

**MBARARA UNIVERSITY OF SCIENCE AND  
TECHNOLOGY,**

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



**Annual report**

**23<sup>rd</sup> October 2017**

**By**

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**Director ITFC**

## Table of Contents

<b>1. Introduction .....</b>	<b>3</b>
<b>1.1 Vision, Mission and objectives.....</b>	<b>4</b>
<b>2.0 Finance and Administration.....</b>	<b>5</b>
<b>2.1 ITFC Staff and capacity.....</b>	<b>5</b>
<b>2.2 Volunteers: .....</b>	<b>7</b>
<b>2.3 Students and Researchers hosted .....</b>	<b>7</b>
<b>2.4. ITFC donors and collaborators.....</b>	<b>10</b>
<b>2.5 Finances at ITFC.....</b>	<b>11</b>
<b>2.6 ITFC's income generation projects.....</b>	<b>11</b>
<b>2.7 ITFC's income and expenditure 2017/18.....</b>	<b>13</b>
<b>3.0 Grants won during 2017/18.....</b>	<b>15</b>
<b>3.1 Research projects in the pipeline (submitted proposals).....</b>	<b>17</b>
<b>4.0 Long term funded donor projects .....</b>	<b>17</b>
<b>4.1 Other income for specific ITFC activities: .....</b>	<b>21</b>
<b>5.0 Conferences/Workshops/Seminars attended by Staff .....</b>	<b>21</b>
<b>6.0. Publications written in a scholarly manner .....</b>	<b>24</b>
<b>7. Constraints/challenges experienced and mitigation measures.....</b>	<b>26</b>

## 1. Introduction

The Institute of Tropical Forest Conservation (ITFC) is one of the eight academic units of Mbarara University of Science and Technology (MUST). The MUST academic units include; six faculties and two Institutes. The six faculties are; Medicine, Science, Interdisciplinary Studies, Computing and informatics Science, Management Sciences and Applied Sciences and Technology while the two institutes are; **Institute of Tropical Forest Conservation** and Maternal New Born and Child Health (see <http://www.must.ac.ug/academic-units>).

The Institute of Tropical Forest Conservation (ITFC) is a semi-autonomous postgraduate research Institute of MUST established in 1991. Unlike the other academic units of MUST that are based in Mbarara, ITFC is based in Bwindi Impenetrable National Park, at Ruhija in Kabale district where its core mandate of ecological and sociological research is carried out. The major focus of ITFC is to support and undertake research, monitoring and capacity building of Ugandans and others; to bolster conservation understanding and practice in the Albertine Rift region.

ITFC's activities are grouped into four main categories:

- Initiating and implementing research and monitoring projects and programmes in collaboration with the Uganda Wildlife Authority (UWA), National Forestry Authority (NFA) and other partners according to protected area management priorities and needs;
- Training students, researchers and conservationists/practitioners through field supervision and logistical support;
- Offering scientific advice and expertise to conservation agencies and partners in the region; and
- Providing a base and research facilities for both national and international independent researchers.

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 region. Indeed ITFC has undertaken various researches and monitoring that have influenced National Park and forest reserves Management policies and practise. National Parks and forest reserves where ITFC has carried out research and has influenced management policies and practise include: Bwindi Impenetrable, Mgahinga, Rwenzori Mountains, Semuliki and Queen Elizabeth national parks and Kasyoha-Kitomi and Echuya Forest reserves.

The past two decades, ITFC's research staff have published over 300 publications in international journals such as *Biotropica*, *Conservation Biology*, *Biological Conservation*, *Oryx* and *African Journal of Ecology* to mention but a few. Indeed, this has contributed immensely to MUST's top rankings by the Africa's Universities Webometrics ranking system. Many ITFC alumni (both local and foreign) have contributed and influenced conservation issues through publications and decision-making in conservation related areas where they work. For more information about ITFC Alumni see link <http://itfc.must.ac.ug/stories>

### ***1.1 Vision, Mission and objectives***

During this reporting year 2017, ITFC completed a process of reviewing its Strategic Plan (SP). The SP review aligned ITFC plans with those of MUST, Uganda Wildlife Authority (UWA), other partners and the global community. The SP review process involved revision of ITFC's Vision, Mission and objectives in order to come up with a clear vision and mission that describes where and what ITFC would like to be in the next twenty five years. For more details of this new ITFC SP see link <http://itfc.must.ac.ug/sites/default/files/publications/ITFC%20stategic%20plan%202017.pdf>.

- **ITFC's new Vision:**

The Conservation of Albertine Rift Protected Areas and Welfare of Neighbouring local communities enhanced

- **ITFC's new mission:**

To be a leading Institution that supports and undertakes ecological and sociological research, monitoring and training in the Albertine Rift ecoregion

- **ITFC's new objectives:**

- To enhance the knowledge of fauna and flora species and their habitats
- To Train graduate students and conservation practitioners in ecological and sociological research
- To ensure a well motivated, trained and adequately equipped staff in ecological and sociological research
- To provide adequately researched information that supports decision making by UWA and NFA for proper management of the protected Areas
- To increase the research information visibility to stakeholders and other partners
- To ensure and secure sustainable funding for research in the region

## **2.0 Finance and Administration**

### ***2.1 ITFC Staff and capacity***

The director, together with a team of project and administrative staff, run ITFC research and administration activities. While most administrative staffs (3 out of 4) are on the MUST payroll, most technical staffs (except two) are under annual contracts that depend on the life spans of different projects they are working on.

