



## **MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

Communication of Science and Technology through Higher Education:

Engagement with society through Community Outreach  
Experiences from Mbarara University

.PRESENTED BY:

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## **INTRODUCTION**

I once asked a first year medical student what he thought was the difference between the University and his home village.

His answer was "the University is the centre of learning while the village I came from is the centre of backwardness"

It is difficult to disagree with the student's answer. Universities must not exist as ivory towers in a sea of backwardness. They must engage with society through community outreach programs.

In ancient civilizations, and later in indigenous education systems, societies had their established means of transmitting knowledge from one generation to another - intergeneration knowledge transfer. The industrial revolution rendered those means obsolete and today, there is efficient and effective use of ICT in transferring knowledge to other people vertically and horizontally. The problem in the developing world is the existing sea of backwardness in which ICT cannot swim.

In most developing countries, most rural communities are agrarian and therefore require modest scientific and technological knowledge to uplift their living standards. The need is in areas of health care, agriculture, food and nutrition, environment, energy, construction and entrepreneurship, amongst others.

Mbarara University of Science and Technology (MUST) has developed a model approach to communicating scientific and technological knowledge through student community placement and outreach programs. The core values of MUST are:

- *Training students to ably live and work in rural communities where the majority of Ugandans live and work.*
- *Developing an enduring institutional identity by empowering rural communities using innovative community based programs and activities.*

(a)        **COMMUNITY PLACEMENTS**

Students at Mbarara University of Science and Technology are specifically trained to work ably with the rural communities. As part of their training, medical students spend at least five weeks of community placements in rural health centres. This enables the students to learn from and offer services to the rural communities. Before students are sent to community placements they are prepared through seminars on how to communicate with communities. The university attaches students for community placements in the districts of Mbarara, Ibanda, Isingiro, Kiruhura, Bushenyi, Kasese, Ntungamo, Sembabule, Kanungu and Kisoro.

(b) **COLLABORATIVE PROJECTS/PROGRAMS**

In order to achieve its objectives Mbarara University has established collaborations with local and international organizations to implement projects/programs that offer community services and these include:

1. **Health Child Uganda Project** (locally known as "Omwaana N'amagara Marungi") This is a five year (2005-2011) project which is directed at reducing child morbidity and mortality in two districts (Mbarara and Bushenyi) of South Western Uganda. It is implemented by Mbarara University in collaboration with the University of Calgary, Dalhousie University, the Canadian Paediatric Society and Local Government. Funding is provided by Canadian International Development Agency (CIDA). The project has so far trained 251 (173 female) community volunteers commonly known as Community Owned Resource Persons (CORPS). The volunteers are trained on management of simple childhood illness, immunization, proper nutrition and hygiene. Poverty being the underlying cause of ill-health in Uganda, the volunteers are exposed to various income generating activities. In turn the volunteers pass on this information to community members. The community trainers and the volunteers are drawn mostly from local health centres which has improved collaboration and referral.

## 2. **Lund University - MUST Project**

This is a seven year project funded by Swedish International Development Cooperation Agency (Sida) which has facilitated student/staff exchange, peer education, e-learning between Lund University, Sweden and MUST. One of the activities in this collaboration was to offer opportunities to rural based medical officers to pursue a postgraduate public health course online from a Learning Centre located at MUST campus. Seven medical officers have benefited from this initiative.

## 3. **HIV/AIDS, Malaria Projects/Programs**

HIV/AIDS and malaria are major health problems in Uganda. MUST collaborates with various organizations to contribute towards mitigating the effects of the two diseases. These projects include:

- MUST -San Francisco Collaboration where a number of HIV/AIDS studies are ongoing.
  
- MUST -Istituto di Sanita Rome which has established a laboratory for clinical and research purposes. This laboratory is being used to conduct HIV Sero-prevalence studies in the districts of Mbarara, Ibanda, Isingiro and Kiruhura.

- Mulago- Mbarara Joint AIDS Program (MJAP) This is a collaborative project with Makerere University and is funded by President's Emergency Plan for AIDS Relief (PEPFAR). The Project carries out routine HIV testing and counseling in the Mulago and Mbarara teaching hospitals and at the same time implements a family based HIV care program in Mbarara District.

4. **Institute of Tropical Forest Conservation (ITFC) in Bwindi Impenetrable National Park.**

The Institute of Tropical Forest Conservation (ITCF) was established in 1991 as a semi-autonomous unit of Mbarara University in order to fulfill its role in the conservation of Albertine Rift forests and biodiversity. ITFC develops and implements a range of research and monitoring' programs aimed at addressing the major threats and challenges for these forests. Major research themes include the dynamics and viability of forest island habitats and the effectiveness of conservation strategies. The conservation and management of mountain gorillas has been a particular focus of ITFC's work. Over the years, ITFC has been developing and maintaining a long term Ecological Monitoring Program in Bwindi Impenetrable and Mgahinga Gorilla National Parks,

assessing long-term changes in the conservation status of the forest and impacts of management strategies. Bwindi inhabits mountain gorillas which have been an attraction to tourists since 1993 when gorilla tracking was officially opened. This has continued up to date. In addition to being a tourist attraction, it contributes up to US\$2 million annually to the national budget.

The institute also serves as a base for visiting researchers from Uganda and around the world to pursue their own research interests in this area, and such projects make a significant contribution to the outputs of the institute. Furthermore ITFC and partners completed a new census of the Bwindi gorilla population which showed a continued upward trend in the population of 340. With new funding from the United States Fish and Wildlife Service, ITFC is now investigating the long-term prospects for the population, mapping the habitat across the park, measuring habitat quality and assessing the potential for continued growth in the population. The Institute is also helping to establish a buffer zone to prevent human-wildlife conflicts in the Nkuringo area of Bwindi, as well as reduce crop loss to wildlife in other areas.

5. As part of the initial pilot program, the faculty of Development studies in collaboration with the University of Western Cape, has initiated a community peace program in two villages of Kakiika Cell A & B in Kyamugorani Sub county aimed at empowering these communities to deal with their conflict issues and build peace. Using a new system of local level governance adopted from South Africa known as the "*Zwelathemba Model*", selected staff and students have gone out of these communities and mobilized community members, sensitized them and held a series of participatory community training sessions to enable the community members gain skill on how to address conflicts that emanate from their communities.. The model uses mainly traditional members of conflict resolutions that promote reconciliation, while at the same time reprimanding the culprit.

This community peace project pioneered by the Faculty has been well received by the community and has already begun to bare fruit. Records from the sub-county police indicate a decline in petty-crimes win the pilot project area since the introduction of these peace councils a year ago. The Faculty intends to upscale this program and gradually replicate it to the neighbouring areas as students are exposed to. key practical skills of mediation, negotiation and peace-building aimed at building a culture of peaceful co-existence and tolerance in our communities.

6. Industrial research involvement through African Knowledge Transfer Partnership (AKTP) is another powerful dimension in communicating science to the community. The chemistry Department in Mbarara University through the British Council initiative is involved in translation and communication of scientific knowledge in improving the quality of raw salt for various purposes.

Paradoxically there are considerable amounts of indigenous imperceptible scientific and technological knowledge in the communities which has not yet been harnessed. Thus, teaching in the communities and community student placements would not only be a way of communicating science and technology knowledge but also a way of harnessing the wealth of untapped indigenous knowledge.