EDULINK

EDULINK II
ACP-EU Co-operation Programme
in Higher Education

Concerted fit-for-purpose PhD training in aquaculture and fisheries to improve food security and livelihoods in Sub-Saharan Africa

A PhD student from Rhodes University learning the skills of setting a fishing Gillnet in Lake Sibaya, Kwazulu Natal, South Africa.

PROJECT IMPLEMENTATION PERIOD
October 2013 – October 2017

CONSORTIUM
- Lilongwe University of Agriculture and Natural Resources, Malawi
- Makerere University, Uganda
- University of Eldoret, Kenya
- Rhodes University, South Africa

Associated partners:
- World Fish Center, Malawi
- NEPAD-Fish Node, Malawi
- National Agriculture Organisation, Uganda
- Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), Uganda

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PROJECT WEBSITE
www.bunda.luanar.mw/edulink

SUMMARY OF RESULTS

The capacity to host a regional academic programme for a PhD training programme in aquaculture and fisheries at LUANAR (Malawi) has been enhanced:
- An international academic advisory board for quality assurance has been established.
- Implementation of best practices for graduate programmes is in place.
- A framework for the establishment of an international programmes office is in place.
- Curriculum for PhD in aquaculture and fisheries science has been revised and piloted.

BACKGROUND

There is a general global decline in capture fisheries, but more so in Southern Africa. Fish consumption has declined from 14.7 kg/capita/year in 1970 to less than 7.0 kg/capita/year in 2004. Therefore, governments in the region have embarked on developing aquaculture at both smallholder and commercial levels. However, all these interventions require well-trained and qualified people to address the various problems in these areas. They will need to understand the dynamics of the problems surrounding aquaculture and capture fisheries management before they can come up with remedial interventions.

The project mobilised regional partnerships and expertise to revise the PhD curriculum in aquaculture and fisheries science. The capacity of LUANAR to host regional academic programmes was strengthened through exchange programmes and the establishment of an international academic advisory board. In order to pilot the revised PhD curriculum, sustained admission of PhD students, both male and female needed to be maintained. Therefore, marketing of the PhD programme was intensified through RUFORUM and synergies were established with other projects in order to provide scholarships for PhD students.

METHODOLOGY

A framework for engaging national, regional and international partnerships for PhD training in Aquaculture and Fisheries Science was established by mobilising regional partnerships through Memorandums of Understanding (MoUs).

Practices were identified and incorporated to: help the participating universities; strengthen their general and financial administration of Graduate Programmes; ensure the quality of the programmes; and establish practices and procedures to market graduate training throughout Africa.

The curriculum of the existing PhD at LUANAR was reviewed and course modules updated. The process included a study to obtain feedback from the current group of PhD students / graduates, lecturers and key stakeholders, i.e. industries and areas of the public sector that can potentially employ them. The feedback concerned the current PhD programme, course content, training delivery, field attachment of students, etc.

A key concern of universities in Africa is the poor delivery of academic programmes. To address this gap, a course retooling to handle issues related to students' supervision was conducted.

Dissemination of project outputs included a project website, press releases, scientific publications in journals, conferences...

RESULTS

Outputs

Tools

- Aquaculture technologies (catfish seed production and low cost fish feed formulations) disseminated to farmers for their adoption.

Networking

- MoUs for engaging regional partnerships for PhD training in Aquaculture and Fisheries Science.

Capacity building

- 5 course modules updated within the curriculum of the PhD programme in Aquaculture and Fisheries: Aquaculture nutrition and feed technology; Aquaculture production systems and engineering; Fish reproduction and breeding; Fish bioenergetics; Advanced resources economics and management.
- 18 academic staff members (5 female, 13 male) participated in university exchange programmes to identify gaps and strengths in current PhD training.
- PhD graduates trained using the revised curriculum in aquaculture and fisheries (2 female, 10 male).

Management

- LUANAR serves as a regional Higher Education hub for aquaculture and fisheries.
- A Regional Academic Advisory Board.

Publications

- Yatuha J., 2018. Reproductive strategies of smooth-head catfish RwiziRufuha wetland system, south-western Uganda, African Journal of Aquatic Science, 43:2.
- Kemigabo C., 2017. Effects of protease enzyme supplementation on protein digestibility of legume and/or fish meal-based fish feeds. International Journal of Fisheries and Aquaculture 9(7), 73-80.

Visibility

- Project website.
- Presentations at RUFORUM biennial conferences.

Outcomes

- Enhanced quality of lectures and graduates trained.
- Enhanced capacity of LUANAR for effective delivery of the regional PhD programme in Aquaculture and Fisheries.
- Enhanced quality control (through the Regional Academic Advisory Board).
- A cost-effective regional PhD programme ensuring higher staff retention in the continent.

Impacts

Usage

- The trained PhD graduates will be able to guide teaching and research in fisheries and aquaculture.

Policy implications

- With a general decline in capture fisheries in the region, the governments have prioritised investments in the aquaculture sector. The technologically skilled fit-for-purpose graduates will significantly contribute towards solving regional challenges.

Sustainability

- The setting up of an international academic programmes office has helped LUANAR to become a centre of excellence in aquaculture and fisheries science in Africa by the World Bank ('ACE II' programme).

Aquaponics at NARO, Kampala, Uganda.

TESTIMONIALS

Chloe Kemigabo, PhD student at LUANAR from Uganda

"The training has improved my skills in conceptualising research issues and develop research projects".

Kwado Kesse Mireku, PhD student at LUANAR from the University of Cape Coast, Ghana

"I am impressed with supervision of graduate students. My supervisor visited me in Ghana at my university and that motivated me greatly."

ACP-EU Co-Operation Programmes in the fields of Higher Education and Science, Technology and Research
http://www.acp-hestr.eu/

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