



**Workshop and Symposium:  
BUILDING INNOVATION RESEARCH CAPACITY IN EAST AFRICA: developing innovation and  
development masters modules**

20<sup>th</sup> – 22<sup>nd</sup> MAY 2014

COLLEGE OF ENGINEERING AND TECHNOLOGY  
UNIVERSITY OF DAR ES SALAAM

## **WORKSHOP REPORT**

A two day workshop was held in Dar es Salaam, Tanzania in mid May 2014 as part of the AfricaLics project activities (supported by Sida) to build innovation research capacity in Africa. The workshop was hosted by the College of Engineering and Technology at the University of Dar es Salaam and supported in the preparation by the Science Technology and Innovation Policy Research Organisation (STIPRO).

The workshop consisted of two main activities:

1. An open symposium bringing together around 50 academics and practitioners to discuss the current state of innovation and development related research capacity building in East Africa.
2. A closed workshop for a smaller group of 20 participants to discuss how to move forward with the development of a semester length module of study on innovation and development for incorporation into existing and developing postgraduate qualifications at universities in Kenya, Tanzania and Uganda.

This report outlines the discussions and agreed action points from the closed workshop proceedings. Presentations from the Open Symposium are available on the [AfricaLics](#) website.

### **Overview of the closed workshop: aims and activities**

The closed workshop took place over a one and a half day period from lunchtime on 21<sup>st</sup> May to mid afternoon on 22<sup>nd</sup> May. The programme is attached as Annex 1. The workshop was attended by approximately 20 participants coming from four universities in the region (University of Dar es Salaam, Makerere University, Moi University and the Pan African University Institute for Basic Sciences, Technology and Innovation located at Jomo Kenyatta University of Agriculture and Technology) as well as participants from the private sector, ministries and the AfricaLics secretariat. The list of participants is provided in Annex 2.

The aim of the workshop was to discuss a skeleton draft of a semester length teaching module that had been developed by the AfricaLics Secretariat. It was expected that the discussions would enable the content and format of the module to be agreed on so that it could be finalized for incorporation into existing postgraduate qualifications (Masters programmes and/or post graduate certificates) being offered or developed at the universities present. The module would also be posted on the [AfricaLics](#) website for take up at other universities that were interested in offering a module of this nature.

The workshop activities consisted of plenary and group work activities to consider the following issues:

1. Current state of research capacity building in each country and how this impacts on training opportunities in each university
2. Current format and content of existing and proposed Masters programmes at universities being represented at the workshop and the implications of this for the module being developed
3. Target audience and therefore relevant content of a Masters level module on innovation and development
4. Next steps and action points for moving the development of the skeleton forward

### **Main discussion areas**

The discussions over the day and a half of closed workshop sessions covered the above mentioned areas of focus and resulted in the following main areas of discussion:

#### **1. Definitions and understandings**

It became apparent that universities and groups use different words to describe the same thing. This led to some initial confusion as to the scope of the material being developed. Most notable was the differing words used to describe a taught element of a Masters programme which the AfricaLics Secretariat referred to as a module but others referred to as a unit (also sometimes used to describe the number of credits or points that a student would receive from taking the taught module), a subject or a course. For others a course represented the same thing as a programme or qualification.

It was eventually agreed that this workshop and the related activity was focused on developing a taught element of a Masters programme that would run over one semester. It would be called a module by the AfricaLics Secretariat but each university would refer to it by their own internal terms when taking the module forward.

#### **2. Target audience and resulting focus**

The initial module skeleton content was entitled 'Innovation and Development for more effective engineers'. This was based on the fact that the majority of those participating and showing an interest in taking the module forward were from engineering related parts of their respective universities. However, during the meeting it became apparent that there was a demand to use the module as a way of expanding the reach of their programmes to a wider audience beyond those training to be engineers. In addition, it was felt that the module content had a wider resonance beyond engineers and could be taught perhaps as a cross-cutting module, even a compulsory module, for multiple programmes beyond simply within an engineering department/ college/ faculty.

