

UNITED NATIONS UNIVERSITY (UNU)

Support to NEPAD

Period of Report: July 2006 to June 2007

Education

In 2005, the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) proposed to UNU a joint initiative on Africa which focuses on the creation of an Innovative Centre on Education Support in Africa. The proposed centre aims to strengthen African higher education so that it can better contribute to the achievement of the Millennium Development Goals (MDGs), in terms of education, as well as of concrete development of African countries. In 2006, the Adviser to the Rector on African Issues finalized the drafting of the project proposal and attended *the Reflective Dialogue Meeting for Basic Education Development* jointly organized by African universities, UNESCO, and the Centre for the Study of International Cooperation on Education of the Hiroshima University (CICE) in collaboration with UNU, Asian universities and the Japanese International Cooperation Agency (JICA).

The project proposal draft document suggested that four universities, or teacher training institutions, be selected on the basis of their capacity and potential to serve as a resource centre for the topics covered by the project. The four universities will focus on the following themes: (1) Policies and reforms of educational systems in Africa; (2) Programmes, pedagogy and teaching tools; (3) Training of teachers in Africa; and (4) Research on education in Africa. As centers of innovation, the selected universities will be responsible for drawing up proposals on the particular theme assigned to them with a view to identifying measures that are likely to help sub-Saharan countries to meet the challenges facing their educational system. It is expected that the proposals will be presented and discussed at a conference to be attended by a larger group of representatives from African universities and institutions of higher education which will be held in June 2007.

In 2006, the network of African partner universities collaborating with the UNU Global Virtual University (UNU-GVU) expanded to include universities in Egypt, Ethiopia, Ghana, Kenya, Somalia, South Africa, Tanzania, Uganda, and Zimbabwe. UNU-GVU, which was launched in 2002 at the World Summit on Sustainable Development in Johannesburg to promote the use of online learning for sustainable development, is supported by the Norwegian Government and hosted in Norway, bringing together UNU, UNEP, GRID-Arendal and a network of partner universities. The first Masters programme under the UNU-GVU was offered by Adger University College (AUC) in 2005 on the topic of Global Environment and Development Studies (GEDS) for students from Norway and those recruited via the partner universities in Africa. This Masters programme continues in the period 2007-2010 with the financial support of nearly US\$1 million received by the AUC in December 2006 from the Norwegian Centre for

International Cooperation in Higher Education. Additional Masters programmes are planned for other partner universities in the UNU-GVU network.

Agriculture and food security

The UNU Institute for Natural Resources in Africa (UNU-INRA) recognizes that low soil productivity, and poorly-distributed and variable rainfall patterns are major constraints to food production in most areas of sub-Saharan Africa. In the Volta Basin of West Africa, for example, most farmers rely mainly on rain-fed agriculture for their livelihoods. UNU-INRA has joined the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) and other international organizations concerned to enhance the capacity of national agricultural research institutions and selected institutions of higher learning in Ghana and Burkina Faso to implement projects designed to enhance efficient use of rainwater and plant nutrient for crop productivity.

As part of the effort to make African farmers derive maximum benefits from the deposits of agro-minerals on the continent, UNU-INRA, through its Operating Unit at the University Zambia School of Mines, is working with geologists, farmer-based organizations, extension workers and entrepreneurs in the Southern African region to develop appropriate and effective information to improve access to and utilization of agro-minerals, such as phosphate rock, lime and gypsum for sustainable crop production.

Although indigenous African plant resources, especially wild plants and famine foods, importantly contribute to food security in sub-Saharan Africa, their very existence is continually threatened by negative human activities, such as bush fires, over-grazing and over-exploitation. UNU-INRA is working with African scientists, universities and research institutions to undertake on-site and off-site conservation of indigenous food and medicinal plants. In Zimbabwe, where famine has been experienced repeatedly in recent years, UNU-INRA is working with a team of scientists at the University of Zimbabwe to document indigenous knowledge on wild famine plants and assess their nutritional values. In Namibia, UNU-INRA is collaborating with scientists from the University of Namibia to experiment the use of seaweed as substrate for the production of iodized mushrooms.

Given its pioneering role in zero-emission and mushroom research, the UNU-INRA Operating Unit in Namibia (the Sam Nujoma Marine and Coastal Resources Research Centre) and the ZERI Project Management Unit have been officially designated as the NEPAD Centre of Excellence for a network of 12 countries referred to as the Southern Africa Network for Biosciences (SANBio). The centre has been assigned the responsibility for research and development of mushroom resources.

