

Higher Education Institutions

Partnering for Development and Change

Reflections of the First Round
of the Finnish HEI ICI Programme



The Higher Education Institutions Institutional Cooperation Instrument (HEI ICI) supports the higher education sector in developing countries and strengthens their institutional capacity through cooperation with Finnish higher education institutions. HEI ICI is funded by the Ministry for Foreign Affairs of Finland and administered by the Centre for International Mobility CIMO, an organisation operating under the Finnish Ministry of Education and Culture.

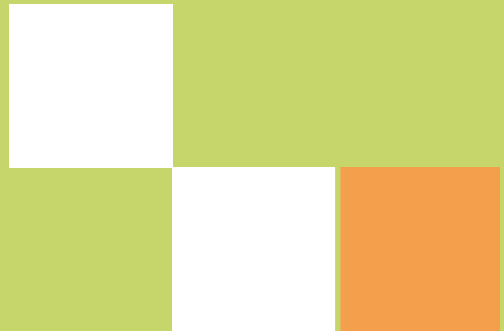


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Editors
Seppo Hölttä
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Centre for International Mobility CIMO & University of Tampere



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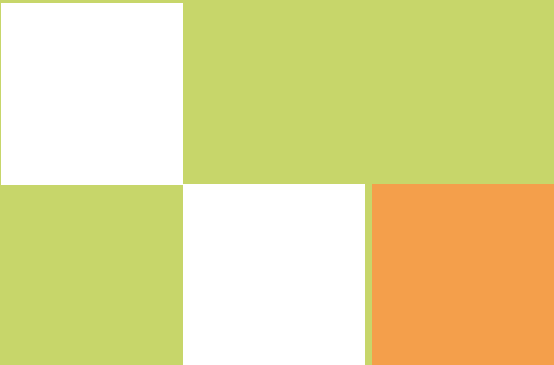
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Preface



■ Reflections on Higher Education Institutions and Capacity Development

Elias Pekkola, University of Tampere
Annica Moore, CIMO

“The knowledge economy has come to add more emphasis on knowledge, research and hence higher education as a public developmental and social good.” (Doh, 2012, 302)

The role of higher education has changed globally in the decades since the Second World War. While in many parts of the world higher education still serves to legitimise the status of the elites and to build national identity, it has become more and more important for the economy as well. The functions of higher education have diversified. We now have higher education for the masses. It has grown more attuned to the global economy and is an important part of knowledge production. Higher education no longer educates white-collar professionals only; it is as a societal actor advocating education for all and supporting lifelong learning.

The globalised world economies and communication channels have fads, rules and practices which inevitably apply also in the global South. Higher education in the South is in transition, as is the role that higher education institutions (HEIs) play as a societal actor. They are expected to promote societal development in complex and challenging settings.

The global economy requires global knowledge and skills. The requirements may be similar for all countries in global markets, but the local circumstances and needs differ in the global South and the North. Social problems and solutions are not similar in North and South, but they do have similarities, which is also why North–South collaboration can be fruitful for higher education institutions in both parts of the world.

The governments and higher education institutions in developing countries face manifold challenges in developing their policies and practices, at least in comparison to their northern colleagues. Many higher education institutions in the South can be seen as facing the same challenges that the northern institutions have had some 400 years to tackle. In many young and fragile countries, the institutions still play an important role in nation building (which in

In order to support development and to find an optimal mix between the different roles of higher education, governments need to steer their higher education institutions toward a more balanced higher education system.

the North started in the late seventeenth century and mainly in the 1800s) and they still have a vital role in legitimising a new official non-hereditary elite (which in the North was the case from 1700 to the 1940s). In most parts of the world, higher education institutions are also expected to act as channels of social mobility, as universities support the establishment of national professions and industries.

Besides all else, then, higher education institutions should be able to respond to the national and global needs for internationalisation, knowledge society and innovation capacity. Do higher education institutions have too many roles for one institution to play?

While we are aware of the risk of too high expectations, one has to acknowledge that there are no other institutions that could face these challenges sustainably, or at least there are no better solutions that we could refer to. For the sake of provocation, however, let us consider some options and consequences of scenarios without higher education:

Power left to the states and families. We have many examples of political appointments and nepotism from many countries. So far the best solution in standardising knowledge, values and status needed for a position of expertise is a national system of higher education. Yet, for national identity building we do not necessarily need universities.

Governments get to write their history themselves. However, government-written stories of nation often turn out to be artificial in a longer run.

Professions are left to develop alone. This has been the case in many developing countries, but it leads to high dependence on other countries and to the domination of the professionals.

