policies and the fight for independence. Whereas the colonial state needed more people for wage labour in order to pay taxes, the African fishers wanted to continue with their fishing and farming lifestyle. In effect, the same African was expected to provide cheap wage labour in the colonial plantations and to continue fishing. Yet the fishers needed to spend more time on the Lake in order to increase their incomes to pay colonial taxes and meet other obligations created by colonialism. Thus the African fishers were opposed to new fishery regulations as it restricted their catches.

⁴⁵⁹ Interview done with Maria Ngambo at Dunga beach on 27/1/2007.

⁴⁶⁰ Interview with Oracho Wire at Uhanya beach on 18/11/04.

⁴⁶¹ Interview with Peter Mireri at Dunga beach on 26/1/07.

⁴⁶² Interview with Peter Mireri at Dunga beach on 26/1/07.

⁴⁶³ Interview with Shadrack Ochieng’ at Waregi Village, Rusinga Islands.

⁴⁶⁴ Interview with Rhoda Agutu Aoch at Wasaria Village, Suba on 26/1/07.

In spite of the opposition from the fishers, the 1928 Victoria Nyanza Fish Protection Rules recommended that it was preferable for the colonial state to obtain complete control and monopoly over fishing by regulating the sale of imported nets.⁴⁶⁵ The government therefore monopolised the distribution of these nets and prohibited the use of hand-made local nets unless the nets were so similar to the five-inch net from Ireland or made of a twine thicker than the flax twine known as number 30/3 ply⁴⁶⁶. This was an example where the colonial authorities were imposing a policy on the fishers. Some of these nets, however, unlike the indigenous ones, caught fish selectively, failing to catch certain varieties. In that sense, the fishers resorted to either using their own indigenous nets or tying many nets together. For instance, fish did not naturally become entangled in a net made of thick twine, as it could withdraw before the mesh was tightened on its head. This led to fish escaping from the net to the frustration of the fishers. Although the colonial government decreed the use of nets of the right mesh size, its supply was irregular. Okullo, a veteran fisherman, informs us that they opposed the rules by ‘fishing at night when the patrol officers were not there. If you used smaller mesh size nets such as 1 and 2-inches nets, you would be arrested. If you went contrary to the regulations, the fisheries officer would arrest you and hand you over to the government to charge you.’⁴⁶⁷ As to whether these regulations were helpful, Maria Ngambo, a fisherwoman states that ‘the scouts did not help the fishery regulations because they were corrupt...they ate our money and we suffered a lot due to harassment’.⁴⁶⁸ Other fishers, like Ogeda, supported the numbering of fishing canoes because it helped the fishers to identify them and prevent theft.⁴⁶⁹

The colonial government in Kenya, therefore, suggested that its monopoly over the nets supply was the best method by which the regulations could be enforced on the

⁴⁶⁵ AG/4/3: The Victoria Nyanza Fish Protection Rules, 1928-29

⁴⁶⁶ AG/4/3.

⁴⁶⁷ Interview with Mohammed Okullo at Dunga beach on 26/1/07.

⁴⁶⁸ Interview with Maria Ngambo at Dunga beach on 26/1/07.

⁴⁶⁹ Interview with Philip Ogeda at Kochia beach on 27/1/07.

lake.⁴⁷⁰ Besides, it was of great benefit to the state to have complete control over the net supply as it could then monitor the illegal importation of fishing gear and collect revenue. In effect, the state consequently ‘prohibited private persons from setting up a factory for nets in the territories’,⁴⁷¹ Again, it became illegal for any institution other than the government to import any nets less than five-inch mesh. However, this was not enforceable as local people abrogated the rules and used their own home-made nets with much smaller mesh sizes. The number of nets to be used in a particular fishing zone was also controlled, leading to more fisher discontent. Similarly, writing on Ghana, Emile Vercrujse⁴⁷² observed that the adoption of new fishing techniques, as in Kenya, did not proceed very smoothly as ‘the introduction of the *adii* net provoked vehement protests’.⁴⁷³

Similarly, in Kenya some fishers were opposed to the new nets and gear that they regarded as destructive to the fish resources.⁴⁷⁴ What is, however, clear from such opposition to the new nets was that those who resisted the new technology feared the danger of overfishing. The colonial state, on the other hand, was interested in enhancing the catching capacity and increasing fish production for the market. In conjunction with new bigger boats the new nets threatened the natural co-existence between people and the environment and also ‘undermined the existing production relations’ by gradually dislocating the fishers from production as Indians and the Europeans with capital dominated the distribution of nets and hence fishing production capacity.⁴⁷⁵

Most narratives about Kenya state that the new nets gave their users undue advantages.⁴⁷⁶ Thus ‘fishing in general was harmed by the nets, but also the nets were

⁴⁷⁰ AG/4/3: The Victoria Nyanza Fis Protection Rules

⁴⁷¹ AG/4/3.

⁴⁷² E. Vercrujse, *The Penetration of Capitalism: A West African Case Study*, London, Zed Books, 1984, p. 113.

⁴⁷³ Vercrujsee, *The Penetration of Capitalism: A West African Case Study*, p. 113.

⁴⁷⁴ Interview done with Joyce Oruko at Dunga beach on 25/1/2007.

⁴⁷⁵ Vercrujsee, *The Penetration of Capitalism: A West African Case Study*, p.113

⁴⁷⁶ Interview with Jacob Agola Okullo at Dunga beach on 26/1/2007.

unfair to the fishing community who hitherto used simple nets from papyrus.⁴⁷⁷ As a result, those fishers who failed to adopt the new techniques may have felt threatened that soon they would be driven out of production. Yet in the words of Tom Mboya, fishers probably opposed the new regulations and new nets not for the sake of it, but because the new nets, coloured red or blue, would not catch as many fish as they were visible in the water and fish easily avoided them.⁴⁷⁸ This could lead to smaller catches. Mahira Oguyo also felt that the fishers felt threatened by the new nets because they had to be used far from the shore and hence could have scared the fish away from the shallow waters near the shore.⁴⁷⁹ This could create both overfishing and shortages of fish near the shore. It would also make fishers spend long hours looking for fish far away out on the Lake. Finally, as a fisher laments ‘the new nets caught both juvenile and mature fish and this led to depletion in the long run’.⁴⁸⁰ Yet, despite these fears and concerns by African fishers, the colonial state prevailed. The fishers had to follow the new rules or face arrests and subsequent jail time or fines.

The main gear used during this period was the various types of gill and trawl net which had been disallowed without any alternative being offered. Fishers were dependent on fishing with these nets because the colonial state had refused to ‘allow them to fish with old native nets’.⁴⁸¹ At West Kano, which was close to Kisumu Township, Z. A. Nyandonge stated that ‘there were at least 118 natives who were engaged in the business of fishing by both the new nets and *gogo* nets and [they] had supplied fresh fish to the Europeans, Indians and the native residents of Kisumu Township’.⁴⁸² He complained that all these people had lost their supply of fish by being denied the right to fish under the pretext of having failed to pay for permits. This was so even though the fishers had paid equally prohibitive licence fees to the government. . Each trader was required to pay Kenya Shillings 10/- as a licence fee for the purchase of each *gogo* net. They also paid 5/- annually for each canoe as a

⁴⁷⁷ Interview with Rhoda Agutu at Wasaria Village, Suba on 27/1/07.

⁴⁷⁸ Interview with Tom Mboya in Kisumu town on 21/10/04.

⁴⁷⁹ Interview with Mahira Oguyo at Uhanya beach on 18/10/2004.

⁴⁸⁰ Interview with Anyango Amollo at Uhanya beach on 18/10/04.

⁴⁸¹ KP/4/7 Report, 1929: KNA, Nairobi.

⁴⁸² KP/4/7.

registration fee. Another 3/- was payable in respect of each sailor or canoe crew member. These measures affected the trade in fish as the supply decreased. It was not only the fishers who suffered from this negative impact by colonial policies, but the colonial state also lost its revenue. There was a huge decrease in the supply of fish to consumers and even to those sick in hospitals. These colonial rules were made to protect the young fish in the lake but ignored the anguish of the people. The Lake inspector did not state which fish species were endangered and were being protected by the Ordinance. Worse still, a few traders or licence holders such as the Indian middlemen continued making profits at the expense of others.

By being in control of the issuing of licences and the manufacture of local hand made nets, the colonial government succeeded in one sense. It directly benefited from the increased sale of imported nets and the revenue they generated especially from import duty. An advantage of these measures, according to Okullo, was that banning nets with smaller mesh curbed the catching of immature fish. Subsequently, the fishers benefited as the quantity of mature fish probably increased. For example Okullo stated that the new five-inch net made fishing easy and fish were plentiful as this net did not destroy the juvenile fish'.⁴⁸³ The decree that every individual net carry a label on which was written a licence for its use for a period of six months in the case of 'set nets' and eighteen months in the case of nets of thicker twine, led to the regulated and focused use of the gear.⁴⁸⁴ Authority to ensure the adherence to these rules was vested in the local chiefs, who also had the power to issue licences. The problem with involving the chiefs in this endeavour was that they could easily favour their friends and relatives in the enforcement of these ordinances. Oyunga states that 'the chiefs only favoured those close to them while accompanying scouts to enforce regulations'.⁴⁸⁵ The chiefs also ensured the collection of revenue for the government. More fundamentally, colonial control over the fisheries probably ensured that the Kavirondo Gulf was not fished out.⁴⁸⁶

⁴⁸³ Interview with Agola Okullo at Dunga beach on 27/1/07.

⁴⁸⁴ KP/4/7.

⁴⁸⁵ Oral interview with Potas Boyo Oyunga at Seme on 27/1/07.

⁴⁸⁶ KP/4/7.

3.8 Conclusion

The chapter has discussed how the coming of colonialism created a new trajectory in fish management and control. It is clear that the subsequent establishment of the colonial state affected the fishers. The coming of the new gill nets, changing policy on the mesh size and stringent policing that came with the British ordinances all affected the fishers. Indeed, from the discussion, it is abundantly clear that the fishers' rhythm of life was affected in numerous ways. Fishing was now controlled by new regulations as the Luo fishers came under the centralised bureaucracy of the colonial state. Furthermore, the introduction of the gill net and licences had far-reaching effects. It increased the exploitation of fish and eventually brought forth the real fear of overfishing. The restrictions on the fishers were, however, the biggest change. The new regulations standardised those pertaining to migratory fishers.. Instead, the colonial state took over the control of the issue of permits and licences to those who wanted to fish. The outbreak of World War I made matters worse because of the increased demand for labour. As more people were recruited into the colonial army, women had more responsibilities thrust on them in farms and households. The impact of the licence, permits, ordinances, taxation and the change in the movement of labour drastically changed the economic organisation of the fishers by undermining their indigenous systems of management and economic production. In the end, social differentiation began to emerge with some few rich fishers being able to purchase more nets than the poor majority and hence increase their incomes. By using five to ten nets on one boat, wholesalers and retailers were able to control the supply and demand for fish and, by extension, the fishers who now had to respond to market conditions.

CHAPTER FOUR

The Policies on Accessibility and Management of Fisheries: 1921-1944

4.1 Introduction

This chapter discusses the change in management strategies adopted by the colonial state once it was learnt that their previous programmes and new methods of fishing were resisted by the Luo fishers. There was a shift in policy that saw the state playing a more dominant role via state-led statutory bodies, further marginalising the role of the ordinary fishers in the management of fishing. Berman and Lonsdale point out that throughout British Africa new institutions and policies managed the development effort, marked by rural development programmes, commodity marketing boards, investment incentive schemes for industrial capital and industrial and labour policies.⁴⁸⁷ This chapter therefore examines the enhancement of regulatory mechanisms based on local centres of power such the African Development Councils (ADCs). It further interrogates how the use of nets was regulated, the nature of people's responses to these measures and their impact on the fishing industry as a whole. It is probable that new nets, technology and management approaches were introduced mainly to encourage industrial fishing for the market abroad and profit maximisation, without due regard to African systems of fishing and indigenous management strategies. In the process, the voices of the local fishers and traders were ignored as the state hoped to pursue a strategy of expanding fish production and sale of the surplus. The demand for labour in fishing was influenced by colonial policies on taxation and forced labour as well as the depression of 1930s, as will be seen. Migrant fishers went to work to meet specific needs the satisfaction of which necessitated their working for limited periods of times. The outbreak of World War II also affected the output of fishery, as the state had to feed both soldiers and prisoners of war. One of the post-war strategies in the management of fisheries was the use of locally based bodies such as ADCs. In order to raise the standards of living for the

⁴⁸⁷ B. Berman and John Lonsdale, *Unhappy Valley: Conflict in Kenya and Africa*, Book Two, (London, James Currey, 1992), p. 166

fishers, the state enacted policies and formed bodies to check and control the number of fishers and the use of technology, as will be seen below.

4.2. Colonial Policies and the Fear of Overfishing

The colonial government's decisions informed the choices that were made about the type of fishing gear and the mesh sizes of the gill nets. The colonial administrators were convinced that there was real possibility of overfishing as a consequence of the introduction of modern gear. The 1927 survey of the Lake Victoria fisheries commissioned by the colonial state, for instance, reported that: 'the fish industry is in the hands of Indians who own the boats, which are manned by the Africans. These African fishers, in addition to their pay, got a few of the fish caught'⁴⁸⁸ Indeed, it was such inconsistencies, like the failure by the government to assist the Luo fishers to compete in the market with the Asians, which made the state unpopular with Kenyans. This and the failure to consult them, as the main stakeholders in the industry, irked the fishers and made them not support some of the colonial policies. Consequently, the African fishers protested against these prohibitions. The colonial state only reacted when people protested. In one such case, the Chief Secretary of Uganda in February 1930 wrote that:

With reference to Kenya Gazette notice number 381 of 1929 dated 11/6/1929 notifying the prohibition of fishing with nets not conforming to certain standard requirements as proposed by Mr Graham, I am directed to inform you that a similar proclamation issued in Uganda has now been modified by removing the prohibition from fishing carried on in water of 12

⁴⁸⁸ KP/4/7: 'Dangers of Over-fishing' This file contains an article by Michael Graham in the *East African Standard* dated January 1, 1929.

feet depth or less within half of a mile of the shores of the Sesse or Buvuma islands⁴⁸⁹.

The modification was introduced because the African fishers of the Ssesse islands had complained that the prohibition of fishing of smaller species such as *ningu* and *ngege*, from which they derived their livelihood, had a negative effect on people and could also have wider repercussions for the colony. There was thus a need to listen to the community's demands, though this was further evidence of contradiction in colonial policy. The Colonial Secretary wrote in 1928 that the primary necessity arising from the Graham Report was to formulate a legislative measure to licence fishers and control the size of the nets used in fishing. In his article on fishery research in East Africa, Beauchamp argued that it was a pity that the colony had not initiated any credible inter-territorial service such as the Lake Victoria Fisheries Service immediately after Graham's 'excellent' survey carried in 1927.⁴⁹⁰ Graham's report of 1929 contained an explicit warning on the dangers of overfishing in Lake Victoria. This warning given in good time, was ignored despite the fact that fishery had continued to decline. Beauchamp stated that the lack of a consistent policy on the fishery had undermined catches. As a result of the new policies, it now required more fishers using more nets to bring in the same number of fish as could previously be caught by fewer men with less equipment. He stated that

[t]he present policy, which allows an ever-increasing number of nets to be used on the better fishing grounds, is likely to lead to a situation that may not be an exaggeration to describe as disastrous. The introduction of nylon and terylene nets, which are more lethal than the flax nets, will no doubt hasten the process [of fish depletion].⁴⁹¹

⁴⁸⁹ KP/4/9: The file has documents on the fishing industry of Lake Victoria Nyanza and Lake Naivasha, 1929-1932. There is a report on the prohibition of trawling.

⁴⁹⁰ AG/4/3.

⁴⁹¹ KP/4/7: 'Dangers of Over-fishing'.

This colonial legislation was aimed at prohibiting the free movement of Africans as well as curtailing their participation in the lucrative fishing trade, thus giving preference to Indian and European middlemen. The 1927 Fish Protection Ordinance was based on these rules. This Ordinance contained eight rules. The first was that all fishing boats and canoes should be registered and pay such licence fees as prescribed in the schedule.⁴⁹² Secondly, ‘all fishing stakes and creels now erected or to be erected on any part of the sea coast of the colony and protectorate or along the shores of any bay, creek, harbour or other inlet on the said coast’ should be licensed and should pay a licence fee prescribed in the schedule to the rules.⁴⁹³ Thirdly, all nets used for fishing should be registered and should pay such registration the fee prescribed in the schedule for these rules. Fourthly, no net should be used unless the mesh was at least 1” by 1”. The fifth rule was that fish might be caught by means of hooks, nets, stakes or creels. The capture or destruction of fish by means of any poison or other noxious substance was forbidden. The sixth stated that the register number of each fishing boat and canoe should be legibly painted on each side of the bow. The seventh rule warned that it was lawful for any magistrate or police officer above the rank of sub-inspector to seize any appliances used for the capture or destruction of fish in contravention of these rules. Finally, the eighth rule declared that ‘any court which convicts a person of an offence of using an appliance for the capture or destruction of fish forbidden by these rules may, in addition to any penalty imposed on such conviction, confiscate, the appliances unlawfully used’.⁴⁹⁴ Michael Graham, a researcher with the Ministry of Agriculture and Fisheries in the colonial government lamented the possibility of excessive fishing when he posited that:

The introduction of the European flax gillnet had undoubtedly caused a massive denudation and diminution in the numbers of fish particularly the favourite *ngege* in those parts of the Kavirondo gulf, northern shores

⁴⁹² AG/4/3: The Victoria Nyanza Fish protection Rules of 1928-29

⁴⁹³ AG/4/3.

⁴⁹⁴ KP/4/7.

of the lake, the Sesse island and Smith's sound, which were conveniently situated near the markets.⁴⁹⁵

Graham felt that, there was glaring evidence of overfishing in certain parts of the lake following the coming of new gear. He further reported that certain areas of the lake were naturally the most productive and valuable hence the anxiety felt over these was justified. Though there were signs of overfishing by 1928, the government showed no anxiety as yet, because the effect of the use of efficient gear such as trawlers was not yet evident. This view did, however, change. Nevertheless the concerns of most European researchers were misplaced as they were more concerned with fishery preservation than with improving the lot of the fishers. As Mackenzie has observed, colonial policy was more focused on 'yields, genetic uniformity and value of the production'.⁴⁹⁶ This policy was based on demand and production for the market. The needs of the ordinary fishers were, therefore, secondary as far as the colonial state was concerned. Indeed the state's so-called scientific findings 'represented a major assault on local production'.⁴⁹⁷ Thus Graham's report, underpinned as it was by colonial prejudices, blamed Africans for overfishing, totally ignoring the fact that it was colonial policy that had introduced the new nets. Graham himself calmed these fears when he added that the loss was not serious. He asserted that the use of the 5-inch mesh nets 'could not reduce the number of *ngege* which entered the fishery annually on becoming large enough to be taken by the net'.⁴⁹⁸ The threat to the lake fishery, he declared, was not yet so great. This meant that his claim that the fishery was in no immediate danger could be vindicated. There remained a need to harmonise and strengthen the regulation and control of the fishery so 30 June 1930, the Governor, using the powers conferred upon him by the Fish Protection (Lake Naivasha) Ordinance chapter (Cap) 163 of the revised edition proposed three amendments. These were, firstly, that no person shall take or kill by any means,

⁴⁹⁵ AG/4/3: Also see Michael Graham, *A Report on the Fishing Survey of Lake Victoria, 1927-1928*, (London, Crown Gents for the Colonies, 1929), pp. 1-8

⁴⁹⁶ Mackenzie, "Betterment and the Gendered Politics of Maize," 1999, p. 77

⁴⁹⁷ Mackenzie, "Betterment and the Gendered Politics of Maize," p. 77

⁴⁹⁸ AG/4/3.

whatsoever, any fish of the species of introduced sprout fish; secondly, no person shall buy, sell or barter or exchange any fish taken from the waters of the lake; and thirdly, the Ordinance declared that any person, if found guilty should be liable to a fine not exceeding thirty pounds and, in default of payment, be imprisoned for a period not exceeding these months. These laws ignored the indigenous institutions. To the Luo fisherman they seemed oppressive. It is remarkable that the colonial authorities did not anticipate a backlash of some kind when they stopped the fishing of certain fish species and the trade in fish. It was this conspicuous lack of an African input to policy making which made colonial regulatory regimes very unpopular and, at times, very inconsistent.

Thefts of nets were a major problem facing security enforcement officers. It is possible, of course, that some of these thefts can be perceived as a form of protest by the Luo fishers. There is no evidence, however, that the protests were organised by fishers. In order to stem the thefts, patrols were introduced, and the fishery scouts were put in charge of Lake inspection without due regard to input from the African fishers. The thrust of the patrols was to protect the Indians whose dominance of the fishing activities might have encouraged the marginalised Africans to steal their nets as a coping strategy. Berman and Lonsdale have pointed out that the fishery scouts and [fishery] officers replaced the DO as the embodiment of colonial authoritarianism'.⁴⁹⁹ The Game Warden in Nairobi declared that in response to the Graham Report the colonial government established a fishery patrol⁵⁰⁰. This unit was formed to prevent the stealing of fishing nets in the Kavirondo Gulf. The dominant Indian fishing entrepreneurs, the Warden added, had agreed to a levy on all nets sold to fund the patrols. He noted that the patrols had 'stopped the thieving and other abuses which were in evidence on the lake.'⁵⁰¹ The patrols prompted the Indian and local fishers to expand the number of nets used.

⁴⁹⁹ B. Berman and J. Lonsdale, *Unhappy Valley, Conflict in Kenya and Africa*, p.166.

⁵⁰⁰ DC/Ksm/1/32/14: Annual Report of Lake Victoria fisheries of 1942-1948. This file contains reports stating that fishery regulation shall concentrate on enforcement of the registration of fishers, boats, nets and collection of relevant taxes and licence fees as well as the suppression of the black market.

As noted before, the Luo crew in addition to their pay got a few of the fish caught as part of their meagre remuneration. The vessels used were locally built flat-bottomed boats of two feet deep with a beam of 25 feet by six feet. They were not very fast as they were mostly not motorised.⁵⁰² They carried a lantern sail and a crew of five men during each fishing session (*kilua*). The crew invented their own ways of compensating themselves for their low remuneration from the Indians. Rather than take all the catches to the Indian employers, they became dishonest ‘by selling some of the fish secretly on the lake before landing’.⁵⁰³ Thus the Luo fishers, in protest, undermined the powers of the Indian boat owners. In any case, not all of them were engaged in these acts of dishonesty. As a result of the commercialisation of fishing by the Indians, new technology and the introduction of licence system, the problem of overfishing was beginning to be felt as the table below shows.⁵⁰⁴

Decreasing Fish Output

Year	Sum Collected for Licences	Average Retail Price for Fish in Cents
1917-18	16,350	60
1918-19	14,530	75
1919-20	19,350	50-70
1920-21	19,200	50
1921 (9 months)	16,300	25-40
1922	9,900	25
1923	8120	25
1924	8,700	23
1925	10,500	20

⁵⁰¹ AG/4/3.

⁵⁰² Kp/4/7 Report of 1927.

⁵⁰³ Interview with Joram Odiyo Ojura at Uhanya beach on 23/10/05.

⁵⁰⁴ Obiero Ongonga, *Lake Victoria and its Environs, Resources, Opportunities and Challenges*, 70-71.

1926	8,250	21
1927	5,700	20

Table 1: Source: Survey of Lake Victoria Fishery of May 3rd 1927: KP/4/7 of 1927, KNA

What is clear from the table is the fluctuation of fish prices, which reflected the increasing amounts of fish supplied to the market. The number of fisher licences, as can be seen, fell dramatically. This suggests considerable efficiency, the effect of the new gill net and technology. As the 1927 report indicated, ‘during the 1923 period, fishers had great difficulty in paying annual licence fee of Kenya shillings 300.’⁵⁰⁵ The colonial administration immediately became concerned about the use and adverse effects of some of methods it had introduced⁵⁰⁶. One such method was trawl fishing. The government feared that the new gear could lead to overfishing and thus enacted new rules to curtail its use. The Provincial Commissioner (PC) of Nyanza region under which the Lake fell, C. M. Dobbs, decreed on 15 June 1929 that the governor had directed the promulgation of the Victoria Nyanza Fish Protection (Amendment) Rules to take effect on 1 July. A section of these rules read ‘fishing by means of trawling is prohibited save and except in places where the water has a depth of not less than 16 feet, and is distant not less than a quarter of a mile from the nearest point of shores’.⁵⁰⁷ The use of the trawl was proscribed because its efficiency enabled it to harvest immature fish. Trawling was defined as the operation or practice of fishing ‘with a trawl net’.⁵⁰⁸ A trawl net was taken to mean ‘a long purse shaped net for deep sea fishing used by dragging behind a vessel and catching fish that lie near the bottom, the mouth being extended by a beam’.⁵⁰⁹

⁵⁰⁵ KP/4/7: Survey of Lake Victoria Fishing, 1927.

⁵⁰⁶ DC/Ksm/1/32/12 of 1941-44: KNA, Nairobi. The file has a report written by Nyanza PC to the DC of Kisumu, the main city in Lake region of Kenya. He stated that the amount of fish caught was decreasing as a result of catching the juvenile fish. Consequently he stated, ‘Africans should not be allowed to make their own nets unless permission is sought from the fishery inspector in Nairobi. Seine net fishing will be stopped and the licence fee will not be reduced’.

⁵⁰⁷ AG/4/3.

⁵⁰⁸ AG/4/3.

⁵⁰⁹ KP/4/7.

Contradictions in policy emerged once again when it came to controlling the use of the trawl nets. The Graham Report, which was a central government project, was opposed by some sections of the provincial administration. The prohibition of trawl use followed the recommendations of Graham's report that Dobbs had apparently opposed. Dobbs criticised the report and argued that Kettles Roy, an interested party in the net industry, had stated that the use of the new gear was within the law and that the nets used on the Lake did not amount to trawling as such but an 'an adoption of the seine net'.⁵¹⁰ To Dobbs such a net ought not to be forbidden under the existing rules as its use was not likely to be so injurious to the fishing on the Lake. R. E. Dent, on behalf of the Governor, retorted that there was need for laws prohibiting the use of purse seine or the trawl. He stated:

Legislation prohibiting the size of mesh and size of thread comprising a seine net is needed, because a net of 2-inch mesh and 30 ply used as a seine would be most destructive to the young *ngege* as they would be caught by the gills and killed. At the same time a seine net was very effective in catching haplochromis species, and thus could lead to over fishing. The regulation further stated that, provided that the mesh of the net is small and provided that any immature *ngege* taken in by this form of net will be returned to the water, a seine net will do no harm to *ngege* fishery.⁵¹¹

In other words, the colonial state considered policing and monitoring mesh size as the principal objective of its management strategy. One major shortcoming of this approach was that it ignored the indigenous system of fishery management, long tested by the fishers.

⁵¹⁰ AG/4/3.

⁵¹¹ AG/4/3.

This contradiction in the policy manifested itself in the numerous rules for the management of fishery, most of which emanated from the local administrators in the Lake Region, and not in Nairobi. The Fish Warden, who was the government fishery officer, pointed out the gist of the contradictions in the policy when he raised concerns about interpretation. Who, for example, was to be arrested when it came to the use of undersize nets? Was the culprit the maker of nets or the user? In the case of undersize fish was it the catcher or the buyer who was to be faulted? The Warden wrote: 'for some time now we have known that the Fish Protection ordinance (1939) was not up to date especially the paragraph dealing with interpretation'.⁵¹² This administrative oversight was indicative of a lack of co-ordination between the Colonial Office in London, the Governor in Nairobi and the local chiefs. Provincial Commissioner, C. M. Dobbs on 30 April 1930 suggested some changes to rule 7. The rule stated that 'any method of fishing is prohibited in which a net is not fixed to the bottom throughout its fishing period [but could be allowed if] the operation of capture includes essentially drawing the net out of the water on to the land'.⁵¹³ Dobbs did not think that trawling in Lake Kavirondo was bad disadvantageous, yet it was already forbidden and could be used only in water sixteen feet deep and over.⁵¹⁴ The PC supported the need for setting up a joint fishery authority for the three East African countries that owned the Lake, but without taking into account the boundaries for the individual colonies in the region and the effectiveness of appointing a fishery supervisor who would inspect the fishing operations around the Lake. All his suggestions were later absorbed and executed by the colony of Kenya. The Fishery Department was not created however until later in 1949.⁵¹⁵ The Game Department had been created in 1936 to take care of fisheries and other wild life. To that end and to give fishery supervision some authority, Hugh Copley was appointed as Assistant Warden in charge of fish.⁵¹⁶ The Lake fishery was recognised as an important sector for the people of Western Kenya, but was not yet given the priority it deserved at policy level.

⁵¹² KP/6/3.

⁵¹³ AG/4/3 Fishing Report of 1929.

⁵¹⁴ AG/4/3.

⁵¹⁵ KP/4/9.

Another contradiction was evident when it came to implementing the regulations on the new exotic species such as carp, black bass and gold fish. The Fish Protection Ordinance of 1939 pointed out this problem when it directed that the importation of any fishes in the carp family and the goldfish had been prohibited.⁵¹⁷ Yet, before 1939 Japanese cargo ships used to trade in these fish. Now the government declared that ‘all goldfish bred in Japan carry or are likely to carry, certain virus diseases, consequently they are being barred [sic] from South Africa, USA etc.’⁵¹⁸ At the same time, the government asserted that it was fine to import the fishes provided the Game Warden had given permission to do so. The Warden directed that ‘any importation of gold fish would be allowed provided a clean bill of health was submitted from the Ministry of Fishes, England’.⁵¹⁹ This shows the paternalistic nature of the colonial state.

The Colonial Fisheries Advisory Committee, an arm of the colonial government, discussed the question of controlling the introduction of exotic species into colonial territories.⁵²⁰ The government stated that though the introduction of trout into Kenya had been successful, there had been some unsuccessful introduction into Kenyan waters of carp species. The government wanted to be in charge of policy making, while ignoring the opinion of the Luo fishers. It felt that introductions of new species should be done with its consent and supervision. It was also proposed that biological surveys be carried out in cases where it was proposed to move indigenous fish from one water body to another within Kenya to breed. The Warden warned that the importation of carp into America and South Africa had been ‘an unqualified disaster so much that South Africa is now working on ways and means of eradicating the carp throughout the Union’.⁵²¹ Yet the colonial government had earlier allowed trout to be introduced. It should to be noted, however, that there is an important difference

⁵¹⁶ KP/4/9.

⁵¹⁷ KP/6/3.

⁵¹⁸ KP/6/3.

⁵¹⁹ KP/6/3.

⁵²⁰ AG/4/3.

⁵²¹ KP/6/3.

between an alien species (trout) and an invasive alien (carp). The government claimed that this ban was being imposed to protect the indigenous fishery of Lake Victoria. In retrospect, the British were right, especially because twenty years after being introduced, the Nile Perch showed what an invasive carp would have done twenty years earlier if it had not been banned. The Warden categorically argued that ‘the new Lake Victoria Act seeks powers to prohibit any fish outside Lake Victoria fish being introduced into the Lake’.⁵²²

At the same time, the 1939 Ordinance proclaimed the banning of any noxious substances and explosives in fishing. Penalties were imposed for offences because the government argued that the earlier punishments had been too lenient and this had encouraged fishers to ignore the rules. Thus, it was indicated that any fisherman who obstructed, assaulted or resisted administrative officers, fish wardens or scouts from doing their work would now be liable to ‘ten thousand instead of one thousand shillings’ or one year’s imprisonment. D.F. Smith, Chief Fisheries Officer, points out the mildness of the punishments when he writes,

I would point out that these sentences in no way approach the severity of these laid down in the amended wild animals protection ordinance, but the damage done by a fish poacher to a natural resource is just as great as that done by a poacher who kills an elephant for its ivory but because popular sentiment is not involved the fish poacher, for an offence which brings him much greater profit in a much shorter time, and with no risk to his person, receives a much less severe sentence.⁵²³

As can be seen, Smith called for stricter implementation and stiffer penalties than in the past. The rules were introduced rather belatedly as the same government had not previously recognised the fundamental role that the fishery played in the livelihoods of the people of the Nyanza Region. Smith further points out that the fisheries of Lake

⁵²² KP/6/3.