There are a number of positions at ITFC that need urgent replacement as identified in the new Strategic plan, but due to financial constraints these have remained vacant. The vacant positions at ITFC that need filling up include;

***Research Fellow (social sciences), Communications Officer, Fundraising/Grants Officer, Ecological Research Officer and Accounts***

**Clerk.** These positions are important for the smooth running of ITFC to its bare minimum capacity.

We have been and will continue using research volunteers (fresh graduates) from MUST, Kabale University and Makerere University to augment gaps created by lack of technical staff at ITFC as and when needed. Due to the harsh working conditions (bad weather, far to reach area and remoteness) of the location of ITFC, some staff find it difficult to stay longer at ITFC away from their families, peers and friends. **We have asked MUST to take up on its payroll at least two forest ecologists and one social scientist. We hope MUST will consider this request.** We also have a team of junior staff that help in field data collection and casual workers. ITFC has operated with the following staff members during the this reporting year:

**Present ITFC Staff members**

- Associate. Professor. Robert Bitariho, B.Sc., MSc, PhD – **Director**
- *Dr Dennis Babaasa, B.Sc., MSc, PhD-* **Head Scientific Programs**
- Mr Desi Tibamanya – **Finance and Administration Officer**
- Mr Akampurila Emmanuel, BSc (WHM), Msc -**TEAM project coordinator**
- Mr Mujuni Robert, BA-**Junior Research Officer (Social Sciences)**
- Mr Twinomujuni Isaac, BA - **Junior Research Officer (Social Sciences)**
- Ms Clemencia Akankwasa – **Senior administrative Assistant**
- Mr Robert Barigyira – **Senior Herbarium Technician**
- Ms Florence Tukamushaba - **Secretary/Receptionist/Librarian**
- And 24 field assistants/Camp-keepers and night guards

ITFC from time to time hires specialist consultants when need arises, and in particular when donor projects demand so. Some of consultants hired this reporting year include; Dr Aventino Kasangaki (Hydrological systems assessments), Dr Medard Twinamatsiko (Social Sciences projects) and Sam

Ayebare (GIS modelling). See link for more about ITFC staff for this year;  
<http://itfc.must.ac.ug/our-staff>

### ***2.2 Volunteers:***

Over the years, enthusiastic volunteers and interns have contributed to ITFC's activities. This year we have worked with only 1 volunteer despite requests for more placements. Volunteers are recruited when a need arises from various donor funded research projects.

- Mercy Akankunda (A graduate of Bachelor of Arts, Bishop Stuart University-Mbarara) is worked on a GVTC project of Lake Edward hydrological assessment, Bwindi Mgahinga Conservation Trust project and IIED pro-poor tourism project. She is involved in field data collection and data entry.

### ***2.3 Students and Researchers hosted***

Due to financial constraints, ITFC has not been able to financially sponsor any Ugandan student for Masters and PhD degrees, as was reported last year. However, **ten (10) medical students from MUST** were supported by ITFC from May to June 2017 for their community outreach placement program at Ruhija in Bwindi. ITFC provided free accommodation and supervision to these MUST students.

This reporting year, we have supported a couple of students and researchers through support letters, supervision, accommodation and research recommendations. These include **seven (7) foreign-based University** students/researchers and **2 Ugandan based University** students. The 7 foreign-based students acquired their own funds for their fieldwork (after our support letters), while the 2 Ugandan based students were supported with data collection, accommodation and thesis dissertation write-up and supervision. Support of foreign students was through; writing support letters to acquire funds and acquire research permission, providing institutional affiliations, providing field assistants,

providing accommodation, and field equipment and field supervision. The following students/researchers were supported by ITFC during this reporting year 2017/18.

- **Mr Edmond Kamugisha** for his MSc at Mbarara University of Science and Technology, Faculty of Sciences. **Edmond** carried out his research on: **Above ground biomass and carbon stocks in Bwindi Impenetrable National park**. Assoc. Prof. Robert Bitariho supervised Edmond for both fieldwork and MSc dissertation write up. Edmond completed his MSc data collection and thesis write up mid last year. He has submitted his MSc Dissertation to MUST in August 2017 awaiting external supervisor examination.
- **Mr Robert Bagyenda** for his Phd at Mbarara University of Sciences and Technology, Faculty of Sciences. **Mr Bagyenda** is carrying out his PhD research fieldwork on: **The effectiveness of Uganda's wetland restoration prototype in enhancing ecological and social resilience to climate change in critical watersheds of S.W Uganda**. Assoc. Prof. Robert Bitariho is supervising Mr Bagyenda for both fieldwork and his PhD dissertation write up. Mr Bagyenda submitted his PhD concept paper (proposal) to MUST in February 2017 and began data collection in August 2017.
- **Ms Kelly Ostrofsky** for her PhD at the Center for the Advanced Study of Human Paleobiology, The George Washington University, USA. Kelly is carrying out her PhD research fieldwork on; **the relationships between mountain gorilla locomotor behavior, kinematics, and musculoskeletal function in Bwindi Impenetrable National Park, Uganda**. She started her fieldwork in February 2017 and is currently still collecting data and being supported by ITFC up to November 2017. She uses ITFC facilities such as the library, herbarium, field assistants and office space including Internet.
- **Ms Savannah Schulze** for her PhD at Purdue University, Indiana (USA). She is still carrying out her fieldwork (since last reporting year) on