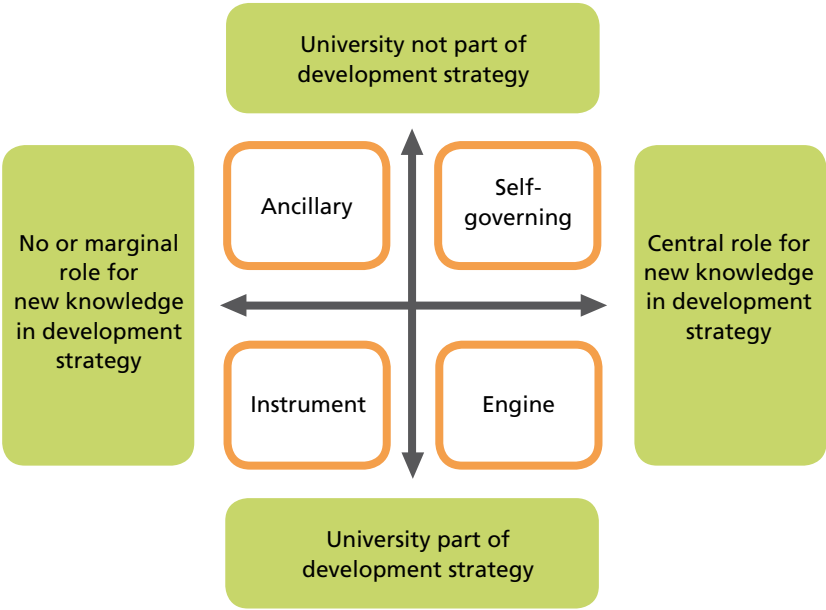
National industries make use of foreign technology and knowledge. Unfortunately, the worst-case scenario is a “banana state”.

Countries concentrate only on the traditional duties of the universities and neglect the global economy and trends. In this scenario, isolation and brain drain are an inevitable development.

In order to support development and to find an optimal mix between the different roles of higher education, governments need to steer their higher education institutions toward a more balanced higher education system. This typically happens in strict economic and social climates.

By giving such extreme examples we want to highlight the key role that higher education institutions have in nation building and in the economic and social development. They are not just tertiary schools, but also cradles of nations, professions and values. They are the platforms of redistributing the traditional power and creating a new order and rank system of a society. They are also one of the main actors in creating and disseminating global knowledge, developmental insights and activities into societies by literally moving brains in and out of the country. They share ideas, innovations and prosperity. Higher education institutions are crucial instruments for governments and thus much too vital to leave alone and outside of development policies.

Cloete et al. (2011) have done an extensive study on the role of universities in economic development, concluding that universities can have different kinds of roles in the formulation of national development policies. The roles differ from case to case, differing also when the institutions meet different challenges. In all of the roles, however, institutions can promote or hinder progress. Cloete et al. describe these different kinds of roles as ancillary or self-governing, or as instruments and engines by distinguishing two essential dimensions of the universities' social role: whether they create new knowledge for development and whether they are considered integral in formulating the national development strategy (Figure 1).



Higher education institutions can be considered to be ancillary for development policy in countries which have a strong political/ideological focus on development. In such countries, universities do not play a significant role in policy setting / evidence-based policy making but they do offer important input for development by transmitting existing knowledge for professional and civil servants and conducting community services. In institutional North–South collaboration, an ancillary institution would typically work in a programme that targets teachers' professional development and transmits new knowledge and technologies to the curricula and community projects of the institutions in the South.

Higher education institutions can also have an autonomous role in the administrative system and act as self-governing (non-state-steered) institutions. Universities may, for example, play an important role in the knowledge creation for development strategy in scientific (often North–South) projects. They serve development by building the national identity and serving society as a whole (not only the state) by creating knowledge and educating people. In North–South (institutional) collaboration the autonomous role of the institutions can be supported by research projects with scientific goals and focus.

Universities can have also an instrumental role in a government's development policy. They are then used as agencies which create the necessary scientific knowledge, act as knowledge banks and solve societal problems (poverty, diseases, agriculture, etc.). In North–South collaboration, northern partners can help their southern counterparts to solve and reformulate current policy-related challenges and to promote the responsiveness of the institutions.

Finnish Higher Education Institutions Institutional Capacity Building Instrument (HEI ICI)

Higher education institutions can be seen as engines for development. Their societal role can be absolutely essential if and when they have the capacity to provide bases for managing the emerging challenges of the knowledge economy. They can produce relevant skills, competencies and applied knowledge. In supporting this societal role in the global South, donor-funded collaboration has focused, for example, on institutional management, innovation structures, competency-based curriculum development, the social role and third mission of higher education institutions as well as on links between higher education institutions and the industry.