Victoria had to be protected because they were a natural resource on which many thousands of African fishers were dependent for a meagre but hard earned livelihood: to deter future offenders, there was need for tough punishments. He argues that rigid penalties were equally crucial 'because of the violence which the Fisheries Officers and Fish Guards' normally suffer when they are confronted with uncompromising fishers.⁵²⁴

Smith highlights this issue when he declares that '[n]ot long ago the Fisheries Officer at Kisumu was stoned when investigating illegal fishing, and the Chief Fisheries Officer of Uganda recently told me that several bands of poachers have deterred the local Fish Guards by use of fire arms'.⁵²⁵ It was clear that African fishers would not submit to regulations that endangered their livelihood. In fact, oral informants like Peter Mireri and Joyce Oruko have argued that among the methods they used to stop Fishery Officers from inspecting their nets was physical violence.⁵²⁶ Having no time to compromise with the African fishers Smith, suggests even tougher measures and punishments for offenders. He further suggests that provisions be made for confiscating the catch of offenders. Whenever a Fisheries Officer found illegal nets full of fish the practice was to return such fish back to the water while the net was kept and later brought to court as evidence.⁵²⁷ Despite these regulations the Africans were not deterred from using all manner of nets, even confronting the inspectors because to them the Lake was their source of life. They were ready to protect their access to the Lake even by using firearms, some fishers acquired after World War II.

4.3 Labour Supply

Another area of concern was labour supply to the fishery. Africans had no choice but to join the labour market as they were forced to pay poll and hut taxes to the colonial state: this was how the labour needs of the state and the settlers were met. Berman points out that infrastructure such as roads and public buildings were built by gangs

⁵²³ Kp/6/3

⁵²⁴ KP/6/3

⁵²⁵ KP/6/3

⁵²⁶ Interview with Joyce Oruko (on 21/2/2007) and Peter Mireri (on 23/2/2007).

of unpaid labour, coerced to work by the local chiefs.⁵²⁸ Most Africans were also made to work in the settler plantations of tea, coffee and cotton in order to raise money for taxes. As Berman points out, 'the state provided coercive pressure to assist settlers in recruiting and retaining labourers through circulars'.⁵²⁹ This 'pressure' was exerted by local administrators under instruction from their colonial superiors. Any claim that Africans were 'encouraged' to work misses the point⁵³⁰. The truth is that they were forced to work under very unhealthy conditions on colonial farms. Zwanenberg argues that the use of force to compel men to work was easily justified by settlers and administrators from Britain 'where it was part of the existing ideological set up that men should be forced to work and such attitudes were easily made to fit the conditions of the British employers in Kenya, when the incentive of a wage was not attractive enough'.⁵³¹

Luo fishers could not be persuaded to work on European farm so their labour became compulsory. Fishers on the beaches for instance did not have any real motive to leave fishing in order to work for white farmers.⁵³² As Zwanenberg aptly puts it, 'the situation of rural unemployment had not occurred [in Kenya by this time] and so the method used [to get labour] was of personal compulsion which involved threats to personal well being of an individual.'⁵³³ Physical pressure and forced taxation were used to drive men to employment with the European. He justifies the use of force when he states that in colonial accumulation the extraction of a labour surplus was of very considerable importance and the colonial state was used by the settlers to facilitate the process [of forced labour].⁵³⁴ Laws were put in place providing penal sanctions against desertions such as *kipande* (an identity card), while the whip

⁵²⁷ KP/6/3.

⁵²⁸ Bruce Berman, *Control and Crisis in Colonial Kenya, The Dialectic of Domination*, (London, James Currey, 1990), p. 53.

⁵²⁹ B. Berman, *Control and Crisis in Colonial Kenya*, p. 63.

⁵³⁰ Richard Wolff, *Britain and Kenya: 1870-1930*, (London, Transafrica Press, 1974), pp. 89-111. He discusses at length the reorganisation African labour in Kenya

⁵³¹ R.M.A. van Zwanenberg, *Colonial Capitalism and Labour in Kenya, 1919-1939*, (Nairobi, EALB, 1975), p. 104.

⁵³² Interview with Joyce Oruko at Dunga beach on 26/1/2007.

⁵³³ Van Zwanenberg, *Colonial Capitalism and Labour*, p. 105.

⁵³⁴ Van Zwanenberg, *Colonial Capitalism and Labour*, p. 289.

(*kiboko*) was used to retain labour on the settler farms. Labour in the fisheries was, however, very different in terms of recruitment, demand and retention. *Joramba*, or people who lived away from the Lake, came to work because they had some needs for which they wanted to earn money.

Peter Mireri confirmed this point by stating that most labourers on the beaches came from outside the Lake.⁵³⁵ He pointed out that the local people went to work in towns and settler farms because they considered fishing to be a poor man's activity. For the local labour within the Lake region, the fishery was part-time work done by their forefathers, and thus they desired to leave the beaches for urban centres. In any case, fishing did not provide them with an adequate income so they saw it as a way of coping with the problems of hunger and survival. Indeed, most of the crew men were recruited far way from the Lake, people curious to see and work on the Lake to make money. Because they came from a distance, they had to rent a house or buy land to build a home. Stitchee argues that in the 1930s labour supply was heavily affected by the depression, which also influenced the demand for labour on settler farms.⁵³⁶ She asserts that as a result of the depression, Africans coped by combining wage labour, fishing, farming and trading in a variety of ways: [in the 1930s, due to [the] effects of depression, more and more Africans found fishing and local trading and the development of their holdings more profitable than working on the [settler] farms for a comparatively small wage and especially those employed as fishers in Kisumu'.⁵³⁷

Because the fishers had an alternative means of raising money for taxes they often worked for the settlers as migrant labourers. One advantage for migrant workers was that 'they worked shortly and left colonial farms because they had some means of subsistence, that is fishing'⁵³⁸ The colonial government was hardly involved in recruiting labour to work in fishing, apart from providing the scouts and fisheries officers to inspect the beaches and implement the colonial regulations. There was also

⁵³⁵ Interview with Peter Mireri at Dunga on 21/1/2007.

⁵³⁶ S. Stitchee, *Migrant Labour in Kenya: Capitalism and African Response, 1895-1975*, (London, Longman, 1982), p. 107.

⁵³⁷ S. Stitchee, *Migrant Labour in Kenya*, p. 107.

a feeling in colonial government circles that the Lake was being overfished thus colonial officers began deliberately persuading people not to work there. In fact, in 1942 the Chief Secretary rejected the suggestion that prisoners of war be put to work in establishing a fish canning industry, rejected the idea arguing that ‘the lake was already overfished and the supply of fish was inadequate to meet normal civil requirements and labour demands’.⁵³⁹

What, then, were the reactions of the local people to these regulations and bans? Most resident fishers felt that the rules were draconian and not people-driven as the people were not consulted. Okullo lamented that the implementation of the regulations was very stringent: ‘the problem was that if you failed to use the new nets and adhere to regulations, you would be arrested by the government and suffer consequences such as losing your catch and your nets’.⁵⁴⁰ The rules were imposed top-down and this approach presumed that the population would change its attitude and follow the rules. This did not happen. Z. A. Nyandonge, General Secretary of the Kavirondo Chamber of Commerce captured the mood of the day when he complained about the government’s restriction on fishing. He might have been a leader of the nascent business class, but his views reflected the frustrations that the African fishers experienced at the hands of colonial officers. He wondered why the state had ‘intensified the law restricting the natives from fishing by fishing nets and the *gogo* nets all around the gulf of the Lake Victoria (Nyanza)’.⁵⁴¹ He complained that all the African fishers had been compelled to withdraw their nets from the Lake, without any public consultation. The peoples living around the gulf of Lake Victoria, especially the Luo, were solely dependant on fishing particularly those people of Nyakach and Kano locations, he said, asking where they were going to find another source of livelihood. Again this illustrates the contradictory nature of the colonial state in fishery management and the failure to harmonise its fishing ordinances.

⁵³⁸ S. Sticher, *Migrant Labour in Kenya*, p. 108.

⁵³⁹ KP/4/7: Survey of Lake Victoria Fisheries, 1929.

⁵⁴⁰ Interview with Mohammed Okullo at Dunga beach at 26/1/07.

⁵⁴¹ *EA Standard*, Nairobi, 8th May, 1940: The letter was written by Ugandan chief secretary in charge of fisheries and the article appeared in the Kenya Gazette of 1929

4.4 Open Access or Closed Access?

The colonial state halted the free access system hitherto used by Luo fishers without understanding its implications. The state's main concern was to control fishing to develop it for outside markets. Oguyo, a fisherman for many years, commended the decision to restrict access between April and August, which allowed fish to breed. According to him, 'free access had encouraged people to fish juvenile fish and risked future breeding. Free access had allowed too many people to join the fishing and this encouraged the use of smaller mesh size nets that at times scooped the eggs, catching the young fish together with the mature fish as well as fish that was yet to breed'.⁵⁴²

In essence, oral informants such as Oguyo believed that the introduction of a close season and minimum mesh sizes guaranteed the future supply of fish by protecting the eggs and underage fish, ensuring the sustainability of the Lake fish resource. There were also scouts who ensured that juvenile fish were not exploited. Mahira argues that only mature fish should be taken from the water. He concludes, 'it is not proper to harvest juvenile fish just like we should not harvest young coffee or tea before it matures'.⁵⁴³ However, some fishers like Oracho Wire felt that it was unnecessary to introduce licences, taxation and scouts to regulate fishing because fish was plentiful provided one knew the right season for fish and had the right gear.⁵⁴⁴ Otieno Omuga recalled that the colonial government checked and controlled the problem of overfishing by banning certain net sizes such as 2½ and 1½ inches mesh and those caught risked being prosecuted.⁵⁴⁵ He asserts that the licensing of new boats was a way of controlling the number of boats, thus the fishery department had to number all new vessels and inspect the beaches to enforce the regulations. The fishers' response varied. Some fishers felt that the seasonal restriction was good as it ensured sustainable resource use. Others felt that they were never consulted and in

⁵⁴² Interview with Mahira Oguyo, Uhanya beach, 22/11/2005

⁵⁴³ Interview with Mahira Oguyo at Uhanya beach on 22/11/05

⁵⁴⁴ Interview with Oracho Wire, Uhanya beach, 21/12/2005

⁵⁴⁵ Interview with Otieno Omuga, Dunga beach, 20/12/2005

any case the nets were expensive and the state gave no financial assistance to them. Thus they continued using the wrong mesh sizes by playing a game of hide and seek with the scouts. Agola Okullo claimed the fishers obeyed the regulations recording that they had ‘never rebelled against the colonial rules because the laws had to be adhered to strictly and there was nothing that we could do as fishers but to follow [instructions].’⁵⁴⁶ .

In the traditional society, as we have seen, accessibility to the beach was based on inheritance. The clan or the family claimed ownership of land adjacent to the home and ancestral land. With the coming of colonial rule, however, the government attempted to regulate this by introducing policies to control and manage fishery. Consequently, a committee was appointed to regulate the management of the fishery in 1937. Under the *Gazette* dated 11 May 1937 the committee’s three main objectives were listed, namely, to submit detailed recommendations for the control and development of fishing in every river and lake; to recommend whether local authorities or associations could operate with the government for the better organisation, control and development of river/lake fishing in the colony; and, finally, to make proposals for research into the ecology of the fishing grounds and fish.⁵⁴⁷ In order to involve the wider community, evidence was called from all stakeholders such as the angling clubs, game department and the provincial administration, except the African fishers who were ignored. The committee found out that fishing mainly took place communally. It was therefore about access for the general public. The Luo fishers responded to these rules both negatively and positively. The new colonial regulations, which had to be obeyed, were followed alongside Luo indigenous rules of fishing.

In imposing colonial regulations alongside African ones, the committee made three recommendations. The first was the adoption of the New Zealand principle of establishing a right of way along every riverbank or lake beach for the purpose of

⁵⁴⁶ Interview with Jacob Agola Okullo at Dunga beach on 21/1/2007

⁵⁴⁷ KP/8/22: The Trout Report

fishing by any fisher. The question still remained as to who would own the fish? The government suggested that the practice in Natal and New Zealand should obtain in Kenya. Fish belonged to the public. The right to catch the fish should depend on the right of access to the lake or river, holding a licence permitting one to fish and the use of lawful means and gear.⁵⁴⁸ As regards the first point, where the land was public, communal native reserve or unalienated land, the right to fish should be unquestioned. On privately owned land access depended on the owner.

The committee's second proposal was that in all 'native reserves' water adjacent to a narrow strip of land measuring a minimum of 6 feet and maximum of 20 feet should be reserved along the bank or shore.⁵⁴⁹ This strip of land was a riparian reserve similar to a road reserve and would be open to all members of the public for their lawful activities such as fishing or other purposes.⁵⁵⁰ By making the beach land around the lake crown land, it was possible to control the beach strip and it could thus be devoted to purely public purposes. This in turn would ensure access for fishers. Furthermore, this approach could also prevent soil erosion, which was desirable on its own for the general welfare of the people of the country. Such erosion affected fish abundance in the lake by producing a kind of pollution in the form of mud and silt which, in turn, altered the river and lake beds transforming the whole course of water flow in the case of rivers.⁵⁵¹

In the final proposal, the rateable value of land per mile of fishing water could be fixed and the owner would have to pay for exclusive fishing rights over the water on his farm. In order to raise the value of land the government proposed that rivers and lakes be stocked with more tilapia and black bass species, which were productive and adaptable to the Kenyan ecology, especially in Lake Naivasha in the Rift Valley part of Kenya. That a fisherman could be made to pay rates in order to use water adjacent to his land was preposterous and alien to the Luo culture. Indeed, Ochieng argues that

⁵⁴⁸ KP/8/22

⁵⁴⁹ KP/8/22

⁵⁵⁰ KP/8/22: The Trout Report.

⁵⁵¹ KP/8/22.

‘fish was a [free] common commodity for trade’.⁵⁵² In any case, the culture had not sanctioned the principle of exclusivity in the utilisation of natural resources. Ignorant of this issue, the state decreed that ‘in the event of the land owner not desiring to reserve such exclusive rights to himself, the fishing rights could become a public possession with due safeguards to the land owner/holder’.⁵⁵³ All in all, to suggest that people ought to pay in order to exploit fishery was not only strange but also unacceptable to the fishers around Lake Victoria.

African fishers responded to some of these recommendations in variously. First of all, these rules were opposed in a myriad of ways. Odhiambo Ondiek, an interviewee, argues that he never supported the colonial rules, ‘because from April when the lake was closed, was also the time when *omena* was plentiful and yet we were stopped from fishing [it]’.⁵⁵⁴ Tobias Dede also praises the open access recommendation to fishing, pointing out that ‘beaches should have been left public rather than [being] private because in public beaches, a fisherman could fish and regulate his fishing without being questioned by anyone’.⁵⁵⁵ What he was saying was that left to themselves, African fishers were capable of using the lake rationally, something not easy in an open access system. Rhoda Agutu, however, pointed out that if fishers were made to pay in order to fish, things would be better.⁵⁵⁶ ‘The fishers’, she felt, ‘should pay some fee in order to access the lake, and this money could be used to buy fishing materials, and generally improve fishing...I support private beaches’. Siprosa Abuya, a veteran fisher who learnt fishing from her parents, stated that a restricted fishery would give young fish time to mature, thus supporting her opinion, which was informed by the fear of over-fishing.⁵⁵⁷ While she suggested that fishers could be made to pay some fee, she was averse to the privatisation of the fishing beaches because this could result in disagreements. Joyce Oruko states that when restrictions became tight, ‘the fishers fished at night when scouts were asleep. At times there

⁵⁵² W.R. Ochieng, *An Outline History of Nyanza*, p. 68.

⁵⁵³ KP/8/22.

⁵⁵⁴ Interview with Gamson Odhiambo Ondiek done at Karachuonyo village on 23/2/2007.

⁵⁵⁵ Interview with Tobias Dede done at Jalambwe village on 27/1/2007.

⁵⁵⁶ Interview with Rhoda Agutu done at Wasaria village on 23/2/2007.

were spontaneous wars. We fought the scouts and their guns disappeared. We rebelled against these rules'.⁵⁵⁸ These diverse opinions and reactions underline the contrasting attitudes of the Luo fishers towards fishery management. Whereas those rich fishers with boats and nets could afford to pay for private beach usage, the poorer ones and crew members would have preferred a situation of free access. However there was a great need for a participatory approach involving all the stakeholders and fishers in appropriate strategies of fishery utilisation.

4.5 Regulation through Local Councils

After the Second World War, the colonial administration altered the Local Native Councils (L.N.C.) which became African District Councils (A.D.C.). The L.N.C. had been set up by the administration in the mid-1920s in predominantly agricultural districts in Kenya, including the Lake region. At first, representation in these bodies was mainly government chiefs and headmen⁵⁵⁹. These bodies had the main duty of collecting revenue for the state in the form of local taxes such as hut and poll taxes. They represented the efforts by the British government to give Africans a voice in the running of their affairs through which African affairs and development resources could be discussed. However, the African voice was still marginalised because of the overwhelming presence of colonial government officials in the committees. The local councils were noted for the role they played in enhancing economic enterprise especially among farmers; assisting in the construction of maize mills, small-scale dairies for the production of milk, shelters for drying skins and hides and the running of demonstration plots and farms geared towards the improvement of agriculture.

Another crucial role was the provision of loans to prospective African businessmen. There was the possibility that loans were made available for the construction of shops and purchase of lorries that had multiplier effects in the general provision of capital necessary for the promotion of economic production. However it is not clear how

⁵⁵⁷ Interview with Siprosa Abuya done at at Wasaria village on 23/2/2007'

⁵⁵⁸ Interview with Mama Joyce Oruko at Dunga beach on 25/1/2007'

⁵⁵⁹ G. Kitching, *Class and Economic Change in Kenya*, 1980, p. 188.

such loans were managed and very little is known about the method of applying for such credit facilities, which in most cases favoured the farmers more than the fishers.⁵⁶⁰

The fishers could only have benefited from the fact that such capital was probably used to construct village roads used by 'bicycle boys' (*oringi*) while transporting fish to the nearby markets centres. Referred to as 'boys', the African workers and labourers suffered all manner of discrimination and loathing. In the event of such capital being used for establishing shops and business stores at various markets, the fishers benefited as they were provided with space for the storage of dried fish in the Lake Region at, for example, Usenge, Dunga, Nyamonye and Bondo markets. All these centres began as trading centres for fish and other commodities. Money provided by local councils could also be used for buying bicycles for transporting fish and other merchandise to the nascent commercial centres around the lake.⁵⁶¹ Joyce Oruko is adamant that such money never benefited the fishers, arguing that when money came it never reached poor fishers because the leaders of the local councils, who were themselves fishers, embezzled the funds.⁵⁶²

Importantly, Kitching has argued that the district councils were also used to create legislation intended to protect and promote African businessmen and farmers.⁵⁶³ For instance, in the 1930s in Nyeri District in Central Kenya, the district councils recommended that no further plots for maize mills would be issued to Indians but instead every effort was to be made to encourage African businesses. Such policies, however, achieved very little for ordinary Africans as the chiefs and headmen, who dominated the ADCs, monopolised the benefits intended for ordinary farmers and fishers who were not represented on local council committees. Kitching argues that colonial officials and chiefs regarded the local councils as an inexhaustible

⁵⁶⁰ G. Kitching, *Class and Economic Change*, p. 189

⁵⁶¹ R. Abila, "Impacts of International Fish Trade," p. 48-49.

⁵⁶² Interview with Joyce Oruko at Dunga beach on 26/1/2007.

⁵⁶³ Kitching, *Class and Economic Change*, p. 190.

reservoir on which they drew to finance personal ventures.⁵⁶⁴ However the colonial state continued to believe that the ADCs were an opportunity to support African enterprise and promote the legitimate use of local revenue funds to encourage African business. David Owanga thought that the idea of controlling fish using local councils was a noble idea because the councils would provide the fishers with electricity and finance to enhance fish transportation to the market.⁵⁶⁵ He was supported by another interviewee, Tobias Adede, who pointed out that he had supported these councils 'because they regulated our fishing plans by giving us rules to guide us. The rules stopped the use of herbs to poison fish'.⁵⁶⁶

Another change that came after the war was the introduction of the Agricultural Betterment Fund aimed at benefiting maize, coffee, tea and cotton farmers.⁵⁶⁷ The maize-producing districts were particularly favoured. However, it appears that very little direct investment went towards the development of fishing. Few fishers benefited from whatever funds trickled down to them. As far as farming of maize is concerned, Kitching states that by 1945 Nyanza districts within the lake region had benefited to the tune of 50,000 pounds sterling. As before, the money did not benefit the intended small producers in terms of infrastructural provision as demonstrated by the lack of roads, factories and electricity along the beaches. Attempts by the colonial administration to create some sort of land bank were unsuccessful because the peasant farmers lacked collateral, and the bulk of such capital investment went directly to a few wealthy model farmers in the locations. Instead of providing the necessary infrastructure and capital for fishery development, the colonial administration introduced licenses and taxation as well as net control as its major contribution to fishery development.⁵⁶⁸

4.6 Licensing as a Regulatory Mechanism

⁵⁶⁴ Kitching, *Class and Economic Change*, p. 190.

⁵⁶⁵ Interview with David Okeyo Owanga at Lambwe village on 23/2/2007.

⁵⁶⁶ Interview with Tobias Okeyo Adede done at Lambwe Village on 23/2/2007.

⁵⁶⁷ G. Kitching, *Class and Economic Change*, p. 190.

The licence was the usual method of controlling the number of boats and canoes in fishing. The numbering of boats curtailed the attendant problem of net thefts yet remained unpopular with fishers. Used together with supervision by beach scouts, it was intended to facilitate the reinforcement of the colonial rules and strict adherence to fishing rules and regulations. Writing about fishing regulation in Malawi, Chirwa⁵⁶⁹ notes that after the Second World War, ‘new fishing regulations were proposed, which introduced fishing licences for African commercial fishers’.⁵⁷⁰ He points out that in the process ‘chiefs were empowered to refuse permits to non-resident Africans so as to control the rate of fishing in their areas and to conserve the fish stocks in times of scarcity’.⁵⁷¹ The same applied in Kenya where licenses were introduced to control the number of Africans joining the industry after the war, especially ex-combatants who had returned home with money and wanted to invest in fishing. The fish license applied to Africans as well as European and Indian middlemen. However, the implementation of licence rules, however, was made difficult by itinerancy of fishers. Chijere observed that ‘a major obstacle to the effective implementation of these rules arose from the mobility of the fishers and their seasonal fishing practices’.⁵⁷² Thus, as fish trader Tom Winja, testified that ‘[w]e could avoid those beaches where the government levied taxes and fish in the beaches where there were no government officers who wanted to tax us’.⁵⁷³ It is true that fishers reacted negatively to the coming of taxes and licensing policy by moving from one beach to another as the oral information above testifies. There was also the problem of perception on the part of fishers who hardly understood the rationale behind the license. Besides, information concerning taxation and other forms of regulation were passed from the government through a government officer in charge of the beaches (*ja-union*, as confirmed by Ogyo: [it is the scouts who brought the

⁵⁶⁸ G. Kitching, *Class and Economic Change*, p. 189.

⁵⁶⁹ W. Chirwa, “Fishing Rights, Ecology and Conservation along Southern Lake Malawi, 1920-1964” in *African Affairs*, Vol. 95 (July, 1996), p. 371.

⁵⁷⁰ W. Chirwa, ‘Fishing Rights, Ecology and Conservative along Southern Lake Malawi, 1920-1964,’ p. 371.

⁵⁷¹ W. Chirwa, ‘Fishing Rights, Ecology and Conservative along Southern Lake Malawi, 1920-1964,’ p. 371.

⁵⁷² W. Chirwa, ‘Fishing Rights, Ecology and Conservation along Southern Lake Malawi, 1920-1964,’ p. 371.

⁵⁷³ Interview with Tom Winja at Uhanya beach on 20/12/05.

news on licences on behalf of the government. The license regulations were reinforced by the government through the scouts and *Ja-union*'.⁵⁷⁴ He points out that, 'the colonial government used *ja-union* to levy taxes and assist the state in monitoring those fishers who failed to pay for the license and those who did not have the license were not allowed near the beach'.⁵⁷⁵ So in reality the administration sent its representative to collect taxes and monitor adherence to government policies along the beach.

The intention of the colonial state, when introducing the licences, was to use them as a source of revenue, not to control fishing or improve the lot of fishers. Generally the licensing system included the registration of canoes and the tonnage or catches of each. The license could, however, also be used by the colonial administration to check on net dealers and monitor the trade in nets. For instance according to C. G. Punjani, Merchant and Commission Agent in the colonial administration, the 'government could refuse to renew a fish net dealers licence' if they abrogated the rules pertaining to net distribution.⁵⁷⁶ The net dealers' licence was introduced in 1937, probably to monitor the movement of those Asians who dealt in selling, buying and distribution of nets and competed with the British traders. For effective control 'all net dealers had to get their licenses from the provincial administration'.⁵⁷⁷ Since there were concerns about over-fishing, the colonial state certainly hoped to curb the problem through the use of licences. Indeed, by 1930, the Graham report had 'recommended that every individual net should carry a label on which is written (sic) a licence for its use for a period of six months in the case of set nets and 18 months in the case of nets of thicker twine'.⁵⁷⁸

The report further suggested that the responsibility of issuing the licences be vested with

⁵⁷⁴ Interview with Oguyo Mahira, 20 December, 2005.

⁵⁷⁵ Interview with Oguyo Mahira, 20 December 2005.

⁵⁷⁶ PC/NZA/2/17/22: Nyanza Provincial Annual Report, 1944-1951.

⁵⁷⁷ PC/NZA/2/17/22.

⁵⁷⁸ AG/4/3: The Victoria Nyanza Protection Rules, 1928, K.N.A.

the chiefs in the distant areas. Implementation was difficult because traditionally Luo fishers' methods were unpredictable. The fishers could respond to the licences in various ways, by fishing in those parts of the Lake where they were not likely to be arrested for failing to have a license or fishing at night. Further, because fishing was a communal activity it was not easy to monitor individual fishers effectively. Finally, fishing was seasonal thus a fisherman who acquired a license could decide not to have one at the end of six months. On top of that the use of a license could not help regulate the mesh sizes of the nets. For all these reasons the administration had to formulate legislative measures to license fishers and control the size of nets.

In respect of the licences, Alwanga' Onyango comments that 'the coming of the licence (*osur*) discouraged us from fishing, we had to look for money to pay yet there were other taxes to cater for'.⁵⁷⁹ In the fishers' minds, the licence seemed an alien intrusion into their indigenous mechanisms of fishing. They reacted by avoiding paying and, consequently, the state response was harsh: their nets were confiscated if they failed to produce the necessary documents. Because the ordinary fishers could not afford to pay for the nets or simply rebelled against having to pay, they tied more than one net in one canoe or boat in order to increase their catches. Alfred Omumbo justified the fishers' 'insubordination' by saying that the 'colonialists never did any research, they did not consult us but imposed these policies and so we could do nothing against the new rules'.⁵⁸⁰ It is not surprising that the fishers escaped the colonial authority's dragnets and police, and the confiscation of their nets, by constantly moving to new fishing grounds where they could not be discovered.

The introduction of the gill netting and its subsequent much-vaunted success in fishing was challenged only by the Graham Report, which highlighted the problems that the new fishing gear had wrought in the fishing industry. Graham further proposed measures to be taken in order to redress the effects of the flax gill net. In this regard, most colonial policies, rules and ordinances between 1920 and 1940 were

⁵⁷⁹ Interview with A. Onyango, Usenge beach December, 2005.

⁵⁸⁰ Interview with Alfred Omuombo on 20/12/05 at Dunga beach in Kisumu.

intended to regulate the use of this very efficient, and of the same time destructive gear. The colonial government thus monopolised the right to licence the importation of the net, licence fishers and register all the boats used at the Lake Victoria fishing beaches. Following the devastating effects of the Depression and the Second World War, policies shifted towards empowering the local agents within the provincial administration such as the African District Councils (A.D.Cs) to control and manage the Lake Victoria fisheries. The table below gives an indication of how these new regulations affected revenue collection and their influence on fish output.

Revenue Collection for 1948

Name Items taxed	Revenue Collected in 1948 in Kenya Shillings	Revenue Collected in 1947 in Kenya Shillings
Tax on nets	20,000	15,695
Fishing Licences	9,621(for 3207 nets)	10,620
Registration of Boats	1,435	1,460
Net permits	390 (for 39 nets used)	201
Registration of net dealers	780 (for 78 units)	830
Miscellaneous receipts	1,916 (from fines and sale of confiscated nets)	55

Table2: **Source:** DC/Ksm/1/32/14 Annual Provincial Report for Nyanza Fisheries: K.N.A 1948

It also illustrates the level of taxation and revenue collection between 1948 and 1947. It can be observed that the tax collected in 1948 was more than that of 1947. This could be because there were fewer nets imported and registered in 1947 due to stringent import restrictions that required fishers to form cooperatives before being granted import licences. The revenue collected from fines and sale of confiscated nets was thirty times more in 1948 than 1947, very likely because regulations were tighter in 1948 and scouts did a better job of policing the Lake and catching offenders. 1948

also saw an increase in net thefts. The AR report added that the thefts had increased tremendously 'as most thieves had been caught during the year and heavy penalties imposed on them'.⁵⁸¹ Commenting on the problem of net thefts, one of the fishers, Lazarus Ogwire, states that, 'theft of nets was a major problem. You set your new nets at night and in the morning before you can check somebody has already stolen it leaving you poor and miserable'.⁵⁸² In order to enforce regulations in the fishery, the three East African colonies, namely Kenya, Uganda and Tanganyika instituted various joint institutions and measures. For example, from 1949 the Kisumu fishery inspector, S. W. Andrews, recommended that all issues pertaining to the conservation of fishery be taken over by the Lake Victoria Fishery Service (L.V.F.S.) (see below) created by and working under the East African High Commission (E.A.H.C.), and commencing its work by February, 1949. This followed the 1944 conference in which all the governors of the East African colonies met and agreed on joint councils to manage the fishery industry. One such body was the Lake Victoria Fishery Board (L.V.F.B.), discussed below.

4.7 Statutory Bodies

In British colonial Africa statutory bodies were intended to raise the quality of produce. However, without a doubt these bodies were simply exploitative institutions set up to set very high standards for African products. Their objective was to ensure that such products could not attain the standards and compete with the colonial goods in the market. Membership of such into such bodies was rarely democratic and was restricted to settlers. This meant that African farmers and fishers never had a voice in these forums.

The 1950s witnessed a number of statutory regulatory measures focusing on the need to involve all the East African nations in fisheries research with a view to enhancing the sustainability in the use of Lake resources. Towards this end, the colonial

⁵⁸¹ DC/Ksm/1/32/14 Annual Report, 1948

⁵⁸² Interview with Lazarus Ogwire at Uhanya beach 21/12/2005.

administration came up with regulatory boards such as Lake Victoria Fisheries Board (L.V.F.B.), East African Research Organisation (E.A.R.O.), Lake Victoria Fisheries Services (L.V.F.S.) and Lake Victoria Fisheries Coordinating Committee, among others. Most of these measures failed to realise tangible results, for the previously mentioned reasons: because the ordinary fishers were rarely consulted and indigenous knowledge systems ignored. The result was that all attempts at regulating fishery resources remained bodies with clear objectives but with little success among the fishers who were supposed to be their beneficiaries, as will be seen below.

4.8 Lake Victoria Fishery Board (L.V.F.B.) and other Bodies

The idea of creating the L.V.F.B. was first mooted in 1944 at a conference held in Kisumu under the auspices of the Governors' Conference called by the governors of Uganda, Kenya and Tanganyika. The governors' report from that meeting stated that the aim of the Board was to put in place strategies to secure maximum efficiency in the control and development of the Lake fisheries and to enable the optimum utilisation of the Lake's resource base for the benefit of the lakeshore population. The British colonial government thought that this would lead to a greater contribution by the fishery sector and to the improvement in the welfare of the territories within the economic reach of the Lake's shores. It was proposed that the developments within the Lake Region would be in the hands of a single executive department. This was akin to a centralised administration, which had its pros and cons. One merit was the fact that such an administration would ensure effective management. However, this would not translate into any benefits to the fishers because, once more, they were not included in decision- making at the local level.

