#### **BUSITEMA UNIVERSITY**

Faculty of Natural Resources and Environmental Sciences.

# CONTRIBUTION OF THE FISHERIES INDUSTRY TO PEOPLE'S LIVELIHOOD IN UGANDA A CASE STUDY OF KIYINDI LANDING SITE

BY NAMUGANGA SHALUWA

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A RESEARCH REPORT SUBMITTED TO THE FACULTY OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES IN PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN NATURAL RESOURCE ECONOMICS OF BUSITEMA UNIVERSITY.

MAY, 2013

## **DECLARATION**

I hereby declare that this research paper submitted to the Faculty of Natural Resources and Environmental Sciences is my original work and has never been submitted anywhere for the award of any degree or any other academic qualification. Throughout the work, I have acknowledged all the sources used in its compilation.

Signature

Namuganga Shaluwa

Date 18 06 /20/3

## APPROVAL

This is to acknowledge that the work entitled "Contribution of the fisheries industry to people's livelihood in Uganda" has been done under my supervision and is now ready for submission to the Faculty of Natural Resources and Environmental sciences.

Signature

Mr. Kakungulu Moses

Supervisor

Date 18/06

# DEDICATION

This work is dedicated to my father Hajji Muganga and to my pillar of strength, my mother, Nuluat Nalwoga. It is also dedicated to my mother Faridah and to my sisters and brothers. Thank you for giving me guidance and support on which I have managed to come this far. Allah blesses you.

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## LIST OF ACRONYMS

EAC:

East African Community

EU:

European Union

FAO:

Food Agricultural Organization

FMSP:

Fisheries Management Science Program.

HACCP:

Hazard Analysis and Critical Control Point

ISO:

International Organisation for Standards

MAAIF:

Ministry of Agriculture Animal Industry and Fisheries.

n.d:

not dated

NAFIRRI: National Fisheries Resource Research Institute.

NARO:

National Agricultural Research Organization

NEMA:

National Environment Management Authority.

UPE:

Universal Primary Education

#### ABSTRACT

The study examined the economic and socio contribution of the fisheries industry to people's livelihood in Uganda using Kiyindi landing site as a case study. This was done by looking at the effect of fish harvesting, processing and trading.

The study was cross sectional in nature and used both quantitative and qualitative approaches in data collection, analysis and presentation. The study employed purposive sampling technique and data collection methods were questionnaires and interview guide. A selected sample of 50 respondents was used to provide information about the study and data analysis was done using SPSS (version 16) and which enabled the formation of frequency tables.

Research findings indicate that 60% of the respondents agreed that fish harvesting had improved on their livelihood, 32% strongly agreed on the same statement, 2% of the respondents were not sure while 6% disagreed. The majority of the fishermen agreed that fishing had improved on their livelihoods because they depend majorly on incomes and food from it for their household needs. Research findings also indicate that 54% of the respondents agreed that fish processing had improved on their livelihood, 32% strongly agreed, 10% of the respondents disagreed while 4% were not sure, which implies that fish processing as an activity in the fisheries industry improves on people's livelihood majorly through incomes they earn from the activity. Further the findings also showed that 44% of the respondents strongly agreed that fish marketing had improved on their livelihood, 42% agreed, 6% disagreed and 8% were not sure, it implies that fish marketing plays an important role in helping people improve on their livelihood. Generally research findings indicate that the fisheries industry improve on people's livelihood through incomes from selling fish and fish products as well as food for home consumption:

I recommend that there is need to upgrade the fisheries industry, specifically the processing and marketing structures so as to improve on the incomes of the people involved. There is also need to improve on the public services in fishing communities because fishers entirely depend on them like education services. There is also need for the government to encourage fishers to diversify their employment opportunities instead of relying on the fisheries sector alone, especially when fish catches decline.

#### CHAPTER ONE

#### GENERAL INTRODUCTION

#### 1.1 Introduction

The research looked at the contribution of the fisheries industry to people's livelihoods in Uganda using Kiyindi landing site in Najja sub County in Buikwe district as a case study. This chapter contains the background of study, the problem statement, objectives of the study, research questions, conceptual framework, justification of the study, scope of study, limitations of the study, and definitions of key terms and organisation of the study.