Well-adjusted capacity development collaboration can narrow the capacity gap between low-income countries and other countries. In this capacity development sector, bilateral donors largely focus on providing institutional support to higher education institutions through the provision of research funding, support for research infrastructure (libraries, laboratories, etc.), producing training and teaching materials, and by supporting MA and PhD programmes.

Finland joined the long list of bilateral donors in 2010 in launching a capacity development programme specifically for higher education. During the first programme period, in 2010–2012, the HEI ICI programme saw through 15 institutional capacity development projects between higher education institutions in the North and South. All projects were co-ordinated by Finnish institutions, and enhanced the capacity of at least 25 partner institutions in the South. The actual capacity enhancement also spread through various cross-sectorial activities to a wider range of institutions and beneficiaries, including the civil society, and the public and private sectors at large.

While the first programme period was shorter than expected, only 18 months instead of the two years projected, the results have been impressive. The project activities totalled 6.64 million euros, of which 15% was self-financing from the higher education institutions themselves. The partnering universities arranged different workshops and training sessions in which the teachers taught fellow teachers and shared the latest scientific practices. This led to the development of teaching and research capacity. The activities also contributed directly to the availability of the latest scientific knowledge and resources for a larger number of students. Several projects also focused on building up capacity to provide virtual study possibilities and expanding the range of distance study facilities and possibilities within the partner universities. Some projects also undertook curriculum development and joint publications.

First HEI ICI results pave the way for future development

This book tells about the experiences of the first projects funded under the HEI ICI initiative, examining the role and practices of Finnish development policy and the HEI ICI programme in light of capacity development of southern institutions and societies. We get to hear the voice of both the governmental organisations behind the Finnish funding instrument and the academic staff doing the actual capacity development work.

The articles explore the role of higher education institutions as engines for development from very different perspectives. They also approach the impact of the HEI ICI projects both for Finnish universities and southern partners, and for society at large from the perspective of individual practitioners, academics and projects. In so doing – by letting the project co-ordinators share their experiences of project progress and mutual learning – the articles contribute to new knowledge on the successes and problems of implementing capacity development activities.

And it does not stop here. It will be interesting to follow some of these projects in the future, too: 11 first-period projects also received further funding in the 2013–2015 programme period. Many of the results and the wider societal impacts of the first round will thus become more and more apparent in the new projects, and surely in other future collaborations as well.

■ From Pioneering Cooperation towards Institutional Change

Kaija Pajala, CIMO

Co-operation between Finnish higher education institutions and southern universities has originally been in the hands of active pioneers, and has relied on individual teachers' and professors' co-operation. This valuable work, which has not always been recognised on the strategic level of the universities, has built a solid basis for the co-operation of new generations.

A starting point for Finnish South–North co-operation has been the funding by the Academy of Finland from the very beginning in 1994. The funds for development research were at first used mainly by individuals but were then expanded to cover wider international research projects. International evaluations have rated Finnish development research as being of high quality.

In the other sector of Finnish higher education, the southern co-operation of the Finnish universities of applied sciences (polytechnics) has often started from fruitful collaboration between NGOs and mainly in the field of Health Care and Social Work.

From the beginning of the North–South–South programme in 2004, CIMO has administered this student and teacher exchange programme which supports network co-operation between higher education institutions.

The natural continuation for the reformed network co-operation was the HEI ICI programme. Originally the initiative of UniPID (Finnish University Partnership for International Development), HEI ICI was transferred to be administered from the UniPID's office in Jyväskylä to CIMO from the beginning of 2010.

The programme has been very popular from the outset: 72 applications were submitted during the pilot phase in 2009–2010, and 20 were accepted.

A total of 43 applications were submitted by the Finnish universities and universities of applied sciences in the first full application round in 2010. Of these, 15 applications were accepted, and 5.6 million euros were allocated to project implementation. The majority of the projects have contributed not only to the development of curricula and degree programmes but have also improved

teaching quality and pedagogical methods. Some projects have had an explicit objective of organisational development or improvement of information systems as well.

The projects have been implemented mainly in African countries, but are distributed across the world: Cambodia, Egypt, Indonesia, Kenya, Laos, Namibia, Nigeria, Mozambique, Palestinian territories, South Africa, Sudan, Tanzania, Uganda, Vietnam and Zambia. The projects represent different fields, including agriculture, business studies and management sciences, education sciences and teacher training, social sciences, natural and medical sciences and engineering, communication and ICT as well as humanities.