It was agreed that the module would be redesigned to accommodate a wider target audience starting with a renaming of the module simply as: Innovation and Development.

#### **3. Format and length**

Once there was agreement regarding what was being proposed i.e. a semester length taught module within a Masters programme or qualification, it was then necessary to ascertain that all universities had the same semester length. It turned out that this was not always the case.

It was agreed that the module would be finalized to take into consideration that while many universities had 17 week semesters, others only have 16 weeks semesters.

It was further agreed that the last two weeks of the semester would be given to final assessment preparation. The actual format that the final assessment would take would depend on what was possible within the rubric of each universities' approved guidelines and the necessities of each Masters programme. Therefore the AfricaLics Secretariat on designing the final version of the skeleton module materials would develop two options: one for a project based assessment and one of an exam based assessment. In both cases the assumption would be that continuous assessment makes up 60% of the marks for the module and final examinable component makes up 40%.

#### **4. Content and contextualisation**

With agreement that the focus of the module needed to be wider, it was agreed that the module skeleton would be rewritten to remove the singular reference to engineers as those the module would focus on.

It was also agreed that it was important to include in the design the ability to contextualize the module content to the needs and demands of each university within the framework of the East African Community development priorities.

There were also requests to include additional material and activities where possible including:

- Additional materials:
  - Innovation culture
  - Diffusion of innovation
  - Marketing
  - Intellectual property rights and trade regulations
- Additional activities:
  - Field visits and case studies and class discussions

It was agreed that it would be assumed students studying the materials would not have any existing knowledge of innovation and therefore the module would need to start with some basic introduction to innovation concepts and ideas.

Perhaps most importantly it was agreed that:

- The module unique selling point would be its marriage of innovation thinking *with* development concerns.
- This would mean the content would not focus specifically or solely on innovation management or innovation policy but on the relationship between innovation and development.

#### **5. Skeleton structure**

Generally there was agreement that the outline structure of the module was sufficient and relevant. There were discussions regarding the level of project based work and the opportunity presented by this module to move beyond 'chalk and talk' type teaching styles. Building on the positive reception to the presentation during the open symposium on problem based learning (PBL), it was agreed that the module should still be developed using a PBL type format but that it needed to be considered within the context of universities with little actual experience of working like this (see point 6 below).

Specific suggestions were made with regards to renaming/ refocusing certain weeks of study and inclusion of new topic areas as per the list above in point 4.

**6. Resources: library, staffing and training**

There was acknowledgement amongst participants that many universities may have deficits in human and physical resources. It was particularly noted that although many staff and universities authorities were trying to implement new teaching formats such as PBL this was not always easy to do and therefore should such an approach be used a training of trainers workshop might be required. The AfricaLics Secretariat said it would take this into account but that the current funding could not stretch to an additional workshop of this nature. Therefore the skeleton module materials would be developed with crib sheets for teaching staff where necessary to reduce the need for additional training. A suggestion was also made that an online forum could be set up to enable peer support for teachers/ lecturers running the module. No formal decision was made on this point.

It was also agreed that further details of what access to library resources was needed before the module materials could be finalized. This was necessary in order to decide if some form of support for access to key readings would be required (either in terms of additional access rights to journal articles or the development of a 'Reader' book containing key readings). It was agreed that participants would send the AfricaLics Secretariat details of library access to e-journals and e-books.

**7. Moving forward beyond a module**

There was significant interest in working beyond the module to create a full Masters in Innovation and Development and/ or an Innovation and Development stream/ track within existing Masters programmes at a number of the universities. It was agreed that the module uptake should be used to gauge interest in either of these additional options.

Some of the participants also expressed an interest in using the module content to run Executive Courses for policy makers and/ or those from the private sector.

**Next steps**

The following next steps were agreed to be conducted by various participants as per the below.

