

**MBARARA UNIVERSITY OF SCIENCE AND
TECHNOLOGY,**

**INSTITUTE OF TROPICAL FOREST
CONSERVATION (ITFC)**



Annual report For Vice Chancellor

11th December 2014

By

Robert Bitariho (PhD), Director ITFC

1. Introduction

The Institute of Tropical Forest Conservation (ITFC) is one of the seven academic units of Mbarara University of Science and Technology (MUST). The academic units include; three faculties and four Institutes; the faculties of Medicine, Science and Applied Science Technology and the Institutes of Interdisciplinary Training and Research, Computer Sciences, Management Sciences and Tropical Forest Conservation (see www.must.ac.ug). The ITFC was established in 1991 as a semi-autonomous postgraduate research Institute of MUST and is based in Bwindi Impenetrable National Park at Ruhija in Kabale district while others are based at the Mbarara campus. The Deans (for faculties) and Directors (for Institutes) represent the faculties and Institutes at the MUST Senate meetings.

Over the past two decades, the major focus of ITFC has been to support and undertake ecological and sociological research, monitoring and capacity building of Ugandans and others in order to bolster conservation understanding and practice in the Albertine Rift protected areas. Indeed ITFC has undertaken various researches and monitoring work that have influenced National Park Management policies and practise. National Parks where ITFC has carried out research and has influenced management policies and practise include: Bwindi Impenetrable, Mgahinga, Rwenzori Mountains, Semuliki and Queen Elizabeth.

The past two decades, ITFC's research staff have published over 90 publications in international journals such as *Biotropica*, *Conservation Biology*, *Biological Conservation*, *Oryx* and *African Journal of Ecology*. This has contributed immensely to MUST's top rankings by the Africa's Universities Webometrics ranking system. Currently MUST is ranked the 40th amongst Africa's Top

Universities; three months ago, MUST was ranked the 63rd in Africa and we can do better (www.webometrics.info/en/ranking_africa/sub_saharan_africa).

As a result of capacity building by ITFC, many students and Alumni of ITFC are now working in several conservation related fields and are able to influence environmental conservation issues at Universities (e.g. Assoc. Prof. Gerald Eilu from Makerere University and Assoc. Prof. Julius Bunny from Mbarara University), at Uganda Wildlife Authority (Nelson Guma as the Conservation Area Manager- Queen Elizabeth National Park), at National Environment Authority (Francis Ogwal as a director), at National Forest Authority (Xavier Mugumya as the Natural Forests manager), at Uganda Wildlife Education Centre (Musinguzi James as the Executive Director) and other conservation related institutions.

1.1 Vision, Mission, objectives

ITFC is in the process of reviewing its Strategic Plan (SP) in order to come up with a clear vision that describes where and what ITFC wants to be in the next twenty five years. The SP review is also aimed at aligning ITFC plans with those of the MUST, Uganda Wildlife Authority (UWA) and other partners. We have asked Bernard Kakuhikire (from the Institute of Management Sciences-MUST) and Robinah Nakaketo (MUST planner) to help us review ITFC's SP. ITFC's mission is: ***to lead in the implementation of biological and social research and training that furthers conservation and management of Albertine Rift forests and biodiversity.*** See www.itfc.org for more details about ITFC's mission and objectives.

2.0 ITFC Staff

ITFC is managed by a director together with a team of project and administration staff. The project staff contracts are renewed annually depending on availability of funds from donors to run the projects, while the administrative staffs are on the MUST payroll. There are several activities that need staff at ITFC but due to financial constraints, we have had to use research volunteers (fresh graduates

from MUST and Makerere University). We have asked MUST to take up on its payroll atleast three more ITFC project staff for the smooth running of ITFC activities. The project staff we have asked MUST to take up are two forest ecologists and one social scientist. We hope MUST will consider this request and wait for the request to be effected. We also have a team of junior staff that help in field data collection and casual workers. The research volunteers have contributed to ITFC activities and helped augment gaps in staff shortages. ITFC has operated with the following staff members during the past year:

Present ITFC Staff members

Robert Bitariho, B.Sc., MSc, PhD – Director.