A review of the HEI ICI instrument was carried out in the autumn of 2011 to make concrete recommendations for the improvement of the programme. The review found the programme highly relevant, supporting the achievement of the United Nations Millennium Development Goals and the internationalisation of Finnish higher education institutions. The recommendation was to continue the funding of the programme, while also clarifying the guidelines and developing a monitoring framework. It was also suggested that the merging of North–South–South and HEI ICI programmes be considered.

The HEI ICI Programme is now in 2015 in its second programme period, with the third programme period being planned. Altogether 23 projects have been running in the 2012-2015 programme period, with funding totalling at 9,7 million euros.



The Policy Framework for HEI ICI Cooperation



■ Finland's Support for the Higher Education Sector in Development Co-Operation

Timo Olkkonen, Head of Unit, Ministry for Foreign Affairs of Finland (MFA)

Marianne Rönkä, Desk Officer, MFA

Higher education plays a key role in efforts to attain the Millennium Development Goals – such as primary education, maternal and child health, gender equality, the empowerment of women and the eradication of poverty and hunger – as well as in combating pandemic diseases and in ensuring environmental sustainability.

Finland's Development Policy Programme 2012 provides guidelines for development policy and development co-operation. The Finnish development policy is grounded in the equal right of all people to participate in both the planning and the implementation of development plans. Support should be given particularly to people in extreme poverty to strengthen their ability to work to improve their lives. **Finland's Development Policy has four areas of emphasis: 1. a democratic and accountable society that promotes human rights; 2. an inclusive green economy that promotes employment; 3. sustainable natural resources management and environmental protection; and 4. human development.**

Human development is naturally the most directly linked priority area for the education sector. The right to education is recognised to encompass access to education but also the obligation to eliminate discrimination at all levels of the educational system, to set minimum standards, to improve quality and equitable access also in higher education. **Quality education available to all** promotes employment, high-quality research, innovation and know-how, entrepreneurship and thus inclusive economic development.

Higher education, science, technology and innovation systems are the main components of the knowledge society and are essential for advancing an inclusive green economy. Higher education also plays an important role in other aspects of a green economy, such as the use of new information technology, support of a favourable operating environment for accountable entrepreneurial activity and decent jobs, or the creation of public-private partnerships for development investments.

Education is essential also as a means of promoting human rights. It empowers women, promotes democracy and protects environments. Education paves the way for personal development, supports respect for human rights and effective participation in a free society as well as understanding, friendship and tolerance in general.

In recent decades, new development challenges have raised the overall role of higher education institutions in the national system of innovation through applied science, research and development. Higher education is recognised as a critical element in delivering the knowledge requirements for development, yet the education system does not always provide its graduates with the skills that business and labour markets need.

HEI ICI is an instrument that supports institutional co-operation between higher education institutions.

Developing countries need support for the development of their education systems to be able to provide education for growing numbers of young people. Also, given the increasing global labour market demands for specialised knowledge and advanced technology skills, tertiary education is becoming more important for sustained social and economic development.

Finnish higher education institutions have expressed more and more interest in expanding their expertise in and contacts with the developing countries. Partnerships and networking have been in the centre of higher education co-operation. The networks built with developing countries' higher education institutions over the years and mutual interest in the potential for development of co-operation has proved that there is a genuine need for such co-operation.

Finnish Funding Modalities

The Ministry for Foreign Affairs of Finland supports co-operation between Finnish and developing countries' higher education institutions by means of two separate instruments.

The North–South–South (NSS) Higher Education Institution (HEI) Network programme seeks to create partnerships between higher education institutions in the North and South by supporting student and teacher exchange and networking between universities. The NSS programme has been running since 2004. Its funding of 4.7 million euros in its fourth term (2013–14) will be distributed to support about 35 different HEI networks.

HEI ICI is an instrument that supports institutional co-operation between higher education institutions. It supports the capacity building of institutions in developing countries by means of improving their structural and operational quality and developing curricula. The separate programme for higher education institutions was launched with a pilot phase in 2009 when a legislative reform on Finnish universities was made and universities ceased to be part of public administration. This left the universities outside of the so-called state ICI instrument. **The overall budget for the HEI ICI programme period 2012–2014 is 10.5 million euros, supporting a total of 23 projects.**

HEI co-operation pursues global goals of education

The goals for both programmes are the same as the global goals of education and development. The programmes are open to projects from all fields of sciences which contribute also to other priority themes of Finland's development policy. For instance, human development is encouraged by investment in personal growth and learning through such means as teacher/student exchange, intensive courses and staff training.