Yet one of the primary aims of the management efforts and strategies of the fisheries should have been giving local fishers a say over the management of their natural resources. Writing on Lake Victoria fisheries, Kim Geheb et al argue that the state had failed to successfully manage the fishery in East Africa due to its failure to

effectively consult the fishers.⁵⁸³ Further, that such management styles by the 'state assume that fishers are homogeneous and as such management systems cannot cope with the many cultures, claims, contentions and access differences within communities of resource users'.⁵⁸⁴ Cooper has argued that much of the story of the penetration of capitalism into Africa is 'the story of failure and the inability of the governments to impose their conceptions of how labour and agriculture and fisheries should be organised'.⁵⁸⁵ The British were creating these fishery boards to monitor net mesh sizes and thereby restrict African fishing without any regard to an African perception of the social and economic environment. Fishers on Lake Victoria had not previously known any boundaries across the Lake. They had fished and interacted well with their neighbours, trading peacefully and in joint co-operation with the other fishers and traders all around the Lake and beyond, unregulated by any single political authority. For them, the Lake was a borderless world.⁵⁸⁶

Working under the aegis of the E.A.H.C., the Fisheries Board was one of the authorities established to provide certain scheduled services. It operated under the aegis and general control of the governor. The Board first met on 12 December 1947 but it was only in 1951 that legislation formally establishing the Board as well as the Lake Victoria Fisheries Services (L.V.F.S.) was adopted for the three colonies by the Central Legislative Assembly.

Pursuant to this in 1948 the Secretary of State provided 53,000 pounds sterling to meet the capital cost of establishing the Service and the Board. This capital also provided the housing, offices, stores at Mwanza (Tanganyika), Kisumu (Kenya) and Entebbe (Uganda), 96 quarters for subordinate staff, 3 launches, a dinghy and

⁵⁸³ Kim Geheb et al, 'On Pitfalls and Building Blocks: Towards the Mangement of Lake Victoria's Fisheries' in Kim Geheb and Marie-Theresa Sarch (eds), *Africa's Inland Fisheries: The Mangement Challenge*, (Kampala, Fountain Publishers, 2002), p. 146.

⁵⁸⁴ Kim Geheb et al, 'On Pitfalls and Building Blocks,' p. 146.

⁵⁸⁵ Frederick Cooper, *From Slave to Squatters: Plantation Labour and Agriculture in Zanzibar and Coastal Kenya, 1890-1925*, (London, New Haven, 1981).

⁵⁸⁶ Interview with Maria Ngambo at Dunga beach on 23/1/2007.

boathouses⁵⁸⁷. In addition, the three colonies agreed to share the future recurrent costs of the service. The Secretary of State was to be involved only to the extent of his capital contribution to the Board.

Disagreements over the the control of these organisations and the necessity for restrictions on the mesh size of nets between the three East African countries was seriously expressed at the thirteenth meeting of the Board in Entebbe in July 1956.⁵⁸⁸ As a result, all restrictions on mesh sizes were removed from Tanganyikan and Ugandan waters in 1957, but retained in the Kenyan waters of the Lake. It was argued that the Ugandan restrictions should be removed in order to avoid a political backlash and repercussions from the people of Buganda, and especially the Kabaka who was a great friend of the British government at the time.⁵⁸⁹ In view of the conflicting opinions aroused by this controversy, expert advice was sought from fisheries researcher, R. J. Beverton. His report on the state of the Lake Victoria fisheries contained a number of revelations on the question of regulation and existing scientific and statistical data. After lengthy research, the gist of his recommendation was that the arrangement for mesh regulation and prohibition of seine netting be maintained in Kenya but not in Uganda and Tanganyika.⁵⁹⁰ He also assessed the historical data for the fisheries and the effect of the use of gill nets on fish, especially the tilapia. The report suggested that continuous research had to be done on a regular basis to regulate the impact of fishing on the lake. There was a need for an analysis of fish dynamics and for a technical adviser to the Chief Fisheries Officer to collect commercial statistics. He also urged that a better research vessel for East Africa Fisheries Research Organisation (E.A.F.R.O) be provided.⁵⁹¹

Colonial government agencies and the Lake Victoria Fisheries Board discussed Beverton's report and certain technical recommendations such as the improvement of

⁵⁸⁷ See KL/24/12: Lake Victoria Fisheries Report, 1950-58, K.N.A.

⁵⁸⁸ KL/2/12

⁵⁸⁹ KP/8/9.

⁵⁹⁰ See KP/8/9: Beverton's Report, 1959.

⁵⁹¹ KL/2/12.

fish marketing networks and methods were put in force. Further measures to decentralise control were insisted upon in January 1958, and the value of the existing Board was seriously questioned.⁵⁹² The idea was to change the old view of the need for a central authority to the control and develop the lake.⁵⁹³ Thinking shifted to oppose centralisation and its proponents argued that 'Lake Victoria consisted of many lakes within a lake' requiring a decentralisation of control'.⁵⁹⁴ However, each of the countries wanted to control the section of the Lake within its boundaries for more effective administration and regulation. As a result, the Tanganyikan government later unilaterally proposed the abolition of the Lake Victoria Fisheries Services (L.V.F.S.). This common centralised control of the Lake had its drawbacks. To begin with, it never took into account the legislative problems it brought with it and there was bound to be the challenge of supervision over the huge lake. The abolition of the L.V.F.S., however, also created a vacuum.

The creation of the Lake Victoria Fisheries Act in 1949 meant that the Fisheries Board as constituted ceased to have legislative authority.⁵⁹⁵ However, it remained a centre for considering all matters of inter-territorial concern relating to the Lake's fisheries and for advising the government on the development of these fisheries. The governors of the three East African territories suggested that the Fisheries Board retain its powers to make recommendations on fish management in conjunction with the Lake Victoria Fisheries Co-ordinating Committee (L.V.F.C.C.). In order to further the co-ordination and co-operation at Jinja station in Uganda with the development objectives as recommended in the Beverton Report, the same committee would also absorb the already existing inland fisheries Research Co-ordinating Council.⁵⁹⁶ The Chief Secretary reported that the Governors had agreed to introduce legislation repealing the L.V.F.S. Act and regulations and to abolish the body at the April 1959

⁵⁹² KL/2/12

⁵⁹³ KL/2/12.

⁵⁹⁴ KL/2/12.

⁵⁹⁵ KP/8/9.

⁵⁹⁶ KL/2/12.

session, the repeal being effective from 1 January 1960.⁵⁹⁷ The problems with these regulatory efforts were that they stressed net size as the primary method of control.⁵⁹⁸

The Beverton Report had examined this issue. The report revealed that the five-inch net was the most widely used gear and it was specifically about this gear that the question of regulation was particularly concerned. Beverton pointed out that even a five-inch mesh could cause severe depletion of stocks of tilapia and other species if fishing were intense enough, hence the need to control the amount of fishing. The fundamental question remained which approach was better when it came to regulation. Was it better to emphasise the net size or the quantity of fish that was caught? Some of the methods of controlling fishing included closure of certain areas or seasons or the limitation on the quantity caught. The report added that it was the number of fishing units that needed to be controlled, preferably on an area or zone basis. This could be done through some form of licensing of fishers or fishing vessels. Regulation of a fishery by mesh size alone suffered from the disadvantage that it offered no hope of any ultimate benefit to the individual fisher. It was hardly possible to expect fishers to respond positively to the new regulations when the consequence would simply be to increase the number of their competitors. Probably there was a need to introduce a programme of stabilisation of fishing effort in heavily fished parts of Lake Victoria especially the Kavirondo Gulf. It was equally important to create a marketing infrastructure to facilitate faster delivery of goods to the buyers and ensure proper storage facilities for the highly perishable fish. Organising the artisanal fishers and encouraging them to join hands and form co-operatives that would, in turn, streamline marketing, distribution and storage could facilitate this objective better.⁵⁹⁹

⁵⁹⁷ KP/8/9.

⁵⁹⁸ KP/8/9.

⁵⁹⁹ R.O.Abila, "Impacts of International Fish Trade," p. 48.

4. 9 Conclusion

It clear in this discussion that the statutory boards created to regulate the Lake fishery failed to give African fishers any voice. The Boards' central policy framework was based on the control of net mesh sizes and the enforcement of its countless ordinances that changed the trajectory of fishery policy in Kenya. There were attempts to create clear strategies to secure efficiency in the control and development of African fishing efforts, whose potential remained, thwarted by state policies leading to several cases of glaring inconsistencies. This chapter has critically assessed the role of the state in enhancing sustainability in the fishery. It has been seen that the colonial government policies failed mainly because they ignored African forms of knowledge and pursued top-down programmes that never took into account the views of other stakeholders. This justifies a discussion on what the colonial state did to facilitate the marketing and distribution of fish via the use of cooperative societies.

CHAPTER FIVE

Fish Marketing, Distribution Process and Co-operatives: 1945-1954

5.1 Introduction

Very little has been recorded about fish marketing in Lake Victoria during the colonial period. However, like most African economies, one can assume that the trade in fish was conducted predominantly through barter. Abila asserts that through this medium of exchange, 'fishing clans would exchange fish mainly with agricultural commodities produced by farming clans in the neighbourhood'.⁶⁰⁰ Thus up to the time the railway arrived in Kisumu from Mombasa, the fish trade was 'largely localised within certain clans, and limited to a distance that fishmongers could reach on foot'.⁶⁰¹ The central thesis in this chapter is that the colonial government did very little to ameliorate issues of labour supply, fish distribution, transportation and information that could have assisted Luo fishers in enhancing fishing productivity. The marketing issues and challenges were crucial to fishery development. Also considered were fish storage facilities and the means of transport. The arrival of the railway at the lakeside port of Kisumu in 1901 opened up new markets for fish in the hinterland. Fish could now be taken to the major urban centres of Nairobi and Mombasa. Fish were landed at Kisumu from the nearby fishing beaches, bought by middlemen, prepared and packed in wooden boxes and baskets and later ice-chests to be sent by railway to Nairobi. The trade in fresh fish was not very extensive as it generally involved fish caught in the nearby villages. This was because of the difficulty of transporting fresh fish over long distances. As a result, many fishers living far from Kisumu sold fresh fish within the beaches because of lack of ice storage facilities. Marketing was necessarily dependent also on the supply of fish which, in turn, relied on the type of fishing gear. As time went by, transportation and marketing was affected by the coming of the bicycle, which replaced head portrage,

⁶⁰⁰ R. O. Abila, 'Impacts on International Fish Trade: A Case Study of Lake Victoria Fisheries', FAO funded Report, Kenya Marine and Fisheries Research Institute, Kisumu, Kenya.

⁶⁰¹ R.O. Abila, 'Impacts on International Fish Trade', p. 13.

and then the lorry, which made it easier to reach distant markets. Apart from looking at the problems of fish marketing, the question of labour supply to the fishing sector will be examined. The various panaceas that the colonial government offered to these problems will also be highlighted. This chapter argues that the failure by the British colonialists to plan and organise the fishery was a major reason for the marketing problem. Further, a lack of refrigeration facilities probably placed the greatest limitation on fish distribution. Added to that were the poor roads and physical infrastructure generally that hampered the fishers and fish traders in Kenya. By not providing storage facilities the colonial state failed to adequately support the fisheries in this regard. The problems regarding regulation were exacerbated by the spectre of the middlemen whose role remained that of a conveyor belt for the Asians and European traders. In the process, the fishers received little payment for their catches, partly due to rent seeking tendencies of the middlemen.

5.2 Fishmongers and the Middlemen

Fishmongers participated in fish marketing by buying fish caught by the crew men and boat owners. They then sold the catch to the middlemen or the agents who then supplied it to wholesalers and then to big dealers owning cold storage lorries. Nevertheless, within this chain fish marketing still had its problems. Ong'ong'a points out that 'the major problem in fish marketing was that of cold storage, processing and transport facilities [which] were not sufficient'.⁶⁰² Consequently, 'excess fish supply tended to cause a drop in fish prices and to increase post-harvest losses'.⁶⁰³ Writing on fish marketing in Ghana, Emile Vercrujse⁶⁰⁴ asserts that most fishmongers were known as middlemen by virtue of being sellers of the fish shares earned by crew men. The same applies to the Lake Victoria crew men. Ochanda informed us that on every *kilua* (fishing voyage), crew men were given ten percent of the total catch, which they shared among themselves.⁶⁰⁵ It was this share that

⁶⁰² O. Ong'ong'a, *Lake Victoria and its Environs: Resources, Opportunities and Challenges*, (Kisumu, Osienala Publishers, 2005), p. 73.

⁶⁰³ O. Ong'ong'a, *Lake Victoria and Its Environs*, p. 73.

⁶⁰⁴ See E. Vercrujse, *The Penetration of Capitalism*, 1984, 56.

⁶⁰⁵ Interview with Omondi Ochanda, Uhanya beach 19/10/04.

fishmongers collected and, with the coming of the bicycle, took to the markets. Thus the middlemen only dealt in limited quantities of fish, which they processed and sold to the local markets, or sold to wholesalers who were either from the same community or itinerants passing through the fishing villages. According to Vercuijsee the distinction between the subsistence trading of the middlemen and the specialised commercial dealing of the wholesalers was mainly a matter of scale, defined in terms of processing capacity. Wholesalers operated as individuals or in groups and owned ovens that could handle the smoking and preparation of enormous quantities of fish. In the Luo fishing culture the men concentrated on catching the fish whereas women processed and smoked fish. Women also played a vital role in the marketing of fish, carrying it on their heads to the marketing centres, where it was sold to the bicycle traders or other wholesalers.⁶⁰⁶ The fish traders played a crucial role in connecting the fishers with consumers, especially during the high season when there was plenty of fish to be distributed. Traders used their *kiru* (small huts for preparing fish) to store smaller quantities of smoked fish which they held until their customers came.

5.3 The Wholesalers and the Bicycle Traders (*Joringi*)

Bicycle ownership was the preserve of ex-soldiers and Luo migrant labourers working in urban centres who increasingly took to fish trading, investing their savings in bicycles to carry fish to markets in the towns surrounding the Lake.⁶⁰⁷ A large number of Luo men from neighbouring Siaya and Kakamega towns came down to Kisumu by lorry and bicycle to buy fish.⁶⁰⁸ As Chirwa has similarly observed on southern Lake Malawi, the fish carrier's bicycles became familiar sight and smell on every road.⁶⁰⁹ In the Lake Victoria Region during the period under discussion, the wholesalers regularly sold fish in bulk at larger market centres after visiting the various beaches and markets to collect fish. The larger markets included Kisumu, Alego (Boro), Majanji and Ugenya townships, which were distant from the Lake and

⁶⁰⁶ Interview with Joyce Oruko at Dunga beach on 24/1/2007.

⁶⁰⁷ Interview with Oracho Wire at Uhanya beach on 25/10/2005.

⁶⁰⁸ Interview done with Maria Ngambo at Dunga on 26/1/2007.

⁶⁰⁹ Wiseman C. Chirwa, 'Fishing Rights, Ecology and Conservation along Southern Lake Malawi, 1920-1964,' in *African Affairs*, Vol. 95, No. 380 (Jul. 1996), p. 360.

thus guaranteed better prices for the traders.⁶¹⁰ Of course the quantity involved was not very large because of the bicycle's limited capacity. Yet the transportation of the processed fish to these more distant inland markets could be more economic and profitable if larger quantities of fish were involved. Thus the lack of transport capacity such as lorries made this difficult to achieve. In effect, only the fishmongers who were able to buy, process and store larger quantities of fish stood a chance of competing in the larger and more distant markets. Labour was also a problem. Selling larger quantities of fish was dependent on the employment of a large labour force to pack fish for smoking, ensure a regular supply of firewood, and fill the baskets for transport.

The role of *oringi* (bicycle fish traders) became more crucial during this period as well. Asked to tell us when she first saw the bicycle in her village, Mama Jennifer pointed out that 'I am not aware of the year but I remember the names of those I saw with the bicycles like Dennis Kabongo, John Orato, Wilson Orato, Wilson Kikose and many other 'rich' people, [in fact] the bicycle came in the village even before Queen Elizabeth II became the queen of England'.⁶¹¹ She was referring to the period in 1952 when the queen to be, Elizabeth, visited Kenya at the height of Mau Mau. However, the bicycle came much earlier, soon after World War II, when some ex-combatants introduced it. Whatever their origin, the bicycle 'boys' had a great effect on fish marketing. These traders cycled for many miles from their homes and spent many days accumulating fish before taking it to the market.⁶¹² The coming of the bicycle reduced the time taken to transport fish to distant centres. An interviewee, Oyunga, asserts that the bicycle assisted fish transportation and, especially, the middlemen'.⁶¹³ Another fisherman, Ogeda, argues that 'the bicycle brought an advantage in that it allowed fish traders to transport fish up to eight kilometres away, and that without the bicycle fish could go bad before reaching the market'.⁶¹⁴ The coming of the bicycle, whose numbers increased after the War, boosted the fish trade

⁶¹⁰ Interview done with Oracho Wire at Uhanya beach on 30/10/ 2005.

⁶¹¹ Interview with Leonora Jennifer Ogonga at Nyagina village on 24/2/2007.

⁶¹² Interview done with Alfred Omumbo at Uhanya beach on 30/10/2004.

⁶¹³ Interview done with Potas Oyunga at Seme village on 24/2/2007.

by allowing fish to reach not only nearby village markets but more distant ones too, and reduced the rate of fish spoilage by ensuring that both fresh and dried fish reached the market in a saleable condition.

Vercruijse states that topping the list of the wholesaler's duties was the need to find reliable agents in order to secure a regular supply of fish.⁶¹⁵ The latter had to look for suitable and safe storage for at least a few days as they waited to accumulate a sufficient quantity of fish. They then had to ensure its safe movement from the beach to the market centres. On reaching the market centres they again had to locate a suitable store. The issue of security was vital at this point. Maria Were says security involved ensuring the safety of the baskets of fish (*osero*), arranging for labour to carry them and then securing a watchman in case the fish was left at the market stalls.⁶¹⁶ The costs involved payments to the carriers and the stall fee. One coping mechanism was for fish traders to keep their fish with nearby relatives or to sub-let part of another trader's stall for a small fee.⁶¹⁷ As they accumulated more capital, fish traders formed cooperatives and bought lorries that made the work of transportation easier. The Indians had a head start in the lorry-driven fish wholesale business. This reduced Africans to mere agents who collected fish for them, despite the fact that the fish the Indians traded was wholly derived from artisanal fishers.

Fish supply was dependent on such factors such as the cost of the net, the state of roads and the distribution network⁶¹⁸. Demand was always greater than supply because the Indian companies transported the catch from the beaches to far away towns like Nakuru and Nairobi, where demand was even greater. In the lakeside town of Kisumu, demand was equally high as reported in the district's annual report. This was especially so for Jubilee market, the Kisumu Hotel and other local buyers. In 1948, for instance, Jubilee market received approximately 72,000 fresh fish worth

⁶¹⁴ Interview done with Philip Ogeda at Karachuonyo on 24/2/2007.

⁶¹⁵ E. Vercruijsee, *The Penetration of Capitalism*, p. 34

⁶¹⁶ Interview with Maria Were at Dunga beach on 24/10/2006.

⁶¹⁷ Interview with Maria Ngambo at Dunga beach on 21/1/2007.

⁶¹⁸ John Byaruhanga, 'Fish Marketing In Lake Victoria,' (unpublished PhD thesis, Maseno University, 2000).

Shillings 44,000 (6,500 USD) while the Kisumu Hotel received approximately 25,000 fresh fish worth Shillings 15,000 as shown below.⁶¹⁹

Fish Sales in Kisumu, 1948

	QUANTITY	AMOUNT (KShs)
Jubilee Market	72,000	44,000
Kisumu Hotel	25,000	15,000
Exported Fresh Fish	1,400,000	900,000
Other Local Sales	100,000	60,000
Total	1,597,000	1,019,000

Table3: **Source:** DC/Ksm/1/32/14 of 1948: KNA

The table indicates that Jubilee Market and Kisumu Hotel, both close to beaches, sold less fish than was being exported to foreign markets. Thus by 1948 fish exports were already substantial. As much was sold locally as was being exported. Curiously, less fish was available to the local markets, so supply issues need discussion. Illegal nets and net thefts drastically affected the supply of fish. Although the colonial government had banned the use of nets of less than 5- inches the fishers could not afford to keep on changing their nets in response to colonial demands because they could not afford to buy the new nets every time there were changes in policy. However, this reduction in fish quantity could not be fully explained by net scarcity as other factors came into play. Illegal nets entered Kenya from its lakeside neighbours. These undersize nets were used to catch immature fish. Further, the fishery department failed to produce to have appropriate statistics on the fisheries. As the DC's report indicated 'the fish from Kavirondo gulf will never be as plentiful as they were at the time of the introduction of the gill-net at the beginning of the century'.⁶²⁰ In this case, the DC was blaming the continued use of the wrong fishing nets for a shortfall in supply.

⁶¹⁹ DC/KSM/1/32/14 of 1948: KNA.

⁶²⁰ D. Anderson and D. Throup, 'Africans and Agricultural production in Colonial Kenya,' p. 338.

Fish Warden, Hugh Copley, in response to this, asked whether reinstating and strengthening price control in Nairobi would 'hit the native fishers'.⁶²¹ Of course it needs to be asked if it was necessary to introduce price control in the fishery industry as early as 1950. The Assistant Fish Warden in Nyanza who was faced with similar problem was opposed to 'reinforcing price control in fishing without consulting ice factories and stating their costs and the need to reduce producer prices'.⁶²² What the officer was alluding to was that price control could not be promulgated without first consulting important stakeholders such as factory owners, and calculating the costs of price control to the fishers. The officer felt that, since a small group of Bajuni Arabs had monopolised the fish trade, the effects of price control would affect supply and the price mechanism in general with far reaching effects on the poor. The officer, therefore, stated that there was no need for price control as long as the law of supply and demand could solve the problem.⁶²³ Also there was no price control for dried fish in Tanganyika thus most of the dried fish was being shipped via Kismuu to Tanganyika where the price was 'free' and more responsive to the supply and demand mechanism.

5.4 Advent of Co-operatives and the Supply of Nets

Co-operative societies provided valuable services to their members by selling fish to traders their behalf, something that could have stabilised the prices of fish on the beaches. Regrettably it took too long for the colonial government to organise fishers in co-operatives. Ideally, the fishers, who were members of these societies', would pay an admission fee and surrender to the co-operative a percentage of their catch in return for fishing gear, inputs for the maintenance of boats, fuel, fish transport, fish preservation facilities, and the provision of channels for marketing. However, the colonial state did little to enhance such societies. Instead fishers came together to form associations of convenience to purchase nets, etc. Ordinary fishers were encouraged to form co-operatives to assist them in purchasing nets and market fish

⁶²¹ KP/4/6.

⁶²² KP/4/6 of 1950-56.

⁶²³ KP/4/6.

from the mid-1940s. The co-operatives were also an attempt to solve the problem of net shortages.⁶²⁴ The PC for Nyanza reported in 1945 that ‘the government encouraged the fishers to form co-operatives in order to [assist] them [to] purchase nets in bulk from sources other than registered companies’.⁶²⁵ Though a licence for selling nets had been introduced, the problem of net distribution was made worse by the discriminatory tendency of the government. This favoured Asians middlemen and recommended that the nets be sold directly to them instead of being distributed to retailers for onward sale to African fishers. This skewed policy made the management of nets very difficult and the shortage of nets a real headache to the government. In response to this problem, fishers in Seme-Kisumu formed a co-operative in order to qualify for a permit that would allow them to purchase the nets in bulk. The problem, though, still remained critical as the DC, Central Nyanza district stated in 1947 that ‘the supply position of fishnets in Nyanza province has been extremely critical and this has had an adverse effect on fish catches’.⁶²⁶ The formation of co-operatives by the fishers was an effective alternative for a regular supply of nets. In 1948, for example, the government reported that about 1000 fishers had grouped themselves into co-operatives supported by the registrar in charge of co-operatives. The objective of the colonial state was to assist the co-operatives to ‘buy nets on a wholesale basis, and thereby save Ksh. 5/- as a result of bulk buying’.⁶²⁷ Aside from saving money, these co-operatives went a long way to assist those fishers within Kisumu town, to get reasonable markets to sell their catches directly to Kisumu market and then to Nairobi town.⁶²⁸ The Fishery Inspector in Kisumu, S.W. Andrews, reiterated the importance of government support because the formation of co-operatives would do much to regularise the production and marketing of fish.⁶²⁹ However, Mohammed Okullo, a man who had fished for almost all his life, decried the fact that most leaders of these

⁶²⁴ R.O. Abila, “Impacts of International Fish Trade,” p. 42.

⁶²⁵ PC/NZA/2/17/22: K.N.A.

⁶²⁶ PC/NZA/2/17/22.

⁶²⁷ DC/KSM/1/32/14 of 1948: KNA.

⁶²⁸ DC/KSM/1/32/14.

⁶²⁹ PC/NZA/2/17/22.

societies were corrupt and incompetent and the services rendered were seen as inadequate by members.⁶³⁰

The fishers were encouraged to observe the rules and laws concerning the operation of commercial fishing and assist the fishery inspector by reporting illegal activities in the lake. For instance the DC, Central Kavirondo, later, Central Kisumu, wrote in 1947 that

The nets had been issued to Kano Fish Supply Company because it was an association of a large number of Kano fishers and had undertaken to observe the law and to assist the fishery inspector by reporting illegal seining. Private individuals had failed to do this in 1945.⁶³¹

It is obvious from the foregoing that the fishers were being encouraged to come together and form associations before they could derive any assistance from the government. The problem was that these efforts were being made without first sensitising the fishers and fish traders to the benefits of such co-operation. By this time beach patrols had been created and massively strengthened to enhance the regulation of fishery. However, these initiatives had less impact because of the failure by the administration to consult the local population.

The main challenge to the local fishers remained the procurement and free movement of the fishing gear and how to break the net importation cartel. The colonial state was similarly challenged by overfishing, abuse of nets and low prices paid to fishers. The fishers wanted good prices for their catch and proper distribution channels. It would appear that there was a gap between reality and policy, and this was compounded by the difficult task of increasing the quantity of fish caught while at the same time not allowing resource abuse. In order to achieve these objectives the government enacted

⁶³⁰ Interview with Mohammed Okullo at Dunga beach on 27/1/2007.

⁶³¹ KP/4/7: KNA.

more ordinances, issued numerous rules and attempted to involve the provincial administration in this gargantuan task. The challenges were made more difficult by the colonial state's failure to break the net monopoly. This led to the problem of frequent thefts of nets by Africans who were probably disillusioned by their lack of control over the supply of nets, as reported in the 1946 annual report on the fishery.

The African fishers opposed licences not only because they restricted their entry to the industry but because, they argued, they had no capital with which to pay for them. As a result, thefts of nets became relatively common. The Indian fishers were the victims as they were perceived to be the beneficiaries of colonial policies regulating the supply of nets. For instance, the DC noted in 1946 'a small number of thefts were reported by the Indians during the last quarter of the year. This is in all probability true, since the natives were unable to buy nets, they resorted to stealing them'.⁶³² The problem was further compounded by the fear that a fisherman could licence his canoe with the fisheries department but end up losing it and his nets to theft, and thus his investment in the process.⁶³³ In the beginning the canoes/boats were licensed and registered free of charge as a means of identifying them and so checking theft, but later on the licensees were made to pay 2 shillings (sh) per year for the licenses.⁶³⁴

It is evident from the DC's statement that the government's stranglehold on the nets' supply led to fluctuations in the supply of nets and, by extension, fish supply. At the same time the DC reported a shortfall in the supply of nets in the country. He reported that:

Only 24,000 nets have arrived in the country since the month of August and considerable difficulty has been experienced in allocating this small number. I gave 55% to the Africans (sic) and the remaining

⁶³² See DC/Ksm/1/32/14, 1942-1948, K.N.A.

⁶³³ DC/KSM/1/32/14.

⁶³⁴ Interview with Alfred Omuombo and James Okulo Ouko at Dunga beach on 20/12/05. Oral interviews confirm that indeed the licensing of boats and canoes had the advantage of controlling theft of canoes because once they were licensed they also had to be registered and identification number

45% to the Indians. Both parties seem to have agreed to this amicably.⁶³⁵

As to whether both Africans and Indians had agreed on how to share nets is unclear because there was no evidence that the administration had called a forum to discuss the issue of sharing nets. According to Issa Shivji, the dominant relations between the Africans and the Indian were commercial⁶³⁶. He maintains that ‘the African peasant [fisher] met the Asian mainly as a producer, and a consumer, the Asian being the trader, the middleman and the creditor’⁶³⁷. Indeed, there is no evidence that the colonial state had organised any meeting between the middlemen and ordinary fishers on issues affecting fishing and its attendant problems.

It is correct to argue from the above information that Indians, and probably Europeans, were given some preferential treatment in purchasing and distributing nets and other gear. How could Indians traders control 45% while the very many more Africans only received 55%? The rationale for favouring Indians was not easy to comprehend, though it could have been that they had a strong commercial drive and associations that aided them in mobilising funds with which to dominate the fishing industry. According to Mangat, from 1886 much of the import and export trade passed through the Indian traders.⁶³⁸ They also provided finance to the local caravan traders in form of loans and advances. The Indians had by 1902 sold a variety of goods such as ivory which was sold to the interior from the coast. In Kenya after their participation in the Kenya-Uganda railway, the British colonial state decided to subsidise a few Indian families to settle in lakeside town of Kibos.⁶³⁹ This was

which assisted in tracing the lost canoes. The theft of nets, however, remained the main problem, as they were not easy to identify once they were stolen.

⁶³⁵ DC/KSM/1/32//14, 1942-1948.

⁶³⁶ I. Shivji, *Class Struggles in Tanzania*, (London, Monthly Review Press, 1976), p. 42

⁶³⁷ I. Shivji, *Class Struggles in Tanzania*, p. 42

⁶³⁸ J. S. Mangat, *A History of the Asians in East Africa, 1886-1945*, (London, O.U.P., 1969), p. 9 Also see J. S. Mangat, “Immigrant Communities: Asians” in D A Low and A Smith (eds), *History of East Africa* (London, OUP, 1976), pp. 468-469

⁶³⁹ D. C. don Nanjira, *The Status of Aliens in East Africa: Asians and Europeans*, (London, Praeger Publishers, 1976), p. 4 He points out that the Indian Emigration Act of 1883 had permitted Indians to East Africa without any restriction and in 1896 the Indian government legalized Indian migration.

intended to encourage farming by Indians to produce cotton, sugar cane, chillies and corn. Later some of them became market gardeners, itinerant traders, carpenters and masons. In 1901 about 32,000 Indian workers in Kenya were recruited for service on the railways at an average of thirty rupees per month per coolie (worker) and 6724 stayed in East Africa after the railways⁶⁴⁰. They established shop-based enterprises (*duka*) in major towns in East Africa. According to Hollingsworth, by 1954 the Asian community constituted one per cent of the total population of East Africa. This Asians were approximately 295,000 in East Africa, comprising 136,000 in Kenya, 94,000 in Tanganyika, 50,000 in Uganda and 15,000 in Zanzibar and it [Asian] was the largest element in the non-African population. He added, 'the population of Nairobi is six parts African to three parts Asian yet Nairobi strikes one as an Indian city.'⁶⁴¹ By the 1955, at the height of Mau Mau rebellion, some of the larger stores, which catered for European customers, belonged to Asians plus many of the cinemas, garages and Hotels. Hollingsworth further wrote that, 'the Indian traders were responsible for stimulating the wants of the indigenous people even in the remotest areas of Kenya.'⁶⁴² Often the Asian in the village was the money lender, ready to purchase in bulk any local produce for which there was a good market. The Indian sold a variety of articles such as unbleached calico (*merikani*), calico prints, handkerchiefs, blankets, umbrellas, cheap hurricane lamps, basins hoes, cooking pots, kerosene oil, matches and soaps apart from dealing in fish.