- a research titled; ***Mountain gorillas and their relationships with human communities around Bwindi Impenetrable National Park***. She continues to use ITFC facilities such as the library, herbarium and office space including Internet. She has at ITFC since June 2015 (on and off).
- **Ms Elise Morton** for her the **PhD at Department of Wildlife Ecology & Conservation, University of Florida, USA**. Elise carried out her PhD research fieldwork on; **examining the bird communities across multiple use zones in Bwindi Impenetrable National Park (BINP), S.W Uganda**. She started her fieldwork in May 2017 and ended in July 2017 with support from ITFC.
  - **Ms Corinne Bailey** for her **MSc at the Max Planck Institute of Evolutionary Anthropology's (MPI), Germany**. Corinne carried out her MSc research fieldwork on **Social Development in Bwindi Mountain Gorillas, Bwindi Impenetrable National Park**. She was at ITFC from November 2016 to September 2017.

**Other accomplished researchers that were supported by ITFC include;**

- **Associate Professor Nathan Thompson** from Department of Anatomy, New York Institute of Technology, College of Osteopathic Medicine carrying out research on; ***Mountain gorilla locomotor behavior, kinematics, and musculoskeletal function in Bwindi Impenetrable National Park***. (He was at ITFC from May to July 2017).
- **Associate Professor Shannon McFarlin** from the George Washington University, USA. Carrying out research on a project for ***Capacity building for preservation of naturally accumulated skeletal collections in Bwindi Impenetrable National Park***. (She was at ITFC from June to August 2017).
- **Dr Catherine Hobaiter** from the University of St Andrews, Scotland, UK. Carrying out her research on; ***Gestural communication in wild mountain gorillas in Bwindi Impenetrable National Park***. (She was at ITFC from July to August 2017).

- **Dr Rene Dommain** (Smithsonian Institution, Washington DC, USA and Germany), **Dr Bosco Nkurunungy** (MUST) and **a group of 6 other researchers**. *Carrying out research on; Historical Sedimentary DNA assessment and presence of Gorillas and Elephants in Bwindi Impenetrable National park.* (They were at ITFC from 2<sup>nd</sup> to 9<sup>th</sup> August 2017).

ITFC hosted an annual researchers' dissemination workshop at the Conservation Education Centre, Ruhija, Bwindi between the 6<sup>th</sup> and 9<sup>th</sup> April 2017. Over 35 participants from Uganda Wildlife Authority (UWA), Greater Virunga Transboundary Collaboration Secretariat (GVTC), IGCP, MGVP, CTPH etc. attended the workshop. The theme for the workshop was a ***changing landscape; successes, challenges and emerging issues in research and conservation of biodiversity of the Great Virunga Landscape***

#### ***2.4. ITFC donors and collaborators***

Over the years, ITFC has worked with a number of donors and collaborators that have contributed to the day-to-day running of its activities. **Due to changing donor priorities, this year (like was the past three reporting years), ITFC donors have drastically reduced.** Nevertheless, a number of organisations have collaborated and facilitated ITFC research activities. These include; Uganda wildlife Authority (UWA), Wildlife Conservation Society (WCS), Conservation International (CI), , British Ecological Society (BES), USAID, International Institute for Environment and Development (IIED), Kivulini Trust (KT), Great Apes Survival Project (GRASP), Greater Virunga Transboundary Core Secretariat (GVTC), International Gorilla Conservation Project (IGCP), Marx's Plank's Institute for Evolutionary Anthropology (MPI-EVAN), Gorilla doctors, Bwindi Mgahinga Conservation Trust (BMCT), Conservation Through Public health (CTPH), Darwin Initiative, Nature Uganda, the United Organisation for Batwa Development in Uganda (UOBDU).

## ***2.5 Finances at ITFC***

Over the past two decades, ITFC has been funded by several research projects funded by a number of donors and partners as pointed above. However, the past 6 years, funds for research at ITFC have been on a decline as shown in figure 1 and attached financial statement in annex. Indeed all the international staff (former director and deputy director) left at ITFC 4 years ago when research funding by international donors declined. This is due to donors' shifting interest from funding ecological and sociological research and monitoring to directly funding local community livelihood improvement projects. ITFC now depends on short-term funded projects (annual projects). Another source of long term funding for ITFC's core activities is the Uganda government through the MUST. MUST funding to ITFC research activities is about 12% of its annual budget expenditures. The rest of the funding to ITFC comes from staff writing research grant proposals to local and international donors. ITFC's finances are annually audited by the MUST Internal Auditor, Auditor general office and the individual donors projects' accredited private auditors such as PWC Rwanda Limited, PWC Kenya Limited, Ernest & Young etc depending on donors' preference.