Desi Tibamanya – Finance and Administration Officer

Badru Mugerwa, BSc, MSc – Coordinator TEAM project

Medard Twinamatsiko, BDS, MA - Lead Social Scientist

Akampurila Emmanuel, BSc (WHM)-Research Officer

Mujuni Robert, BA-Junior Research Officer -CTPA

Clemencia Akankwasa – Senior administrative Assistant

Robert Barigyira – Senior Herbarium Technician

Florence Tukamushaba - Secretary/Receptionist/Librarian

And 26 field assistants/Camp-keepers and night guards

ITFC has a vacant position of accounts clerk. We have asked MUST to help us with the recruitment of one.

2.1 Volunteers:

Over the years, enthusiastic volunteers and interns have contributed to ITFC's activities. This year, the following volunteers have worked with ITFC on various projects.

- Janine Kyomugisha (a graduate of MUST Development studies) worked on the Batwa Cultural Values Project (BCVP) and the Conservation Through Poverty Alleviation (CTPA). She also worked on another project funded by the Bwindi Mgahinga Conservation Trust of assessing how the indigenous knowledge and cultural values of local people can be used in the conservation of Bwindi Impenetrable National Park. Medard Twinamatsiko coordinates the three projects.
- Celebration Erasmus (A graduate of Bachelor of Business Administration-MUST) is working with the finance and administration department and specifically taking on a role of an accounts clerk. He prepares and writes

cash vouchers. He has been instrumental in the accounts department where ITFC has a staff gap of an accounts clerk.

- Duncan Bwanika (A graduate of Bachelor of Forestry, Makerere University) is working on the TEAM and GVTC projects. Duncan has been very instrumental in running the TEAM project (when the coordinator was away on a study leave), by carrying out field data collection and is now working on the GVTC database and entering data for analysis and report writing.
- John Kaheru (Mutwa-former forest dweller descendant) has an ordinary level certificate. He has worked with the BCVP and CTPA projects mentioned above particularly with local people interviews, data collection and data entry in a computer.
- Isaac Mugisha (a graduate of MUST- Development studies) has also worked on the Batwa Cultural Values Project (BCVP) and the Conservation Through Poverty Alleviation (CTPA) particularly with local people interviews, data collection and data entry in a computer.

2.2 Students

The following students are/were supported by ITFC for their fieldwork during their MSc and Phd studies, benefited from supervision by ITFC staff and/or received financial support from ITFC during the past year:

- Dennis Babaasa (former ITFC staff,) just completed his PhD from University of Massachusetts Amherst, USA). He carried out his fieldwork **on Vegetation structure and composition in Bwindi** with ITFC supervision. He also used ITFC facilities such as the library, herbarium, office space including Internet and accommodation facilities. Dennis PhD grant was administered through ITFC.
- Robert Sekisambu from Makerere University has completed his study on ***assessing amphibian populations of conservation significance around Bwindi and an assessment of the prevalence of Chytridiomycetes fungi among amphibians in Bwindi***. He has submitted his thesis and awaits graduation. Robert presented his research results at ITFC's annual researcher's workshop that was held at Ruhija in Bwindi Impenetrable National Park, July 2014.
- Patrick Mawanda from Makerere University has completed his study on: ***the role of rodents as potential carriers of parasites across Bwindi***

- park boundary.*** He awaits graduation. His thesis is now available at the ITFC library.
- Hillary Agaba Kumanya from Makerere University has completed his study on: ***the role of baboons as potential carriers of parasites across Bwindi park boundary.*** He awaits graduation.
 - Brian Baguma from Makerere University completed his study on: ***assessing the impact of invasive alien plant species in Semuliki National park.*** He awaits graduation.
 - Odoi Boaz Juventine from Makerere University completed his study on: ***the assessment of forest trees' resilience in elephant prone areas, a case of Rabongo forest patch-Murchison Falls National Park.*** He awaits graduation.
 - Henry Nkurunzinza from Mbarara University of Science and Technology Biology department completed data collection and is writing up a MSc report on ***the re-assessment of indigenous vegetation recovery in Mgahinga Gorilla National Park, South-western, Uganda.***

Note: During this year, ITFC encountered difficulties accessing donor funds to support MSc and Phd students. Donors seem to have shifted interest elsewhere and recently it is difficult to access funds from them than was in the past.