However, the shortage of nets in the Lake Region, which impinged heavily and negatively on fishery, was explained differently. According to the state, the shortfall arose from the labour position in the United Kingdom. The DC reported that, 'whereas the spinners in the UK had been given full quota for the manufacture of flax nets, it was reported that the poor labour turnout reflected on the output causing net shortage'.⁶⁴³ In reality the colonial government in Kenya had no tangible plans for the

⁶⁴⁰ D. C. don Nanjira, *The Status of Aliens in East Africa: Asians and Europeans*, p.5

⁶⁴¹ L W Hollingsworth, *The Asians of East Africa*, (London, Macmillan, 1960) p. 4

⁶⁴² Hollingsworth, *The Asians of East Africa*, p. 5

⁶⁴³ KP/4/6 of 1950-56.

fishing industry let alone net distribution. There were insufficient nets in the country to meet the demand of the fishery because everything was in short supply after 1945.

The DC acknowledged that fish production had not been very encouraging. He remarked that the '1946 season was a poor one in my opinion. I am unable to compare catches, or catches per net as I have no previous figures at hand, but the average catch of 1.64 fish per net is the lowest ever recorded'.⁶⁴⁴ The DC was alluding to the stark reality that the unpredictable supply of nets had led to the decline of fish catches. He pointed out that Indian traders did not always record fish sold by the Luo fishers as the catch was landed, yet considerable numbers of fish catch were sold to them. He also added that the year 1946 had been the worst season because it had been opened late in September instead of August when tilapia, the most abundant fish, became plentiful. Until a definite policy was laid down for fishery development, the industry was bound to perform poorly and only benefit a few net and boat owners. To remedy this effect, Mr Hickling who was a fishery adviser and Hugh Copley, the Fish Warden, visited Kisumu in August 1946 to discuss various ways and means of ameliorating the problems confronting the fishers. However, little came from their visit, much like that of their predecessors because of the inherited colonial fishery regulations.

Things were not better the following year. C F Atkins, the fishery inspector, stated in his 1947 annual report that 'the drop in the numbers of fishers and boats as from 1946 was explained by the extreme shortage of nets'.⁶⁴⁵ The District Commissioner reported in 1947 that the Lake fishery had inadequate support from the colonial government. He decried the nets debacle adding that only '63% of last year's nets were being sold' that year. The decision to allocate 55% of the total nets to the African fishers and 45% to the Indians could not address the problem. As a result, the black market in the five-inch nets increased, while at the same time considerable numbers of illegal seine nets were being sold.

⁶⁴⁴ KP/4/6.

⁶⁴⁵ DC/Ksm/1/32/14 Fisheries Annual Report, 1947.

However, by 1947 the seine nets were not officially allowed on Lake Victoria as fishing gear. The small mesh size of the seine nets, the administration argued destroyed immature fish species killing them before they had had a chance to breed, therefore reducing the numbers of young fish and putting future production in jeopardy. Highlighting the contradiction, C. F. Atkins, lamented a policy whereby the government permitted the use of a ‘small number’ of seine nets in certain periods of the year to ameliorate the shortage.⁶⁴⁶ In any case, the inspector argued that the government had ‘no restriction on import of these nets, so that large numbers were sold on the black market’.⁶⁴⁷ To make matters worse, the two-and-a-half inch mesh nets were also being smuggled into Kenya from Uganda and Tanganyika.

5.5 Fish Scouts, Politics and Licensing

During this period, fish scouts were expected to protect the Lake from excessive exploitation and had powers to confiscate fishing gear that they deemed harmful to the fisheries. Mohammed Okullo, a veteran fisherman, argues that the coming of the scouts increased regulation, while the establishment of the Fisheries Department in 1949 and tough rules for fishers did not yield much in terms of quality of fishing.⁶⁴⁸ The scouts (*ondhoro*) were regarded as lazy, partisan and irresponsible by their colonial employers. Okullo states that an *ondhoro* was always a *Mzungu* [European]. He arrested those who used illegal mesh nets.⁶⁴⁹ The Fisheries Officer acted against fishers who used wrong size nets during closed seasons. He ensured that the boats were numbered. Politically, these actions were resisted by leading Luo politicians like Fanuel Odede (arrested during Mau Mau Emergency in 1952), Achieng Oneko (Arrested and detained together with Mzee Kenyatta over Mau Mau), W W Awori, Joseph Otiende and Oginga Odinga (later became the first Vice-President of

⁶⁴⁶ DC/KSM/1/32/12.

⁶⁴⁷ DC/KSM/1/32/12.

⁶⁴⁸ Interview with Mohammed Okullo at Dunga beach on 23/1/2007.

⁶⁴⁹ Interview with Mohammed Okullo at Dunga beach on 23/1/2007.

independent Kenya).⁶⁵⁰ Okullo reported that Odinga opposed the numbering of boats, the introduction of fish licenses, the digging of terraces and introduction of the scouts, all of which he saw as colonial oppression. He organised meetings in various beaches like Dunga, Usenge and Uyoma using agents based there who were also fishers.⁶⁵¹ The Lake region politicians later made these issues to be part of the independence struggle in the 1950s. In Nyanza province, the leaders of KAU included Odede, Odinga, Oneko and Awori. However, KAU was regarded with suspicion in Nyanza as a Kikuyu dominated political movement. Though it was the first major political party with a national outlook, ethnic suspicions were ever present. According to Ogot, KAU, the precursor to Mau Mau, was dominated by the Kikuyu and former leaders of the Kikuyu Central Association (KCA), formed to fight for the return of Kikuyu land taken by the British settlers. Thus KAU failed dismally to get support from Nyanza because of the Kikuyu dominance of the party. Its first leaders included Jesse Kariuki, Joseph Kangethe, George Ndegwa, James Beauttah and Jomo Kenyatta, all of them Kikuyu.⁶⁵² These leaders also failed to popularise the Mau Mau agenda in Nyanza though a few Luo leaders such as Odede and Oneko were arrested during the Mau Mau Emergency. The body that organised the Luo community politically in the 1950s was the Luo Union which had branches in many towns in East Africa by 1954. Its agenda was mainly economic and to some extent, political. By the time Mau Mau broke out in 1952, Oginga Odinga was the leader of the union, and later transformed it to a formidable political force in Lake Region. Thus Mau Mau, due to colonial propaganda that portrayed it as Kikuyu movement, had little impact in Nyanza province and the lake side districts. The fishers' grievances on forced labour and land consolidation, however, were part of the national issues of decolonisation.

⁶⁵⁰ B. A. Ogot, "British Administration in the Central Nyanza District of Kenya, 1900-1960" in B. A. Ogot, ed, *Re-Introducing Man into the African World: Selected Essays*, (Kisumu, Anyange Press, 1999), p. 46

⁶⁵¹ Some of the Luo political leaders from the Lake Victoria region included B. A. Odinga, the first Kenyan indigenous Minister, F. W. Odede, nominated to Legco in 1954, Achieng Oneko, who was detained in 1952 over Mau Mau and Jaramogi Oginga Odinga who later became the first Vice President of an independent Kenya.

⁶⁵² B. A. Ogot, "British Administration in the Central Nyanza District" p. 47

Mbuga et al. identified the problems facing the fisheries scouts as a lack of transport for the fisheries officers, difficulties in interpreting laws since most of them are not trained in law, bribery and fear of conflicts with the fishers.⁶⁵³ There were conflicts between fishers and scouts because the fishers preferred undersized gill nets because of the size of fish available.⁶⁵⁴ Then there was confusion about who should be arrested for violating the fishing laws - those who made and sold the gear or those who bought and used it. Bribery was also a serious problem affecting law enforcement and involving village leaders, fisheries officers, institutions of justice and the community as a whole.⁶⁵⁵ Because leaders in the local communities accepted bribes, the implementation of laws including a ban on certain mesh sizes was not easy to achieve. These issues were a hindrance to achieving law enforcement.

In the 1943 annual report, the Fishery Inspector, S.H. Deathe, pointed out that the principal work of the patrols and scouts remained the same - concentrating on the supervision of the fishers to ensure that they continued to use the correct type of gear and on the collection of statistics and the apprehension of net thieves.⁶⁵⁶ Registration, however, had taken its toll on the number of boats registered in the previous year. It was reported that because of the strict supervision of licensing 'there were 22 more boats registered in 1943 than in 1942 due to the tightening up of the inspection and less evasion of registration, few net boats were being commissioned'.⁶⁵⁷ It is obvious that to some appreciable degree, the tightening of fishing rules reduced the number of canoes that went fishing. The report concluded that, 'each year less canoes operate, the "native" [sic] becoming more used to handling the dhow type of craft and realising that it is more seaworthy, efficient and more economical than a canoe'.⁶⁵⁸ The administration was trying to come up with excuses as to why the fishers were registering fewer boats and using more indigenous dhows. It is clear that people avoided the expense of paying for licences by resorting to the traditional dhows. The

⁶⁵³ J.S Mbuga, A. Getabu, A. Asila, M. Medard and R. Abila, 'Trawling in Lake Victoria: Its History, Status and Effects.' See www.iucn.org/themes/wetlands/docs/Report_3.doc as sourced on 25/10/2004

⁶⁵⁴ J.S. Mbuga, A. Getabu, A. Asila, M. Medard and R. Abila, 'Trawling in Lake Victoria'.

⁶⁵⁵ Interview with Joyce Oruko at Dunga beach on 24/1/2007.

⁶⁵⁶ DC/KSM/1/32/12.

⁶⁵⁷ DC/KSM/1/32/12.

price of nets was equally affected by the strict regulation of fishing. The price of nets was said to have increased to Ksh. 29/- from 20/- 'because supplies were regulated by the flax [net] quota and shipping space'.⁶⁵⁹ The 1943 annual report further pointed out that most of these nets were being transported to Uganda and Tanganyika, probably because of fewer regulations on mesh sizes in the two countries, which also possessed the largest section of Lake Victoria.⁶⁶⁰ All in all, net size control and regulation remained the core issues at the heart of colonial policies. Net thefts, however, were still common. The fishing scouts, struggling with poor conditions of work, could not cope with their inspection duties. Regular inspections of the beaches persisted, but the District Commissioner reported that few patrols were being carried out at night 'because lantern glasses were unobtainable and the carrying of lights at nights under curfew cannot be enforced'.⁶⁶¹ These logistical problems with enforcement meant that the theft of nets continued. In 1943 thefts were heavy, especially of Indian-owned nets 'but nothing could be done about it as the [net] owners would not be persuaded to mark or dye their nets because they believed that the scouts could recover them and identify them without any distinguishing mark'.⁶⁶² At times, thefts by African thieves of nets owned by African fishers were dealt with, not at the courts in Kisumu town, but through the intervention of the chiefs and local tribunals. Probably this was done because the African village had the means to identify such culprits. This did not stop the nests from disappearing, though, as the problem affected both the Indians and African fishers. In response, the colonial state became more firm with the scouts and a number of them 'including the Head boy had to be discharged as they had become very slack and [began] taking bribes and using their government posts for their personal ends and even engaging in fishing for themselves'.⁶⁶³ So the scouts were accused of being slack, lazy and even corrupt by the same colonial authorities expected to improve their lot. Yet their problem was lack of adequate remuneration, glasses for lanterns and low morale. The response of

⁶⁵⁸ DC/KSM/1/32/12

⁶⁵⁹ DC/KMG/2/27/273.

⁶⁶⁰ DC/KMG/2/27/273.

⁶⁶¹ DC/KMG/2/27/273.

⁶⁶² DC/KMG/2/27/273.

⁶⁶³ DC/KMG/2/27/273.

fishers varied as to the relevance of scouting. David Owanga feels that the licensing policy was fine because ‘it helped in identifying stolen boats’, adding that a Lake was like a company in which a person could not work without a licence or permission.⁶⁶⁴ Other interviewees, such as Jennifer Ogonga, feel that although fishing scouts were generally good relatives, she hated their mode of punishment that is, the burning of the nets.⁶⁶⁵

There were several cases when fishers were harassed, even imprisoned, and their nets confiscated for going against the colonial ordinances. For instance, Juma Egohe, a fisherman, had complained to the DC about being harassed.⁶⁶⁶ Instead of assisting him the DC in 1944 accused the fishers of not respecting orders from the scouts. Juma was accused of refusing to show the scouts his licences when requested to do so. The local DC, when writing to the local fishing officer, stated that ‘[i]f I had any further trouble with him (Juma) in this way I would give him a *kiboko* (a rhino whip)’.⁶⁶⁷ The local administrator was so upset by this incident that he recalled that ‘[l]ast year I convicted him in court with the offence of bringing fishing nets from Uganda without a licence and selling to others without being registered as a dealer’. He accused Juma of arrogance, adding that ‘the attitude of this “native” seems to be that so long as he can cock a snook at junior officials he is a big fellow [sic]’.⁶⁶⁸ This account brings out the fact that by 1944 there were complaints about the inspection of licences by the fishers in Kenya. Secondly, the mode of punishment included the use of the *kiboko* or the whipping of offenders. It also seems that the importation of the fishing nets from Uganda was not allowed. There was also confiscation of gear from those abrogating the fishing rules, in addition to fines and/or imprisonment.

The problem with net licensing took a new racial twist when an African fisher was discriminated against when he applied for a licence. In 1950 Joseph Ongany applied for a licence, actually, a seining permit, to allow him to catch and sell fish at Kogony

⁶⁶⁴ Interview with David Owanga at Kisumu on 23/2/2007.

⁶⁶⁵ Interview Jennifer Ogonga at Nyagina village on 24/2/2007.

⁶⁶⁶ DC/KSM/1/32/12 of 1942-1962.

⁶⁶⁷ DC/KSM/1/32/12.

village, near Kisumu town. The D.C of Kisumu placed all manner of hurdles in his way. Yet the Indian fishers were importing the same nets and even selling them to neighbouring Tanganyika and Uganda.⁶⁶⁹ There was no other reason for this discrimination apart from racism. Another example of such discrimination took place in 1952 when a Resident Magistrate in Kisumu took strong punitive measures against three fishers perceived to have abrogated fishing rights. Odera Ogalo, Ogonda Kaye and Owiti Okech were charged for being in possession of unlicensed seine nets contrary to Lake Victoria regulations, while others were arrested for being found near the Lakeshore. In the 1950 annual report the Provincial Commissioner (PC) in charge of the Lake Victoria Region had pointed out that, despite the colonial government's past efforts at regulating fishing, 'the biggest problem facing the fishing industry was net thefts'.⁶⁷⁰ As a result, he proposed that more policies be enacted to intensify beach inspection through the use of scouts to stem this malady. Amplifying the seriousness of net thefts and the need for policing, the PC stated that for a number of reasons, the fishing industry in the Kenyan waters of Lake Victoria had come to a standstill, one of the contributing factors being theft of the nets.⁶⁷¹ The scouts were not giving the necessary support to the regulatory mechanisms. The cause of this anomaly was the method of recruiting the scouts.

The problem was made worse by the selection of local 'tribesmen', mostly from Wasamia, Wanyala and Jaluo [Luo], who dwelt near the Lakeshore.⁶⁷² However, the reason for the cause of the scouts' laxity lay elsewhere: they had very low pay packages. The PC stated that 'there is suspicion that the locals are apt to be influenced by the [net] thieves and rarely charge[d] the culprits'.⁶⁷³ So the solution to the net thefts lay not in introducing strangers to the Lake but to recruit them from those communities living around it. The conditions of work were not motivating either. The scouts earned less but worked for longer hours and lacked the means of transport

⁶⁶⁸ DC/KSM/1/32/14.

⁶⁶⁹ DC/KSM/1/32/14.

⁶⁷⁰ DC/KMG/2/27/273 Report, 1948-1950.

⁶⁷¹ DC/KMG/2/27/273.

⁶⁷² DC/KMG/2/27/273.

⁶⁷³ DC/KMG/2/27/273.

to facilitate their movements. The salary was Kenya shillings (K.Sh.) 30/-, two uniforms per annum and a rainproof cap once in four years.⁶⁷⁴ They were also required to have their own bicycles for which they got KSh. 10/- per annum. The Head Scout's situation was better than the rest. He got KSh. 75/-, which was two and half times more than they received. In addition, the new scouts had to be 'reliable men who can read and write Kiswahili and of standard equal to the present scale [sic]'.⁶⁷⁵ It is also doubtful whether the scouts were trained, motivated and properly supervised. As a result of these challenges, the fishery patrol concentrated on three areas, namely, enforcement of registration of fishers, boats and net dealers; collection of relevant taxes and licence fees; and, finally, the suppression of the black market in nets and fishing net thefts. How far they succeeded in achieving these objectives remains unclear. At the same time there was a slight drop in the number of licensed fishers and boats due to the inefficiency of the staff patrols⁶⁷⁶. The black market still remained a big headache though it had decreased in the previous year. The 1948 annual report stated that the number of immature fish especially tilapia in the local markets was evidence of the nature of the destructiveness of the net usage, and the cause of the consistent fall in the average catch. The smaller mesh nets, such as 3 ½ - inch, were fairly common during the first half of 1948 though the practice of using the wrong nets had been persistently discouraged. In May of the same year the use of undersize nets led to the arrest of culprits 'when 27 fleets of these nets were picked up in Kusa Bay'.⁶⁷⁷

Concerning the sale of fish, the fish warden stated that it was desirable to open up a fishmonger's shop with modern equipment as this would go a long way to popularise consumption of fish in general.⁶⁷⁸ The lack of interest by the colonial government and the failure to support the small fishers made things worse in the fisheries. Fish marketing was left in the hands of private enterprises especially those owned by the

⁶⁷⁴ DC/KMG/2/27/273.

⁶⁷⁵ DC/KMG/2/27/273.

⁶⁷⁶ DC/KSM/1/32/14 Annual Report of Lake Nyanza Fisheries, 1948.

⁶⁷⁷ DC/KSM/1/32/14.

⁶⁷⁸ DC/KSM/1/32/14.

Indian entrepreneurs who, as seen before, were only interested in reaping profits without ploughing anything back. Instead of taking over the distribution and marketing process, the government endeavoured to encourage commercial interests without any real measures of control. The problems remained lack of good roads, storage facilities and hygiene. In order to improve hygiene in fish handling, the Nairobi Medical Officer of Health, A.T.G. Thomas, requested the fishery warden, Copley, to issue a policy on the matter. In return, Copley reported that the city council would do three things to improving fish marketing.⁶⁷⁹

First, it would offer facilities in a new wholesale market to be established in Mincing Lane, Nairobi, for the installation of a refrigeration apparatus and the market facilities for fish distribution. Secondly, it would approve the establishment of two fish shops in two locations in the city for supplying fish for African consumption. Lastly, the city council would provide rental space for the refrigeration of incoming supplies. On the controversial issue of price control for fish, T. E. Allfree, the Assistant Fish Warden, noted in 1951 that the local administration had the authority to reintroduce price controls only on fresh fish in their respective districts.⁶⁸⁰ This directive, emanating from the colonial state, further complicated the issue of whether the fishery could be controlled from the central authority in Nairobi or from local administrative councils. It is not far-fetched to suggest that fishery could have been better managed through the local provincial administration under the principle of decentralisation because this would ensure that ordinary fishers were reached.

5.6 Fish Marketing and Storage Problems

Marketing challenges were caused as much by strict government control over the supply of gill nets as by its failure to provide ice storage facilities or provide the support for those who wanted to invest in that realm. The East African Fisheries Company was being openly blunt with the colonial government. The company stated

⁶⁷⁹ DC/KSM/1/32/14.

that ‘we feel that if the government of Kenya wishes to develop an African fishing industry then it is up to them to assist in the distribution [of fish] trade as well as catching industry [sic], it is useless to fish if it cannot be marketed’.⁶⁸¹ The company proposed that the colonial government would improve marketing if it implemented three things.⁶⁸² First, they proposed the reduction of the rent of storage to a suitable level; secondly, they called for the drafting of the fish-marketing rule into law; and thirdly, they suggested a subsidy on cold storage charges for storing a surplus. However, as usual, the government did not respond substantially to these suggestions. Another hitch in respect of fish marketing was the problem of determining the data on amount supplied and therefore the price. Joyce Oruko identified problems that faced fish marketing as being lack of transport especially before in 1945.⁶⁸³ The colonial government’s reluctance to promote and market African products was also confirmed in 1946 when the Director of Agriculture stated that it was becoming increasingly impossible to undertake any further distribution of goods produced by African traders.

As noted before, after demobilisation in 1945 the ex-servicemen returned with money and bought bicycles and even lorries. Joyce Oruko remembers that before the coming of the bicycle fishers walked for many hours and even days to sell their catch. Few bicycles were seen initially but after the War their numbers soon increased. The main problem was always the perishability of fish due to lack of storage facilities, which only started coming in the 1950s. To the Africans, perishability was not a big problem because they made use of indigenous modes of preservation. They split, sundried and even smoked the fish. It was transportation that was the challenge. Conditions in her family improved when her father bought a bicycle in 1935, and thus their fish was able to be taken to many distant markets. Peter Mireri posits that with the coming of the bicycle ‘movement of the fish to the markets was accelerated’.⁶⁸⁴ When asked to state whether the impact of the bicycle on fishing was equivalent to

⁶⁸⁰ DC/KSM/2/32/14.

⁶⁸¹ KP/4/6.

⁶⁸² KP/4/6

⁶⁸³ Interview with Joyce Oruko at Dunga beach on 21/1/2007.

⁶⁸⁴ Interview done with Peter Mireri at Dunga beach on 23/1/2007.

that of the plough in farming, he answered that ‘the bicycle was not similar to the plough in terms of impact as the farmer [using a plough] could get more money than the bicycle boy’.⁶⁸⁵ There is no doubt, however, that the bicycle facilitated the movement of fish to marketing centres both nearby and distant.

The government was also a big market for fish especially government institutions such as prisons. In 1942 the Nyanza PC wrote to the DC of Kisumu to inquire about the fish supply position and, in particular, the question on whether it was necessary to reduce the amount supplied to government departments such as prisoners of war.⁶⁸⁶ During World War II he suggested that it would be necessary to reduce the supply of fish to prisoners of war to about 10% of the total catch. In retrospect, the number of prisoners had grown tremendously in towns such as Eldoret, Londiani and Morendat in Western Kenya and this necessitated an increase in fish to the prisons. In response to this request, the DC told the PC that that there were complaints from Eldoret, Kapsabet, Kakamega and Kisumu over the shortage of fish supply from the Lake that had made it necessary for the colonial government to institute some form of control over fishery in general.⁶⁸⁷

The shortages in the fish supply can be attributed to net shortages that affected the country in general. According to an Asian, Danji Manji, who was a great fish trader, the fluctuation was as a result of net scarcity.⁶⁸⁸ He had complained to the PC that his request to import more nets had been turned down yet the number of fishing nets ought to have been increased by relaxing the laws of monopoly over the net supply.⁶⁸⁹ By agreeing to control the supply of nets to the country, the colonial state indirectly contributed to the erratic fish supply since the nets were a big factor in fish production and marketing. Another hurdle to be overcome was price control. Although price control appeared to favour the buyers, it also discouraged fish

⁶⁸⁵ Interview with Peter Mireri at Dunga beach on 23/1/2007.

⁶⁸⁶ DC/KSM/2/32/14.

⁶⁸⁷ DC/KSM/2/32/14.

⁶⁸⁸ DC/KSM/2/32/14.

⁶⁸⁹ DC/KSM/2/32/14.

producers and this hampered an increase in the fish supply. However, the price controller replied that since the fish was distributed all over the colony it was thus outside his jurisdiction to set a price ceiling. In the Coast Province the colonial government allowed private individuals to control the fish trade, but distribution generally remained a matter of concern for the authorities. The Fish Warden wrote in 1950 on this issue, pointing out that

Unless proper distribution and marketing facilities were made available to fishers in the country, it was of very little use training and encouraging the African fisherman to produce more fish. If one introduced price control for fish in Nairobi [for instance], the lower price will only be passed on to the fishers and this would discourage them [from] fishing and we have not gone any further in solving this problem.⁶⁹⁰

What can be learnt from the above is that the colonial state did very little to promote fish marketing and distribution during this period. It abdicated this responsibility to a coterie of private individuals. In an attempt to control the chaos in fishing it actually created disorder - and the subsequent marginalisation of African fish traders. With the introduction of price control the fish traders completely lost their voice in the struggle for the market.

Jim Bailey had applied for state intervention to have sole monopoly of fish distributing in 1951. He was expected to buy up the ice plant of the Kenya Fish Supply Company (K.F.S.C.) which was losing its rights in the fish trade. He was also to open a retail shop in Nairobi in order to participate more effectively in the trade. The Game Warden in Coast Province had supported the idea when he wrote: 'fishers in this district (Malindi) now have a fixed and a sure market [and fishers] will get the best price they have ever received. Buying stations are going to be opened and the

⁶⁹⁰ KP/4/6.

first steps are being taken to improve the quality of fish'.⁶⁹¹ The Assistant Fish Warden in charge of the Coast Province stated in 1953 that it was better to grant sole export rights to Bailey. He wrote that 'in view of the present chaotic condition of fish distribution, I would very strongly recommend that his [demand] of wanting sole export rights should be immediately and energetically followed up and these rights be given'.⁶⁹² So here was a case where one European was being given a monopoly to distribute and thereby control fish marketing from the Lake. African fishers, with similar requests, were never granted such rights. In granting this right to Bailey, the colonial state alleged that it was controlling the chaos in fish marketing, and since the fish supply was insufficient it was better to have marketing done by a single person.

Pricing was one of the recurring problems of fish marketing, particularly in respect of who was to set the price. Jacob Agola states that the crew men had no power to set prices because they were hired to work on canoes by canoe owners who also determined what to pay them.⁶⁹³ The crew men were paid in kind or in cash on a daily basis, sharing ten per cent of all the catches among themselves. The rest of the catch belonged to the canoe owner. Because the canoe owner had no storage facilities he had to sell the catch as quickly as possible. Agola points out that 'the middleman gets all the profits and only pays us [crew and fishmongers] enough to sustain ourselves to catch more tomorrow'.⁶⁹⁴ Since the middleman was always a rich investor able to get credit facilities, he was able also to 'buy and sell fish at his own price hence he exploited us'. Except in the case of the Indian fishers, most of the income from fishing went to the factory owners, who bought cheap and then sold dear. Maria

⁶⁹¹ KP/4/6.

⁶⁹² KP/4/6.

⁶⁹³ Interview with Jacob Agola at Dunga beach on 23/1/2007.

⁶⁹⁴ Interview with Jacob Agola at Dunga beach on 22/1/2007.

Ngambo complained that ‘money went to the middlemen and factory owners leaving the actual fishers in poverty’.⁶⁹⁵

To prevent the catch spoiling because of an absence of storage facilities the catch was inevitably sold to those with transport, who paid very low prices for the fish. Mohammed Okullo reminded us that the fishers attempted to fight the middlemen from the mid-1960s, saying that the fishers had ‘attempted to fight them by refusing to give them fish, so that we took it directly to the markets with the help of our small co-operative. We then told them what to pay us for our fish’.⁶⁹⁶ This was a big step but the problem was that the co-operative did not survive on account of corruption and a lack of managerial skills. In an attempt to solve the pricing problem, the fishery inspector travelled to Palestine to study how fisheries there were managed. He discovered that fish marketing there was the preserve of retailers and wholesalers. They were able to do this because they had storage facilities with overhead water sprays. Fish were thus kept fresh and alive. The consumer was then able to select the fish of her/his choice. The fish inspector was able to confirm that Lake Victoria fishers were discouraged by the lack of facilities, especially for storage, a fact that negatively affected marketing and distribution of their product. In colonial Kenya there was too much state control and too little assistance given to the sector.

This fact was confirmed by the 1947 annual report for Kisumu which alleged that each independent African fisher was allowed only one net for daily use for seven months in a year. Due to this severe limitation, the 3,186 fishers reportedly caught only 1,133,120 ‘pieces’ of tilapia. The price of tilapia a piece was 48 cents. As a result, total revenue of 641, 337/60 was realised.⁶⁹⁷ This gave an average of 356 pieces per fisherman with an earning of Shillings 171 per person. About 30% of the indigenous catches were sun-dried or smoked and sent to neighbouring Uganda, ‘with

⁶⁹⁵ Interview with Maria Ngambo at Dunga beach on 22/1/2007

⁶⁹⁶ Interview with Mohammed Okullo at Dunga beach on 22/1/2007.

⁶⁹⁷ DC/KSM.1/32/14.

the remainder being sold either to Indians or for cash immediately on landing'.⁶⁹⁸ Because the fish was sold immediately it was landed it was very difficult to accurately estimate the amount of fish the Indian traders did not keep records. The game department had indicated in 1950 that the controlled prices for locally cured fish in Kisumu were 40 cents a pound for salted/dried fish (wholesale price), while the retail price was 50 cents a pound.⁶⁹⁹ The smoked/cooked fish went for 80 cents per pound wholesale and the retail price was 90 cents per lb.⁷⁰⁰ The smoked/cooked variety was reported to be the most popular with consumers especially in Coastal Kenya. This was because it was less perishable. The report added that the salted/dried fish was in short supply and 'was eaten by the poorer class of Africans who could not afford the more expensive variety'.⁷⁰¹ It was reported that any increase in the price level would have to be watched most carefully and the cheaper variety should not be driven out of the market. Indeed, before any increase was considered, an accurate costing had to be done, although this would not be easy to do so because of the lack of accurate data on daily transactions. There was a push to establish cold storage facilities at the Coast and Lake Region of Kenya but with very little support from the government. For example, on 4 October 1953 the East African Fisheries Limited based in Mombasa stated their case for building modern cold facilities in Malindi near Mombasa.⁷⁰² The company needed 20,000 British pounds (BSP) but the colonial state could not offer them this credit facility.⁷⁰³ The only available storage facility was the E.A. Railway cold storage, but it was 'totally unsuitable for the storage of fish and its rent charges very high'.⁷⁰⁴

The problem in respect of fish storage, which the colonial state was not prepared to address was as serious in Mombasa and the coastal region as it was in the Lake Victoria Region. Jim Bailey is said to have built his own cold storage facilities in

⁶⁹⁸ DC/KSM/1/32/14.

⁶⁹⁹ KP/4/6.

⁷⁰⁰ KP/4/6.

⁷⁰¹ KP/4/6.

⁷⁰² KP/6/4 of 1950-1956.

⁷⁰³ KP/4/6 of 1950-1956.

⁷⁰⁴ KP/4/6.

Mombasa. He however, faced competition from the Kenya Fish Company. In an attempt to stabilise fish supply, the game department within which fishery was located, suggested the need for making greater efforts to land 'the greatest possible quantity and store and distribute more fish during a good season'.⁷⁰⁵ Ocean Fisheries, a firm stationed at Shimoni in Coast Province supported this policy. The Kenya Fish Company, however, was opposed to storing fish due to the high charges at Kilindini harbour. The Company was also against 'locking up' capital in the form of stored fish for 2-3 months as it would be idle capital that could be used elsewhere. In other words, the Company supported increasing the fish supply. Whenever there was plentiful fish in Mombasa the Company would discourage fishing at the neighbouring Malindi town so 'that they could force prices down from 34 cents per lb to 15 cents and 25 cents'.⁷⁰⁶

The colonial state's strict grading system for fishers that actually refused certain sub-standard fish encouraged this behaviour. Thus the oligopolistic firms, owned by a few businessmen, distorted the fish market. At the Coast it was the Arabs and Bajunis who monopolised fish marketing. In Lake Victoria, Indians had the same monopolistic control. The result that in both the Coastal and Lake Regions, the artisanal fishers never enjoyed huge profits from fish sales. Hugh Copley recognised the monopolistic nature of the fish market. He suggested that the colonial government could do nothing to solve the fish marketing debacle in the country 'since fishing supply was in the hands of a private supplier'.⁷⁰⁷ The private supplier was the Kenya Fish Supply Company. He thus lamented that the retail prices of fish in Nairobi had not been reduced, although fish prices had fallen at the buying stations. The government in Nairobi was trying to get retail prices for fish to be reduced by the Price Control Department but this proved futile and fishers continued to be exploited by the middlemen. The wholesalers paid 35 cents per pound and sold at the retail price of Ksh 1/50 per lb in Nairobi so they ended up pocketing the profit at the

⁷⁰⁵ KP/4/6.