## ***2.6 ITFC's income generation projects***

In order to sustain ITFC research activities and in fulfilment of MUST's objective of income generation by the different academic units, ITFC proposed and is implementing four income generating projects that will potentially bring funds to ITFC/MUST, these are;

- **The Buhoma community campsite and lodge** that has been renting the ITFC land located in Buhoma since 1996. In 2015 and early 2016, MUST top management completed negotiations with the campsite owners and it was agreed that they pay MUST an annual ground rent fee of 10 million UGX. A new MoU has been signed between MUST and the community

- campground owners. ***The expected income from this project is 10 million UGX annually (with arrears of 30 million UGX still pending since 2014).*** I have reminded the University Secretary over this issue (***of arrears claim***) a couple of times and I hope it will soon be handled.
- MUST through the Private sector foundation and under the AfDB HEIST project got 20.4million UGX in September 2016 to establish an **Ethnobotanical garden at Ruhija for breeding indigenous tree seedlings** to sell to local communities and other stakeholders. The tree seedling center is now up and running and has already sold off some indigenous trees. ***The expected income from this tree seedling project is about 2.5millions UGX annually.*** The BMCT has principally promised to be purchasing these tree seedlings annually from ITFC to supply to local communities around Bwindi.
  - **The Buhoma Forest Gorilla Trekking camp.** MUST acquired a grant of **1.2billion UGX** from the Africa Development Bank (AfDB) for establishing a tourist camp in Buhoma-Bwindi where ITFC has a 24.6ha piece of land. Construction and building of this Buhoma Forest Gorilla Trekking camp has already began (ground breaking and site handover was early September 2017. The campsite will be technically supported by ITFC. When the trekking camp is established, it will be used by tourists for their accommodation facilities thereby providing income to MUST. The tourist camp will be augmented with a resource center for hire to partner organizations for meetings, conferences and workshops. ***The expected***

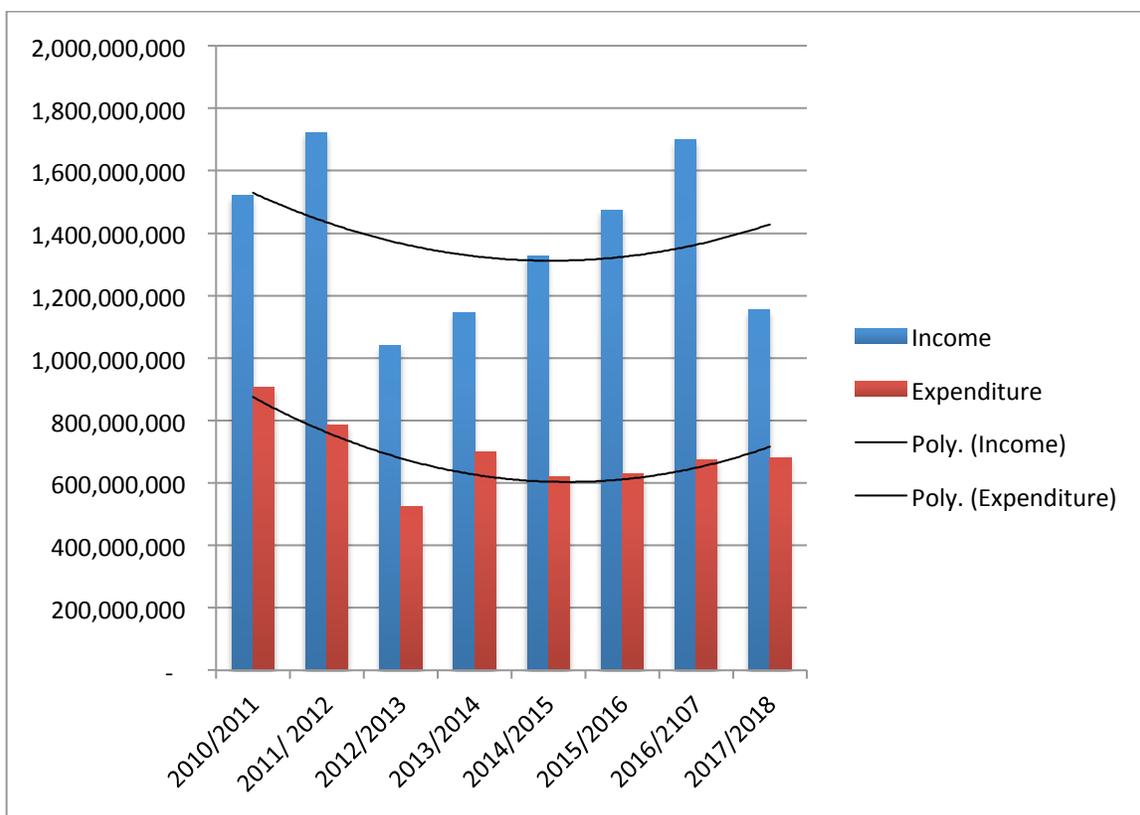
- income from this tourist campsite is about USD 500,000 annually.***
- Part of the 24.6ha of ITFC land is a 50m strip of land bordering Bwindi Forest and frequently used by gorillas. Research has recommended planting this 50m strip of land with tea plantation a non-palatable crop against gorillas to prevent them from coming outside of the forest into community lands. MUST, should take advantage of this and hire a private investor through the **Public Private Partnerships and PPDA that is interested in planting tea on this land thereby generating income for MUST.** There is already interest from several private tea plantations/estates owners willing to do this. The net monthly income from sales of tea is estimated at Uganda shillings **166,000 per acre** giving a total of Uganda shillings **13,280,000 for 24.6 hectares of tea per month.** **Therefore, the expected income from tea project is about USD 45,000 annually.**