3 Grants won during 2013/14 and progress

ITFC wrote several project proposals. Some were successful while others were not. The successful projects in order of awards were:

- ***A Survey of hydrological systems in the Great Virunga Landscape: Water demand and supply in and around Mgahinga Gorilla National Park and Echuya Central Forest Landscapes.*** The project began late December 2013 and is to be completed this year 2014. Funding for this project was provided by the Greater Virunga Transboundary Collaboration Executive Secretariat (GVTC-ES) to a tune of about **110,000usds**

(including purchase of equipment). The project will look at assessing the water quality and quantity in the region and map out soil erosion hazard areas. The aim of the project is to achieve the MDG goal 7 for provision of sustainable safe drinking water by the year 2015 to the local people around the Greater Virunga Landscape. ITFC competed with several other organisations and won the grant.

- As a continuation of the above GVTC project, In November 2014, ITFC wrote a proposal to GVTC again, for the **compilation of a regional report on hydrological systems in the Greater Virunga Landscape (GVL)**, so that the project includes all hydrological systems in south-western Uganda, North Rwanda and Eastern Democratic Republic of Congo as one landscape. The GVTC has already accepted to fund the project with **68,600usds** and the two parties have already signed a Memorandum of Understanding. The study aims at compiling one report that describes the whole GVL's hydrological systems that straddles Uganda, Rwanda and DRC for better planning and management. This will be done through building a regional Ms Access database and Geographical Information Systems (GIS) that describes the whole GVL region as one entity.
- ***Assessing and evaluating the effectiveness of Nkuringo buffer zone (in Bwindi Impenetrable National Park) in addressing the Human-Wildlife Conflict.*** The International Gorilla Conservation Program (IGCP) funded this study with **31,072usds**. The aim of this study is to assess the effectiveness of the problem animal management interventions in the buffer zone of Nkuringo in reducing crop raiding incidences and establishing the patterns of crop raiding by the various wild animals. The study started Mid December 2013 and will end December 2014.
- ***A simple monitoring tool for local community use in Bwindi's multiple use zones, S.W Uganda.*** This project was completed in April

2014 and was funded by the Bwindi Mgahinga Conservation Trust with **25 million UGX**. The project developed simple tool that local people accessing plant resources for medicinal and basketry use from Bwindi will use for plant resource harvest impact monitoring. The local people are already using this tool in Bwindi and UWA has included this it for park management. There is a dire need of plant resource monitoring methods that engage the local people in both data collection and analysis as a bottom-up approach. A report on this tool is available at the ITFC library

- ***An assessment of local communities' indigenous knowledge and cultural values towards the promotion of sustainable natural resource management in Bwindi and Mgahinga Conservation Area.***

The Bwindi Mgahinga Conservation Trust (BMCT) funded the project with **20 million UGX**. This project was completed in October 2014 and the funders of the project are reviewing a draft report from ITFC. The aim of the project is to investigate and advise park management on how to directly involve local institutions and indigenous knowledge as a yardstick for successful conservation of Bwindi and Mgahinga National park. Partnerships with local and indigenous groups offer opportunities for strengthening conservation both within and outside protected areas.
- **Maintaining the long-term monitoring plots (Permanent Sample Plots-PSPs) for plant harvest impact monitoring in the multiple use zones of Bwindi** (areas in the Bwindi National Park where plant harvesting by local people occurs). The Bwindi Mgahinga Conservation Trust funded this project with **25 million UGX**. Work on the project began in October 2014. The BMCT board agreed to support the study for the next three years (with an annual release of **25 million UGX**). The project aims at monitoring harvested plant species to evaluate the harvest impacts on plant individuals and their population dynamics.

