

UNITWIN UNESCO Chairs Programme

UNITWIN Network Annual Progress Report

UNITWIN Network:	Marine Biology and Sustainable Development for East Africa www.unesco.org.uk/BangorUNITWIN
Host Institution(s):	Bangor University, School of Ocean Sciences, Marine Science Laboratories, Menai Bridge, Anglesey, Wales, LL59 5AB, United Kingdom
Date Network Established: (mm, yyyy)	August 2009
Period of Activity Under Report: (mm, yyyy - mm, yyyy)	August 2009-August 2010
Report Established By: (name, position)	Dr John R Turner, Coordinator Email: J.turner@bangor.ac.uk ; Tel: +44 (0)1248 382881

1. Executive Summary:

Major outcomes, results and impact of the Network in relation to its objectives as stated in Article 2 of the Network Agreement (between the Institutions and UNESCO)
(Not exceeding 500 words)

The UNITWIN Network in *Marine Biology and Sustainable Development for East Africa* established between the Institute of Marine Sciences (IMS), University of Dar es Salaam, and the School of Ocean Sciences (SOS), Bangor University is in its first year and just beginning to establish. The network is a higher education partnership facilitating postgraduate teaching, research and capacity building in marine biology in Tanzania, and with a longer term aim of developing regionally in East Africa.

The network is supported by a successful bid to Round 4 of the DFID British Council DelPHE (Development Partnerships in Higher Education) titled: *Enhancing the Capability of the Institute of Marine Sciences University of Dar es Salaam in marine science and technology for the sustainable utilisation of coastal and marine resources in Tanzania and the Western Indian Ocean Region, 2009-2012*, value £55,000.

Three staff from IMS have visited the UK, mainly to meet UK Bangor staff, familiarise themselves with our institution, and plan future activities in postgraduate training and collaborative research, and to be involved in additional networks.

SOS staff will shortly be visiting Zanzibar to engage in a review of postgraduate research projects and provide additional guidance in experimental and survey design, methodological approach and health and safety, and data analysis.

Funds have been raised for UK postgraduate students to work alongside east African postgraduate students in Zanzibar next June/July. Staff from both institutions are submitting applications for research projects in collaboration with regional and northern partners in order to fund the Network's scientific activity.

2) **Activities:**

Overview of activities undertaken by the Network in the reporting period

a) Education/Training/Research

(key education programmes and training delivered and research undertaken by the Network in the reporting period)

i) Education	<p>A visit by Dr Margareth Kyewalyanga (Director) and Dr Nyandwi (Associate Director (Deputy)) Institute of Marine Sciences (IMS), Dar es Salaam to Bangor School of Ocean Sciences 24th - 28th May to meet Bangor staff and to plan programme activities for forthcoming years. IMS staff were given tours of Bangor University facilities, Ocean Science facilities, the Research Vessel, Centre for Applied Marine Science, and local area, and held discussions with SOS staff.</p> <p>Discussion mainly concerned on development and involvement of 2 routes within a masters programme in Marine Sciences in IMS: MSc Marine Coastal Resources Management, and MSc Marine and Coastal GeoInformatics, involving 12 students from east Africa (Tanzania, Mauritius, Mozambique) (9 men and 3 women). Some discussion also centred on staff training needs and capacity building, and future collaborative research projects (see below).</p> <p>Dr Yohana Shaghude (IMS UDSM) visited Bangor on 26-29th July to discuss training in oceanographic modelling and GIS.</p> <p>Visits have been planned for Drs Gay Mitchelson Jacob and Dr John Turner to Tanzania in October (3rd-9th) to undertake take part in a review conference of postgraduate projects, and to deliver seminars in Environmental Impact Assessment and Geographical Information Systems.</p> <p>There has been a successful bid for funds from the George Thomas Educational Trust for 2 Bangor MSc students to visit Tanzania to undertake research projects/fieldwork in Zanzibar next June-July on mangroves and coastal biodiversity (value £3,200).</p>
ii) Training	See above. Staff training will follow in later years.
iii) Research	Submission of a collaborative bid to NERC (Natural Environment Research Council) ESPA (Ecosystem Services and Poverty Alleviation) theme titled 'Climate and Economic Development Impacts on Coastal Ecosystem Services in East Africa' jointly with National Oceanography Centre Southampton, University of Dar es Salaam Tanzania, Moi University Kenya, Coastal & Marine Resources Development, Kenya Marine and Fisheries Research Institute, Plymouth University, NERC Centre for Ecology and Hydrology and University of Cape Town.

b) Conferences/Meeting

(key conferences and meetings organised by the Network or to which it has contributed)

Dr John Turner highlighted the work of the UNITWIN Network at a meeting of the Climate Change Consortium of Wales, 14th May 2010, Bangor University. Involved approximately 80 Climate Change scientists from universities and government agency organisations in Wales.

c) Interuniversity Exchanges/Partnerships

(principal exchanges/partnerships between Network institutions and/or with other institutions)

A successful bid to Round 4 of the DFID British Council DeLPHE (Development Partnerships in Higher Education) titled: *Enhancing the Capability of the Institute of Marine Sciences University of Dar es Salaam in marine science and technology for the sustainable utilisation of coastal and marine resources in Tanzania and the Western Indian Ocean Region*. 2009-2012, value £55,000.