### ***2.7 ITFC's income and expenditure 2017/18***

The income and expenditure at ITFC the past 8 years analysed per financial years (FYs) is shown in figure 1 below. As pointed out before, ITFC's financial income has been on the decline the past 8 years. Of particular importance to note, is that the income from the financial year of 2016/17 has declined by over 544million UGX this year 2017/18 (Figure 1). Although this report is based on the **a calendar year**, the figure 1 shows the income analysed based on the **financial years**, furthermore, the financial incomes to ITFC depend on the project life spans as and when funds are received and this also impacts on the project expenditure as figure 1 shows. Donor funds disbursements do not follow MUST's accounting financial years but rather project timelines. ***This is the reason why the figure 1 shows some unspent project funds that flow into the next***

**financial years.** Most donor projects range from 1 to 3 year lifespans and when grants for one project end we normally get other funds (after successful project proposals) for new other projects. ***The incomes for the projects are not financial incomes accrued to ITFC but rather conditional grants by donors to run the research activities and according to workplans as agreed upon with the donors.*** The funds are released to ITFC in instalments, and after ITFC fulfil specific donor project benchmarks/deliverables. Before a second or further instalment is made to ITFC, the donors carry out audit checks and ITFC submits to them hardcopy accountabilities receipts/vouchers to their satisfaction. Therefore, the figure 1 shown below is the funds flow at ITFC at the time of compiling this report. See attached annex for the detailed financial incomes and expenditures for the different ITFC research projects.

ITFC on the hand get funds from MUST (annual 100million UGX) and from researchers accommodation fees and research support fees. Such funds accrued to ITFC include that of the Max Planck Institute for Evolutionary Anthropology (MPI-EVAN) of 35,000usds annually. These funds are spent on the mountain gorilla research activities and at source for 32 staff salaries, salary top-ups for MUST staff, medical insurance, uniforms and field equipment (tents, gum boots and scientific field equipment). The MUST funds are spent on buildings renovations, vehicle running costs, computers, software, cartridges and stationery etc. This reporting year ITFC used the MUST funds for rainwater harvest tanks' renovations, vehicle running costs, building maintenance, causal porters salaries (night guards and campkeepers) etc. A detailed financial report on MUST's release expenses is available with MUST's bursar/Secretary.



**Figure 1.** ITFC's annual income and expenditures over an eight-year period (*note these are based on financial years, furthermore, the financial incomes & expenditures depend on donor project life spans and do not follow MUST accounting financial years*)

### 3.0 Grants won during 2017/18

ITFC wrote several research project proposals together with other partners.

Some were successful while others were not. The successful projects in order of awards were:

- ITFC together with GVTC wrote and submitted a proposal for a project; ***“Enhancing capacity in Natural Resource Management and conflict resolution for stability and inclusive growth in the Greater Virunga Landscape- NICHE-GLR-264”*** in August 2016 to **NUFFIC**, part of the Netherlands Initiative for Capacity Development in Higher Education (**NICHE**). The project aims at enhancing research capability for research Institutions (ITFC) through training, capacity building and curricular development. The proposal was successful and ***as such one ITFC staff Emmanuel Akampurila got a grant for his PhD studies to be carried***

**out at Ghent University in Belgium beginning January 2018.** Furthermore, from the project, ITFC will also get two of its staff trained in Masters degree also in one of the universities in Netherlands next year (2018).

- ITFC together with Dr. Jonathan Salerno from the University of Colorado Boulder, USA wrote and submitted a proposal for a project on; ***Forest fragments, biodiversity conservation, and the persistence of community resource management institutions in the African Albertine Rift*** to the **National Geographic Society** in September 2016. The proposal was successful and was **awarded a grant of \$22,590** by National Geographic Society in February 2017. Planning meetings for the project will commence in February 2017 for fieldwork to begin in July/August 2018 (dry season). Dr Jonathan Salerno will coordinate the project. The project aims at investigating the social and biophysical factors that have left several forest pockets and pastures intact in the Bwindi-Mgahinga region despite the high population density and pressure for agriculture land by the local communities that exist in the landscape.
- ITFC together with Dr Shannon McFarlin from the George Washington University, USA, wrote and submitted a proposal for a project; ***The relationships between mountain gorilla behaviour, development, and skeletal biology in Bwindi Impenetrable National Park*** to **National Geographic Society** in October 2016. The proposal was successful with a grant of **\$10,000**. Preliminary fieldwork on **this project commenced in June 2017 and ended August 2017**. We are working on more proposals to expand this project to cover more time and wider areas of Bwindi National Park. The project aims at characterizing the morphological variation between Bwindi and Virunga gorillas and initiating histologic studies of tooth and bone development in Bwindi's gorillas.