- **The Involvement of Women in Integrated Conservation and Development (ICD) Policy Implementation and Governance project.** Birdlife International and Conservation International funded this project to with **10,000usds**. This project is a collaborative one between ITFC and IITR-MUST. The project aims at drawing lessons from tourism revenue sharing at Bwindi Impenetrable National Park. It began in May 2014 and is to be completed in February 2015.
- **The Bwindi African golden cat *Caracal aurata* project.** The project has already began and got its funding from the International Foundation for Science (IFS) of **12,000Usds**. 43% of the IFS grant has been used to purchase camera traps. The balance will be used to purchase telemetry equipment, and support field activities such as vehicle use, field assistants and food rations. The project aims at assessing key ecological aspects of the golden cat through placement of camera traps in Bwindi forest and determining the extent of depredation and conflict between the golden cat and local people. The study will start a community-based and participatory approach for the conservation of the African golden cats around the park.
- In order to continue the **activities of the Tropical Ecology Assessment and Monitoring (TEAM) Network** project currently run by ITFC, ITFC together with Dr Alastair McNeilage and Dr Tim O'Brien (all from WCS) wrote a proposal to the Buffet foundation for other funds for the continued running of the project for the next 3 years. The Proposal was successful and Buffet foundation assigned **300,000Usds** to WCS to support the TEAM activities at ITFC and in Bwindi for the next three years (2015, 2016 and 2017). Although ITFC has not received the funds yet, we are in the process of making and signing a contract and other papers with WCS and work will commence.

ITFC together with partners wrote other project proposals during this year that were not successful. These are:

- A proposal ***on strengthening management of Bwindi's mountain gorillas and their habitat through improved national capacity and an increased understanding of habitat carrying capacity.*** This proposal was spearheaded by the International Gorilla Conservation Programme and Max Planck Institute for Evolutionary Anthropology together with ITFC. The proposal sought to build capacity within the Uganda Wildlife Authority through training and additional data integration for strengthening UWA management for conservation of mountain gorillas and their habitat. **This proposal was not successful as has been communicated by the U.S. Fish and Wildlife Service (USFWS) recently.**
- A project proposal was written by ITFC jointly with a team from Kachwekano Zonal Agricultural Research and Development Institute (KAZARDI), Institute of Management Sciences (all MUST institute) and Global Givings on: ***The hunger stories; merging science with winning experiences to solve chronic nutritional inadequacy.*** This project proposal is part of a wider project proposal coordinated by CultiAf project development coordinated by Dr Tim Lynam. The proposal was submitted to the Canadian CIDA and Australian Governments call for proposals. **The proposal was not successful as has been communicated by the donors recently.**
- ITFC together with MUST's department of Pharmacology wrote a project proposal on: ***Biodiversity Conservation Through research training and Drug discovery; the establishment of an "International Cooperative Biodiversity Groups" (ICBG) consortium to address the interdependence of biodiversity conservation and its exploration for potential health applications.*** The Project proposal is being coordinated

by Dr Ghee Tan from the University of Hawaii at Hilo (UHH), USA and has Dr Robert Bitariho (ITFC), Dr Duncan Sesaaazi (MUST Pharmacology department) and Dr Eunice Olet (Biology department) as collaborators and partners on the project. The aim of the project is four fold; ***biodiversity conservation, drug discovery, research training and economic development*** using local traditional knowledge (ethnopharmacology) from traditional healers around Bwindi and Rwenzori National Parks. The proposal was submitted to National Institute of Health & National Science Foundation in USA **but was not successful**.