⁷⁰⁶ KP/4/6

⁷⁰⁷ KP/4/6.

expense of the small man.⁷⁰⁸ Abila argues that ‘women dominated the dried and fresh fish trade, each handling very small quantities of fish, and earning between US\$ 0.4 and 1.3 per day’.⁷⁰⁹

5.7 Conclusion

In practice, women traders who carried fish on their heads to the nearby marketing centres marketed the fish. The arrival of the railway in 1901 provided a route for the future transportation of fish to Nairobi and Mombasa. The most important players, however, as seen above, were the bicycle fish traders who acted as middlemen and were able to assist in the movement of fish to the nearby urban centres. It is clear that the colonial government did very little to assist fishers to effectively market their fish, principally due to a failure to provide cold storage facilities at the Coastal and Lake Region.. An attempt has been made in this study to analyse these failures and give the reasons behind them. Marketing challenges and attempts at solutions by individual businessmen and government agencies have been discussed. These challenges intensified especially after the coming of the bicycle ‘boys’ and the lorries, which marked the beginning of the marginalisation of the fisheries underclass. The chapter has examined the question of fish marketing during the colonial period by highlighting the challenges that faced the marketing networks and dynamics. Because fish is a perishable commodity, fishers had to adjust their practices and coping techniques. In order to achieve this, they came up with idea of splitting fish and drying fish. The colonial state introduced ice factories from 1945, but with limited access as we have seen. As a result, private individuals such as Jim Bailey decided to invest in ice cold storage facilities. One of the main challenges to marketing was the question of the middlemen, dominated by Asians, who operated a network of monopolies by controlling the supply of nets and fish transport, and finally by paying the fishers a pittance. In order to contain the free market, the colonial state introduced

⁷⁰⁸ DC/KSM/1/32/14.

⁷⁰⁹ R. O. Abila, ‘Impacts of International Fish Trade: A Case Study of Lake Victoria Fisheries,’ FAO-funded Report, p.14.

licensing and this also controlled access to the fisheries and the market. The next chapter examines the how commercialisation impacted on the exploitation of the fishery.

CHAPTER SIX

New Species, Commercialisation of Fisheries, Its Impact and Coping Strategies: 1954-1965

6.1 Introduction

Presented in this chapter is an argument that in the pre-colonial era, the Luo fishers fished for local needs and sold the surplus to a few familiar traders from the hinterland. With the advent of new capital, newcomers, some coming from distant districts, entered the industry and due to their capital outlay they were gradually able to marginalise the local Luo fishers who lacked credit facilities to expand their business enterprise.⁷¹⁰ In essence, harvesting capacity became concentrated in the hands of a small number of fishers. Developments in the fishery followed a long but steady growth from subsistence to commercial fishing. The 1954-1965 period witnessed changes in policy especially in land reforms and provision of credit to African traders, following the outbreak of the Mau Mau rebellion against colonial rule. The arrival of new fishing nets and motorised boats had far-reaching consequences in boosting production for the market. Earlier, bicycle traders of fish (*oringi*) had enabled dried fish to reach distant markets.

The end of World War II led to an increased monetisation of the economy, the introduction of more bicycles, the arrival of lorries as well as the coming of commercial agents and processing factories. All these landmark developments led to the marginalisation of the small-scale fishers, who had to create their own coping strategies to deal with increased capitalism. It has been argued by some Western scholars that the traditional management schemes failed to enhance orderly management of the fisheries. As a result, overfishing and resource depletion was becoming a reality. This followed many years of the official assumption that fish stocks could not be depleted. As a result, there were few studies conducted on

⁷¹⁰ Interview with Peter Mireri at Dunga beach on 26/1/2007.

overfishing. The fisheries administration of the colonial state emphasised the regulation of the mesh size but failed to appreciate the traditional management practices and inputs of the Luo fishers in their strategy. Consequently, the local contribution was ignored, and alien management schemes and British legal frameworks and scientific methods preferred. Within the latter management regime debates have continued on the right policies to ensure sustainability in the fishery. As Beauchamp asserts, fisheries science was late in coming because it was assumed that the fish harvest was a limitless addition to the diet.⁷¹¹ Like anything that is obtained without too much effort, it was relatively unappreciated.⁷¹² However, things changed once fish ceased to be an easy supplement to the diet and became an essential item of nutrition and its capture a commercial venture.

In the case of Kenya, the Graham Report had warned as early as 1927 of the dangers of overfishing in Lake Victoria. This warning was largely ignored. Consequently, the problem of overfishing became a reality. Fishing effort had to increase to maintain declining catches. The introduction of nylon and terylene nets which were more lethal than the flax nets exacerbated the crisis as more nets were used to catch the same number of fish as could previously be caught by fewer men with less equipment. This chapter thus discusses the introduction of new technology, the coming of the kilo system and the debates on open and closed accessibility as the strategies of managing fishery.

6.2 New Technology

When discussing the introduction of new fishing technology during the colonial era, Goldschmidt notes that, on the Tanzanian Mwanza Gulf side of the Lake, the Dutch introduced new techniques in the 1970s. The objective here was a major expansion of the fishing industry, with new projects such as the fishmeal factory and the building

⁷¹¹ R.S.A .Beauchamp, 'Fishery Research in East Africa' in *The Uganda Journal*, Vol. 19 No. 2, Kampala, Sept. 1955, p. 169.

⁷¹² R S ABeauchamp, 'Fishery Research in East Africa,' p. 169.

of trawlers in mind.⁷¹³ Jansen asserts that the first thing the colonial powers did was to establish an administration system based along ‘functionally defined lines’ and boundaries.⁷¹⁴ This was followed by an economic structure based on science and new technology for purposes of increasing productivity and creating surplus value for sale. He states that economic production was enhanced by ‘the introduction of modern science and technology in terms of increased resources extraction and scientific resource management’.⁷¹⁵ Thus scientific modes of production were encouraged in a bid to boost production. He further adds that the colonial powers controlled the resources in which they were interested. The colonial state in Kenya encouraged commercially-oriented new hybrid maize, coffee varieties, tea, beans and, especially, new fish varieties with new zeal following the drawing up of the Swynnerton Plan of 1954, which had concentrated on land consolidation.⁷¹⁶ The Plan argued that the reform of African land tenure was a prerequisite for agricultural development thus ‘consolidation, enclosure and registration of title would make credit obtainable for improvements and enable progressive farmers to acquire more land’.⁷¹⁷ In addition, large-scale resource extraction was further enhanced by commercial expansion made possible not only by the use of modern science and technology such as railways, steamboats and the telegraph. In effect, the same infrastructure aided resource extraction by ensuring that natural resources were transferred from production points such as the Lake shores to towns where they were in demand. Byrant, however, states that the same western technology led to ‘repression and the gradual demise of indigenous resource management systems’⁷¹⁸

Bokea and Ikiara have analysed the impact of new technology and new fishing gear on the lake fishery.⁷¹⁹ They contend that the advent of new technology negatively

⁷¹³ T. Goldschmidt, *Darwin’s Dreampond*, p. 4.

⁷¹⁴ E. G. Jansen, *The Fishing Population*, 13.

⁷¹⁵ E. G. Jansen, *The Fishing Population*, 13.

⁷¹⁶ W.R. Ochieng’, ‘Independent Kenya’s Development Strategies’, p. 87.

⁷¹⁷ Ochieng’, ‘Independent Kenya’s Development Strategies’, p. 87.

⁷¹⁸ See R.L. Byrant, ‘Resource Politics in Colonial Southeast Asia’ in V. T. King (Ed) *Environmental Challenges in Southeast Asia* (Curzon Press: Survey, 1998).

⁷¹⁹ C. Bokea and M. Ikiara, “The Micro-Economy of the Export Fishing Industry”.

affected food security among the Lake communities. They contrast the changes that occurred during the colonial period with those from the mid-1950s to the 1970s. In the pre-colonial period fish had been readily available and a cheap source of protein, but the coming of new capital and technology sought to produce for sale rather than consumption.⁷²⁰ With the coming of colonialism and new species of fish particularly the *mbuta* and new variety of *ngege*, consumption grew in hitherto non-fishing and non-consumption communities. It is also, however, true that the introduction of *mbuta* tremendously improved trade and financial security in the subsequent decades. Nevertheless, with the increased number of factories along the beaches, less fish remained for household consumption and this increased food insecurity in the long run.⁷²¹ That more fish now headed for the export market may be due to the charge that in the past there had been no market for *mbuta* around the Lake. Most studies agree that *mbuta* led to an ecological disequilibrium because it later consumed indigenous and primordial fish varieties.⁷²² More than three hundred fish species disappeared from the lake due to the predatory nature of *mbuta*. This led to an alteration of the lake ecosystem.

6.3 The Alien Commercial Species

Mahira Oguyo, whose livelihood has dependent on the lake for over forty years, observed that some fish varieties were disappearing. '[M]ost varieties of fish have disappeared such as *osoga* fish', he recalls. 'They have been eaten by *Mbuta*'.⁷²³ At the same time, he recognised the fact that the coming of *mbuta* boosted fish production. He adds, 'the colonial state did a good thing by introducing *mbuta* as it later gave us a higher income. It generated progress by bringing higher incomes than the indigenous varieties.' However, his opinion is contrary to Abila's who holds

⁷²⁰ C. Bokea and M. Ikiara, "The Micro-Economy of the Export Fishing Industry".

⁷²¹ D. Wilson, "The Global in the Local".

⁷²² D. Wilson, "The Global in the Local", C. Bokea and M. Ikiara, "The Microeconomy of the Export" and C.M. Dobbs, "Fishing in the Kavirondo Gulf" are all agreed on the fact that *mbuta* led to the disappearance of several species.

⁷²³ Interview with by Mahira Oguyo, Uhanya beach on 15/12/05.

mbuta responsible for the disappearance of indigenous species.⁷²⁴ Mireri points out that the coming of *mbuta* led to an ecological upheaval and loss of biodiversity.⁷²⁵ This conflict in opinion is a powerful manifestation of the controversy surrounding the introduction of new fish varieties on the Luo fishers. While Nile perch [*mbuta*] is responsible for interfering with the Lakes' biomass in a remarkable way, it is also curious to note that because of its size it later became a cash cow for the fish traders keen on maximising profits. Nevertheless it is doubtful whether the ordinary artisanal fishers benefited in any significant way.

Hugh Copley had stated in 1948 that the main commercial fish in Lake Victoria was the tilapia *esculenta* (*ngege*) 'whose catches in 1938 were 3,578,810 pieces of fish, valued at 773,165 Kenya shillings.'⁷²⁶ The same views were expressed by the L.V.F.S. report in 1958 that only relatively small numbers of tilapia had been supplied from the Nyanza Provincial Fish ponds. The tilapia *nilotica* was the most recent non-indigenous species to be introduced to the Lake. In order to boost production in the Lake region, fish measuring 33 cm to 35 cm were taken from the ponds in Kisumu and placed in the Lake.⁷²⁷

In an attempt to offer better species for commercial purposes, new types of tilapia were introduced. They were capable of rapid growth as well as reproduction under conditions prevailing in the Kavirondo Gulf. The tilapia was also unique in terms of its rapid growth and reproduction that made it more commercially attractive. The protection of reproduction through closed seasons allowed the fish to grow to maturity and become easy to catch with a standard net. There were deliberate efforts by colonial state officials and the fish warden to encourage the spread of the species throughout the lake and its surrounding waterways. These efforts were expected to rejuvenate the Lake fisheries for years to come. To co-ordinate these efforts the fish warden directed that all matters dealing with Lake Victoria were to be handled under

⁷²⁴ R. Abila, "Impacts of International Fish Trade", p. 14.

⁷²⁵ Interview with Peter Mireri at Dunga beach on 27/1/07.

⁷²⁶ VF/5/1.

⁷²⁷ VF/5/1.

the L.V.F.B. In addition, new methods of fishing were tried out by the government in a bid to ‘help the “native” fisherman’. Experiments with these new approaches were done with very little consultation with the local community, which consequently showed little interest in the new types of fish being introduced. They only began noticing the Nile perch many years after it was introduced.⁷²⁸ The state pursued the introduction of new species and capture methods in the face of little enthusiasm from African fishers. Subsequently, fishers failed to cooperate with the state on closed seasons and licensing. The introduction of new species and gear was followed by falling catches in certain parts of the Lake, especially on the northern shores which suffered more intensive fishing on account of their being near the markets.

The Graham Report had recognised *ngege* as the most important food fish of the lake region, ‘whether for native or non-native consumption’.⁷²⁹ Graham asserted that no other fish equalled the tilapia in its quality of flesh. The new species was of the genus *tilapia*. Its commercial popularity arose from its numbers and convenient size for trade. It exceeded all the other species in economic importance. However, it was not found everywhere in the Lake as it was most abundant only in water between 2 and 6 fathoms deep. It was only found in large commercial quantities in certain areas, especially in the Kavirondo Gulf. The fish was also available in moderate quantities on the eastern shores of the lake but there were greater quantities in Ssesse Islands and the northern shore of the Lake.

The introduction of other species posed a threat to the *ngege*. Graham had alluded to the fact that the absence of *ngege* in the very shallow sections of the Lake was a result of the presence of another related species known as *tilapia variabilis* (*mbiru* in the vernacular).⁷³⁰ Both had similar feeding habits so they competed intensely for phytoplankton. The report highlighted the fact that the topographical distribution of fish was the result of the differences in the bottom layers of the Lake which was liable

⁷²⁸ Oral information states that although *mbuta* was introduced in late 1950s and mid 1960s, it was not up to the 1980s that it became very important fish in the Lake fishery.

⁷²⁹ AG/4/3 of 1929: K.N.A.

⁷³⁰ AG/4/3.

to be turbulent, thereby preventing a deposit of fish food from accumulating and encouraging the rapid multiplication of tilapia. This was however, not correct. Aside from this, the *ngege* lived and was most commonly available in water of six to sixty inches in depth.⁷³¹ It is clear that *ngege* was more abundant in some parts of the Lake than in others, depending on depth. This, in turn, influenced the location of fishing beaches.

The Graham Report suggested increasing the number of fish species in the Lake to satisfy the ever-increasing market for fish in the colony and beyond, and also in a bid to diversify and enrich the lake fishery. Other common species in the lake, such as the small *fulu* and the *omena* (minnows), were plentiful but had less commercial value. Graham believed that the Lake fauna and the Luo fishers in general would benefit greatly if replenished with new species imported from neighbouring Lake Albert, which also held an abundance of the bigger Nile perch (*mbuta*). This species was more aggressive and carnivorous and could grow to 100 kilograms in weight or more. Its introduction would bring in a more fleshy fish and give fishers more income.⁷³² The introduction by the colonial government of this large predatory species from another environment was to be done with the utmost care and be preceded by extensive research on the possible ecosystem effects of introducing *mbuta*. It is doubtful, however, whether the colonial rulers had done any research or consulted African fishers before they introduced the *mbuta* into Lake Victoria. Had they done so they would have recognised that *mbuta* would exterminate the indigenous species such as *ngege*.⁷³³ By the 1950s the *ngege* were already commercially extinct in the Lake. To compensate for the loss of *ngege* the colonial state decided to stock the Lake with new fish. The first non-native species of tilapia (*cichlid*) that prospered was the Nile perch (*Oreochromis niloticus*), which feed on minute forms of plants. It was introduced in the mid-1950s.⁷³⁴

⁷³² AG/4/3.

⁷³³ AG/4/3.

⁷³⁴ AG/4/3.

In introducing a new species, scientists consider certain ecological factors to be crucial. According to Ogutu, one of the key factors that determine the reproduction of a given species is the abundance of prey.⁷³⁵ They hold that fish and other aquatic organisms need habitat to survive and the productive capacity of a given environment depends on how well the fish needs are met.⁷³⁶ In the case of Lake Victoria the absence of a predator such as the Nile perch was an important factor in determining abundance of other fish species. Such abundance, however, was equally affected by the chemical characteristics of a given lake environment.⁷³⁷ A fish's requirements change over the course of its lifetime. In the case of Lake Victoria, wetlands provide a habitat for fish reproduction including spawning.⁷³⁸ Human actions, such as the introduction of an alien species into the Lake by the British colonial officials, were bound to have far-reaching effects on the indigenous fish.

Arunga states that the Nile perch was introduced into Lake Kyoga by Alexander, Rhodes and Stonman of the Uganda Fisheries Department between February 1954 and October 1955. When it was found in Lake Victoria a few years later steps were taken to allow it to flourish there.⁷³⁹ He points out that its introduction to Lake Victoria effectively started from 1959. During this exercise, about eight seedlings from Lake Kyoga were introduced at Kisumu Point. At that time it was thought that they would have no significant impact on the Lake fauna. He goes on to state that the *mbuta* was first caught in Lake Victoria in May 1960, at Jinja Point in Uganda. He observes that there was later a gradual decline and disappearance of endemic fish stock such as *Haplochromines*, *tilapia protopterus* and *Bagrus*. Despite the changes in biodiversity of the Lake, the *haplochromines* appeared to be thriving in the 1950s. Some colonial administrators suggested the introduction of a big predator like the Nile perch to eliminate the species and conversion of the haplochromine biomass

⁷³⁵ Ogutu, G.E.M, ed., artisanal Fisheries of Lake Victoria, p. 34

⁷³⁶ AG/4/3

⁷³⁷ AG/4/3

⁷³⁸ AG/4/3

⁷³⁹ J.O. Arunga, "A Case Study of the Lake Victoria Nile Perch, *Late Niloticus* in Aquatic Resources of Kenya" (1981, Nairobi Workshop).

into something more profitable for the fish traders. Ecologists fearing, the worst for the local species, strongly opposed the introduction of the *mbuta*. Arunga reported that, despite these objections, the *mbuta* began appearing in commercial catches by the 1960s. Some over-enthusiastic colonial officials must have thrown the initial ones into the Lake. For a long time the new species remained relatively small in number, as the haplochromine still comprised the traditional 80 per cent of the lake's fish biomass. They continued to provide the fodder for the new predator species. After independence, the *mbuta* was continuously put into the Lake so that it would replace *ngege* as the most abundant fish in Lake, having already fed on and destroyed most of the species originally present in the Lake. The introduction of the new species - though it turned out to be a boost for commercial and especially export fishing - was a unilateral decision made without informing or consulting the local community. The people, to their rather utter amazement, saw the new fish steadily replacing the indigenous ones. For instance, Wire talked of a very huge fish they had never seen before while Okullo recalls the greediness of the new fish species.⁷⁴⁰ More than half a century later, the Nile perch, has altered the food web structure at the Lake, leading to a dramatic change in its biomass composition.

David Mboya confirmed that in the 1950s the most common types of fish were the tilapia and the haplochromis *fulu*.⁷⁴¹ He went on to say that the *fulu*, a minnow type of fish was enormously abundant but had less commercial value. It was believed that the introduction of new species would compensate for overfishing. For instance, the Beverton Report of 1959, commissioned by the government to 'give the state of the fishery' in Lake Victoria, asserted that the main means of combatting the trend to use smaller nets was 'the introduction of new species of fish to the lake whose growth is such that to catch them efficiently would require meshes of 5 inches or even larger.'⁷⁴² The report pointed out that the new species should be able to utilise the natural resources of the Lake without being detrimental to the indigenous species.

⁷⁴⁰ Interview with Oracho Wire at Uhanya and M.Okullo at Dunga beaches confirms their amazement at the coming of the new *mbuta* species.

⁷⁴¹ Interview with Tom Mboya, Kenya Marine and Fisheries Office, Kisumu, 20/11/05.

⁷⁴² KP/8/9.

The colonial government decided to introduce a bigger fish as a substitute for the 'useless' *fulu*. The key objective was to turn 'trash fish' into marketable flesh. The change in species composition informed changes in the methods of fishery exploitation. It gave the fishers a new concept of the fishery as a bigger source of commodities to trade. It also revolutionised fish marketing, from beach-based *Kiru* (hut) selling, to the *oringi* and to the frozen and ice-chilled lorry; and from a domestic to an international export market that still dominates the lake fishery today. There can be no doubt that the introduction of *mbuta* was a commercial revolution. The result has been varied and even more revolutionary as the *mbuta* today comprises the more than two-thirds of all fish exports from the Lake Region. Its coming also heralded a change in government strategy and participation in the fisheries sector.⁷⁴³

The 1953 Fisheries Act empowered the Fishery Department to become more energised in dealing with the fisheries in the areas of net control, levies, licensing, beach patrols and enforcing government regulations. By 1959 the colonial state was more interested in maintaining state control of prices and the supply of nets. The Beverton Report of that year stressed the need to use the right mesh sizes in order to curtail the effect of fishing.⁷⁴⁴ On the sustainability on the stock the report suggested the use of specific mesh sizes for certain fish species, which made the work of enforcement more difficult. It was for example stated that, 'for species *tilapia variabilis* and *mormyrus*, it follows that a 5 inch mesh may be too large and a 4 ½ inch would probably be best for both species'.⁷⁴⁵ It appeared that as a result of commercialisation the state was worried that in the most heavily fished areas, such as the Kavirondo Gulf, the immediate effect of decreasing the size of the mesh to four-and-a-half inch would be an increase in the quantity caught, hence the need to reduce the mesh size.⁷⁴⁶ The government suggested that it was better to control fishing effort rather than mesh size via the creation of close seasons and limitation of the size of the

⁷⁴³ R.O.Abila, "Impacts of International Fish Trade," p. 46. He points out that as a result of *mbuta*, 'new local institutions were created and equipped to ensure that fisheries products high standards of international markets and there was more government regulations on quality'.

⁷⁴⁴ KP/8/9.

⁷⁴⁵ KP/8/9.

⁷⁴⁶ A. Madanda, 'Commercialisation and Gender Roles Among Lake Victoria Fishers,' p.7.

catch. The Beverton Report claimed enforcement of the regulations and control of the supply of nets would only be effective 'if the incentive for the fishers themselves to use smaller meshes is adequately offset'.⁷⁴⁷ Enforcement was effected through systematic inspection and the prosecution of infringements so that in the long run it will 'at least not be more profitable for a fisherman to use an illegal mesh and run the risk of being caught'.⁷⁴⁸ The Report, however, failed to take the seasonal nature of fishing into account. It was based on the assumption that by punishing their infringements the regulations would be effective. This would not have happened, however, if the voices of the Luo fishers were not ignored. As Madanda pointed out, regulatory measures 'required shifts in the production techniques such as stringent quality control measures'.⁷⁴⁹ Mesh size control and quality assurance alone were not adequate policy measures for ensuring proper use of fishery resources because most fishers saw these policies as illegitimate and thus refused to abide with the new rules as they were not involved in their formulation.

Jansen discusses the effects of the new species by dividing the developments in fishery into two phases, namely, the pre-Nile perch and the Nile perch periods.⁷⁵⁰ He states that 'the introduction of Nile perch subsequently led to an increase in capital investment and hence gear deployed in fishery'.⁷⁵¹ There were many contrasts between the two eras. For instance, during the pre-Nile perch era very few canoe owners possessed more than one canoe or more gill nets than they could work. However with the coming of the Nile perch, fishers competed aggressively by investing in more powerful canoes and better nets such as seine nets and trawlers. In effect, production was geared towards market demands. The canoes were motorised and the processing and trading sectors became dominated by big operators based in large towns such as Kisumu and Nairobi. The number of wholesalers in the fish trade

⁷⁴⁷ KP/8/9.

⁷⁴⁸ KP/8/9.

⁷⁴⁹ A. Madanda, 'Commercialisation and Gender Roles Among Fishers,' p. 7.

⁷⁵⁰ E.G. Jansen, *The Fishing Population in the Kenyan Part of Lake Victoria: A Report on the East African Fresh Water Fisheries Research Organisation* (NORAD; University of Bergen, 1973).

⁷⁵¹ E.G. Jansen, *The Fishing Population in the Kenyan Part*, p. 203.

increased as agents and middlemen acquired control over the fishers, sometimes through the establishment of credit relationships.

Commercialisation in the fishery was encouraged by the huge size of the new fish species. With the coming of *mbuta* varieties and new gear, catches increased which allowed fishers to sell to the traders who paid the highest wholesale price. This was to the reverse of what happened during the pre-Nile period, when fishers only sold fish to a limited number of traders with whom they had long-standing relationships. Outside interference from the various stakeholders, including foreign agents and non-Luo investors, increased from the mid-1950s. In effect, there was more capital penetration from outside the Lake region and more government intervention. Ikiara and Bokea add that although a general decline was noticed in 1950s and even before, the introduction of predator species between 1950 and 1962 triggered an enormous erosion of biological diversity leading to unbalanced predation and disruption of food webs.⁷⁵² As the Nile perch population increased that of the haplochromines decreased, leading to a disequilibrium.

6.4 Commercialisation of Fishery

The commercialisation of fishery was the result of the monetisation of the economy, new species and coming of the railway, as well as increased capitalisation which affected the poor and the rich fishers differently. Okullo points out that, with increasing commercialisation, the small-scale fishers suffered a great deal from the exploitative tendencies of the middlemen and bicycle ‘boys’, who benefited massively by liasing with the big companies and agents from Nairobi.⁷⁵³ The coming of the trawlers, foreign investments and new fish species increased fish production. This led to an increase in fish trading. Ong’anga’ argues that commercial fishing picked up in the 1950s but fishing by the Luo remained predominantly artisanal.⁷⁵⁴ It

⁷⁵² C. Bokea and M. Ikiara, “The Micro-Economy of the Export Fishing Industry”.

⁷⁵³ Interview with Mohammed Okullo at Dunga beach on 21/1/2007.

⁷⁵⁴ O. Ong’ong’a, *Lake Victoria and its Environs, Resources, Opportunities and Challenges*, (Kisumu, Osienala,, Africa Herald Publishing House, 2005), p. 67.

seems as if there were attempts to modernise or commercialise fishing in the Lake Region. However, the success of this modernisation/commercialisation was modest. This is because modern gear and methods continued to exist side by side with the indigenous ones. Modernisation also had its own problems. The colonial rulers bequeathed to Africans the concept of modernisation to underline the differences between African and European societies.⁷⁵⁵ Leys points out that a society was considered African when most relationships were particularistic rather than universalistic and in which ascription rather than achievement was the general ground or basis for holding a profession or a position.⁷⁵⁶ Thus according to Ley's theory, modernisation was a process of transition from African to modern principles of social organisation.⁷⁵⁷ To what extent this transition succeeded is debatable. Fishing for many years after independence continued at an artisanal level 'with very limited use of outboard engines'.⁷⁵⁸ Most of the catch was still marketed through middlemen, both within and outside fishing areas.

Various scholars perceive the concept of commercialisation differently. In a nutshell, those targeted and affected by commercialisation were small-scale fishers and fish traders, both of whom were recipients of colonial policies which were capitalistic in outlook. Kinyanjui, for example, conceived commercialisation as an activity dealing with economic expansion for purposes of producing surplus commodities for sale.⁷⁵⁹ Madanda has defined commercialisation as a 'process of subjecting market to competition and allowing a free market to control supply and demand'.⁷⁶⁰ There is no doubt that by the mid-1960s fish production had expanded significantly. Following the introduction of new gear, boats and species - especially new varieties of tilapia and *mbuta* - the Lake Victoria fishery was bound to change drastically. Commercial production of fish is intended for the market geared to making a profit. It is a system

⁷⁵⁵ C. Leys, *The Rise and Fall of Development Theory*, (London, James Currey, 1996), p. 65.

⁷⁵⁶ C. Leys, *The Rise and Fall and Development Theory*, p. 65.

⁷⁵⁷ C. Leys, *The Rise and Fall and Development Theory*, p. 66.

⁷⁵⁸ E. G. Jansen, *Rich Fisheries-Poor Fisherfolk*, p. 7.

⁷⁵⁹ F.K.Kinyanjui, "The Development of Some Aspects of African Industries in Kenya, A Case Study of Kiambu District: 1880-1990", (unpublished M.A. Thesis, Moi University, 1997) p. 17.

⁷⁶⁰ A. Madanda, "Commercialisation and Gender Roles Among Lake Victoria Shore Fishing Communities", Kampala, Makerere University, 2003, p. 7.

of production dominated by the division and specialisation of labour. On the other hand, commercialised fishery is characterised by huge capital investment, and production is geared towards accumulation of profit.

This is at variance with artisanal fishing which is dominated by small production and characterised by small catches sold on the beach and low capital investment.⁷⁶¹ Indeed Tvedten and Hersoug define artisanal fishery as that which is ‘normally carried out by small-scale fishing units often consisting of kin groups, low investment levels and sales intended for small markets’.⁷⁶² They add, however, that when looking at both the artisanal and commercial fisheries, we cannot ignore the many points of articulation ‘between industrial and artisanal fisheries’.⁷⁶³ This distinction soon became marked on Lake Victoria. There were two classes of fishers, the rich and the poor. The poor who could not afford the new demands of modernity remained artisanal producers in the increasingly competitive fishery. The poor fishers continued processing in the traditional ways and selling to middlemen. The crew, fishmongers and boat owners were each affected differently and each had their own ways of coping. Artisanal fishers like their commercial counterparts invest capital, the difference mainly being one of scale. Bokea and Ikiara looked at the effects of commercialisation on the Lake Victoria fisheries.⁷⁶⁴

They understood commercialisation to have been the main force driving the expansion of beaches from 1960 onwards. Although beaches had been in existence since time immemorial, they increased in size, both in terms of fish landed and population of fishers and fish traders. A growing hundred number of dealers were established and attracted an increasing amount of commercial and service activities. Soon some beaches became dotted with cafes, bars and small hotels. The fishery continued to play an important role in food security and employment, albeit at a lower

⁷⁶¹ A. Madanda, Commercialisation and Gender Roles, p.7.

⁷⁶² I. Tvedten and B. Hersoug, ‘Introduction’ in Inge Tvedten and Bjorn Hersoug, (eds), *Fishing for Development: Small-Scale Fisheries in Africa*, (Uppsala, Scandinavian Institute of African Studies, 1992), p. 11.

⁷⁶³ I. Tvedten and B. Hersoug, ‘Introduction’, p. 11.

level. The loss of control over the fishery by the ordinary fishers soon became evident.⁷⁶⁵

Bokea and Ikiara argue that by the 1960s ‘the local fishers began to lose control over the means of production, pricing and marketing of fish to the new investors particularly Indians’.⁷⁶⁶ Newcomers entered the harvesting sector, with modern technologies such as trawlers and motorised boats. They invested in many boats and a lot of gear and hired more crew to fish for them. Lazarus Ogwire remembers that

The big motorboats started coming from 1960s to take fish especially the tilapia for the export market from the fishers. As a result this move denied the small holders fish for marketing as most of it was taken away to Nairobi. The boats landed on an island within the lake and collected all the fish before it be taken to the beach.⁷⁶⁷

It is clear from this recollection that the small-scale fish traders and fishers could not compete with the heavily capitalised large-scale owners of motorised boats. The Luo fishers gradually became the victims of their credit providers and at an early stage the problem of absentee fishers emerged.⁷⁶⁸ These were rich owners of gear who employed crew to fish for them while they lived in major towns like Nairobi. They were ‘absent’ because they rarely visited the Lake beaches to participate in fishing. With these new developments, spurred on by colonial changes, local fishers lost control over the means of production. So there was an increased stratification of Luo society due to commercialisation.

The same loss of control was seen in pricing. Here, local fishers had no say due to their lack of storage facilities, the perishability of fish and the pressure of credit

⁷⁶⁴ C. Bokea and M. Ikiara, “The Macroeconomy of the Export Fishing Industry in Lake Victoria” on the internet: www.iucn.org/places/earo/pubs/wetlands/macroeconomic.pdf

⁷⁶⁵ Bokea and Ikiara, ‘The Micro-Economy of the Export Fishing Industry’ p. 107

⁷⁶⁶ C.Bokea and M. Ikiara, ‘The Microeconomy of the Export Fishing Industry,’ p.107.

⁷⁶⁷ Oral interview with Lazarus Ogwire, Uhanya beach on 211/11/2005.

relationships.⁷⁶⁹ Things were made worse by the fact that each local fisher produced only a small amount of the total fish supply. In the marketing and processing sectors, large actors with a lot of capital edged out African sellers and processors. This had far reaching effects on class stratification within the fishery, and production relations no longer remained the same as they had been in the pre-colonial period. Now, a few traders and their agents, such as James Winja of Uhanya, working in cahoots with the Indian owned Afro Meat Company monopolised the use of beaches for fishing.⁷⁷⁰ Indeed, with less government restriction, entry into the fishery became a free for all. The fear of overfishing became a reality. This was because as local fishers lost control and access to the fishery they lost the incentive to fish responsibly.