### ***3.1 Research projects in the pipeline (submitted proposals)***

During this year 2017, ITFC submitted two proposals to Bwindi Mgahinga Conservation Trust and we are waiting for confirmation of the fate of these research proposals. These proposal that await funding are:

- ***Forest climbers (lianas/vines) harvest implications on local people's food security and impacts on the plants' population dynamics in Bwindi Impenetrable National Park, S.W Uganda.***  
The proposal has been budgeted for a grant of up to 22million UGX and aims at determining the implications of harvesting forest climbers (lianas and vines) on the local people's food security around Bwindi Impenetrable National Park
- A proposal to ***develop a strategic plan for the Bwindi Mgahinga Conservation Trust (2020-2025).*** The proposal has been budgeted for a grant of up to **52million UGX.**

### **4.0 Long term funded donor projects**

ITFC continues to experience a decline in long-term donor supported projects and most especially those projects that used to support 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 that we no longer have long-term research projects currently. However, ITFC has one IIED funded project that runs up to 2019. **All the other long term funded projects such as TEAM have wound up except for the IIED funded one as outlined below.**

- ***The Tropical Ecology Assessment and Monitoring (TEAM) project.***  
ITFC has been running this project since 2008. After 9 years of running the project with technical assistance from Wildlife Conservation Society (WCS) and Conservation International (CI) and grants from **Moore Foundation** and the **Buffet foundation, the project closed effective**

**October 2017.** Buffet foundation through WCS disbursed to ITFC **\$75,450** to run the TEAM project activities up to **October 2017**. All accountabilities, technical and financial reports were submitted and accepted by Wildlife Conservation Society (WCS) and Conservation International (CI).

Like explained in my previous annual reports, the TEAM project was collecting 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 sixteen other forests in the tropics of the world. All the three monitoring activities for the TEAM project (vegetation, terrestrial vertebrate and climate monitoring) for the previous financial year were successfully implemented and completed, these were:

- I. Camera traps (real time image recordings) of animals (fauna): 27,300 wildlife pictures, belonging to 28 species of mammals and 10 species of birds have been recorded since the establishment of the TEAM project.
- II. We also conducted TEAM's ninth year of tree re-measurements from the six one-hectare permanent sample plots established in Bwindi. Currently, 3, 470 trees and woody lianas measuring 10 cm and above are measured and monitored.
- III. The automated climate station (weather data collection) will make its ninth year as the only robust automated weather station in the region. The climate station collects daily weather data on rainfall, temperature, relative humidity and solar radiation.

For more information about the TEAM project and others in the world please visit link; [www.teamnetwork.org](http://www.teamnetwork.org).

- ITFC completed two projects that were funded by the Greater Virunga Transboundary Core Secretariat (GVTC) on the *Water quality and quantity monitoring in and around Mgahinga Gorilla National Park and Echuya central forest reserve (funded at USD\$ 16,500)* and another one on

*Hydrological Systems Assessment in the Lake Edward Basin of Queen Elizabeth Conservation Area and Bwindi Impenetrable National Park (with a funding of USD\$ 90,500) in July 2017.* All accountabilities, technical and financial reports were submitted and accepted by the donor GVTC and the two projects wound up. The technical reports are all available at the ITFC library and yet to be included on the ITFC website after agreement with the donor.

- A project on *the assessment of the Effectiveness of Problem Animal Mitigation interventions around Karangara and Bujengwe Parishes, Bwindi Impenetrable National Park* funded by BMCT to a tune of **20 million UGX** is still ongoing. **Data collection was completed in August 2017 and we expect to have draft report by February 2017.**
- A project on **Building Capacity of the Batwa Pygmies for Sustainable Income Generating Enterprises** funded by the Indigenous Peoples Assistance Facility (IPAF) through the Kivulini Trust (KT) with **39,000usds. was completed in October 2017.** This project uses a cultural values approach to empower the marginalized Batwa people in income generating activities. Already a Batwa trail was erected and completed in the southern sector of Bwindi that the Batwa use this trail to take tourists for viewing their traditional life as was in the past. **We submitted the financial and technical reports to IPAF through KT in October 2017 and are waiting to hear from the donors on the acceptance of the reports.**
- **A project on the Assessment of the impact and relationships of Bwindi Mgahinga Conservation Area (BMCA) and adjacent local communities project** that was funded by the Bwindi Mgahinga Conservation Trust (BMCT) to a tune of **UGX 34 million was completed**

**in September 2017.** The financial and technical reports were submitted and accepted by BMCT to close down the project in October 2017.

- A three year project that started in April 2016 on **Local economic development through “pro-poor” gorilla tourism approach in Uganda** funded by **Darwin initiative through IIED** with a grant of **GBP 59,856** is still ongoing. **This is the only long-term research project at ITFC currently.** The project works with the local people and established tour operators to develop new pro poor tourism products and services around Bwindi impenetrable national park in Uganda. The project aims at adding value in the products produced by local people around Bwindi national park through training such that they produce highly demanded products by the tourists and to increase more nights the tourists spend in Uganda. The tourists will apart from going to track gorilla, also go to the communities and see and buy local community products thereby increasing revenues to the local people.