<b>Activity</b>	<b>Date to be completed</b>	<b>Responsible person</b>
Draft meeting report produced and circulated	26 <sup>th</sup> May 2014	AfricaLics Secretariat
Course description/ outline structure template sent to AfricaLics Secretariat by each university	31 <sup>st</sup> May 2014	Participant from each university
Details of journal and e-book access sent to AfricaLics Secretariat by each university	30 <sup>th</sup> June 2014	Participant from each university
Final meeting report on AfricaLics website and forwarded to Sida contacts	4 <sup>th</sup> July 2014	AfricaLics Secretariat
Revised module skeleton circulated with comment form	4 <sup>th</sup> July 2014	AfricaLics Secretariat

Review of revised module skeleton and completion of comment form	31 <sup>st</sup> July 2014	All participants
Final module skeleton produced and uploaded to AfricaLics website and all participants notified	8 <sup>th</sup> August 2014	AfricaLics Secretariat

In addition, the further comments and issues were raised in relation to next steps:

1. As soon as the draft revised module has been received, universities will be able to go forward with their activities and use the ideas as they so wish. This was deemed important as some of the universities at the workshop were already engaged in curriculum review activities.
2. Development of an online forum for peer support during module teaching and/or ideas for a 'training of trainers' workshop would be considered based on feedback received on the comment forms regarding the modalities of teaching the proposed module content.
3. There will be an AfricaLics conference in 2015 which will revolve around presentation of research papers. However, the AfricaLics Secretariat are also looking into the possibility of a conference stream/ back-to-back session on teaching innovation and development at postgraduate level; if the Secretariat can find additional funds.

## ANNEX 1 – CLOSED WORKSHOP PROGRAMME

AGENDA		
<b>20<sup>th</sup> May 2014</b>		
<b>Arrival</b>		
06.00 – 17.30	Arrival of participants from outside Kenya	
<b>21<sup>st</sup> May 2014 (morning)</b>		
<b>Open Symposium on Building Research Capacity in Innovation for East Africa</b>		
<b>College of Engineering and Technology, University of Dar es Salaam</b>		
08.00	Bus pick up from hotel to workshop venue	Participants staying at Blue Pearl Hotel, Ubungo.
08.30 - 09.00	Registration	All participants
09.00 - 09.15	Welcoming Speech	Principal of the College of Engineering and Technology, UDSM
09.15 - 09.30	Opening Speech	Vice Chancellor of the University of Dar es Salaam
09.30 - 09.40	Vote of Thanks	Deputy Principal of the College of Engineering and Technology, UDSM
09.40 - 10.15	<b>Health Break</b> (including Group Photograph)	All
10:20 -10:45	<b>Paper I</b> 'The current state of Innovation and Development Research Capacity in East Africa'	<b>Prof. Bitrina Diyamett</b> AfricaLics President
10.45 - 11.10	<b>Paper II</b> 'The current state of Innovation and Development theory and practice globally: opportunities for East Africa'	<b>Dr. Rebecca Hanlin</b> Senior Lecturer, Open University UK & AfricaLics Innovation and Development Specialist
11:10 - 11.35	<b>Paper III</b> 'Problem Based Learning as a means to expand Innovation and Development Research Capacity in East African Universities'	<b>Dr. Margrethe Holm Andersen,</b> Senior Advisor to the Globelics Secretariat, Denmark
11.35 - 12.15	General Discussion	All Participants
12.15 - 13:00	<b>LUNCH BREAK AND NETWORKING</b>	All participants
<b>21<sup>st</sup> May 2014 (afternoon)</b>		
<b>Closed workshop on 'Innovation and Development' Masters module development</b>		
<b>College of Engineering and Technology, University of Dar es Salaam</b>		
13.00 - 14.00	Current barriers and opportunities to introducing a new MSc module in partner universities	All participants in plenary and group work
14.00 - 15.00	Current requirements in relation to an innovation and development module within partner universities	All participants in plenary