Dr Yohana Shaghude (IMS UDSM) visited The Plymouth Marine Laboratory and the National Oceanographic Centre Southampton Bangor in July to link into the Europe Africa Earth Observation Network (EAMNet). EAMNet aims to construct a network linking Earth Observation (EO) information providers, user networks and centres of excellence in Europe and Africa in the area of coastal and marine observations towards sustainable development in Africa. The network will undertake capacity building and maintenance and build upon existing infrastructure and expertise in Africa. The overall aim is to improve the exploitation of EO data for coastal and oceanic monitoring towards an Africa-wide observation system (GOOS-Africa). It will provide an interface between European GMES-related core and downstream services and R&D projects (notably MyOcean) and African initiatives (e.g. AMESD) with the emerging GMES-Africa initiative. It will also provide further links with GEO. EAMNet is coordinated by Plymouth Marine Laboratory (PML) with 9 other partners in Africa and Europe (<http://www.eamnet.eu/cms/?q=node/9>).

Professor Craig Kensler (Bangor University) and Dr Margareth Kyewalyanga (IMS) have begun discussions on multilateral links with Association of Universities and Colleges of Canada (AUCC) through the President of the Canadian Commission for UNESCO (Dr Axel Meisen).

d) Publications/Multimedia Materials

(major publications and teaching/learning materials)

tick relevant fields of output and indicate volume of output:

	[tick]	[no.]
Books	<input type="checkbox"/>	0
Books (edited)	<input type="checkbox"/>	0
Books (chapters)	<input type="checkbox"/>	0
Monographs	<input type="checkbox"/>	0
Research Reports	<input type="checkbox"/>	0
Journal Articles (refereed)	<input type="checkbox"/>	0
Conference Proceedings & Occasional Papers	<input type="checkbox"/>	0
Teaching/Learning Materials	<input type="checkbox"/>	0
Multimedia Materials (CD-Rom)	<input type="checkbox"/>	0
Multimedia Materials (Other)	<input type="checkbox"/>	0

Give details of major publications and materials including full citations.

N/A in year 1

e) Other

(any other activities to report)

Hosting of 'Training Environmental Journalists in Tanzania and Wales 24th March 2010' resulting in 3 journalism pieces in Tanzanian press on marine environmental sciences.

3. Available Resources

Overview of resources placed at the disposal of the Network in the reporting period

a) Human Resources

Full time staff involved so far:

From Bangor University, Wales, UK:

Dr John Turner & Dr Gay Mitchelson Jacob hosted visits and liaised with IMS staff.

Professor Colin Jago (Head of School), Dr Craig Kensler, Visiting Professor; Dr Lewis LeVay, Dr Ian McCarthy, Dr David Bowers, Dr Martin Skov involved in discussions with IMS visitors.

From the Institute of Marine Sciences, University of Dar es Salaam

Dr Margareth Kyewalyanga (Director) and Dr Ntahondi Nyandwi (Associate (Deputy) Director) Institute of Marine Sciences (IMS), Dar es Salaam

Dr Yohana Shaghude (IMS UDSM)

b) Other Resources

tick sources of financial contribution

	[tick]
Host Institution	<input type="checkbox"/>
Partner Institution	<input type="checkbox"/>
Government Body	<input checked="" type="checkbox"/>
Other Public Institution/Body (incl. Research Councils)	<input type="checkbox"/>
UNESCO	<input type="checkbox"/>
Other UN Agency	<input type="checkbox"/>
IGO	<input type="checkbox"/>
NGO	<input type="checkbox"/>
Industry	<input type="checkbox"/>
Other Private	<input checked="" type="checkbox"/>

Give details of financial contributions, material resources and space.

DFID British Council DelPHE (Development Partnerships in Higher Education) *Enhancing the Capability of the Institute of Marine Sciences University of Dar es Salaam in marine science and technology for the sustainable utilisation of coastal and marine resources in Tanzania and the Western Indian Ocean Region.* 2009-2012, value £55,000.

George Thomas Educational Trust for 2 Bangor MSc students to visit Tanzania to undertake research projects/fieldwork in Zanzibar next June-July on mangroves and coastal biodiversity (value £3,200).

4. Future Plans and Development Prospects:

Outline of action plan for the next biennium. And short/medium and long term development prospects. Please feel free to refer to difficulties that the Network has experienced (Not exceeding 500 words)

Visits to IMS by Dr Lewis LeVay and Dr Ian McCarthy to support teaching and research in marine sustainable exploitation, with specific reference to mangroves and fish. Dr LeVay will also develop multilateral link with Eduardo Mondlane University, Mozambique (first quarter).

2 Bangor MSc students to engage in research projects on mangroves and on coastal biodiversity in Zanzibar, under supervision of Drs Turner & LeVay with co supervision from IMS (June/ July).

Visit by up to 2 IMS staff to Bangor for training in oceanographic modelling and remote sensing/GIS (second quarter).

Submission of collaborative research proposals (eg next phase of NERC ESPA Ecosystem Services and poverty alleviation), and Leverhulme Royal Society Ghana-Tanzania Grant (first quarter).