**The project has so carried out;**

- Household surveys to analyse income from tourism related projects like revenue sharing, handcrafts, agriculture, honey, livestock etc.
- Ground meetings with local community project implementers, such as project enterprise leaders and owners, lodge managers, partners and tour operators
- Training of the project implementers like community tour guides, farmers, weavers, wood carvers, beekeepers on how to make modern beehive, honey processing and standard packing, Dancers, bird guides among others
- Project enterprise monthly income individual monitoring
- Project evaluation
- Reporting
- Marketing of the local produce under this project in and outside market

#### **4.1 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 IWAY **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 **3 million UGX** to ITFC for supporting the stripe-breasted tit research.

#### **5.0 Conferences/Workshops/Seminars attended by Staff**

- Associate. Professor. Robert Bitariho attended a Mountain gorilla population census in Virunga Massif meeting at White Horse Inn Kabale on the **28<sup>th</sup> February to 2<sup>nd</sup> March 2017**. The meeting was to update stakeholders on the status of the various analyses ongoing on the 2016 Virunga Gorilla census and also plan on the strategies and methods for the next planned Bwindi National Park's census of the Mountain gorillas.

- Associate. Professor. Robert Bitariho attended a Zero poaching strategy workshop organised and facilitated by GVTC in Musanze, Rwanda on the **12<sup>th</sup> to 15<sup>th</sup> March 2017**. The workshop was aimed at park managers and stakeholders strategizing on how to reduce illegal wildlife poaching and trafficking in protected areas.
- ITFC together with UWA organised a research dissemination workshop that involved researchers working around Bwindi and Mgahinga Conservation Area and other stakeholders on **6<sup>th</sup> to 9<sup>th</sup> April 2017**. All ITFC staff attended this workshop that had over 35 workshop participants. The past 6 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 Director Conservation-UWA, Mr Charles Tumwesigye.
- Associate. Professor. 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*), MUST senate (*sat thrice this year*), MUST's university council and its subcommittee of Finance and student welfare (*sat 4 times this year*). He is also chairs the Human resource committee of the Bwindi and Mgahinga Conservation Trust that sat thrice this year.

#### **Dr Dennis Babaasa**

- Attended a workshop in Kampala organized by Wildlife Conservation Society Uganda on the assessment of habitats for species of conservation concern in Murchison Falls National Park and development of a habitat quality scoring criteria. The workshop was held on **18<sup>th</sup> January 2017**

- Attended a GVTC – NICHE project launch on natural resource conflicts in Greater Virunga Landscape. The meeting was held from **27<sup>th</sup> to 30<sup>th</sup> March 2017 in Musanze, Rwanda**. The project has ended up sponsoring 2 PhD and 6 Masters candidates in natural resource conflict management. The ITFC staff Emmanuel Akampurila is a beneficiary of this sponsorship for his PhD study
- Attended a round table discussion in Musanze Rwanda on mountain gorilla habitat and population viability analysis (PHVA), 22 years after the first PHVA. It was organized by IGCP and hosted in Dian Fossey Gorilla Fund offices on **31st March 2017**.
- Attended a Business Skills for Business Managers and Institutional Focal Persons in Kabanyolo, Kampala on **19<sup>th</sup> to 23<sup>rd</sup> June 2017**. The training objective was to strengthen the business skills of BIC managers and the Institutional Focal Persons who will be supervising them, in order to ensure efficient and effective management of the BICs.
- Attended a training workshop on the use of QGIS software, database management and collecting data using a smart phone in Kigali, Rwanda on the **27<sup>th</sup> to 30<sup>th</sup> June 2017**. The workshop was organized by Water4Virunga and conducted by two consultants from Amsterdam University
- Attended a meeting in Buhoma on ecosystem services from Bwindi World Heritage Site to the local communities on **19<sup>th</sup> July 2017**. The workshop was to identify the real benefits local people derive from Bwindi and help design a questionnaire that will be administered to several stakeholders around Bwindi who were also identified during the same meeting.
- Attended a gender-learning workshop in Kigali, Rwanda on the **26<sup>th</sup> to 27<sup>th</sup> July 2017** organized by GVTC. The workshop was to share

experiences and brainstorm on mainstreaming gender in conservation and operations of organizations working in GVL.

### **Emmanuel Akampurila**

- Attended the Local Community Steering Committee (LCSC) of BMCT as representative of ITFC on 25<sup>th</sup> September 2017.
- Attended a preparatory PhD training at Vrije University in Amsterdam on 16<sup>th</sup> June to 6<sup>th</sup> July 2017 as part of his PhD program.
- Will be attending and presenting at the 13<sup>th</sup> Annual Research Dissemination Conference of Mbarara University of Science and Technology's in November 2017
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### **6.0. Publications written in a scholarly manner**

The following list includes publications by ITFC staff (**in bold**) together with partners this past one year (2016/17)