Women above all bore the brunt of marginalisation. The coming of new technology and increased commercialisation brought about new social relations in the Lake Region. One fisherwoman, argued that ‘commercialisation helped us, it brought money for fees, building houses...there were also differences between the poor and the rich, while some were rich, others became poor’.⁷⁷¹ As men poured onto the beaches, women were pushed back into the homes to take care of the households. Young males now took the roles hitherto played by women. Since women lacked capital to enter fishery and compete with men, they were confined to processing, splitting and preparing fish for the markets. Big lorries would come and transport all the fish to Kisumu and Nairobi and even international markets and thus many female fishmongers were pushed out of business. A woman trader who informed us that ‘commercialisation brought in differentiation between the poor and the rich with women suffering most’ supports this argument.⁷⁷²

There was tension and conflict between owners of modern technology and the displaced fishers particularly between net owners/boat owners and the ordinary crew

⁷⁶⁸ Oral interview with Joyce Oruko at Dunga beach on 24/1/2007.

⁷⁶⁹ Interview with Peter Mireri at Dunga beach on 26/1/2007.

⁷⁵¹ Interview with James O. Wire at Uhanya beach on 25/10/2005

⁷⁷¹ Interview with Leonora Jennifer Ogonga at Dunga beach on 26/1/2007.

⁷⁷² Interview with Rhoda Agutu at Wasaria beach on 24/2/2007.

men and fish factory employees and even consumers who had to pay more.⁷⁷³ The small fishers felt ignored and exploited by the net and boat owners. The sustainability of the Lake, as we have seen, was also threatened since fishers no longer felt any need to preserve the juvenile fish in the context of dispossession and displacement.

Increasing inequality between fishers and gear/boat owners followed a sequence. As more people moved to the Lake beaches to seek work, the increased labour supply led to lower wages. Boat owners operating along the beach allocated a higher percentage of the catch to themselves and less to their crew.⁷⁷⁴ This was because the boat owners wanted to maximise their profits. Wilson et al. support this opinion by stating that ‘most of the actual fishing was done by the crew who did not own a share of the boat or gear’.⁷⁷⁵ He points out that the share system used to divide the catch was used to legitimate increased exploitation under conditions of intensifying commercialisation. He asserts that ‘share systems often assigned engine [owners] and new gear [owners] substantial maintenance and depreciation payments that were deducted before the catch was shared. These payments reduced actual crew shares.’⁷⁷⁶ The railway line from Mombasa to Kisumu also needed to supply more fish to the export markets. In fact, it can be argued that even though the coming of new technology and new species boosted production they had negative cultural and social consequences. There was a sense of loss of ownership of the Lake among the fishing communities as international capital took over the control of the fishing industry. Commercialisation led to the harvesting of immature fish and this posed a grave threat to the Lake’s sustainability, as the fishing population increased especially during droughts in the agricultural sector.⁷⁷⁷ The fishers began using seine nets from 1959 onwards to satisfy

⁷⁷³ Interview with Peter Mireri at Dunga beach on 22/1/2007.

⁷⁷⁴ Interview with Joyce Oruko at Dunga beach on 21/1/2007.

⁷⁷⁴ See DC Wilson et al., ‘The Implications for Participatory Fisheries Management of Intensified Commercialisation on Lake Victoria et al,’ in *Rural Sociology*, Vol. 64, No. 4. Institute of Fisheries Management, p. 12

⁷⁷⁵ See DC Wilson et al., ‘The Implications for Participatory Fisheries Management of Intensified Commercialisation on Lake Victoria et al,’ in *Rural Sociology*, Vol. 64, No. 4. Institute of Fisheries Management, p. 12

⁷⁷⁶ D.C. Wilson, ‘The Implications for Participatory Fisheries Management’, 12.

⁷⁷⁷ Interview with Maria Ngambo at Dunga beach on 21/1/2007.

foreign demand. They did this although the seine nets had smaller mesh sizes, creating a legacy of bad fishing habits. As rich fishers competed for more production, they invested in modern harvesting technology, including seine nets, trawlers and motorised boats.⁷⁷⁸

Bokea and Ikiara assert that this intensive fishing had two main consequences. First, it led to a situation in which harvest levels exceeded the resource sustainability threshold. Second, the elimination of certain species by the Nile perch threatened the existence of other species as well the diversity of the Lake's indigenous fish species. The number of fish species declined from 300-400 in the early years of this century to about 177-200 currently⁷⁷⁹. Two-thirds of the indigenous haplochromine cichlid have either been lost or are threatened with extinction. More recently, the 1988 World Conservation Union Red Book listed hundreds of endemic fishes of Lake Victoria as endangered. Goldschmidt states that:

From the 1980s the lake's diversity was changing and the native fish was disappearing leaving only the *fulu* (or *furu*). The introduction of the Nile perch was to blame for the dwindling diversity of fish species. The Nile perch fed on the *fulu* and grew to enormous size threatening the lake's ecosystem. The other species such as the lungfish and other indigenous species now had a murky existence threatened by hordes of the giant Nile perch.⁷⁸⁰

During the pre-1955 period haplochromines constituted about 80 per cent of the biomass. Currently it accounts for less than 3 per cent while the *mbuta* forms 80 per cent of the biomass.⁷⁸¹ The decline in productivity has continued as Catch Per Unit of Effort (C.P.U.E.) also declined from an average of 25 tilapia per net in 1920, to two per net by the 1950s.⁷⁸² These adverse effects have been caused by excessive exploitation emanating from the high demand for fish in the domestic and export

⁷⁷⁸ KP/8/9.

⁷⁷⁹ C Bokea and M Ikiara, 'The Microeconomy of Export Fishing in Lake Victoria', 2000, p.32.

⁷⁸⁰ T. Goldschmidt, *Darwin's Dreampond*, p. 11.

⁷⁸¹ M. Ikiara and C. Bokea, 'The Microeconomy of Export Fishing in Lake Victoria,' p. 33.

⁷⁸² E.G. Geheb, *The Fishing Population in Kenyan Part of Lake Victoria*, (1995), p. 33.

markets. The increased demand between 1955-1965 led to rapid capitalisation and overcapacity, which in turn produced unsustainable exploitation that led to overcapacity in the harvesting and processing sectors. Fishing firms invested in efficient but destructive harvesting technology by adopting trawling, seine nets, mosquito nets and motorised boats. As a result they caught juvenile fish and threatened the future supply.

At independence in 1963 the new government of Jomo Kenyatta identified the bottlenecks that hindered the development of the fishing industry. Its main concerns were conservation, lack of infrastructure and the search for markets. To begin with there were fears of overfishing and thus the new Ministry of Natural Resources and Wildlife stated that conservation was part of their plans for the future development of the fishery. In a memorandum, the ministry stated that ‘fisheries development must be undertaken with due consideration being given to the needs of conservation of the fish stocks so as to safeguard future production’.⁷⁸³ In the same breath the government added that while the production of fish was being increased, it was also essential that parallel development take place in expanding markets for catches both locally and overseas. The memorandum also considered the challenge of transport, stating that in many areas the main factor holding up development of the fishery was poor communication. That prevented ease of access and made transportation of the catch very difficult. All these problems could be said to be the legacy of neglect during almost seventy years of a colonial rule that had favoured the development of agriculture in Central Kenya and the Rift Valley regions.

The colonial administration ensured that roads along the Lake region were poor, that there were no good markets for fish and fish factories were absent, the few that there were being located in Nairobi, many miles from the lakeside.⁷⁸⁴ In 1965 independent Kenya pledged to give priority in fishery to the provision of ‘markets, roads and

⁷⁸³ KL/24/10: Development of Kenya Fishing Industry.

⁷⁸⁴ Interview with Joyce Oruko at Dunga beach on 21/1/2007.

suitable transportation facilities'.⁷⁸⁵ In order to assist in the attainment of these objectives, the Kenya government obtained the services of an FAO fish marketing expert to carry out an economic and marketing survey of Kenya's fisheries. After a lengthy survey the FAO Report was published in December 1965. It proposed an increased role for the Kenyan government to ensure the use of minimum mesh size nets.⁷⁸⁶ The FAO recommended that the state should ban the use of explosives and poison in fishing. One of the problems the report noted was over-capitalisation and over-exploitation of fishery resources. Over-capitalisation referred to the increased use of modern gear, increased capital investment and the increasing number of large-scale fishers. Finally, the report highlighted the fact that differences in fishing skills had imposed limitations on the artisanal marine fishery in Kenya. Oracho Wire suggests that it was in response to this FAO report that the government introduced some changes in the management of the beach and fishing in general.⁷⁸⁷ In order to disperse new ideas of fishing, the government initiated unions along the beaches. One person from every division or location attended meetings at Kisumu and came back with new ways and directives issued by the government. The union representative (*ja-union*) 'brought new ideas to the fishers at the beaches, on [the] need for proper licensing and taxation'.⁷⁸⁸ Licensing of the canoes was a noble idea as it minimised the incidences of theft, according to oral information. This is not, however, to say that the new policies were acceptable and friendly to the poor fishers, but were a perpetuation of the colonial regulatory policies.

Jansen has looked at responses by fish processors, fishmongers and consumers - but not fishers - as to how the fishers coped with the legacy of the colonial regulations on fishing activities. As a result of increased demand and competition, fishing agents/middlemen 'made all sorts of arrangements with fishers in order to obtain regular suppliers from their 'own' affiliated fishers'.⁷⁸⁹ Some of these relations

⁷⁸⁵ FAO, 'Report to the Government of Kenya on Fisheries Development,' 1965 at www.fao.org/docrep/005/41449e00.htm as consulted on 24/10/2004.

⁷⁸⁶ FAO Report to the Government of Kenya, 1965.

⁷⁸⁷ FAR, "Report to the Government of Kenya," 1965.

⁷⁸⁸ Interview with Joyce Obonyo, Uhanya beach.

⁷⁸⁹ E G Jansen, *Rich Fisheries-Poor Fisherfolk*, p. 8.

between ‘agents’ and the fishers included credit, the supply of gear and the purchase of fish in the Lake from special transport vessels.⁷⁹⁰ The fishmongers reacted by establishing links with potential buyers. They severed the relationships they had had previously with particular fishers. Thus as a result of commercialisation, ‘these relationships between the fishmonger and the fishers became severed’. The Luo fishers thus ‘partially’ broke with the colonial past. They now worked under contract to deliver to the purchasing agents of the factories, who could also afford to pay them a higher price than the fishmongers and the local market.⁷⁹¹ Another consequence of commercialisation was the redundancy of small fishmongers. Madanda has also looked at the strategies of the marginalised fishers of Lake Victoria.⁷⁹² She discovered that most fishers abandoned fishing as a result of constraints. They moved to urban centres or participated in the informal sector as, for example, tailors, carpenters, labourers and technicians. They also came together to form self-help groups, such as business enterprises, in the spirit of *umoya ni nguvu* (unity is strength). Most, however, conformed to the new changes and stringent government measures on licensing and seasonal closures.⁷⁹³ Women fishmongers reacted similarly to the new challenges by variously pooling resources, forming groups to fight for their rights and borrowing money from the agents/middlemen to cope with the demands of increased fish supply by hiring more fishers.⁷⁹⁴

6.5 Fishers’ Coping and Surviving Techniques

The fishers found themselves supplying more and more fish but their earnings were not commensurate with the increased catches. This requires some explanation. Okullo, a man who began as a crew member and moved to the level of a boat owner, states that the coming of modern nets and the predominance of money in fishery changed the fishery and the conditions of fishers.⁷⁹⁵ He suggests that after

⁷⁹⁰ E. G. Jansen, *Rich Fisheries - Poor Fisherfolk*, p. 8.

⁷⁹¹ E. G. Jansen, *Rich Fisheries - Poor Fisherfolk*, p. 9.

⁷⁹² A. Madanda, *Commercialisation and Gender Roles*, p. 9.

⁷⁹³ Interview with Joyce Oruko at Uhanya beach on 26/1/07.

⁷⁹⁴ A. Madanda, *Commercialisation and Gender Roles*, p. 10.

⁷⁹⁵ Interview with Jacob Okullo at Dunga beach on 22/1/2007.

commercialisation became dominant, ‘fishers suffered a great deal from the exploitative tendencies of the middlemen’ ‘they had a lot of money while we had none’. He remembers that they had suffered at the hands of the middlemen and the bicycle marketeers. As a result the predominance of agents with more money the crew men and fishmongers lost control of the market and the power to determine fish prices. Mohammed Okullo points out that ‘the agent controlled the markets, prices and monopolised the incomes [from] fishing. They sucked our blood as we got nothing from our sweat’.⁷⁹⁶ The small fishers could no longer choose to whom to sell because they had to sell to middlemen who now owned lorries, and determined prices. Richard Otieno, a long time fisherman, pointed out that:

The coming of money and new fishing machines, made the price of fish to rise too highly for us [the poor consumers and fishers], but we made more money. However, there were those who became rich while others became poorer. Those who became rich were the agents, because they dictated the prices.⁷⁹⁷

The seasonal fluctuation of fish prices was influenced by the seasonal nature of the supply, and a glut in fish led to an automatic fall in price. Fishers were not able to stabilise the supply because they lacked the capital to purchase ice coolers and storage facilities. Ong’ang’a explained that ‘agents and brokers purchase fish from fishers at the landing beaches’.⁷⁹⁸ As a result, prices were determined by the agents who owned lorries and bought all the fish in bulk at the beaches.

However, the pre-capitalist mode of production was not completely subsumed by capitalist forces in the Lake Region. Rather, as Rodman argues, there was increasing evidence that simple commodity production [of fish] and peripheral social formations

⁷⁹⁶ Interview with Mohammed Okullo at Dunga beach on 23/2/2007

⁷⁹⁷ Interview with Richard Otieno at Kochia village on 23/2/2007.

⁷⁹⁸ O. Ong’ang’a, *Lake Victoria and Environs, Resources, Opportunities and Challenges*, (Kisumu, Osienala Publishers, 2005), p. 71.

persisted indefinitely in the face of capitalism.⁷⁹⁹ That means that indigenous pre-colonial modes of fish production, gear and canoes co-existed alongside the modern gear and motorised boats that came with the capitalist mode of production. In addition, a visit to fishing villages along the Lake reveals that even though a few Luo fishers pursued fishing as a capitalist business venture, almost none of them became full-time commercial fishers. Rather, they incorporated fishing projects into their simple commodity economy alongside crop farming. Some of these 'rich' fishers diversified their businesses into commercial housing and cash crop farming while others bought lorries for transportation.⁸⁰⁰

As in the pre-colonial era, crewing and casual labouring on a fishing boat became one of the principal ways that young men made money in the Lake Region. As they grew older, however, some of the crew members bought their own nets and possibly boats and began operating their own business enterprises, however small. For many more fishing remained a major source of income (farming was generally for consumption) but with no tangible government support in terms of transport or credit facilities and self-sufficiency within the household remained a priority of the fishers. They therefore continued to prioritise self-sufficiency rather than immerse themselves in the capitalist economy due to constraints such as lack of capital and transport.

6.6 Challenges to Fishers and Traders

This section discusses the challenges facing individual fishers from the steady commercialisation of fish production and trade. Most of the literature so far discussed in the previous chapters concentrated on the introduction of the new technology, especially the gill net, and its impact. The structure and development of fish production has already been discussed. Now individual entrepreneurs and their efforts

⁷⁹⁹ M.C. Rodman, 'Constraining Capitalism' and Goran Hyden, *Beyond Ujamaa in Tanzania* (London: Heinemann, 1987).

⁷⁸¹ Interview with Mohammed Okullo at Dunga beach on 27/1/07

in the development of the fish trade will be considered in order to establish how African fishers and traders competed with increased capitalisation in the fishery and how their individual efforts led to the development and expansion of the fish trade. The task here is to analyse the precise initiatives of various people, and how their efforts led to social formation and engendered class differentiation. Writing on the transformation of fishing in the mid-1950s in Ghana, Vercrujssse states that what happened in the fisheries there during the colonial period was not development but the rise of an industry whose mode of production was transformed by the superimposition of a modern, capital intensive sector on pre-colonial, pre-capitalist canoe fishing sector⁸⁰¹. As in Kenya, in Ghana the British colonial state introduced new nets and boats and encouraged foreign capital investment. In effect, the coming of capitalism and increased capital intensive production partially transformed the indigenous modes of production. How the fishers and fishmongers survived this capitalist transformation needs to be understood.

Writing on Uganda, whose experience relates to Kenya, Madanda has noted that fishers responded in various ways.⁸⁰² Women, for instance used methods like pooling resources and forming women groups to fight for their rights or help access credit facilities from the middlemen. Others changed into trading in fish types which were not in high demand and competition by other commercial traders, dealing in *omona* and *fulu* business since these two species were mainly consumed by poor consumers who could not afford the expensive tilapia. James Winja, an interviewee, stated that as a crew member employed on his relative's boat he was trained on *chike lupu* (rules of fishing).⁸⁰³ After some years he acquired his own nets and joined other fishers on a boat. By doing this he increased his chances of a higher income since what his nets caught belonged to him. After acquiring his own boats he increased his income further and could employ crew members. The leading fish processors in Kisumu and Nairobi, Afro Meat Company joined hands with him and gave him capital to expand

⁸⁰¹ E. Vercrujssse, *The Penetration of Capitalism*, p. 73.

⁸⁰² A. Madanda, 'Commercialisation and Gender Roles Among Lake Victoria,' p. 7.

⁸⁰³ Interview with James Winja at Uhanya beach 23/10/2005.

his fish catching capacity. These he had to sell so he became a middleman for Afro-Meat Co. and his income increased tremendously due to the new capital he secured and the guaranteed market the company provided. He supplied other fish factories and invested wisely. With increased income, he diversified into farming, bought more cows, educated his children and finally built rental houses, hotel and a restaurant along Uhanya beach where he first began fishing. Today he is a respected businessman and a leading entrepreneur in his hometown in Uhanya beach and Kisumu.

Born in 1945, Lazarus Ogwire started working at Uhanya beach in 1960 at fifteen, having learnt the art of *kilua* from his parents who were also fishers. They taught him how to fish by allowing him to hold a paddle (*ngai*). He then taught other young people how to fish. By 1964 he had made his own canoe because he was motivated by the search for money to pay taxes and buy cows, which were important for bridewealth. Most of the internship was by observation. It was learning by seeing. 'I knew how to work very well and other fishers hired me to work for them', he says.⁸⁰⁴ From these proceeds he bought a canoe of his own and today he has four. He also invested in cattle and built a modern iron-roofed house in his village. The new nets [five and six inch] were good, but he lost most of them to thieves. Theft was the main source of his anxiety as a fisher. He pointed out that the '5 ½ inch nets were very good because they increased our catches and this brought wealth to fishers as they could catch more for the market. Later when the motorised boats came, they were even better because they could go deeper into the lake and bring more fish'.⁸⁰⁵

Other fishers survived the onslaught of capitalism by being almost everything in fishing, doing as many chores as possible before mobilising other fishers to form associations to fight for their rights.⁸⁰⁶ A fitting example was James O. Wire who was

⁸⁰⁴ Interview with Lazarus Ogwire at Uhanya beach on 23/10/2005.

⁸⁰⁶ Interview with James Oracho Wire at Uhanya beach on 21/10/2005.

born in 1938 at Uhanya beach. He started fishing at the age of four. Fish was plentiful those days and one net could catch up to 200 or three hundred pieces of fish per day.

At first he said, the fishers did not realise that *mbuta* would become commercially very profitable. This they only realised in the 1960s and 1970s when it brought in a lot of money. However, the price of fish in the 1960s was not like in the 1940s because of the coming of the Indian traders who monopolised the trade in fish. In the colonial era, he reports, the number of canoes and nets was limited. In the whole village, there were only five or so canoes. He says that he and his parents sold their fish many miles from the beach. By the 1960s the dried fish (*obambla*) was transported as far as Nairobi. Fishers also engaged in agricultural production. James Wire (above) was an example of one who rose gradually up the fishing ladder as a crew man, net owner, boat owner, and finally an agent buying from artisanal fishers. Today he is a prominent fish trader and a businessman and a cooperative boss at Uhanya beach and was one of our informants in this study. He records that the main problem was domination by the agents and middlemen who buy cheaply and sell dearly to companies from Nairobi.

Mumbo, an interviewee in this work, said that he joined *kilua* in 1964 when he came to the Dunga beach to assist his mother to transport fish to Jubilee fish market in Kisumu town, a distance of about five kilometres from the beach.⁸⁰⁷ Every Saturday he carried fish to Kiboswa market, a border point between Luo and Luyia communities, ten kilometres from the beach. He says that continued fishery commercialisation gave him an income:

I got money to pay for my own school fees and buy a uniform until I finished my primary school. Then I married, educated my daughters, one of whom is now a trained teacher. I started as a crewman, a fishmonger and now finally a

⁸⁰⁷ Interview with Alfred Mumbo at Uhanya beach on 23/10/2005.

middleman. I was however discouraged from owning a canoe (*gogo*) of my own because of the fear of theft.⁸⁰⁸

Owiti Okoth, another chief informant in this research, aged 60 started as a bicycle fish trader (*oringi*).⁸⁰⁹ Part of his coping strategy was to come to the lakeshore with his bicycle and buy fish from his supplier who had prepared them for him, then ride up to Alego and Ugenya, fifty kilometres from the beach to sell his wares. He then used his income to buy cattle and invest in commercial buildings. One of our interviewees, and fish trader, Joram Odiyo Ojura, aged 63, was also a cyclist fish trader.⁸¹⁰ He survived commercialisation and the twin problem of intense competition from those with big boats and money by developing his land and building rental units in his local township. Lawi Ndago Okaka (71)⁸¹¹ was also a fish trader who with his increased capital, invested in more nets and boats and diversified his income by building commercial houses and practising commercial farming.⁸¹² Okaka had began as a crew member, and then bought his nets, sharing a boat with other net owners. He then increased the number of his nets and built his own boat, which enabled him to hire crew members and increase his catches and income. Although all these stories are all identical success stories, the problems that faced fishery are still enormous, including lack of credit and transport facilities, poor roads, lack of education and fish processing factories that are located far away in Nairobi.

6.7 Characteristics of Coping Strategies

The above examples are recurrent stories of how Lake Victoria fishers responded successfully to increasing capitalisation and modernisation of the fishery. Young men, mostly those who lived near the beaches, went to join their parents in *kilua* (fishing) in order to make some money to pay school fees or participate in the *oringi*

⁸⁰⁸ Interview with Alfred Mumbo at Uhanya beach on 23/10/2005.

⁸⁰⁹ Interview with Owiti Okoth at Uhanya beach on 24/10/2005.

⁸¹⁰ Interview with Joram Odiyo Ojura at Uhanya beach done 21/10/2005.

⁸¹¹ Interview with Lawi Ndago Okaka at Uhanya beach on 23/10/2005.

⁸¹¹ Interview with Lawi Ndago Okaka done at Uhanya beach on 23/10/2005

(bicycle) fish trade. They started as crew members working on one canoe with other experienced fishers, then they bought their own nets, later they would acquire their boats, which was a major achievement as this would guarantee them a regular source of income. Finally they would become middlemen, buying fish from other fishers and selling to Indian middlemen who had refrigerated lorries to take the fish to Kisumu or Nairobi.

Another common denominator among the above fishers was that they diversified their incomes by investing in commercial farming and building commercial houses. Geheb and Binns asserted that despite ‘the dissipation of incomes and deteriorating conditions, fishers are often unable to leave the fishery given the lack of job opportunities elsewhere and the generally low value of fishing gear in the second-hand markets’.⁸¹³ Peter Mireri supports the idea of straddling when he underlines the importance of grains in nutrition among the Luo.⁸¹⁴ Thus farming and fishing went hand in gloves. Farming was a good alternative and supplement to fishing because it provided the grains such as maize and millet which could be traded with the other fishers. It is a truism that fishing and farming have always been alternative livelihood substances. Geheb and Binns have discussed the relationship between fishing and farming in providing household income and nutritional security among the Luo.⁸¹⁵ They assert that ‘the livelihood systems among the Luo lake-side communities generally retain considerable diversity, but notably has three important elements- fishing, farming and livestock herding’.⁸¹⁶ Thus in a typical year, ‘oscillations’ occur between the various components of this tri-economy depending on the seasons. In Luo coping strategies, farming was generally regarded as being more reliable and more easily monitored whereas fishing was seen as being more ‘uncertain’.⁸¹⁷ In that case, fishing activities would often decline during the main farming seasons or when

⁸¹³ K Geheb and T. Binns, ‘Fishing Farmers’ or ‘Farming Farmers’? *The Quest for Household and Nutritional security*, p. 77.

⁸¹⁴ Interview with Peter Mireri at Dunga beach on 26/1/07.

⁸¹⁵ Geheb, K and Binns, T (1997) ‘Fishing Farmers’ or ‘Farming Fishers’? *The Quest for Household Incomes and Nutritional Security*, p.73-93.

⁸¹⁶ Geheb and Binns, ‘Fishing Farmers’, p. 76.

⁸¹⁷ Geheb and Binns, ‘Fishing farmers,’ p. 90.

grazing pasture was being sought. To the Luo fishers, farming was a coping technique, especially when fish catches declined. It was very fundamental to the fisherman who had increased their incomes to perpetuate the African tri-economy that has been in existence since time immemorial.

As noted before, the Luo servicemen returning from the War sought incomes from fishing in the absence of other employment opportunities.⁸¹⁸ These ex-soldiers also used their savings from the War to buy bicycles and enter the fish trade. Geheb and Binns have attempted to identify factors that favoured investment in fishing. From the mid- 1950s there was increased movement of labour to the Lake. This was because the requirements for entering the fishery were few and lack of experience was not regarded as a barrier to employment. Secondly, 'formal' requirements such as fishing licences were often supplied by the boat owner who also provided *abila* (rental accommodation) for fishing employees. Casual labour was plentiful. These were fishers who owned neither boat nor gear but who were employed by boat or gear owners. With such a steady supply of labour, African fish traders and fish businessmen were able to invest more capital in order to increase production and profits. This led to social and economic differentiation that arose from inequalities in control by big owners commanding more nets and boats, and working with 'outside' investors such as Indians. As in the case of James Winja, the Indians at times provided their trusted fishing customers with credit facilities. This enabled them to buy even more nets. On the other hand, the crew men continued to share ten percent of all the catches leaving the rest to the net and boat owners. These differentiations gradually erased the egalitarian nature of the Luo community. As Rodman opined, 'differentiation is occurring slowly and is masked by an African egalitarian emphasis'.⁸¹⁹

⁸¹⁸ See Colony and Protectorate of Kenya, *Report on Kenya Fisheries 1960* (Government Printer, Nairobi, 1961) as quoted in Geheb, K. and Binns, T. (1997) 'Fish Farmers', p. 78.

⁸¹⁹ M.C. Rodman, "Constraining Capitalism? Contradictions of Self Reliance in Vanuatu Fisheries Development" in *American Ethnologist*, Vol.14, No. 4 (Nov., 1987), p. 719.

Furthermore, the higher incomes of those fishers with access to a boat provided them with greater potential for further investment. Greater fishing effort was accompanied by improvement in income. Those traders or retired teachers and civil servants, who had capital and thus access to more gear, invested in additional gear and boats, providing further employment opportunities. From 1965 large scale investment came from people who were not originally associated with fishing such as Nairobi-based business people, non-Luo capital owners and retired civil servants who had accumulated capital in the city and could afford to buy more boats and gear.⁸²⁰ Yet, lack of capital remained the main problem for most local fishers. Compounding this setback was also the problem of transport, especially refrigerated lorries, as well as the theft of gear, which could be stolen and taken across the border to neighbouring countries. Although no data is available on how frequent theft was, it was a major problem. The Indians continued to monopolise fishing and the fish trade because of their access to capital and hence modern means of transport and gear.

When asked to identify problems that hindered the successful growth of fisheries, most oral informants agreed in their responses.⁸²¹ They attributed the poverty of the fishers to their lifestyle, characterised by a hand-to-mouth existence occasioned by the seasonal nature of fishing.⁸²² Another cause of low incomes among the fishers was 'exploitation' by the Indians who bought fish from the fishers at very low prices and since the fishers had no refrigerated vehicles, they had no alternative but to sell at throw away prices. As a result of this exploitation, the fishers argued that the 'surplus value' was transferred to the middlemen and wholesalers who, in most cases, were also Indians. Another problem was payment was in cash, which promoted a culture of consumption rather than saving. Other problems included a lack of security that encouraged theft of nets and boats, poor marketing, lack of motorised boats and lack of government support in the provision of social amenities.

⁸²⁰ Interview with Mohammed Okullo at Dunga beach on 25/1/07.

⁸²¹ Interview with Peter Omondi, Lazarus Ogwire, Samuel Onaga, Manas Osur, Reuben Nyareje at Uhanya beach on 21/12/05.

⁸²² Interview with Manas Osur at Uhanya beach on 21/12/2005.

In response to these problems, the new Kenyan republic made policy pronouncements on the optimal exploitation of the fishery. On 15 December, 1965 the Ministry of Commerce and Industry (MCI) stated that:

For economical exploitation of the natural fishery resources it is necessary to set up a complex of fishing industries in such a manner that with the progressive increase in the catch of fish the capacity of these industries will be increased and so during the initial stages the local people will get all the training for the running of factories and the management of these projects so that after two years no foreign technicians will be required to manage these industries.⁸²³

What the new republic was concerned with was the plight of the fishers. Its main concern was the increasing number of fishers that were threatening the sustainability of the Lake. In articulating this C.P. Watson, the Chief Fisheries Officer, stated ‘the current production from Kenyan waters of the lake totals some 12,000 to 13,000 tonnes per annum with a gross value of Sterling Pounds 1,600,000 of which 4,500 fishers shared Sterling Pounds 670,000’.⁸²⁴ Despite the considerable number of people engaged in fishing, the government inherited a huge problem caused by many years of neglect. The landing places (*banda*) were inadequate, made worse by the lack of infrastructure. Watson added that the principal objective in fisheries was to consolidate fishing efforts to a much smaller number of *banda*, which can then be economically developed into major fishing ports. He asserted that ‘this consolidation will enable the provision of roads, developed fish landings sites (*banda*) designed for hygienic handling of the catch, fish stores, flake ice plant, markets etc and also reduce the cost of such installations’.⁸²⁵ The government at the same time reported that concerted programmes of experimental fishing were planned to test new fishing methods and improved boats and expand the coverage of fishing efforts to a wider

⁸²³ KL/24/10: Development of Kenya’s Fishing Industries.

⁸²⁴ KL/2/10.

⁸²⁵ KP/2/10.

range of species and thereby reducing the dependence on the possibly dwindling *ngege* (tilapia) stocks.⁸²⁶

In 1965 the new administration also planned to enhance and diversify fishing gear with small mesh size nets, drift nets for deep-water fishing and long lines for Nile perch. Once these methods had been tested and approved by the ministry concerned, they would be recommended to the fishers. There were determined efforts on the part of the new state to provide credit facilities as well as to fund new methods of fishing acceptable to the government, one of these being that loans were to be provided to fishers to adopt the improved methods and means.

There were also attempts to improve storage facilities. The first project of this kind involved the construction of a multipurpose factory for the manufacture of fishing gear. The complex included a cold storage, ice factories, canning factory, packaging factory, boat building and repairing workshop, fish un-loading plants, dry freezing and smokery.⁸²⁷ It was planned and designed in such a manner that local people would be able to take over the plant in a maximum of two years once they had been given the necessary skills to manage the factory. This was in line with the policy of import substitution that sought to make the hitherto imported fishing gears locally. It was believed that the fishing industry should not depend upon imported gear such as fishing nets, ropes, sinkers and floats.⁸²⁸ The factory was intended to produce about 12,000 lbs of nylon fish net webbings per month.⁸²⁹

As was previously the case, however, the success or otherwise of these policies was not readily evident because, like the colonial government before it, the post-independent state continued with a top-down approach that failed to take into account the indigenous modes of fish management. Large-scale capital owners, consequently, introduced new technology and modes of production that marginalised the ordinary

⁸²⁶ KP/2/10.