In the planning of projects and in the outcomes, it is considered important that the partner institutions are committed to the projects' implementation. Plans have been made together and the partner countries' and the HEIs' own strategies and targets have been taken into account in joint project goals. The partner institutions' allocation of resources to the project is considered to be a sign of commitment, too.

Co-operation with HEIs is extensive; LDCs and long-term partner countries are prioritised

In accordance with the programmes, HEIs can co-operate with all countries which are eligible to receive official development assistance (ODA), but the eligibility criteria prioritise projects with the least-developed African (and Asian) countries and with Finland's long-term partner countries. Development co-operation between universities is widespread, and the activities cover countries located in different geographical regions. The majority of co-operation has taken place in Tanzania, Namibia, Kenya and Vietnam.

Funding through open tenders

The projects' funding is based on an open call for proposals, and the selection is based mainly on quality criteria. As a part of the projects' quality assessment the project proposal emphasises complementarity and synergy with other co-operation in the area supported or funded by Finland as well as, more widely, links to different priorities in the country or sector concerned.

Relevance and impact under evaluation

Recent evaluations and reviews have produced relatively positive results and encouraged continuation of the capacity-building efforts in the higher education sector through development co-operation. Both programmes were submitted to a joint international evaluation for the first time in spring 2014. The evaluation examined the programmes' implementation and the appropriateness and relevance of the objectives, also assessing their overall administration and practices. The programmes' complementarity and synergies were reviewed in light of Finland's other development co-operation. The results and the recommendation of the evaluation are later translated into elements of a new funding programme to be announced in 2015.

■ Towards Global Responsibility in Higher Education

Tiina Vihma-Purovaara, Ministry for Education and Culture

Riina Vuorento, Ministry for Education and Culture

Strategy for the Internationalisation of Higher Education Institutions 2009 and global responsibility

The Finnish Strategy for the Internationalisation of Higher Education Institutions was drawn up in broad-based co-operation between the Ministry of Education and Culture, higher education institutions and other stakeholders in 2008. The strategy was published at the beginning of the following year, and has five main themes: a genuinely international higher education community, increasing the quality and attractiveness of HEIs, increasing the export of expertise, supporting a multicultural society and developing global responsibility.

An intermediate assessment of the strategy was conducted in early 2012. At that time, as part of the negotiations between the Ministry and the HEIs on the agreement period 2013–2016, the higher education institutions were asked by the Ministry to assess the current status of their international activities and to report on their most significant measures aiming to develop international activities, what type of support services were available for their international activities, how the international activities were monitored and what indicators were used.

The intermediate assessment indicated that nearly all HEIs have a strategy for their international activities, or international activities have been made one of the pillars or key values of their general strategies. The general aims of internationalization strategies included improving the quality of teaching and research, supporting the students' and staff members' ability to function and making it easier to find jobs in a global world, internationalisation at home and expanding the activities, for example, into co-operation with companies. The strategies of individual HEIs differ from each other as to their scope, objectives and the actions they envisage. Some HEIs see internationalisation above all as a cross-cutting principle in all of their activities, whereas others have prioritized regional initiatives (e.g. Russia, neighbouring areas or China), functional entities (e.g. student mobility, number of foreign degree students) or strategic partnerships based on quality (top universities in other countries).

The interim assessment carried out in 2012 indicates that the hardest area for most HEIs appears to be the defining of global responsibility. Some HEIs have discussed their global responsibility both in-depth and widely, while in others it remains at a conceptual level or takes the form of separate activities of active individuals or projects.

In most HEIs, key modes of developing global responsibility emphasise participation in development co-operation projects and promoting student, researcher and teacher mobility. The Finnish University Partnership for International Development (UniPID) is an important co-operation forum for promoting global responsibility for higher education institutions. Some HEIs have also integrated global responsibility or sustainable development in their study programmes, or they have drawn up guidelines or principles that apply to all of their activities.

Policy actions aiming to develop global responsibility in higher education and science

The Ministry of Education and Culture's role in developing global responsibility consists of policy formulation and steering. The most important tools for this steering are legislation, performance agreements between the HEIs and the Ministry, agreement negotiations, steering by information, funding (including funding models), visits in the HEIs, joint events and feedback given to the HEIs. The Ministry also takes an active part in implementing the Team Finland

strategy (which brings together the players that promote Finland's external economic relations, the internationalization of enterprises, investments in Finland and the country's image at home and abroad), supports the shared efforts of the actors in its administrative branch regarding co-operation with third countries, and strives to ensure consistency between various policy actions. In addition, the Ministry directs higher education institutions, the Academy of Finland (research funding agency) and the Centre for International Mobility (CIMO).