4 Long term donor supported projects

ITFC continues to experience a decline in long-term donor supported projects and most especially those projects that used to get financial support for MSc and PhD students. In the past, ITFC got long term funding (3-5 years) from USAID, MacArthur Foundation, World Wide Fund for Nature (WWF), Wildlife Conservation Society (WCS) etc. that helped ITFC run its activities and support MSc and PhD students. This is no longer the case since 2011. As such this has made ITFC's financial status unstable. However we have three major projects that are running and have kept our research activities and finances going:

- **Conservation through Poverty Alleviation project (CTPA)** funded by the Darwin initiative in collaboration with the International Institute of Environment and Development (IIED) in UK. The CTPA (R2P) project is a three year project (April 01, 2012-March 31, 2015). We are now in third year of its implementation and the Institute of Tropical Forest Conservation (ITFC) is leading the research component. Other partners on the project are International Institute for Environment and Development (IIED) (*technical support*), Action Coalition for Development (ACODE) (*policy advocacy*) and Jane Goodall Institute (JGI) (*capacity building component*). The project was a major source of ITFC funds with funding of up to **67,741UK pounds** for three years. The main goal of the project is to

support Uganda's capacity to address the priority to link biodiversity conservation and poverty alleviation. The research component was completed and a report is already out and was published. The next phase of the project will be policy advocacy using the research results.

- The Tropical Ecology Assessment and Monitoring (TEAM) Network (TEAM) project. The project collects data on biodiversity (vegetation and terrestrial vertebrates) and climate to monitor and understand trends in tropical biodiversity with climate change and other threats in Bwindi. It is part of a wider network of projects in seventeen other tropical forests worldwide. This year, all the three (vegetation and terrestrial vertebrate monitoring and climate monitoring) activities were successfully implemented. The TEAM project funding of **53,000usds** from the Moore foundation through Conservation International (CI) and Wildlife Conservation Society (WCS) ended in July 2014 and we are waiting other funding from Buffet as pointed above to continue with the TEAM's project activities.
- The Batwa Cultural Values Project (BCVP) is a three-year Darwin initiative funded project (April 01, 2012 to March 31, 2015). It aims at integrating Batwa cultural values into conservation of protected areas of Bwindi, Mgahinga and Semliki Conservation areas. Fauna and Flora International (FFI) coordinates the project in partnership with the Uganda Wildlife Authority (UWA), Institute of Tropical Forest Conservation (ITFC) and United Organisation for Batwa Development in Uganda (UOBDU). The BCVP project research component was completed and report is out and we are now at the Monitoring and evaluation stage also carried out by ITFC. ITFC receives an annual funding of about **38 million UGX** from FFI for running of the project.

Other income for specific ITFC activities:

- MUST continues to offer core funding to ITFC of up to **100 million UGX** every year (received quarterly). These funds have been used to renovate the office block, Students dormitory, Directors house and the Conservation Education Centre. Also the funds have helped ITFC purchase water harvest tanks (with capacity of up to 30,000litres). At Ruhija where ITFC is based, the source of water is mainly from rainwater harvest. MUST also pays internet providers AFSAT **6,790usds** annually for provision of internet link via satellite to ITFC this has eased communication at ITFC.
- The Max Planck Institute for Evolutionary Anthropology (MPI-EVAN) pays ITFC for the service of managing the gorilla monitoring related work in Bwindi. The payments are in form of office space, field assistant hire and accommodation facilities for staff and students of MPI. MPI pays ITFC an annual fee of about **35,000usds**. Most of the MPI funds are used to pay project staff salaries and maintenance of gorilla research facilities and equipment.
- A long term monitoring study on the ecology of the endemic bird- Stripe-breasted tits (*Parus fasciiventer*) continues to be supported by funds from ITFC's research fellow, Dr. Philip Shaw from the University of St. Andrews, Scotland, UK. Phil Shaw pays about **4 million UGX** to ITFC for supporting the stripe-breasted tit research.