### 1.2 Background of the study

The fishing industry includes any activity concerned with taking, culturing, processing, preserving, storing, transporting, marketing or selling fish or fish products. It is defined by the FAO as including recreational, subsistence and commercial fishing, and the harvesting, processing, and marketing sectors. The commercial activity is aimed at the delivery of fish and other seafood products for human consumption or as input factors in other industrial processes. Directly or indirectly, the livelihood of over 500 million people in developing countries depends on fisheries and aquaculture. (http://en.wikipedia.org/wiki/History of fishing).

Fishing is an ancient practice dating back at least 40,000 years. Since the 16th century fishing vessels have been able to cross oceans in pursuit of fish and since the 19th century it has been possible to use larger vessels and in some cases process the fish on board. Fish are normally caught in the wild. Techniques for catching fish include hand gathering, spearing, netting, angling and trapping. From 7500 to 3000 years ago, Native Americans of the California coast were known to engage in fishing with gorge hook and line tackle. In addition, some tribes are known to have used plant toxins to induce torpor in stream fish to enable their capture.

The term fishing may be applied to eatching other aquatic animals such as shellfish, cephalopods, crustaceans, and echinoderms. In addition to providing food, modern fishing is also a recreational sport.

History of fish processing shows that humans have been processing fish since Neolithic times. This 16th-century fish stall shows many traditional fish products. There is evidence humans have been

#### REFERENCES

## Bibliograpy

- Achmad Zamron and masahiro yamao, 2001. Sustainable household economics. A case of altering income of small scale fisheries in Indonesia. Published by international conference on financial management and economics. Vol. 11.
- Amin M.E., 2005. Social science research: conception, methodology and analysis. Published by Kampala Makerere University printery.
- Angus Stevenson (Oxford), 2010. Oxford Dictionary of English 3<sup>rd</sup> edition. Published by Oxford University Press.
- Arthur .E. Neiland, Chris Bene, 2004. Incorporating fish market and trade information in to policy making for sustainable livelihoods and poverty reduction in Lake Chad basin. A report for the DFID/FAO sustainable fisheries livelihoods programme.
- Dhatemwa, C.M., 2009. Regional fisheries/farmed products market study in East Africa, Kampala, Uganda.
- District Local Government, 2011. The Republican of Uganda Integrated Development Plan for financial year 2010-2011 to 2014-2015.
- Faziul Kabir Rabbanee, Sanoara Yasmin, Aliasanul Haque, 2012. Women involvement in dry fish value chain approaches towards sustainable livelihood an Australian Journal of Business and Management Research Vol.1.
- Gladwin, C., Thomson, A., Peterson, J., and Anderson, A. 2001. Addressing Food Security in Africa via Multiple LivelihoodStrategies of Female Farmers.
- Grellier, R., Tanzarn, N., Lamberts, D. and Howard, C., 2004. The Impact of hiv/aids on Fishing Communities in Uganda. Field Study Report, London: Marine Resources Assessment Group (MRAG) and Options.
- James G. Abbott & Lisa M, Campbell & Clinton J. Hay & Tor F. Næsje& John Purvis, 2007. Marketresource Links and Fish Vendor Livelihoods in the Upper Zambezi River Floodplains Hum Ecol.