The HEI ICI and North–South–South programmes are a part of implementing the Finnish higher education institutions' objectives related to global dimension. The Ministry of Education and Culture considers it crucial that higher education institutions can take part in implementing development co-operation.

The Ministry has agreed with the higher education sector that in 2013–2016 the HEIs will work to contribute to the implementation of equality in education. The aim is to promote equality, meaning gender equality, eliminating segregation and reducing the impacts of socioeconomic background in applying for and admittance to education. The HEIs are also expected to follow

the principles of sustainable development. The HEIs should work together to organize the teaching of the Finnish and Swedish languages and Finnish culture to foreign students and staff as well as to provide other services that support their integration in Finland and in the academic community. The HEIs will also include content that promotes internationalisation in their degrees.

In December 2013, the Finnish National Commission on Sustainable Development adopted a document titled *The Finland we want 2050 – Society's commitment to sustainability*. Global responsibility is one of the five principles enshrined in this commitment. The society's commitment is to be implemented by means of commitments to concrete actions made by various parties – the central government, companies, schools and organisations. A campaign to solicit commitments was launched in spring 2014. The Ministry of Education and Culture has asked the HEIs to report on how they plan to take part in implementing the Society's commitment to sustainability.

The universities should embrace the great challenges of the future more extensively in their international research co-operation. In the performance agreement between the Ministry of Education and Culture and the Academy of Finland for 2013–2016, the parties agree that the Academy will support research striving to respond to the questions posed by the great challenges of the future. In addition, the agreement states that the Academy will promote the international mobility and networking of scientists by supporting the participation of scientists and research organisations in European and global scientific co-operation. The Academy will take part in international co-operation programmes that are vital for Finnish research.

CIMO, then again, is an independent expert and a service agency under the Ministry of Education and Culture, tasked with promoting the internationalisation of Finnish society through various mobility and co-operation instruments, and by disseminating information. CIMO has successfully contributed to implementing the Ministry for Foreign Affairs' development co-operation programme HEI ICI and the North–South–South programme.

European dialogues with third countries, and the role of HEIs

Action at several different levels is required to fulfil the global responsibility demands set on HEIs. One channel for this is through European funding agreements for co-operation with third countries. The agendas of summits between the EU and third countries increasingly contain items relevant to higher

education and science. The items are drafted in various forums, in which EU member states can take part to variable degrees. These have included negotiations between the EU and the Association of Southeast Asian Nations (ASEAN) and between the EU and the African Union (AU), which have up till now been unofficially open for representatives of the member states' research, development and innovation sectors.

The preparations for the Community of Latin American and Caribbean States (CELAC) summit have been made in official and strategic co-operation between the European Commission, EU member states and the Latin American and Caribbean countries in line with the joint research and innovation initiative adopted at the Madrid summit in 2010. This Joint Initiative for Research and Innovation (JIRI) has five priorities, each of which has a task force with representatives from various countries to direct and implement the activities. These priorities are climate change and biodiversity, energy, bio-economy, the possibilities offered by information society for responding to societal challenges, and health. There also is a task force that supports all of these themes, which has joint funding opportunities on its agenda. In the area of higher education, the first Academic Summit took place in 2013, bringing together European and Latin American higher education actors.

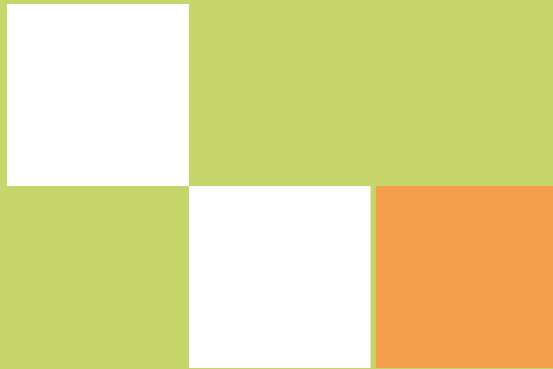
Finland has also played an active role in the EU–African Union Scientific Partnership. The 4th EU–African Union summit took place in Brussels in April 2014. The High Level Policy Dialogue on science, technology and innovation organized in November 2013 prepared the ground for the summit. In the High Level Policy Dialogue, promoting sustainable agriculture and nutrition and food security were picked as the first themes of the co-operation. While the EU–African Union scientific co-operation will have a strong focus on an individual theme in the next few years, the EU's science programme Horizon 2020 will also provide opportunities for research co-operation addressing other global challenges.

In 2013–2014, and 2015–17 the Ministry of Education and Culture has funded the FinCEAL project aiming to encourage Finnish scientists to work together with their colleagues in Africa and Latin America and as of 2015 with Asia on the themes of the EU dialogues and to disseminate information that helps Finnish scientists, and those living in Finland, to find funding opportunities through the Horizon 2020 programme and from other possible sources.