6.0 Conferences/Workshops/Seminars

6.1 Workshops Organised by ITFC

- ITFC together with IIED, JGI and ACODE are organising an end of CTPA project workshop that is slated for January 19th to 21st 2015. This workshop will be held at the ITFC station in Bwindi and will be attended by IIED staff from UK and other local stakeholders.

- The ITFC advisory board meeting is also slated to be for February or March 2015 in Kampala at the Uganda Wildlife Authority (UWA) headquarters. This board is chaired by the MUST Vice chancellor and is normally attended by all institutional representatives that sit on the board. These are Wildlife Conservation Society (WCS), UWA, International Gorilla Conservation Program (IGCP), Bwindi Mgahinga Conservation Trust, Makerere University, Dean Faculty of Science-MUST, Senior Assistant Registrar-MUST, Director-ITFC and the Finance and Administration Officer-ITFC. The board meeting gives a chance for ITFC to interact with stakeholders and to showcase its work but more importantly to get advice from partners.
- From the 17th to 10th July 2014, ITFC together with the Uganda Wildlife Authority (UWA) organised an annual researcher's information sharing and dissemination workshop at the ITFC headquarters in Ruhija, Bwindi Impenetrable National Park. The past 5 years, ITFC has been organising the research dissemination workshops to showcase its research relevancy to park management. The workshop was well attended by UWA, MUST, IGCP, BMCT and other stakeholders and was officially opened by the former Vice Chancellor MUST, Prof. Kayanja. During the workshop, ITFC together with partners disseminated research results from staff and students sponsored by ITFC to the Bwindi and Mgahinga National Park's managers and stakeholders.
- Dr Robert Bitariho attended the 7th Regional Network for Conservation Educators and Researchers in the Albertine region (RNCEAR) workshop that was held at the University of Dar es salaam, College of Natural and Applied Sciences, Dar es salaam, Tanzania from the 21st to 25th August 2014. The workshop brings together conservation researchers and educators in the Greater Virunga landscape to share experiences and

challenges of Biodiversity conservation.

- Dr Robert attended a Mountain gorilla population census in Virunga Massif, pre-planning meeting at Belvedere Hotel, Rubavu, Rwanda on the 26th November 2014. The meeting was to plan on the strategies and methods for the planned census of the Mountain gorillas in the Virunga protected area
- Dr Robert Bitariho continues to sit on several boards and steering committees concerned with biodiversity conservation and training. These include; the Bwindi Mgahinga Conservation Trust management board (*sat 4 times this year*), Technical supervisory committee of the Ministry of Wildlife and Antiquities training institute (*sat twice this year*) and Technical advisory committee of NatureUganda's project-Echuya Forest Conservation Project (*sat twice this year*). Dr Bitariho is a member of the MUST senate and also sits on various committees of MUST such as the Quality assurance committee and the deans/directors committee. He is also chairs the Human resource committee of the Bwindi and Mgahinga Conservation Trust that sat twice this year.

Other Workshops/meetings/trainings by ITFC project staff in 2014:

Medard Twinamatsiko

- Policy advocacy meeting for Uganda Poverty and Conservation Learning Group (UPCLG) organized by UPCLG-Uganda chapter (June, 2014 at Uganda Wildlife Education Centre (UWEC), Entebbe.
- The 1st International Conference on Technology and Management (ICTM) organized by Uganda Technology and Management University (UTAMU). Improving Service Delivery through ICT and Management Revitalization. August 03-05, 2014.

- Launching of CTPA research (R2P) report and public talk organized by Nature Uganda and UPCLG (September, 2014). Uganda Museum
- Policy advocacy workshop for Uganda Poverty and Conservation Learning Group (UPCLG) organized by ACODE (September 2014). Metropole, Bugolobi- Kampala
- MUST 10th annual research conference organised by faculty of Science on the 10th December 2014, in Mbarara at Lake View Hotel

Badru Mugerwa

- Attended a training course and attained a post graduate diploma in international wildlife conservation practice at the University of Oxford, UK, between February – September 2014.
- Attended a one-week training in operating conservation drones at Oxford, UK in August 2014.
- Attended a student conference on conservation science in Cambridge, UK in March 2014.