	- a review of the details received from partners in the run up to this workshop plus a wider discussion of any new details/ changes plus synergies and differences in the contexts across partner institutions	
15.00 – 15.30	<b>Health Break</b>	All participants
15.30 – 17.30	Initial discussions on the skeleton module developed	All participants in group work with plenary feedback
17.30 – 18.00	Wrap up	All participants in plenary
18.00	Bus to workshop dinner	All participants
18.30	<b>Workshop dinner and informal discussions on PhD training opportunities</b>	All participants
20.30/21.00	Bus back to hotel	Participants staying at hotel
<b>22<sup>nd</sup> MAY 2014</b>		
<b>Closed workshop on 'Innovation and Development' Masters module development</b>		
07.30	Bus pick up from hotel to workshop venue	Participants staying at Blue Pearl Hotel, Ubungo.
8:00 - 8:30	Recap of Day 1: - main issues to take forward when finalising the module skeleton	Secretariat
8.30 – 10.15	In-depth discussions of the skeleton module developed: - Does it fit within identified programmes at partner universities (e.g. the practical issues such as does the content seem feasible in terms of time, resources including library access etc.)? - What is needed (and who will do it) to make these fit (e.g. the strategic issues such as administrative approval processes)?	All participants in group work and feedback in plenary with discussion
10.15 – 10.45	<b>Health Break</b>	All
10.45 - 11.45	In-depth discussions of the skeleton module developed - How and when will these be implemented (both the moulding of the module outline and development of further content needed, approval process and the introduction of the module/teaching itself)?	All in group work and plenary
11.45 - 12.30	Next steps and way forward agreed with responsible persons identified	All in plenary
12.30 - 13.15	<b>LUNCH BREAK AND NETWORKING</b>	All Participants
13.15 – 14.45	Wider discussions on-on moving forward with other modules on 'innovation for/ and business (management)' and 'innovation management'	All in plenary
14.45 – 15.00	<b>Health Break</b>	All participants
15.00 – 16.00	Wider discussions on - fit with other programmes	All in plenary

	and projects in the region and where this leaves the need for a full Masters programme on innovation and development or other similar subject area.	
16.00 – 16.30	Wrap up Session with closing remarks	All in plenary and Prof. I. Rubaratuka
16.30	Close and departure	

## ANNEX 2 – PARTICIPANTS LIST FOR THE CLOSED WORKSHOP

S/N	NAME	E-MAIL ADDRESS
1	DR. CHARLES NZILA	cnzila@gmail.com
2	PROF. PETER LATING	plating@cedat.mak.ac.ug
3	PROF. GABRIEL MAGOMA	gmagoma2000@gmail.com
4	DR. BICHANGA WALTER OKIBO	walter.okibo@yahoo.com
5	PROF. EMROD. ELISANTE	elisante@udsm.ac.tz
6	MRS. BLANDINA MKAYULA	bmkayula@gmail.com
7	DR. SALHA MOHAMMED KASSIM	kassimsalha@yahoo.com
8	MR. MUSAMBYA MUTAMBALA	musambya.mutambala@stipro.or.tz
9	PROF.CUTHBERT Z.M. KIMAMBO	kimambo@udsm.ac.tz
10	DR.GEORGE S. MWALUKO	gmwaluko@yahoo.com
11	ENG. LAWRENCE.J. KEREFU	ljkerefu@yahoo.com or ljkerefu@gmail.com
12	PROF. BAVO. NYICHOMBA	nyichomba@udsm.ac.tz
13	DR. BITRINA DIYAMETT	bitrina.diyamett@stipro.or.tz
14	PROF. IGNAS A. RUBARATUKA	rignas1@uccmail.co.tz
15	DR. LADISLAUS LWAMBUKA	lwambuka@yahoo.com
16	DR. ADALGOT KOMBA	akomba@udsm.ac.tz
17	MS. JULIANA.Z.MACHUVE	jullymac@udsm.ac.tz
18	DR. BWIRE NDAZI	bndazi@udsm.ac.tz
19	DR. REBECCA HANLIN	rebecca@africalics.org
20	DR. M.H. ANDERSEN	mha@business.aau.dk
21	DR. ANNA.N.KINGIRI	ankingiri@gmail.com
22	Dr. EDWIN ATARO	edwin.o.ataro@gmail.com