The HEI ICI and North–South–South programmes are a part of implementing the Finnish higher education institutions’ objectives related to a more global dimension. The Ministry of Education and Culture considers it valuable that higher education institutions can take part in implementing development co-operation. The programmes have established contacts and created networks that can be used by higher education, science and business alike, meeting the needs of and benefiting the societies of both Finland and the partner country. The excellent quality and diversity of the projects are an indication of the Finnish actors’ high motivation for establishing contacts with HEIs and institutions that play a vital role for the partner country’s development. The networks created in the course of these projects, then, make it possible for Finnish actors to take part more extensively in EU and global projects, including the Horizon 2020 programme, Erasmus + and others, and thus contribute to facing the great societal challenges in line with each higher education institution’s strategy and priorities.

The programming period 2011–2012 suggests that the HEI ICI instrument has supported the higher education institutions’ strategic choices; for example, the institutions have implemented several projects in the same partner country. We must hope that this trend continues and gathers momentum.

Reflections from HEI ICI Practitioners and Projects



■ Developing Development Studies: Uncertainty and Curiosity as Institutional Capacities in Higher Education

Adagolt Komba, University of Dar es Salaam

Tiina Kontinen, University of Jyväskylä

Chrispin Matenga, University of Zambia

Colman Msoka, University of Dar es Salaam

Elina Oinas, University of Helsinki

Gutu Wayessa, University of Helsinki

A critical faith in development

The title of our project suggests firm faith in the notion of “development” and the project’s commitment to intentionally develop the discipline in a well-planned and promptly implemented manner (cf. Cowen and Shenton 1996). However, as the discipline of Development Studies is deeply engaged in the critique of the concept of development itself, the project is also evaluated vis-à-vis previous critical observations on the dynamics of development initiatives and practices. Such observations have included the insight of development projects as continuous processes of negotiation between different values and interests (Long 2001). The projects may turn out to be a crashing point of different logics such as the intended project logic versus the recipients’ logics revolving around taking advantage of the extra resources provided by any development project (Olivier de Sardan 2005). There is also the overall “will to improve” angle on development (Murray Li 2007) and a tendency to simplify complex social and political situations into technical problems that are solvable with project activities (Ferguson 1994). Moreover, there has been a continuous debate on whether development initiatives should be based on universal patterns or on localised solutions and, in Easterley’s (2004) words, be implemented by planners or searchers.

The main objectives of the HEI-ICI funding instrument are related to achieving societal development goals in developing countries through collaboration between higher education institutions. At times we nevertheless wondered, sitting in a seminar rooms in Lusaka or Dar es Salaam, how likely Finnish universities were to possess such “water” that can stay in the “wells” in Southern universities. We also questioned whether the water would be drinkable to quench the thirst in the local society, let alone to satisfy the expectations of in-

ternational Millennium Development Goals and beyond. However, the further the project proceeded the more we learned that the best ways of contributing include providing access to the “normal” water of academic life in the course of collaborating in our professions as researchers and teachers in development research.

“Ei kannettu vesi kaivossa pysy”, you cannot expect water that is poured into a well to stay there. Grappling with the difficulty of understanding the “well”, the risk of pouring “water” into the well with little relief for societal thirst was, and is, important in itself.

The project supported the quality of development studies teaching and research in the partner universities on the premise that more qualified teachers and researchers could more meaningfully contribute to the development debates in their own countries. The participants in the project were lecturers in development studies with an enormous teaching load, sometimes with classrooms of up to 500 students. Occasionally, they have to give the same lesson twice in order to accommodate all the students enrolled. At the same time, the participants were under pressure to qualify as PhDs, for most of the lecturers were not doctors at the beginning of the project. In undertaking PhD research there seems to be lengthy institutional practices such as representing the proposal multiple times to different committees before being able to pursue the research. Moreover, there is an increasing pressure to publish in international journals as well. Simultaneously, budget constraints mean that there is limited access to journals, no possibilities to regularly update library collections or to participate in international conferences. The efforts to be members of the international academic community and qualified contributors to local development are often hampered by lack of time, means, access and funds, that is, by lack of “institutional capacity”. We often ask ourselves if our collaboration – Finnish, Zambian and Tanzanian academics working together – can actually contribute to building institutional capacities and societal development processes at large. Towards the end of our project it became evident, however, that there is plenty of need for local academics with a PhD. Those who finished their doctoral degrees during the project very quickly gained positions as heads of departments or research institutes.