- O'Brien, T., Ndoundou-Hockemba, M., Boekee, K., Brncic, T., Hickey, J., Kayijamahe, C., Moore, J., Mugerwa, B, Niyigaba, P., Nyiratuza, M., Ahumada, J., **Akampurira, E.**, Beaudrot, L, Jansen, P., Rovero, F and Mulindahab, F (**2017 in press**) **Forest Duiker Populations are Declining in African National Parks. *Biological Conservation***
- Bruno C, ..... , O'Brien, T,..... **Akampurira, E, Bitariho, R,** ..... , Gajapersad, K,....., ..... , **Mugerwa, B, Rovero, F** , Salvador, J, Santos, F, Spironello, W.R, Wijntuin, S, Gustavo R.L., Santos, O, (**2017 in press**). ***On the scaling of activity time in tropical mammals, Ecology letters; 2-26***
- Bastin, JF, Rutishauser, E,....., **Bitariho, R**..... Donatien Zebaze, D (**2017 in press**); ***Pan-tropical prediction of forest structure from largest trees; in Global Change Biology***
- Sanfilippo, M., **Akampurira, E.**, Mohase, A., Okonkwo, H., Ouyoumb, P., Tumber, R., ... & Rayment, M. (2017). Reduced impact logging and silvicultural interventions in Ghana: the case of Bobiri Forest Reserve. *International Forestry Review*, 19(3), 369-380.
- Jingjing Liang,....., **Robert Bitariho**, Pascal A. Niklaus, Patricia Alvarez-Loayza, Nurdin Chamuya, Renato Valencia, Frédéric Mortier, Verginia Wortel, Nestor L. Engone-Obiang, Leandro V. Ferreira,

- David E. Odeke, Rodolfo M. Vasquez, Simon L. Lewis, Peter B. Reich (2016): ***Positive biodiversity-productivity relationship predominant in global forests.*** *Science*, 14: 354 (6309), aaf8957, Science publishers. <http://science.sciencemag.org/content/354/6309/aaf8957>
- Stas S, Langbroek, E.M, **Bitariho, R**, Sheil, D, & Zuidema P, (2016). ***Matrix population models indicate that bark harvest of two medicinal plants in Uganda’s Bwindi Impenetrable National Park is sustainable.*** *African journal of Ecology* 1365-2028, <http://dx.doi.org/10.1111/aje>. Blackwell publishers.
  - Karume, K., Bagalwa, M., Yalire, M., Kazi, K., Bagula, E.M., **Bitariho, R.**, Nahayo, D., Kasangaki, A. and Byamukama, J. (2016). ***Hydrological Systems in the Greater Virunga Landscape: Water Quality around Mikeno Sector.*** *Journal of Water Resource and Protection*, 8, 382-396 <http://dx.doi.org/10.4236/jwarp.2016.83032>, Scientific research publishers
  - **Bitariho, R**, Sheil D, Eilu G (2016). ***Tangible Benefits or Token Gestures: Does Bwindi Impenetrable National Park’s long established Multiple Use Programme benefit the poor?*** *Journal of Forests, Trees and Livelihoods*, 25 (1): 16-32. Taylor and Francis publishers

#### Unpublished reports - 2016/17

- **Babaasa D, Robert Bitariho, R** (2017); A Strategic Plan for the Institute of Tropical Forest Conservation (ITFC) for the period 2017 – 2022  
*Unpublished report, Ruhija, Kabale.*
- **Babaasa,D, Bitariho,R, Twinomuhangi I, & Akampurira (2017):** Hydrological Systems Monitoring in the Great Virunga Landscape of Mgahinga Gorilla National Park and Echuya Central Forest Reserve: Water quality and quantity monitoring. *Unpublished report, Ruhija, Kabale.*
- **Akampurira, E, Bitariho, R, Babaasa, D & Twinomuhangi, I (2017);** An assessment of the Hydrological Systems in the Lake Edward Basin of Bwindi Impenetrable and Queen Elizabeth National Parks, S.W. Uganda: Water quality and quantity assessments. *Unpublished report, Ruhija, Kabale.*

- **Babaasa, D, Barigyira, R, (2017)**; Business Incubation Centre (BIC) action plan for the refurbishment of the Ethnobotany garden, Ruhija, Bwindi Impenetrable National Park. *Unpublished report, Ruhija, Kabale.*
- **Babaasa, D, Twinamatsiko, M, Bitariho, R (2017)**; The impact of Bwindi Mgahinga Conservation Trust’s programmes on local communities around Bwindi Mgahinga Conservation Area, S.W. Uganda. *Unpublished report, Ruhija, Kabale.*
- **Akampurira, E, Bitariho, R, & Twinomuhangyi, I (2017)**; A Socio-Economic Survey of the Lake Edward Basin’s Hydrological Systems; Water use, demand and supply for the people, *Unpublished report, Ruhija, Kabale.*
- **Ayebare, S & Bitariho, R (2017)**; Hydrological modeling of the Lake Edward Basin (Queen Elizabeth Conservation Area and Bwindi Impenetrable National park) for the flood and soil erosion prone areas
- **Akampurira, E., Babaasa, D., Nkwasiwe.,D., Tumugabirwe, L., Bitariho, R., Ayebare, S and Nampindo, S.T,(2016)** Ecological monitoring of Bwindi Impenetrable National Park: Long term changes in the distribution abundances of selected plant and animal species.
- **Emmanuel Akampurira (2017)**. The Status of Hunted Species in Bwindi Impenetrable National Park. MSc thesis, Bangor University, Wales.

## **7. Constraints/challenges experienced and mitigation measures**

Like mentioned last year, 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 now only one project 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 have been encouraged to write project proposals and fundraise in order to sustain the ITFC research activities.

**“SUCCEED WE MUST”**