- Kabahenda, K. &Hüsken, S.M.C., 2009. A review of low-value fish products marketed in the Lake Victoria region, Lusaka. Zambia.
- Keizire, B.B. 2006. Policy and planning processes for responding to HIV/AIDS in fishing communities in Uganda. In: Responding to HIV and AIDS in the Fishery Sector in Africa. Proceedings of the International Workshop held in Lusaka, Zambia, Cairo: World Fish Centre
- Legros, D. &Masette, M., 2010. Testing of different processing methods for Mukene for human consumption and fish meal in Uganda, Brussels, Belgium.
- Mackinnon, J. 1998. Can Robust Pro-female Policies be identified when the True Model of the Household is Unknown? Centre for the Study of African Economies. University of Oxford.
- Medard, M., Sobo, F., Ngatunga, N., and Chirwa, S. 2001. Women and gender participation in the fisheries sector in Lake Victoria. Paper presented to the Global Symposium on Women in Fisheries, Kaohsiung, Taiwan.
- MF Jeebhay, T G Robins, A. L Lopata, 2004. World at work: Fish processing workers, Volume 61. Issue 5 from pem.bmj.com 0n 20/03/2013.
- MTTI, 2006, Diagnostic trade integration study: Volume 1, Kampala, Uganda.
- Mugabira, M.I., 2008. Global commodity value networks: Supply chain rigidities and business survival in Uganda's fishing sector, Kampala, Uganda.
- National agriculture research organization, 2001. Agriculture in Uganda vol. iv livestock and fisheries. Published by fountain publishers' ltd.
- National environment management authority, 1998. State of environment report for Uganda.

  Published by national environmental management authority.
- National environment management authority, 2008. State of environment report for Uganda. Published by national environmental management authority.
- Oso .Y. W and Onen .D. 2008. A general guide to writing research proposal and report, a handbook for beginning researchers. 2<sup>nd</sup> edition Kampala Makerere university printery.
- Ponte, S., 2005. Bans, tests and alchemy: Food safety standards and the Ugandan fish export industry. Copenhagen, Denmark.

- Sam Balagadde and Uganda National Bureau of Standards fish safety and quality assurance Uganda's experience.
- Ssebisubi Maurice, 2011. Analysis of small-scale fisheries' value-chains in Uganda draft report, Aquaculture Management Consultants Ltd.
- Ssebisubi, Maurice, 2011. The value chain of farmed African cattish in Uganda. University of Akreyri.
- UIA, 2005. Investing in Uganda's fish and fish farming industry, Kampala, Uganda,

Yoshiaki Matsuda, 2000. History of fish marketing and trade with particular reference to Japan

#### Electronic sources

- Blake D.Ratner, 2011. Common Pool Resources Livelihoods and Resilience. Critical Challenges for Governance in Cambodia. IFPRI Discussion paper 01149. Available at: <a href="https://www.ifpri.org/sites/default/files/publications/ifpridpo">www.ifpri.org/sites/default/files/publications/ifpridpo</a>. Accessed on 02/03/2013.
- DFID Fisheries and livelihood FMSP policy brief 4. Available at: <a href="https://www.mrag.co.uk/document/policybrief4-livelihood">www.mrag.co.uk/document/policybrief4-livelihood</a> Accessed on 02/03/2013.
- Elizabeth West away. Caroline Barratt, Janet Seeley, 2001, education attainment and literacy in Uganda fishing community access for all available at: <a href="https://www.marecentre.nl/mast/documents/mast82-westa">www.marecentre.nl/mast/documents/mast82-westa</a>. Accessed on 02/03/2013.
- Pisheries resources research institute 2003. Off beach fish marketing and livelihoods in Uganda. Social economic section. Available at: <a href="www.dfid.gov.uk/r4d/PDF/Outputs/R8112d.pdf">www.dfid.gov.uk/r4d/PDF/Outputs/R8112d.pdf</a> Accessed on 20/04/2013.
- Fisheries resources research institute .2003. The fish by product sub-sector and livelihoods in Uganda.

  Globalisation and fish utilisation and marketing study. Social economic section.

  <a href="https://www.dfid.gov.uk/r4d/PDF/Outputs/R8112d.pdf">www.dfid.gov.uk/r4d/PDF/Outputs/R8112d.pdf</a>> Accessed on 20/04/2013.
- FMSP, n.d. Understanding fisheries livelihoods and constraints to the development. Kenya and Tanzania. Review of marine fisheries in Tanzania. Available at: <a href="https://www.fmsporg.uk/documents/rs196/r8196">www.fmsporg.uk/documents/rs196/r8196</a>. Accessed on 02/03/2013.