Emmanuel Akampurila

- Attended a seven days training programme in data analysis using R-Statistical package in Kampala from the 13th to 20th of September 2014 at Wildlife Conservation Society (WCS) offices, Kampala.
- Attended MUST 10th annual research conference organised by faculty of Science on the 10th December 2014, in Mbarara at Lake View Hotel.

7. Publications written in a scholarly manner

The following list includes publications by ITFC staff (**in bold**) together with partners the past year

- Cavanaugh, K.C., Gosnell, S., Davis, S.L., Ahumada, J.A., Boundja, P., Clark, D.B., **Mugerwa, B.**, Jansen, P.A., O'Brien, T.G., Rovero, F., Sheil, D., Vasquez, R. & Andelman, S. (2014). Carbon storage in tropical forests correlates with taxonomic diversity and functional dominance on global scales. *Journal of Biogeography*, 1-11

- Muriisa, Roberts K., Mbabazi, Pamela K. & **Twinamatsiko, Medard.** (2014). International Land Deals in Eastern and Southern Africa. Land Deals in Uganda: An Invisible Hand in Land Grabbing and Rural Development, OSSREA
- **Twinamatsiko Medard**, Baker Julia, Mariel Harrison, Mahboobeh Shirchorshidi, **Bitariho Robert**, Wieland Michelle, Asuma, Steven, E J Milner-Gulland, Dilys Rose (2014). Linking Conservation, Equity and Poverty Alleviation Understanding profiles and motivations of resource users and local perceptions of governance at Bwindi Impenetrable National Park, *IIED publications*; DOI: 10.13140/2.1.4853.4409
- Baker, J, **Bitariho, R**, Gordon-Maclean, A, Kasoma, P, Roe, D, Sheil, D, **Twinamatsiko, M**, Tumushabe, G, van Heist, M & M. Weiland, 2013. Linking Protected Area Conservation with Poverty Alleviation in Uganda: Integrated conservation and Development at Bwindi Impenetrable National Park, Nova Science Publishers, Inc, New York
- Kasangaki, A and **Bitariho, R**, (2013). Review of Benefit Sharing and Community Conservation Approaches in the Albertine Rift Region: in Albertine Rift Conservation report, Kanyamibwa, S (ed), Albertine Rift Conservation Series No. 1, Arcos network
- Kasangaki, A, **Bitariho, R**, Shaw, P, Robbins, M & McNeilage, A (2012). Long-term ecological and socio-economic changes in and around Bwindi Impenetrable National Park, south-western Uganda: in the ecological Impact of long-term changes in Africa's Rift Valley, Plumptre, A (ed) Nova Science Publishers, Inc, New York.
- **Mugerwa, B.** (2013) First photographic record of the Serval cat (*Leptailurus serval*) in Bwindi Impenetrable National Park, southwestern Uganda. A short communication submitted to the Cat News.
- Sheil, D. & **Mugerwa, B.** (2013) First pictures of hunting African golden cat. CAT News 58 Spring 2013.
- Sheil, D., **Mugerwa, B.** & Fegraus, H. E. (2013) African golden cats (*Caracal aurata*), citizen science, and serendipity: tapping the camera trap revolution. South African Journal of Wildlife Research 43, 74-78.