⁸²⁷ KP/2/10.

⁸²⁸ KP/2/10.

⁸²⁹ KP/2/10

fishers and traders. It is true that the marginalisation of fishers underlined the problems confronting the fisheries. Small-scale fisheries in the developing world, including on Kenya's Lake Victoria, were hampered by the lack of adequate infrastructure such as post-harvest facilities, roads, markets, information and communications, which are necessary for the fishing industry to thrive and create value added products.⁸³⁰ The problem was exacerbated by the natural remoteness of the Lake Region and a lack of scientific data that is a prerequisite for the effective use of resources. When poor fishers were faced with the problem of over-exploitation occasioned by new gear and motorised boats, the future of a stable Lake and sustainable fishery became questionable.

6.8 Conclusion

In this chapter the concept of commercialisation and how it applied to fishing from 1954 has been discussed. In that year the colonial government produced a policy paper, the Swynnerton Plan, with the objective of assisting the Kenyan African farmers to produce for the market. Its aim was to modernise agriculture by making title deeds available to African farmers for the first time. This plan, however, offered very little to the fishers. They were neglected in the land reforms, even though fishing can be seen as an aspect of agriculture. This chapter has described how commercialisation came mainly with colonialism which oversaw the introduction of new fish species, new fishing technology and the general monetisation of the Kenyan economy, beginning in 1945. The role of Africans in the fish trade, the general challenges they faced and constraints to capitalist fish production has also been examined. African fish entrepreneurs gained prominence with the coming of the bicycle, which improved their chances of competing. With the coming of commercialisation fishers and fish traders adopted various survival techniques that included participating in the bicycle fish trade, practising farming and cattle keeping alongside fishing. They survived with varying degrees of success by working with the rich boat owners, factory agents and providers of credit. The problems still remained,

⁸³⁰ M. Torell and A. Salamanca, (eds), *Institutional Issues and Perspectives*, p. 1.

namely, too much regulation, lack of infrastructure and marketing and post-harvest management of their fish. By 1965 it was clear that the then existing processing and marketing facilities of the distribution trade were largely elementary, and most unsatisfactory, resulting in poor quality fish commodities being offered to the public.⁸³¹

⁸³¹ KP/4/6: Fish Marketing, 1950-1956: K.N.A.

CHAPTER SEVEN

THE CRISIS OF EXPECTATION: CHALLENGES OF DEVELOPMENT IN THE FISHERIES INDUSTRY 1966-1978

7.1 Introduction

Post-colonial fisheries development should be seen within the context of the new government's overall economic and ideological policies as promulgated by KANU (Kenya African National Union). The main focus was land redistribution, especially to former Mau Mau freedom fighters, Africanisation of the economy and the provision of credit facilities to African traders under the ideology of African capitalism.⁸³² During the period 1966-1978 foreign investment began to be pursued along joint venture lines. At times these involved a link up between international financial companies, foreign firms and the state or private capital.⁸³³ The period was dominated by the entry, consolidation and expansion of British and American business in Kenya. The bulk of foreign investment capital flowed into manufacturing including fish processing plants and a corresponding move of indigenous capital into agriculture. There was, however, very little direct foreign investment in the fishing sector. The bulk of British capital investment was in the tea, coffee, mineral and sisal sectors.

The objective of this chapter, therefore, is to demonstrate that the fishing policies in post-colonial Kenya resembled those of the colonial government. They were not consistent with the needs and aspirations of African fishers and, after independence, continued to ignore their indigenous management systems. The chapter discusses the efforts of the post-colonial regime in Kenya under Jomo Kenyatta, until his death in 1978, to improve the living standards of the fishers and fish traders. It also discusses

⁸³² Republic of Kenya, 'Sessional Paper No. 10: African Socialism and its Application to Planning in Kenya,' (Nairobi, Government Printers, 1965).

⁸³³ N. Swainson, *The Development of Corporate Capitalism in Kenya*, (London, Heinemann, 1980), p. 212-213.

the joint foreign capital such as Dashwood, Fishnet, Ataka, Perkins and fishmeal companies and other diversified government programmes. During this period, the Kenyan government attempted to empower the Fisheries Department in order to support the creation of fishing industries. There were efforts to support the mechanisation of fisheries and encourage a number of British foreign investors in Kenya, such as the Dashwood Finance Company of London and the Aquarius Enterprises Fish Meal project in a bid to increase capital investment in fishing. The government consistently pursued the policy of tightening control, regulation and management of the fishery, curtailing the movement of people into the beaches and enforcing mesh size regulation of fishing nets. In terms of policy this was not much differed from the colonial era. The chapter thus analyses the impact of licensing of boats and other vessels, regulation and training of fishers and the promotion of a fishmeal industry and how all these affected the fishers.

7.2 Fishing Investments and the Government of Kenya

Kenya's post-colonial economy displayed all the characteristics of an underdeveloped economy at the periphery, as manifested by limited investment in industry, heavy reliance on the export of primary products and dependence on the import of capital and manufactured goods. In consequence there was a desire to provide the necessary support to farmers and, by extension, fishers. The Sessional Paper No. 10 of 1965 on Kenyan economic transformation stated that:

Under colonialism the people of Kenya had no voice in government; the nation's resources were organised and developed mainly for the benefit of non-Africans; and the nation's human resources remain largely uneducated, inexperienced and unbenefited [sic] by the growth of the economy.⁸³⁴

⁸³⁴ Republic of Kenya, 'Sessional paper No. 10: African Socialism and ITS Application', p. 1.

At independence, therefore, there were plans to train Kenyans in various skills, provide credit facilities, pursue the Africanisation of the economy and redistribute land to the landless. The government expressed its wish to encourage both government and private investment by allowing private investors to participate jointly with government in development projects. Foreign investors were expected to make shares in their companies available to Africans who wished to buy them and provide training facilities for Africans.⁸³⁵ Also, the government instituted policies to expand the fisheries through training and boat building. The objective was to make Kenya self-sufficient in fish, increase foreign exchange through exporting fish and check over-exploitation of the fisheries.⁸³⁶ The principal issue confronting the government was how to increase investment in the fisheries. Besides maximising the production of fish on a sustainable basis, the government had a number of objectives. Jansen enumerated these as, first and foremost, to increase the per capita consumption of fish through production of a low cost, high protein food. Secondly, there was a need to increase employment opportunities in the country through fishing, fish processing and fish trading. The third objective was to enhance the living conditions of the fishers and their families by maximising economic benefits to them through provision of cold storage, fish handling and processing facilities. The last objective was the maximisation of foreign exchange earning capacity through export promotion.⁸³⁷

A major concern for the government was how to assist the fishers so that they could compete with the big boat owners and traders. As Ochieng points out, the development of peasant agriculture and fisheries were regarded as crucial foundations of Kenya's economic, industrial and social growth. This was because the majority of Kenya's industrial establishments were primarily concerned with the processing of food, fish and other agricultural products. Among the challenges that Kenya faced in this area was that the cash-crop agricultural sector was completely dominated by

⁸³⁵ W.R. Ochieng, 'Structural and Political Changes: Independent Kenya's Development Strategies,' in B.A. Ogot and W.R. Ochieng (eds), *Decolonisation and Independence in Kenya, 1940-93*, (London, James Currey, 1995), p. 83-84 and Republic of Kenya, 'Sessional Paper no. 10'.

⁸³⁶ KP/6/1.

British settlers, while Africans mainly produced food for the local market. There was also the problem of ownership. Land had been the root cause of Kenya's struggle for independence. Thus it was necessary to find a panacea to African land tenure and registration and ensure availability of individual title deeds. However, in solving this problem the state failed to come up with policies to cushion and provide the necessary facilities to fishers.

In some cases the implementation of policies by government officials contradicted other official state pronouncements on the issue. In such instances, the government outlined its wish to support the African traders against the foreign competitors. For example the Permanent Secretary in the Ministry of Wildlife and Tourism stated in 1966 that the objective of the state was to support the development of agriculture and fisheries by 'providing marketing and processing facilities'.⁸³⁸ However, in the case of disagreement between the local and foreign investors, he pointed out, 'we have no power to intervene'. Yet, in the same correspondence, he had vowed that, 'it is a general policy of the government to give every legal and possible assistance to local people with proven initiative to induce non-African investors to cooperate with new African interests in the development of the industry'.⁸³⁹ However, when fish traders Adhiambo and Family had a disagreement with a foreign firm, Messrs Tilapia, over a deal, the state openly refused to assist the former and wrote that 'we cannot force Tilapia Fisheries to comply with the deal it might have entered [into] with Adhiambo Family'.⁸⁴⁰ As a result of these contradictions, the fishers and peasant farmers remained deprived of financial resources with which to support economic development.

One of the interested parties in the capitalisation of the fishing sector was a London-based company, Euro Tropica Agency. On 15 December 1967, for instance, it

⁸³⁷ Eirik G. Jansen, *Rich Fisheries-Poor Fisherfolk, Some Preliminary Observations About the Effects of Trade and Aid in the Lake Victoria Fisheries*, Nairobi, IUCN (un dated), p. 11-12.

⁸³⁸ PC/NZA/2/17/11: Fishing in Nyanza 1969.

⁸³⁹ PC/NZA/17/11: Fishing in Nyanza 1969

⁸⁴⁰ PC/NZA/17/11: Fishing in Nyanza 1969

expressed interest in co-operating with the government in establishing a National Fishing Corporation.⁸⁴¹ The company had successfully done the same in post-independence Ghana. Its main role was to offer technical and financial assistance towards this end, and claimed that fishery could be developed as a viable commercial concern. The government agreed with this request in principle. This was because one of its policies, on attaining independence was fighting poverty and increasing investments in partnership with foreign companies. There was also a policy of increasing fish exports and to this end the National Trading Corporation was empowered to enhance import-export trade of fish among other commodities.⁸⁴² One area of concern was lack of financial capability of the fishers and other potential investors. Euro Tropica's proposition to offer credit facilities for a project that would improve fishing and trade was a sound one. The government, however, dragged its feet and failed to respond timeously.

In 1970 the government allowed British investors to establish Kenya Fishnet Manufacturers Limited in the hope of resolving the problem of the perennial shortage of nets. For a long time, net shortages and thefts had hindered the successful development of the fishing sector. The objectives of this Company included the manufacturing of all kinds of fishing nets, yarns, twines cords and fishing accessories of every kind; the importing and exporting of all kinds of fishnets and the purchase and sale of nets; the manufacturing and dealing in plastics and similar materials; and manufacturing, selling and warehousing nets.⁸⁴³ It failed to achieve these objectives, despite the noble intentions of the government and its investment partners in wanting to open factories, which could have contributed to the development of the fisheries of Lake Victoria. It is also true, however, that such investments posed a threat to infant local industries involved in similar ventures, albeit at a smaller scale. In the long run, small scale industry remained intertwined with foreign industry,

⁸⁴¹ XZ/5/145 of 1967-1979: K.N.A.

⁸⁴² XZ/5/145 of 1967-1979.

⁸⁴³ XZ/5/145.

either as supplementary raw material suppliers or subdued players in the bigger picture of industrialisation.⁸⁴⁴

One of the mistakes of Kenyatta regime was its failure to consider distance when locating industries. For instance the concentration of, for example, fishing factories in Nairobi, 500 kilometres from the Lake region served little purpose except, perhaps the ethnic struggle for power within KANU. Yet it is a fact that Kisumu, a Lake-based town would have been more cost-effective as the locus of the fish based industries. One such example was a decision to locate fishnet industries in the capital city, when Kisumu near the Lake, or Mombasa at the coast - would have been ideal. In 1968, for instance, the government had agreed to locate a fishnet factory in Nairobi 'on the grounds that the factory would make nets suitable for all sizes of fish (sic) found at the coast and Lake Rudolf (later Lake Turkana) and also export to the Congo and Ruanda/Urundi'.⁸⁴⁵ Nairobi was chosen as a mid-point between the sea and the Lake fishery in Western Kenya. The government later recognised the importance of locating factories in the Lake region when it admitted that 'the fishing potential in the country will continue to be concentrated in Western Kenya. Consequently, the need to locate the factory in Nairobi in central Kenya was no longer justified'.⁸⁴⁶

The government finally recommended that fishing factories be located somewhere in Western Kenya preferably in Kisumu.⁸⁴⁷ All in all, there was no doubt that Kisumu was the most suitable location for any fish factory as there was adequate labour and water, and the cost of transporting the fish would be greatly reduced. In a nutshell, industry in Kisumu was favoured by three factors, the first being the presence of a fish market established in the 1950s. Also there was a demand for fish in the region, in accordance with the tradition of the Luo and Luyia who had fished for many years. Among the people of Central Kenya were the Kikuyu, whose culture was opposed to the eating of fish. In fact, in the 1970s there were campaigns by the government for

⁸⁴⁴ W.R. Ochieng, "Structural and Political Changes" in B.A. Ogot and W.R. Ochieng, *Decolonization and Independence*, p. 85.

⁸⁴⁵ XZ/5/147.

⁸⁴⁶ XZ/5/147.

people to eat more fish in this region.⁸⁴⁸ Furthermore, Kisumu and the Lake Region had skilled personnel readily available who had long experience working in the fishery. Lastly, land prices in Kisumu were cheaper than in Nairobi. The Japanese government planned to establish a fishnet factory and favoured Kisumu as its location. To this end it had undertaken to offer soft loans for machinery and other major components while the other costs were to be met by the Kenyan government.⁸⁴⁹

Pressure mounted from the fishers and other stakeholders and in May 1970 the government agreed that the fishnet factory should be located in Kisumu, not Nairobi.⁸⁵⁰ This was a big boost for the development of the fishery. The Permanent Secretary in the Ministry of Tourism and Wildlife, under which the fishery fell, asserted that ‘the potential for this industry [fishing] will continue to build up in the western part of Kenya, and in particular around Lake Victoria more than any other area for many years to come’.⁸⁵¹ There were challenges in establishing this factory, however, as most of the construction materials had to be imported. Furthermore, the fishnet industry was externally driven and lacked the local participation of the Luo fishers who were supposed to be its main beneficiaries. It was also ironic that the local manufacturing materials were rejected in preference to foreign steel. Although there was nothing wrong with importing inputs, it would have been more prudent to look for local alternatives. Instead, the government announced that ‘the local steel is unsuitable for the construction of a fishing net factory as dust accumulates [on the steel], which is detrimental to the production of fishing nets’.⁸⁵²

The government’s principal concern in respect of fishery continued to be management. This question, which had intrigued the colonial state for a long time, remained a thorn in the flesh of fishery officers after independence. There was, however, no major departure from the approach shown in the colonial and post-

⁸⁴⁷ XZ/5/147.

⁸⁴⁸ XZ/5/147.

⁸⁴⁹ XZ/5/147.

⁸⁵⁰ XZ/5/147.

⁸⁵¹ ZX/5/147.

⁸⁵² KP/6/1 of 1974-1979: KNA.

colonial periods when it came to fishery management. The policy remained top-down, with very little consultation with the fishers. It appears that the British colonial legacy and policies in the fishing sector remained intact. In 1976 an officer from the Directorate of Fisheries stressed the need for regulating ‘mesh sizes’ to enhance rational and efficient management of the industry.⁸⁵³ The officer, A.S. Oburu, stressed the need for fishery regulation to be made ‘mandatory and invariably necessary’ to avoid loopholes through which people [fishers] would disregard law and order.⁸⁵⁴ To fortify these regulations, mostly inherited from the colonial state, he proposed changes in the law. He pointed out:

Looking through the first Protection [of Lake Victoria] rules currently in force, substantial inadequacy or omission and loopholes are noticeable particularly on measures intended to curb the menace of theft of fishing nets. It is also noticed that the prohibition of fishing with beach seine and mosquito seine between 1st April and 31st May each year has not been gasetted [sic] as required by Fish industry Act.⁸⁵⁵

He proposed to review all the relevant sections and clauses in the Fishing Industry Act in order to make the necessary amendments close all loopholes. He instructed the junior fishery officers at Port Victoria in Busia District and their counterparts in Homabay District to study the regulations on Lake Victoria and submit their recommendations for amendments. The problem of net thefts was not solved easily because the state never bothered to understand its root cause. Oburu reported that this problem had increased to alarming proportions, affecting both the fishers and the fishing industry.⁸⁵⁶ Many of the fishers had been thrown out of business completely. Oburu argued that the cause of theft was the lenient sentences passed on persons convicted in the courts of law. On the contrary, the reason for this could be located in the perennial shortage of nets occasioned by the existence of monopoly in

⁸⁵³ KP/6/1 of 1974-1979.

⁸⁵⁴ KP/6/1 of 1974-1979.

⁸⁵⁵ KP/6/1.

⁸⁵⁶ KP/6/1 of 1974-1979.

the net industry where only a few Asians were given the right to import and sell nets. In truth, the solution to the thefts did not lie in harsher sentencing, but in the establishment of a fishnet industry, which the government was still failing to do, despite the assistance of foreign investors.

7.3 Mechanisation of Fishing

In order to increase the catches, fight poverty among fishers and increase fish exports, the Kenyatta regime attempted to encourage the use of mechanised boats by the Nyanza fishers. The objective of mechanisation was to provide an inexpensive means of enabling Lake fishers to increase the volume of their fish contribution to the national economy. This was to be done by supplying suitable boats powered by a light engine to assist fishers in travelling to and from the fishing grounds as fast as possible. There were problems associated with the mechanisation of the Lake Victoria fishery not considered by the state. First, the cost of the boats was too high for the local fishing communities.⁸⁵⁷ The government stated that the cost of supplying each boat complete with ‘engine and drive units was Kenya pounds 400 or 20 GBP’, which was expensive by any standards.⁸⁵⁸ It had additional installation costs putting it far beyond the reach of ordinary Luo fishers. Secondly, there was the cost of engine maintenance. Then there were problems associated with outboard engines, which were vulnerable to theft because they were easy to remove from the boat. This required the construction of stores at the lakeshore to secure them when not in use, but none were provided.⁸⁵⁹ The final problem was that most of the new engines operated on petrol, whose price skyrocketed in the mid-1970s, but also presented a considerable fire hazard. However, these new engines could also have advantages for the fishers in numerous ways. They could be easily demounted for overhauling or even for use in other applications such as providing power for the hammermills or poshomills used for grinding maize flour.⁸⁶⁰ This gave the fishers

⁸⁵⁷ ZX/5/145.

⁸⁵⁸ ZX/5/145.

⁸⁵⁹ XZ/5/145.

⁸⁶⁰ ZX/5/145.

an alternative means of generating income. The only way to mechanise the fishery was for the state to provide credit facilities to Luo fishers but this was hardly pursued. The engine suppliers, Perkins Engineers of London, reported in 1971 that:

We have not yet been advised of any plans by [the] government to subsidise individuals in the purchase of boats for this type of work [sic]. If government finance is available we would naturally prefer to deal with government department direct. We regret that our group of companies are not in a position to offer financial assistance for the purchase of these boats. If this scheme receives government approval perhaps the banks would be prepared to assist in a similar fashion [and] this we think is a worthwhile scheme in which we shall be pleased to cooperate with government and we now look forward to receiving the comment of the various officers to whom this paper is addressed.⁸⁶¹

The Company reiterated the role of the state when it pointed out that ‘the actual burden of the cost of the purchase [of engines] can be eased to a considerable degree by government assistance or by the provision of finance from outside [Kenya]’.⁸⁶² From the above it is obvious that Perkins Engineers believed that fishing could be promoted through mechanisation, but only if the policy received overt government financial support. Perkins indicated that it would establish a service facility at Kisumu operated by their dealers, Farm Machinery Limited. The Company pointed out that ‘we would undertake to assist in setting up service points at such places as might be suggested to us by Fisheries Department’.⁸⁶³ It expressed its inability to establish workshops in the lakeside villages and concentrated its efforts in Kisumu, and also organised a servicing course in Nairobi for engine operators in the fishery sector free of charge. By supplying the engines to the Luo

⁸⁶¹ XZ/5/145.

⁸⁶² XZ/5/145.

⁸⁶³ XZ/5/145.

fishers, the Perkins Company believed that it was creating opportunities for a section of Kenya's population and developing the fisheries sector.

7.4 Challenges in Fishery Investments

After independence, several companies from Scandinavia, Britain and Japan, approached the Kenyatta government to provide it with the necessary funds and technological know-how to develop the fishery. In some cases, these companies were themselves lacking in finance and technology, which frustrated their establishment. For the most part, the government itself came up with new programmes for the development of the fisheries in the Lake Victoria region and coastal Kenya. For instance, in February 1974 the *East African Standard*) reported that the government had embarked on programmes to improve the Lake fisheries. The Director of Fisheries, Odero, reported that boat building yards had been set up at Lakes Turkana and Victoria as well as Mombasa at the coast.⁸⁶⁴ It was stated that the cost of a boat varied between GBP 1500 for those that use gill nets to GBP 4000 for trawl boats.⁸⁶⁵ By this period most of the fish caught ended up in the domestic market. The paper reported that 'out of 33,000 tons of fish landed in Kenya in 1974, only about 4000 tons were exported and we imported 3000 tons of fish every year from neighbouring Tanzania and Uganda'.⁸⁶⁶ By 1974, it would seem, the demand for Lake fish by the European Union was still minimal. The imports indicated that gill net fishing did not provide sufficient fish for domestic let alone export markets. This necessitated the use of the trawling gear, which was capable of landing 200 kilogrammes of fish per hour or one ton in a day.⁸⁶⁷ The catches were small but steady. The dominant specie caught was *Haplochromis (fulu)*, smaller than tilapia, and mainly fit for a fishmeal industry. That is why there were plans for a fishmeal production plant to process this species. There were also plans for the development of fishponds in central Kenya and dams in the Lake Region and Western Province to

⁸⁶⁴ Quoted from *East African Standard*, Nairobi, 23/2/1974 (Found in file no. XZ/5/145, K.N.A.).

⁸⁶⁵ *East African Standard*, Nairobi, 23/2/1974.

⁸⁶⁶ ZX/5/145.

⁸⁶⁷ XZ/5/145.

increase catches. Towards this end, programmes were initiated to stock all the dams in the country with tilapia to ensure that local demand was satisfied.⁸⁶⁸

Concerted efforts were made by the government from 1975 onwards in respect of the fishmeal industry. The bony *Haplochromis* were to be processed to make the fishmeal. Fishmeal contains high levels of pure digestible protein and is used as a food supplement for domestic animals, resulting in increased production of meat, milk or eggs and even exports to increase foreign exchange earnings.⁸⁶⁹ The Scandinavian states, especially Sweden and Norway, were keen to partner Kenya in such a venture. The Kenyan Commercial Attaché in Sweden, G. Ngugi, stated in 1975 that he was ‘of the opinion that within the Nordic countries we should be able to find not only the necessary expertise but in addition it should be possible to [attract] other investors’.⁸⁷⁰ The government, however, had not trained local experts and fishers to prepare them to participate in the new projects and industries, hence its reluctance in welcoming such investment. Efforts to get the local people to be involved in the offshore fisheries at the coast and the Lake Region had met with difficulties. Kenya fishers had also not been trained for offshore fishing and ‘could not endure staying in the lake for periods like three months,’ like their counterparts in Japan and other countries.⁸⁷¹ If the fishers could not stay at the sea for long periods then they could not supply adequate fish for the proposed industries. The solution thus lay in the training of the local fishers and supplying them with the necessary technology to increase catches.

A British firm, Aquarius Enterprises, was also keen to invest in the manufacture of the fishmeal products in Kenya. The Company pointed out that a UNDP/FAO/EAC funded report in 1975 had shown great potential in the fishing industry.⁸⁷² To begin with it stated that there were substantial and sufficient stocks of *Haplochromis (fulu)*

⁸⁶⁸ XZ/5/145.

⁸⁶⁹ ZX/5/183.

⁸⁶⁹ ZX/5/145.

⁸⁷¹ ZX/5/145.

⁸⁷² ZX/5/145.

to feed plants bigger than the one it planned to operate. The FAO studies had established that there was a standing stock of over 700,000 tons of fish in Lake Victoria and 80% of this stock consisted of *fulu* species.⁸⁷³ The Kenyan portion of the Lake could produce up to 80,000 tons without fear of depleting the stocks. The Kenyan government saw the project in positive light when it pointed out that:

We in this department will be only most pleased to see successful establishment of such ventures believing that in addition to solving unemployment in the country, successful start of your venture could go along way to stimulate positive tangible and visible development on the fishery of Lake Victoria.⁸⁷⁴

In April 1975, Aquarius Enterprises reported that it was ready to process some 20,000 tons of fish a year from Lake Victoria.⁸⁷⁵ The bureaucracy in the Ministry of Tourism and Wildlife, however, and the Director of Fisheries were causing delays. The Permanent Secretary in the Ministry stated that ‘industrial projects involving foreign participation are normally put before the so-called New Project Committee’.⁸⁷⁶ He further pointed out that ‘we are making reservations with regard to the final evaluation and the sources of know-how would have to be worked out and be identified’ before a final decision and evaluation could be made with regard to the investment. This means that the Ministry had yet to decide to accept the investment proposal from London, Japan, Sweden and Norway. Many proposals seem to have been forwarded to the Ministry, but very few of them actually saw the light of the day leading to a crisis of expectation among the fishers.

The Ministry of Tourism and Wild Life supported the production of fishmeal. It made agreements with a Greek firm named Kalamaras, giving them the right to fish and

⁸⁷³ ZX/5/145.

⁸⁷⁴ XZ/5/145.

⁸⁷⁴ XZ/5/145.

⁸⁷⁶ XZ/5/145.

manufacture fishmeal of up to 20,000 tons a year at Lake Turkana.⁸⁷⁷ The Swedish government had also shown interest in the establishment of a fishmeal plant in 1975. Due to lack of previous experience in the fishing industry, the government was reluctant to give its support to this this new direction. The Director of Fisheries voiced this doubt (on Sweden) when he stated that Kenya still has ‘no information about their background in fishing and fish processing [and] for such consultants to prepare a fish meal project, such experience would represent one of the most important factors when making a choice’.⁸⁷⁸ The Kenyan government was, however, right to doubt the Swedish lead investor, Dr. Lars Lindstrand, who was reported by the Kenyan ambassador in Sweden to ‘have no capital base and the necessary experience to run a fish meal industry’.⁸⁷⁹ This lack of previous experience frustrated Swedish ambitions of running a fishmeal industry in Kenya.

The fishers had expected that, with the coming of independence in 1963, fishery development would get effective government support. This was however not the case as Kitching pointed out when he stated that ‘the production of fish products for domestic consumption and export remained much the same difficult business that it had been’.⁸⁸⁰ Thus despite the numerous abortive joint ventures, developing of fish ponds, fish factories and credit systems, the fisher’s condition remained much the same. This was mostly due to the government bureaucracy and indecisiveness at the Ministry of Wildlife. There was also the difficulty in securing foreign financial support from a development partner. Consequently the Kenyan authorities informed Aquarius Enterprises in August 1975 that there were delays and difficulties in presenting the proposal to the Ministry’s sub-committee on fisheries.

There was another UK-based firm that wanted to invest in the fisheries. Dashwood Finance Company’s objectives were to provide finance, machinery and technical

⁸⁷⁷ XZ/5/183.

⁸⁷⁸ XZ/5/145.

⁸⁷⁹ XZ/5/145.

⁸⁸⁰ G. Kitching, *Class and Economic Change in Kenya*, p. 315.

know-how in order to promote development.⁸⁸¹ The company planned to engage in fishing initially while training Luo fishers in new techniques for a period of six months. The fishers were encouraged to organise themselves in co-operatives in order to maximise price. One fundamental problem with the training was the failure to marry indigenous and western ideas. Worse still, the company dictated 'the type of gear to be used in fishing and even the price of the catch'.⁸⁸² The Director of Fisheries critiqued this approach when he stated that the 'resultant problem [of this approach] is that the factory [owners] will dictate the price of the catch'.⁸⁸³ In this case, the crew men, fishers and boat owners would end up the losers because fish prices fluctuated, so that when the supply was ample prices were often low and vice versa. Then Kenyan High Commissioner to London, Ngethe Njoroge, expressed 'doubts on the seriousness of the sponsors to this project.' He doubted their technical capability because 'most of the technical people had left the company', leading to a lack of manpower. Despite all these misgivings, the Director of Fisheries in Nairobi claimed that Dashwood was very keen to establish a boat building yard where fishing vessels would be constructed. He added that 'the government welcomes the proposals [to develop fishing] and we are prepared to meet the representatives of this company when they visit Kenya.'⁸⁸⁴

Once again, not much came from this project to benefit fishing at the Lake Region, although it would presumably have increased the income of the fishers and supplied fishmeal. Fishing at Lake Victoria remained dominated by Asians and a few Europeans with African fishers playing a marginal role. By 1975, the fisheries development potential at the coast and in the Lake Victoria Region had not yet been exploited more than ten years after Uhuru.

7.5 Persistence of the 'Colonial' Ordinances

⁸⁸¹ XZ/5/145.

⁸⁸² XZ/5/145.

⁸⁸³ XZ/5/145.

⁸⁸⁴ XZ/5/145.

The controversial issue of the licencing and registration of boats and fishers were policies that persisted even after independence. In order to solve the menace of net thefts, for example, the government enacted even more laws, e.g. the enactment of the Fish Protection and Licensing of Fishing Vessel Rules, 1976. Under this legislation, a ‘licensing officer’ was defined as ‘any person authorised to exercise the power or perform the duties of a licensing officer’.⁸⁸⁵ The rules sternly stated that ‘[n]o person shall use for fishing purpose any vessel of a class specified in the Third schedule of these rules unless there is a valid licence in respect of such vessels issued.’ It went ahead to point out that

Any person who contravenes the provisions of paragraph (1) of this Rule shall be guilty of an offence against this rule and shall be liable to a fine not exceeding five thousand shillings or imprisonment for a term of six months, or to both such and fine and such imprisonment.⁸⁸⁶

The language of these rules was as draconian as any piece of colonial legislation and there is the same doubt as to whether the law achieved its objective of reducing net thefts. Richard Otieno, a fisherman, is one of those who thought that it achieved positive results. He commented that he ‘supported the idea of boat registration and licensing because the issuance of the licence helped us the authority to “own” fish while numbering of the boats helped us to identify our boats [when it was stolen]’.⁸⁸⁷ The approaches used by fisheries officers and scouts to implement these policies, however, were not people-friendly. The scouts who policed the beaches are blamed for being corrupt and rough on the fishers. This point was supported by Jennifer Ogonga who stated that ‘some scouts were good, but then you find that they did bad things like burning our nets that we had bought’.⁸⁸⁸ Boyo Oyuga also talked positively about licensing, saying, ‘I supported the colonial policies of

⁸⁸⁵ KP/6/1.

⁸⁸⁶ KP/6/1.

⁸⁸⁷ Oral interview with Richard Otieno at Kochia village on 24/2/2007.

⁸⁸⁸ Oral interview with Jennifer Ogonga at Nyagina village on 24/2/2007.

licensing and numbering of boats as this allows me to separate my boats from others'.⁸⁸⁹

To enhance the use of proper nets there was more emphasis on the right mesh size. Under the 1976 regulations, 'indigenous fishing' was recognised as 'any method of fishing used by the indigenous people including the El-Molo of Lake Turkana [formerly, Rudolf]'. These regulations according to the experiences of the fishers of Lakes Victoria and Turkana regions, were an example of the belated attempt by the state to regulate local fishing in specific communities. Like other regulations, they hinged on the regulation of gillnets and mesh sizes. The Turkana regulations recognised and accepted the use of indigenous nets by the Turkana and El-Molo ethnic groups of northern Kenya region. Section 2 of the Act outlined the regulations, declaring that 'no person shall fish on Lake Turkana unless such person is the holder of a valid fisherman's licence issued to him/her under the provision of these regulations'.⁸⁹⁰ The use of the licence had, since the colonial days, been intended to order and curtail Africans' fishing activities while facilitating those of Europeans and Asians.⁸⁹¹ The Licensing Act gave massive powers to government officials to confiscate the licence of a fisherman or even to ban or confiscate a fisherman's vessel. Stressing these powers, section 9 of the Fishing Act stated that the 'Director of Fisheries may in his absolute discretion and without disclosing any reason, refuse to issue a fisherman's licence or a sport fisherman's licence or an indigenous fisherman's licence'.⁸⁹² This particular section actually never recognised the role of the African fisherman in the fishing industry, but instead it was now seeking to restrict the use of the Lake resources without permission, a resource that the Luo fishers had made use of for centuries. Rhoda Agutu's response to the regulations was typical of other fishers. She points out that while she had no problem with regulations, she loathed the way some rules were enforced.