Environment

Most postgraduate training programmes in Environmental Science in sub-Saharan Africa often neglect crucial policy and planning elements. Initiated in 2003, UNU-INRA in collaboration with the Kwame Nkrumah University of Science and Technology has added value to the university's MSc Environmental Science degree programme through the

addition of training modules that emphasize environmental planning and policy analyses. By the close of the 2006 academic year, 150 students had benefited from the enhanced degree programme.

Empowerment of women

At the University of Yaounde 1, UNU-INRA joined the UNESCO Regional Office for Central Africa to organize a week-long, intensive training course on data management and statistical analyses, to mark the 2006 International Week for Women. A total of 14 senior-level women professionals in science drawn from academia, the local UN system, notably WHO and UNDP, and the public sector benefited from the course.

Innovation and Development

Through its Learning Innovation and Knowledge (LINK) network - currently operating out of three sub-regional hubs in Eastern and West Africa - the Maastricht Economic Research Institute on Innovation and Technology (UNU-MERIT) is exploring ways of mainstreaming the innovation systems approach within science and technology (S&T) policymaking processes in Africa. The rapidly expanding programme is currently analyzing the policy and institutional changes needed to build innovation capacity with respect to: (a) improved livestock feeding systems to cope with drought and desertification; (b) responding to changing standards, consumer preferences and patterns of competition in domestic and international product markets within the export horticultural sector; (c) the diffusion and scaling up of improved seed varieties, with a focus on the spread of the New Rice for Africa (NERICA) in West Africa; (d) implementing a learning-based approach to improving the impact of agricultural research in sub-Saharan Africa; and (e) support for process monitoring, policy dialogue and interactive learning activities in the Intergovernmental Authority on Development (IGAD) region. The results of these studies will further contribute to UNU-MERIT activities in support of NEPAD's African Science, Technology and Innovation Indicators Initiative, which is developing Africa-relevant innovation survey tools and guidelines. A follow-up study focusing on micro-based evidence research on innovation aims to improve the linkages between the vast body of work on innovation indicators, surveys and other measurement tools tailored to developing-country contexts. The project is analyzing large firm-level data sets for Brazil, Ecuador, South Africa, Tanzania and Zambia, as well as harmonizing them to enable cross-country comparisons and encourage "South-South" exchange.

In collaboration with the International Development Research Centre (IDRC Canada) and the Africa Technology Policy Studies Centre (ACTS) in Nairobi, UNU-MERIT is convening a workshop for regional policy stakeholders in mid-2007. The workshop will explore the implications of innovation systems ideas for benchmarking rural innovation capacity and will feed into a pilot project to develop Regional Rural Innovation Reports.

With the launch of its second PhD Programme on Innovation and Development in September 2006, UNU-MERIT has continued to contribute to the training of African

policy researchers. Four out of a total of 13 PhD graduates of the Institute's PhD Programme in the Economics and Policy Studies of Technical Change in 2005-2006 were of African origin, and all have returned to teaching or research positions in Africa.

UNU-WIDER research

The UNU World Institute for Development Economics Research (UNU-WIDER) continues a research project designed to improve capacity in Africa for assessing the impact of policy change at the level of individual households. Teams of researchers in Botswana, Cameroon, Nigeria and Uganda have been provided with the technical assistance and support necessary to build computer models that allow the impact of tax and transfer reform on income distribution and poverty to be simulated. Micro-simulation models can improve political choices since the social benefits (and costs) of reform are often paramount for governments and civil societies. This project has produced a website with user-friendly models where policy makers and others can experiment with the impacts of policy changes for these four countries and for South Africa as well. A second phase of the project involves an extension to six more African countries: Egypt, Ghana, Mozambique, Namibia, Tanzania and Zambia, as well as advancing the project for the original set of countries to produce macro models with linkages to the micro-simulation. This will allow countries to assess the distributional consequences of their macroeconomic policies.

Increasing the flow of official development finance (ODA) to Africa is critical to meeting the MDGs in the region. The UNU-WIDER special issue of the *Journal of International Development* entitled *Aid to Africa: an Unfinished Agenda* examines the effectiveness of aid across sub-Saharan Africa, with case studies from Ghana in particular. The research concludes that aid has been broadly effective in raising economic growth, but that the modalities of aid can be improved upon, including more attention to the fiscal management of aid.

There are several other activities by UNU-WIDER with implications for NEPAD. These include the current projects, *Gender and Food Security* and *Impact of Globalization on the Poor*, as well as 2007 forthcoming projects, *Fragile States*, *Fragile Groups* and *Southern Engines of Growth*. While these projects have global coverage, they all have significant portions devoted to African issues of relevance to NEPAD. In addition, many UNU-WIDER research papers deal specifically with African financial and other issues with important implications for NEPAD.