- **Mugerwa, B.**, Sheil, D., Ssekiranda, P., Heist, V.M. & Ezuma, P. (2013). A camera trap assessment of terrestrial vertebrates in Bwindi Impenetrable National Park, Uganda. *Afr. J. Ecol.* **51**, 21–31. doi: 10.1111/aje.12004

7.1 Publications in press and as manuscripts:

- **Akampurila Emmanuel** and **Bitariho Robert** (*manuscript*). An Assessment and Evaluation of the Effectiveness of Nkuringo BufferZone in addressing Human-Wildlife Conflict in Bwindi Impenetrable National Park, S.W. Uganda
- **Bitariho Robert**, Sheil Douglas & Eilu Gerald (*manuscript*). Rural livelihood improvement or a poverty trap? A critical look at Bwindi's Multiple use programme in South West Uganda.
- **Bitariho Robert**, Sheil Douglas & Eilu Gerald (*manuscript*). Ecological Implications of Harvesting Plant Resources from Bwindi Impenetrable National Park, South Western Uganda
- **Bitariho Robert, Sheil Douglas & Eilu Gerald** (*manuscript*). Does Bwindi's Multiple Use Programme initiate local people's participation in park management? A comparison with other collaborative approaches in Uganda
- **Twinamatsiko, Medard.**, Kagoro, Grace.R., , Basheka, Benon., Bitariho Robert (*manuscript*). Governing or Governed? Understanding the Governance Aspect of Revenue Sharing Policy Implementation at Bwindi Impenetrable National Park. AJSS.
- Bahaa-el-din, L., **Mugerwa, B.**, Mills, D., Macdonald, D. + 5 others (*manuscript*). Differences in African golden cat temporal activity across three countries: evidence of behavioural mesopredator release
- **Mugerwa, B.**, Sheil, D. & Julius B. Lejju (*manuscript*). Understanding the variation of tree growth in Bwindi Impenetrable National Park, Southwestern Uganda.
- **Mugerwa, B.**, Sheil, D. & Julius B. Lejju (*manuscript*) Variability of tree growth of the five most important tree species of Bwindi Impenetrable National Park, Southwestern Uganda.
- **Mugerwa, B.**, du Preez, B., Tallents, L. & Macdonald, D (*manuscript*). To kill or to be killed: temporal related decision leopards make to co-exist with lions.

- Slik, F., Aiba, S.I., Alvarez, M., **Mugerwa, B.**, +184 others. (*Manuscript*)
How many tropical tree species are out there

9. ITFC's Vision for the Future

ITFC's vision for the future encompasses a myriad of exciting and impactful prospects that include but are not limited to:

9.1 Establishing Departments at ITFC

Throughout the history of ITFC, different disciplines of research have been carried out in Bwindi by researchers. ITFC is involved in multidisciplinary research that ranges from forest ecology, primatology, social sciences, pharmacology, veterinary and human medicine. As a future of ITFC, staffs are currently involving its administrative and academic spheres to create different departments under ITFC responsible for the different research disciplines. Initially three main departments are set to emerge: **the natural science department, the social science department** and **the administration** department. These departments have always existed but the need for them to be more streamlined is now imminent. In future other departments such as those concerned with health (public health and animal health) and those with plant pharmacological aspects could emerge. All these will need staff and funds to be successfully introduced.

9.2 Good science, regular quality publications

ITFC is continuously churning out very well researched and thorough publications. Indeed as pointed out before, ITFC has over 90 publications in internationally recognised journals. ITFC intends to continue and expand its culture of releasing such publications annually to help raise the rankings of MUST as Africa's top University. ITFC is continuously attracting young and brilliant researchers that are passionate about good science and conservation in particular.

9.3 Long term links to expertise

Because ITFC is a rapidly growing organization, it intends to strengthen and develop more links to scientists and researchers in the field of conservation

around the globe. Indeed we have already established international linkage with Imperial College University in UK (expertise in social anthropology) and the Norwegian University of Life Sciences (expertise in forest Ecology). This expertise and more to be established will increase ITFC's and therefore MUST ratings internationally.

8. Constraints/challenges experienced and mitigation measures

Financial sustainability for long term research and monitoring activities is a big challenge at ITFC. Much of the funds from donors have declined and ITFC is now depending on three small projects and some funds from MUST to sustain its activities. Much effort will be needed to raise funds for the institute's survival and growth. All project/field staff at ITFC are being encouraged to write project proposals and fundraise in order to sustain the ITFC research activities.

“SUCCEED WE MUST”