⁸⁸⁹ Interview with Boyo Oyuga at Seme village on 23/2/2007.

⁸⁹⁰ KP/6/1 of 1974-1979.

⁸⁹¹ Interview with Jennifer Ogonga at Nyagina Village on 24/2/2007.

I did not support restrictions to fishing; we should fish any time we want. Also I did not agree with the idea of using scouts [in the implementation] of rules on regulations and numbering of boats because when the boat is given a number you can recognise it easily.⁸⁹³

The Act was even tougher on the actual use of nets. The use of prohibited nets drew the wrath of fisheries officials, and could lead to confiscation and arrest of the culprit. The use of a seine or a mosquito net on Kenyan lakes such as Naivasha, Turkana and Victoria was also banned unless a fisher was in possession of a valid seining permit.⁸⁹⁴ Although the state harshly restricted the use of mosquito and seine nets, it never bothered to understand why fishers preferred using such nets. One reason was competition, as fishers believed that the banned nets enabled them to catch more fish and thus ward off competitors. Secondly, the so-called standard nets, the ones prescribed by state officials, were expensive to the majority, while the mosquito nets were more affordable.⁸⁹⁵ Then there was the use of and registration of boats on the lake. As in the colonial era, the post-colonial state decreed that the use of boats in the lake fishery was disallowed without a valid certificate of registration.⁸⁹⁶ Indeed, after independence fishers had expected that some of these ‘colonial’ rules would be repealed. This led to a crisis of expectation, as described by Ngugi wa Thiongo in *A Grain Of Wheat*. Licensing still remained in place, neither scouts nor boat registration were done away with.⁸⁹⁷ The Director of Fisheries, Nobert Odero, retained the enormous powers created by colonialism, to ‘prohibit or restrict in any specified area, the use of specified nets or use of any specified methods of fishing’.⁸⁹⁸ While the intention of these rules to regulate fishing might have been noble, fishers along Lake Victoria were hardly consulted, and neither were their indigenous ways of fishing and conservation incorporated into government policy. Most of these rules had been

⁸⁹² KP/6/1.

⁸⁹³ Interview with Rhoda Agutu at Wasaria beach on 24/2/2007.

⁸⁹⁴ KP/6/1.

⁸⁹⁵ Interview with M. Okullo at Dunga on 23/1/2007

⁸⁹⁵ KP/6/1

⁸⁹⁷ KP/6/1

⁸⁹⁸ KP/6/1

created by the British colonial state and inherited and maintained by the Kenyan state. Any person who contravened these rules was liable for a fine not exceeding one thousand shillings, or imprisonment for six months or both.⁸⁹⁹ The approach remained top-down.

It was because of the inadequacies of the 1976 Licensing Act that the government of Kenya came up with more regulations the following year, especially to enforce laws pertaining to conservation of marine fisheries and the use of boats and trawlers.⁹⁰⁰ An international conference attended by the Kenyan Director of Fisheries, was held in Spain in April 1977 at which several issues were discussed. One of these looked at the drafting of articles to promote the safety of vessels in international waters such as oceans, seas and lakes. The government of Kenya appreciated the importance of the meeting and the relevance of its agenda which concerned issues affecting fishers and fishing. Insecurity in international waters was a big issue that affected Kenya. This forced the Ministry concerned with fisheries to request the Kenyan navy to play a leading role in the conservation of the marine environment.⁹⁰¹ The Director of Fisheries pointed out that ‘in the absence of adequate legislation, we are now forced to use administrative directives based on sound fisheries management principles’.⁹⁰² The rules were not explicit, but what was clear was that the trawlers, used in Kenya since the 1950s, were to operate under a certain set of laws. One of these stated that ‘all boats with a total length of more than 45 feet must not conduct fishing operations in the area between the shore and the 20 fathoms (depth) line’.⁹⁰³ An interviewee, Otieno Adede, a crew man for many years, supported the idea of restricting the catches of juvenile fish by protecting the nurseries at particular times in the year. Although the idea was good, he held that ‘we depend wholly on fishing and when some parts of the lake were restricted, we didn’t work and we produced nothing [for the families] because we

⁸⁹⁹ KP/6/1.

⁹⁰⁰ KP/6/1 of 1977-1977: K.N.A.

⁹⁰¹ KP/6/1.

⁹⁰² KP/6/1.

⁹⁰³ KP/6/1.

only depend on the lake'.⁹⁰⁴ Others like Boyo Oyunga, a fish trader, however, was of the view that laws restricting fishing were good as they allowed fish to grow to maturity.⁹⁰⁵ Because of the importance attached to conservation, the fear of the trawlers and the expanding fishing activities, the government sought to enact laws to conserve and protect breeding areas. The Kenya Navy was thus requested to monitor the activities of all the fishing vessels to prevent the catching of young fish. The same old question of licensing was not going away.

All these issues confirm several misgivings as to the future development of fishing. There is no doubt that for the fisheries sector to develop to the expected levels, the private sector had to be accorded the necessary government support. Such support was not readily forthcoming due to a stifling bureaucracy. Whether strong legislation was an essential in the pursuit of the mechanisation of fishing vessels, promotion subsidiary industries such as fishmeal, and the conservation of fishery can be question. By Kenyatta's death in August 1978, the above questions were still unanswered. The destiny of Kenya's fishers remained intertwined with bold steps to empower the artisanal fishers in order to protect them from foreign-based boat owners. The numerous ordinances and fisheries acts remained the only pieces of legislation on which to base the future development of the fishers. Most ordinances remained inadequate in addressing and responding to the dire the needs of the small-scale fishers in the Lake Victoria Region.

To Luo fishers and women, the coming of independence in 1963 created very few changes to their lives. Some fishers were of the opinion that the Kenyatta government brought some positive changes in the development of fishing. One such person was Shadrack Ochieng', who argues that 'the government [of Kenyatta] gave us fishing companies, such as ice plants. There were no restrictions in fishing as it is currently. Post-colonial Kenya brought things like advanced fishing gears, which help [us in]

⁹⁰⁴ Interview by Tobias Okeyo Adede at Jalambwe village on 23/2/2007.

⁹⁰⁵ Interview with Potas Boyo Oyunga at Seme village on 24/2/2007.

fishing'.⁹⁰⁶ Siprosa Abuya, a seventy year old fisher and trader and an interviewee in this study, however, points out that the Kenyatta government created no difference in fishing policy, 'the difference between post-colonial era and colonial era', she says, 'is that the Europeans were lenient and progressive [to us] unlike the post-colonial era in which our nets are burnt with no sympathy'.⁹⁰⁷ What intrigued the fishers was that even after *uhuru* the mode of punishing fishing offenders remained the same - confiscation and burning of nets. That is why Rhoda Agutu points out that she 'did not see anything in Kenyatta's government in the fishing sector'.⁹⁰⁸ The fishers correctly compared the Kenyatta with the Moi era when fishing benefited due to Nile perch production and processing.⁹⁰⁹ Their concern was how they could be empowered and be given a voice in the management of fisheries and the sustainable use of fishery resources, and how discrimination against poor fishers in favour of rich boat owners and middlemen could end. As Chirwa argues, 'the fishers needed access to the beaches and the lake front for drying and mending their nets and to build temporary shelters for seasonal accommodation and the storage of their equipment'.⁹¹⁰

There was no legislation to govern the small-scale fishers and marketing of fish. Whatever rules there might have been they were not responsive to the challenges that the fishers faced. Instead of coming up with these rules that did not incorporate the voices of the fishers, the government ought to have made it easy for them to fish, to store their catches, and find a suitable market. Instead the post-colonial state inherited and maintained the colonial regulatory mechanisms that hardly considered the interests of the fishing community. The future of the fishers lay in sound legislation that would incorporate all elements pertaining to good fishery practices, legislation based on indigenous knowledge but closely interlinked with modern practices and technology. The biggest threat to the future of the fishery remained a lack of good legislation and infrastructure and the hegemony of the rich fishers over the artisanal

⁹⁰⁶ Interview with Shadrack Ochieng' at Waregi on Rusinga island on 23/2/2007.

⁹⁰⁷ Interview with Siprosa Abuya at Aria village on 23/2/2007.

⁹⁰⁸ Interview with Rhoda Agutu at Wasaria on 23/2/2007.

⁹⁰⁹ Interview with Otieno Owenga at Kisumu town near the shores of the Lake Victoria on 23/2/2007.

⁹¹⁰ W. Chirwa, 'Fishing Rights, Ecology and Conservation,' p. 365.

fishers. Jansen has pointed out that probably most of these noble of objectives in the development of fisheries failed to be fully realised because the post-colonial government played only a marginal role in their implementation.⁹¹¹ He noted that it was the fisheries department which had been fully responsible for developing and implementing policies for the Lake Victoria fisheries. Yet it appears that the department played the role of merely regulating fisheries and did very little in planning for developments such as mechanisation, the provision of credit, the training of the artisanal fishers and the provision of infrastructural facilities. He asserted that ‘the government’s role in intervening in the fisheries sector had been fairly marginal [since independence] until the proliferation of the Nile perch [from the 1980s] when things changed in a big way’.⁹¹² The fisheries department could not itself achieve much if the government chose to play a minimal role. In Jansen’s view ‘the Fisheries department was neither staffed nor prepared to take these difficult decisions’.

7.6 Conclusion

This chapter has discussed the changes and attempts by the Kenyatta government to develop the fisheries by encouraging foreign joint ventures. These, however, gave very little benefits to the fishers who still remained victims of several inherited colonial structures and regulatory mechanisms. The 1965-78 period was faced with the same difficulties that existed before. This was in spite of attempts to develop fishing ponds; establish ice factories, storage facilities, credit systems, processing factories; and promote commercialised fishing via motorised boats. Berman and Lonsdale have correctly argued that the onset of uhuru in Kenya did not bring many changes to the well-being of most fishers. Indeed, independence made little or no structural difference. There was, in fact, a considerable continuity of socio-economic trends from the colonial to the post-colonial period.⁹¹³ They concluded by pointing

⁹¹¹ Eirik G. Jansen, *Rich Fisheries-Poor Fisherfolk*, p. 11.

⁹¹² It is argued that until the proliferation of the Nile perch in 1980s, the government had left everything to the Fisheries Dept, but from 1980s, ‘the fisheries departments of the three East African countries were caught by surprise at the dramatic increase of fish [Nile perch].’ E. Jansen, *Rich Fisheries-Poor Fisherfolk*, p. 11.

⁹¹³ Bruce Berman and John Lonsdale, *Unhappy Valley: Conflict in Kenya*, 1992, p. 166.

out that at *uhuru* there was what Andre Gunder Frank called ‘continuity in change’, that is, ‘the persistence of the relations of dependency and self reproducing underdevelopment within the apparently changed forms brought by flag independence’.⁹¹⁴ The new state failed to consult and incorporate the indigenous modes of fishing management and participate in the development of fishing.

⁹¹⁴ Berman and Lonsdale, *Unhappy Valley*, p. 166.

CHAPTER EIGHT

SUMMARY AND CONCLUSIONS

The British colonial government enunciated various policies, ordinances and projects with the aim of regulating and ensuring the optimal utilisation and development of the Lake Victoria fisheries, with the aim of making them more commercially oriented. On their arrival at the Lake, the British found out that African farmers and fishers had practised fishing and farming since time immemorial. They used their own indigenous methods and systems of control which were ignored and replaced with alien practices.. New techniques and foreign forms of resource exploitation such as the five-inch gill net, hooks and new boats were introduced by the colonial state to facilitate the commercial exploitation of the lake fisheries.

This study has also discussed the responses of African fishers to the new regime, how they related to each other and to the colonial state, and comparing the new fishing practices with the old. Also discussed was the relationship between crew and the rich Indian middlemen and boat owners. It is clear that to the Luo fishers, the beach was a means of subsistence and a zone for economic activity. It remained an important source of fish for trade and food and a source of employment.

This study was based on three important objectives that have been examined in great detail. Firstly, its aim was to determine the development of the indigenous fishing practices especially by investigating indigenous fishing and management systems. The second intention was to analyse the fishers' responses to colonial regulations and to the numerous changes introduced by the capitalist penetration of fishing. Lastly, this study wanted to interrogate the socio-economic impact of the colonial regulations on the fishers. At the conclusion of the study it was possible to detect the impact of the interaction between the pre-colonial fishing practices with the colonial and post-colonial systems, and to analyse the indigenous fishing techniques and management approaches. Numerous policies and programmes initiated by the colonial regime and pursued by the post-colonial state were discussed and the continuities and

discontinuities in the colonial government programmes from 1895 to 1978 were analysed. Also shown was how pre-colonial fishing practices, although sidelined, existed alongside the colonial fishery's regime.

In chapter one, several issues were discussed. The Luo economic activity was seen to be deeply influenced by the environment that was dominated by the limonological environment in numerous beaches, swamps and rivers which all sustained livestock keeping, farming and fishing. This diverse environment always guaranteed the Luo steady sources of food and enabled them to follow various strategies so that during famines and other crises in the terrestrial economy, they were able to pursue other subsistence strategies to keep afloat. This balance between the fishers and environment, however, was flagrantly disrupted by the economic policies the colonial regime imposed on indigenous systems. Despite the various changes and challenges that the fishers continued to face, fishing remained an important economic activity. Ocholla-Ayayo points out that the Luo preferred settling on the territories bordering Lake Victoria (Nyanza) because this gave them an opportunity to partake in fishing activity.⁹¹⁵ From the time when they migrated from southern Sudan in the 14th century, the Luo Nilotes, followed the River Nile tributaries, grazing their cattle and fishing.

The social and economic organisation underpinned by a gender-based division of labour was discussed in chapter one. Thus men went fishing while women cleaned, smoked and marketed the fish. The children, working under the tutelage of the elders, assisted in all these activities. Generally women were prohibited on canoes by the Luo mores and the culture of fishing (*chike*), although some women like Maria Ngambo fished off a canoe. The elders passed on fishing skills to the next generation through and internship in which the young were taught practically and by observation.

⁹¹⁵ Ocholla-Ayayo, *African Ideology and Ethics among the Southern Luo*, p. 77.

On the question of methodology, this study was guided by the use of archival material, oral interviews and an exhaustive analysis of published literature. Some chapters are dominated by archival sources while in others oral interviews as well as written sources predominate, depending on which sources were readily available and relevant. In most cases, all three were used in complementary ways, i.e. to corroborate or challenge what each says or is silent on. The study was guided by the use of African agency and an analysis of the voices and opinions of the marginalized fishers. The use of this approach, and the oral interviews, afforded this study an opportunity to gain insight into the history and experiences of ordinary fishers. In this discourse the belief that ordinary Africans were unable to shape their own destiny was challenged. The social history and agency approaches confirmed the hypothesis that the African fishers, not the colonial agency, were the shapers and masters of their own fate. In this approach the study was able to interrogate the silences in history and also gave the fishers a voice to explain and contribute to the writing of their past.

Chapter two examined the indigenous fishing techniques and the role of the gender division in fishing. The chapter relied on oral sources because of a shortage of written information on this period. These sources clearly demonstrated the crucial role of the environment and how it shaped fishing and farming decisions in the pre-colonial era. It also looked at the social-political organisation, which was based on kinship relations. Kinship expressed the relations of production and reproduction among fishers. The society's beliefs and practices were passed on via oral tradition, which also provided the forum for training future fishers. Chapter two discussed traditional methods of conservation and fishing as well as marketing. Women performed specific tasks such as cleaning, smoking and marketing.⁹¹⁶ Peter Mireri, an interviewee, asserted that women were not allowed to enter into the canoes during the fishing season due to cultural prohibitions but they still played a crucial role in fish production and distribution. The youth, especially, boys participated in fishing by cleaning the boats, mending the nets and assisting their mothers getting firewood for

⁹¹⁶ A. Madanda, 'Commercialisation and Gender Roles among Lake Victoria shore Fishing Communities,' p.12.

smoking fish. Concerning indigenous management strategies, it was shown clearly that African fishers had their own ethics and rules for fishing. There were deliberate concerns and efforts by the fishers to conserve the Lake and its fish by using a myriad of social mechanisms. Bokea and Ikiara, for example, point out that there were African and territorial regulations that ensured that fish were exploited in a sustainable manner.⁹¹⁷

It was also in chapter two that the evolution of canoes and their construction technology is elucidated. Canoemaking technology was given to the Luo fishers by the Suba who came from Buganda, while the neighbouring Baganda of the Ssesse Islands provided the Ssesse canoes, as Ukerewe people came with the Ukerewe boats from modern Tanzania. The Luo then assimilated and internalised this canoe making technology and made their own canoes (*yie nyaluo*), which they used for fishing and trade across the lake. The most valued fish species were *ningu*, *kamongo* and *ngege* (tilapia). Some fish species were popular because of their generous flesh while some like *seu* were unpopular and disliked because the Luo got 'itchy' from eating them. Later, with the coming of colonialism *mbuta* (Nile perch) was introduced as was the five-inch fishing gill net that had a great impact on fishing.

In chapter three the issues discussed included the coming of colonial rule and the introduction of the new fishing regulations and fishing gear. The chapter was based on archival sources and oral tradition and analysed the fishers' response to new fishing technology. The coming of colonialism was examined, as was the five-inch net and how these impacted on the fishers. Also examined were various policies as well as the result of imposition of colonial regime. The British made Kenya their Protectorate in 1895 and put her under company rule up to 1920 when the East African Protectorate (EAP) became a colony under direct control of the Colonial Office (CO) in London. In 1905 the gill net was introduced to Kenya and had far-reaching repercussions on the fishery. From 1902 onwards the British rulers consolidated their authority and control in Kenya by establishing the provincial

⁹¹⁷ Crispin Bokea and Moses Ikiara, 'The Microeconomy of the Export Fishing Industry,' 23

administration and the institution of the chief, which later became crucial in controlling fishing, implementing colonial regulations and controlling scouts. The African chiefs became obedient followers of orders as colonial rulers entrenched their power. The establishment of the colonial state was a precursor to its intervention in fishing. Compared to the indigenous methods, the new gill nets led to overfishing and hence threatening sustainable utilization of the fishery.

By 1920 a new species, trout, had been experimented with and introduced in the rivers of Kenya, especially in Central Kenya. Very little was done in terms of fishery development up to 1910. However, the arrival of the Kenya-Uganda railway at Kisumu in 1901 affected the demand and marketing of fish to an appreciable extent. With this came the Indians who introduced the rupee, and began trading in fish, buying it from artisanal fishers and agents and taking it to Nairobi. The Indians later monopolised the trade in fishnets. The colonial regime's introduction of taxation such as poll and hut taxes as well as the identity card (*kipande*) forced more Africans to provide their labour services on the settler farms. These policies, especially the demands of the colonial economy, made more Luo peasants join the fishery as well as work on European farms to raise money to pay the colonial state's exactions and meet their own needs. The outbreak of the World War I affected the demand for fish and thus influenced trade in fish as well. As more and more Africans joined the military, the labour supply in the fishery was put under pressure.. As Ogutu pointed out, 'the whole situation was complicated by the outflow of labour to urban centres in which case the old and the young were left to survive on the low agricultural [and fishing] output'.⁹¹⁸ More labour responded to these policies of taxation and forced labour by abandoning the rural based economy. As a result the African peasant economy was neglected in comparison with the European settler sector.

In chapter three new ordinances promulgated by the colonial state were discussed. These created new rules for the management of fisheries, regulating mesh sizes and

access to fish. The new colonial policies and programmes replaced the indigenous modes of fisheries management. The colonial state's management in the fishery principally consisted of gear restrictions, closed seasons and limitations on access. The new fish ordinance ended up marginalising African fishers. They responded by tying more nets on their canoes to increase their catches in a bid to increase their income.

In chapter four the crux of the discussion was the management changes imposed by the colonial state when it discovered that earlier approaches had failed to gain acceptance. This failure was occasioned by the state's ignoring of popular African indigenous fishing gear, methods and management skills. Another cause of this failure was the contradictory nature of the colonial fisheries policy. Instead of resolving these and other issues affecting fishers, the state persisted in pursuing policies focused on policing and monitoring mesh sizes while very little was done about providing credit facilities and the storage facilities and infrastructure. The state instituted the policy of forced labour and increased taxation in order to encourage Africans to 'work' for the settlers. Thus Luo labourers left the beaches to work in towns and on settler farms.⁹¹⁹ This was because most of them did not consider fishing an adequate source of income to meet their needs and those of the colonial state. Wealthy Indians and collaborating African agents, to a degree, also pushed them out. There were also feelings, mostly misplaced, on the part of the colonial authority that Lake Victoria was being overfished, an opinion disputed by the Luo fishers who thought that the fish resource was inexhaustible.

In chapter four the implementation of colonial regulations was seen as draconian by Africans because of the stiff punishments meted out to offenders. These including flogging, confiscation of gear and fish as well as prison sentences, were examined. Also looked at were colonial attempts to change the paradigm of fishery management

⁹¹⁸ M A Ogotu, 'Agriculture and the Development of Markets in the Western Province of Kenya, 1930-1960' in B A Ogot (Ed) *Hadith 7: Ecology and History in East Africa*, Proceedings of the 1975 Conference of the Historical Association of Kenya, (Nairobi, KLB, 1979), p. 238.

⁹¹⁹ Sharon Stichter, *Migrant Labour in Kenya: Capitalism and African Response*, p. 107.

and regulation via the use of Local Native Councils (LNCs) and later, African Development Councils (ADCs). Once again, these statutory bodies, with all their strengths and weaknesses, had one problem in that they ignored the agency of the African fishers being dominated by chiefs, headmen and other colonial officers. The licence and the scouts became the central themes and tools for controlling the number of boats and fishers at the beaches. However the coming of the licence, whatever its merits, discouraged the ordinary fishers because they could not fit in with the new colonial line of thinking and demands. They could not generate enough income from fishing to meet state obligations and pay taxes and also buy the licences. The formation of statutory bodies such as the Lake Victoria Fishery Board (L.V.F.B.), whose aims were to implement firm strategies to secure maximum efficiency in the control and development of the lake fisheries, was also the subject of this chapter. These bodies were expected to ensure optimal utilisation of fish, but it turned out that they existed for the convenience of the British administrators and fisheries officers and ended up denying African fishers any voice.

The impact of the bicycle and the colonial government's grappling with marketing issues was the subject of chapter five. Up to 1901 when the railway reached Kisumu from Mombasa, the fish trade was conducted by barter. The coming of the bicycle (*oringi*) after World War II, expanded the market for Lake fish by reducing the distance from the beaches to the marketing centres, thereby allowing fish to be moved further before spoiling. However, the trade in fresh fish remained limited and mostly carried out within the beaches due to lack of cold storage facilities. The failure of the colonial authorities to plan and organise the fishery was the principal cause of the limited distribution of fish. The major problem in fish marketing was that of 'cold storage, processing and transportation to the market'.⁹²⁰

The arrival of the bicycle made the work of fish traders much easier as they could reach the beaches faster and then transport their fish products to nearby and far away centres. Indian traders also had a great influence of the development of fishing

⁹²⁰ O.Aseto and O.Ongong'a, *Lake Victoria and its Environs*, p. 73.

because they acted as agents and middlemen. They bought in bulk at the beach thus affecting all other fish traders. Another factor was the price controls imposed on fishing by the colonial state. Cooperative societies that could have helped fishers to distribute their own fish did not get the necessary state support. Ordinary fishers were allowed to form co-operatives to assist them in purchasing nets and marketing fish from the mid-1940s but had little impact. Also of concern were the scouts who enforced the use of the mesh size limits and closed seasons. The fishers saw them as an imposition by the colonial state and did not support them in their endeavours. By putting more emphasis on fishery regulation, the colonial state did very little to assist production and the development of the fishery.

Chapter six dealt with commercialisation and its effects on the Luo fishers, as well as their responses. It was concluded that commercialisation was a gradual process beginning with new species, money, bicycles and motorised boats, but led to differentiation through the widening the gap between the boat and net owners and the labourers in the fishery.⁹²¹ Most of the fishing was done by a crew that did not own a share of the boat or gear yet the crew households depended on the income from fishing. This led to differentiation through the share system used to divide the catches. The engine and boat owners were assigned substantial maintenance and depreciation shares that were deducted before the catch was shared.⁹²² These payments reduced actual the crew shares. This chapter also looked at the penetration of capitalism and commercialisation in the lake region through the coming of the railway, bicycle boys, and new technology and motorised engines. The coming of new technology and gear negatively affected food security among fishing communities as it emphasized the selling, rather than the local consumption of fish. More fish was now needed for the distant markets. The coming of the new species such as the Nile perch and tilapia *niloticus* boosted the commercial value of the lake but ended up marginalising ordinary fishers. However, fishers also benefited from increased incomes. Many fishers abandoned fishing and opted to work in towns and

⁹²¹ D C Wilson, 'The Global in the Local' 2002, p. 12.

⁹²² D C Wilson 'Global in the Local', p. 12.

on settler farms, others formed cooperatives and even turned to farming. Plans to provide infrastructure, factories and harmonise regulations by the state did not materialise.

The question as to what happened to the fishers after independence and almost seventy years of colonial rule is discussed in chapter seven. It looks at fisheries and fishers between 1966-1978. This era saw several attempts by foreign companies to bring foreign investments into the fishery. The Fisheries Department was empowered to enhance the creation of industries and enforce regulatory measures in order to increase employment. Little change, however, was seen even with the coming of independence. Rather the post-colonial state perpetuated the colonial legacy of closed seasons and the curtailment of the movement of fishers to the beaches. A major issue for the government was how to assist the small-scale fishers to cope with commercialisation but it failed to come up with suitable policies. There were also problems with the non-provision of marketing and processing facilities, contradictions in policy implementation and enforcement of regulatory measures. The chapter also looked at the question of the mechanisation of the fishery. This was intended to increase the contribution of the fishing sector to the national economy by increasing the volume of catches, but it became an ambition frustrated by the high costs involved in purchasing and maintaining engines and the threat of theft. The state in Kenya needed to provide major logistical support if it wanted to mechanise the fishery but lack of political will and policy on the issue produced few results.

In much of the first decade of independence there were ambitious projects for initiating fishmeal production but this hardly went beyond the proposal stage. Efforts to attract support to investors from Japan, Britain and Sweden to Lake Victoria were frustrated by a lack of bureaucratic interest and political will. Such ventures, had they succeeded, would have done much to solve the problem of unemployment and underdevelopment in the lake region and would have stimulated tangible development in the country. Finally, the chapter also looked at the persistence of 'colonial' ordinances such as the compulsory issuing of licences, registration of boats

and fishers and policing by the scouts. The government's priority remained controlling fishing efforts, mesh sizes, closed seasons and the conservation of the Lake. Yet very little was done to enhance the development of the beaches, and provide infrastructure, credit and storage facilities, or to support cooperatives. In reality the fisheries remained almost what they had been during the colonial era - an arena for cut-throat competition, domination by the wealthy owners of motorised boats and the concomitant marginalisation of the ordinary fishers by the owners of capital, middlemen and agents from Nairobi.

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Appendix 1

Standard Questionnaire for individual Fishers and other stockholders

Dear Sir/Madam,

We are doing a research on change on fishing technology, colonial policy on fishery and new species over time and how all these reforms affected fishing practices on Lake Victoria, Kenya. We would also like to know how changes brought by the colonial government affected the industry. The findings will help the government policymakers to understand better the solutions to these problems. We therefore request you for your cooperation in answering the questions below.

NAME..... AGE.....
BEACH.....

1.0.0 INDIGENOUS TECHNOLOGY

- 1.1.0 What types of fish species did you catch during the pre-colonial period?
- 1.2.0 What types of tools/fishing gear did you use in fishing
- 1.3.0 Which type of nets did you use in the pre-colonial era?
- 1.4.0 Give the advantages of using each type of fishing gear used above
- 1.5.0 Which type of labour was used in fishing in that era?
Skilled/Unskilled/Family?
- 1.6.0 Did you undergo any training before becoming a fisherman/fisherwoman?
- 1.7.0 What did most of the workers come from: Nearby villages/Far away districts

2.0.0: MARKETING OF FISHING

- 2.1.0 Where did you sell your catches?
- 2.2.0 Was market available within the beach?
- 2.3.0 What was the mode of payment?
- 2.4.0 Did the buyers come to purchase the fish by the Lakeside?
- 2.5.0 Was the market for fish always there?
- 2.6.0 What was the mode of payment?
- 2.7.0 What problems did you encounter in selling your products?
- 2.8.0 How did you solve the problem if you encountered one?
- 2.9.0 Name the methods that you used to preserve fish
- 2.10.0 Why did you use the methods you have mentioned above?
- 2.11.0 As a fisherman what achievements did you make in life?
- 2.12.0 Did the Luo fishers have a developed concept of property rights to a particular fish stream or beach?
- 2.13.0 These property rights were invested on i) Nuclear family ii) the clan iii) the individual?
- 2.14.0 Who was in control of fishery and the territory along the beaches
- 2.15.0 How much fish did you catch per day/ For how long?

3.0.0: THE ROLE OF BICYCLE SALESMEN (ORINGI)

- 3.1.0: When did you start the oringi (bicycle) business?
- 3.2.0 Why did you start this type of business?
- 3.3.0 What was the source of capital for your business?
- 3.4.0 How much did you earn per year in your business?
- 3.5.0 Name the market centres where you sold your fish
- 3.6.0 How did you use your incomes? Name some projects you undertook.
- 3.7.0 Was this a full time or part time engagement?
- 3.8.0 Which type of jobs did you do apart from oringi? Farming?
- 3.9.0 Name the types of fishes that you sold. Which ones were more profitable?
- 3.10.0 Name the problems that you faced in your business

4.0.0 COLONIAL GOVERNMENT PERIOD AND THE REFORMS

- 4.1.0 What changes did the Europeans government initiate in fishing?
- 4.2.0 Who issued licenses to fishers?
- 4.3.0 What factors did the government consider before issuing the licence?
- 4.4.0 Did you pay fees for the licence? How much money?
- 4.5.0 Which year did you get your licence?
- 4.6.0 How much quantity did you catch per day/month?
- 4.7.0 How were the catches affected by the high or low seasons
- 4.8.0 What factors determined low catches and high catches?
- 4.9.0 What measures were put in place to control fishing?
- 4.10.0 What problems affected fishing in the Lake/
- 4.11.0 What did the colonial government do to control over-fishing and pollution?
- 4.12.0 What did fishers do to control the above problems?
- 4.13.0 How did the fishers cope with the colonial control measures?

4.13.0 Was over-fishing caused by the new nets and hooks brought by the colonial state?

4.14.0 Did you accept the new methods of fishing? If not how did you cope with these reforms?

4.15.0 When was the Nile perch introduced? By Who? What were its effects on catches?

4.16.0 Was restricted access better than free access? Please elaborate.

5.0.0 POST-COLONIAL REFORMS, Kenyatta ERA

5.1.0 What new ideas were introduced in fishery after independence, uhuru?

5.2.0 How was fishery regulated/

5.3.0 What new industries were introduced in the fishery sector/

5.4.0 Who benefited from the new technology into the fishery: traders, crew, canoe owners?

5.5.0 Where were fishing factories located by the Kenyatta regime. What factors motivated the location/

5.6.0 What type of conflicts existed between traditional fishing modes and the motorised fishing modes/ How were they solved?

5.7.0: Name fishery control measures introduced by the Kenyatta and government

5.8.0 When the first co-operatives introduced in fishery sector/ what was their objectives and impact?

5.9.0 When was the Fishery department established? Purpose? Impact?

5.10.0 Name any prominent local fishermen. Give their background and achievements

5.11.0 How did Luo politicians like Walter Odede, Tom Mboya (later Minister in the first government) and Achieng Oneko (Minister for Information) Oginga Odinga (later Vice President) influence fishery policies?

Thank you