- Food and Agriculture Organization of the United Nations Fishery Country Profile, 2004. The republic of Uganda. Available at: <a href="www.fao.org/fi/fep/en/UGA/profile.htm">www.fao.org/fi/fep/en/UGA/profile.htm</a> Accessed on 20/04/13
- Food and Agriculture Organization of the United Nations, 2013, corporate document repository produced by office of director general. Available at: <a href="http://www.fao.org/docrep/008/v6634e/y6634e04.htw">http://www.fao.org/docrep/008/v6634e/y6634e04.htw</a> 20/04/2013 Accessed on 20/04/2013.
- Food and Agriculture Organization of the United Nations, 2010. State of World Fisheries and Aquaculture.
- Fulgencio, K., 2009. Globalisation of the Nile perch: Assessing the socio- cultural implications of the Lake Victoria fishery in Uganda. Journal of Political Science. 3(8), pp.433-442. Available at::

  <a href="http://www.academicjournals.org/ajpsir/PDF/Pdf2009/October/Fulgencio">http://www.academicjournals.org/ajpsir/PDF/Pdf2009/October/Fulgencio</a>. Accessed on 13/03/2013.
- H. Scott Gordon, 2010. The Economic Theory of a Common-Property Resource: The Fishery, The Journal of Political Economy. Vol. 62 Published by: The University of Chicago Press StableURL, Available at: <a href="https://www.economia.unam.mx/profesores/blopez/ScottGordonFisheries.">www.economia.unam.mx/profesores/blopez/ScottGordonFisheries.</a>
   Accssed on 20-04-13
- Lawrence, E. D. Smith, S. Nguyen Khoa, K. Lorenzen, 2005. livelihood functions of inland fisheries policy implications in developing countries. Available at: <a href="https://www.aquaticresources.org/pubs/smith-et-al-2005">www.aquaticresources.org/pubs/smith-et-al-2005</a> Accessed on 02/03/2013.
- Ministry of Agriculture Animal Industry and Fisheries. 2004. The national fish policy by department of fisheries resources. Available at :< <a href="https://www.p15166578.pureserver.info/../policy/National">www.p15166578.pureserver.info/../policy/National</a> Accessed on 20-10-13.
- Ministry of Agriculture Animal Industry and Fisheries, 2010/2011. Annual report. Available at: <a href="https://www.ugasamak@com">www.ugasamak@com</a>. Accessed on 20/10/2013.
- Michael McCarthy. 2003. Fishing Industry Falls Victim to the Tragedy of the Commons The Independent available at: <a href="http://www.commondreams.org/headlines02/1024-02.htm">http://www.commondreams.org/headlines02/1024-02.htm</a> Accessed on 10/03/2013.

- SEATINI, 2008. Implications of the EAC-EU partnership agreement for Uganda's fisheries sector.

  Kampala, Uganda, Available at :< <a href="http://www.seatini.org/publications/Uganda/EPAs">http://www.seatini.org/publications/Uganda/EPAs</a> and Uganda fisheries. > Accessed on 01/15/2013
- U. kleih, p. Greenhalgh and n. Oudwater ,2003. A guide to the analysis of fish marketing systems using a combination of sub-sector analysis and the sustainable livelihoods approach. Available at: <a href="https://www.nri.org/projects/fishurade/fishmarketingguide">www.nri.org/projects/fishurade/fishmarketingguide</a>. >Accessed on 20-04-2013
- UBoS, 2010. Uganda Bureau of Statistics. Statistical Abstracts 1995-2010. Available at: <a href="http://www.ubos.org/index.php">http://www.ubos.org/index.php</a> Accessed 02/17/2013.
- Ulrich Kleih, Khursid Aläm, Ranajit Dastidar, Utpål Dutta Nicoliène, Oadwater, Ansen Warid.2003, livelihoods in coastal fishing communities and the marine fish marketing system of Bangladesh. Available at: <a href="https://www.nri.org/projects/fishtrade/issues-marketeredit.HTM.">www.nri.org/projects/fishtrade/issues-marketeredit.HTM.</a> Accessed on 02/03/2013.
- World Fish Centre, n.d. fish and food security in Africa. Available at <a href="https://www.worldfishcenter.org/resource\_centre/socoeconomic.sy">www.worldfishcenter.org/resource\_centre/socoeconomic.sy</a> accessed on 02/03/13.