While Development Studies is a multidisciplinary academic field, the emphasis at the universities of Jyväskylä and Helsinki, the Finnish partners, is mainly on social sciences, and a similar focus applies to most of the partner universities. There is a strong influence from political science, sociology, anthropology and history. These disciplines are based on theory and embedded in empirical research material. In terms of academic capacities then, our project does not involve new laboratories, machines or technical skills, but skills in social theory

and research methodology. These, however, are always contextual and historical. How is then a social science discipline strengthened by outside forces and support? The funding does not allow a recruitment of new local teachers to reduce the teaching loads, but activities in order to collaborate and exchange expertise. The key issue is thus the relationship between local expertise and international collaboration.

The paradoxes in our project were connected to the fact that we put our faith in North–South collaboration while acknowledging the key message that guides Development Studies: all development stems from the local context and must be owned by the local agents of change. To further complicate the picture, Development Studies is a discipline explicitly debating the impossibility of any societal change ever being purely local or home-grown, especially when considering transnational and global circuits of knowledge, resources and power. Such paradoxes were frequently highlighted during moments of silence in the classroom when theoretical frameworks were discussed. Most theories in social sciences have their contextual background in societies other than Zambia and Tanzania. These societal contexts often differ in significant ways from the ones literature stems from. Moreover, the research methodologies typical of the social sciences may not be feasible in case studies of, for example, rural communities in Tanzania, the already existing and extensively used “laboratories of development”.

Still, the moments of amazement and frustration were also fruitful. During the project, we have gained an understanding that meaningful “waters” – or streams – flow in reflective knowledge practices where uncertainties, ambiguities and curiosities resurface. The acknowledgement of uncertainty and enhanced curiosity are important institutional capacities in social sciences. Grappling with the difficulty of understanding the “well”, the risk of pouring “water” into the well with little relief for societal thirst was, and is, important in itself. We recognise this as part of the struggle to make the discipline of Development Studies more responsive to societal expectations and demands, and thereby enhance its relevance for the society at large. The more we proceeded with the project, the more we engaged in joint debates about the identities and relevance of development studies.

Wells and water are frequent metaphors for proverbs in different development contexts. A well-known Finnish proverb argues: “Ei kannettu vesi kaivossa pysy”, you cannot expect water that is poured into a well to stay there. In learning and development contexts, it is used almost as much as “teaching a

man how to fish rather than giving him the fish”, a proverb of allegedly Chinese origin quoted continuously in capacity-building workshops around the world. Finns also talk about the bottomless “Kankkula well”, which has been used to ridicule development aid. The Finnish Ministry for Foreign Affairs has ironically named its recent exhibition on successful aid projects as the Kankkula Well. Moreover, in Tanzania we have a proverb “Maji usiyoyafika hujui wingi wake”, you cannot know the extent of water in a pond that you have never been to, pointing out to the difficulty of knowing and understanding others’ challenges and situations.

In this article, we reflect on our contribution to the “wells” and the “water” of development aid as institutional support to higher education institutions. Our project was initiated and planned by development studies scholars at the Universities of Helsinki, Jyväskylä, Dar es Salaam and Zambia, with decades of experience in research on development aid and contexts of developing countries. It is thus evident that many critical messages on development industry informed our development project “Developing Development Studies” in 2010–2012. In this chapter the focus is on the question of how academic learning and “aid” can be seen as something more than imported, alien water that may even hamper locally grounded and perhaps more relevant knowledge processes that southern academics might well develop without aid. Our answer, however, is that such collaboration is indeed meaningful in both academic and development terms.

Uncertainties in agenda and management

Most development practice has frequent moments of awkwardness, unease and embarrassment that stem from the donor–recipient relationship, the power imbalance and the reluctance to spoil the working relationship by asking uncomfortable questions about the agenda, ownership and money. There is a wealth of academic, critical literature on development aid and on development partnerships as based on mutual trust, open communication, shared objectives and joint accounting. However, when dealing with a real-life project with partners we mutually like and respect, it may be more difficult still than expected to take the bull by the horns. Questions such as whether this “water” is of any use or if it has delivered any reasonable contribution to capacity building are not easy to discuss. These questions are related both to the nature of knowledge advocated in the project and the ways the project management was realised.

In our case, the major activities were seminars where local researchers' own projects were discussed from different points of view. During these long conversations it became clear that what the collaboration can teach are processes and practices. The dynamics in the workshops was quite far from the stereotypical image of a Western professor trying to feed a pre-formulated truth to reluctant recipients. Rather, the teachers encouraged uncertainty and were hesitant to provide ready-made answers. At times, it was this reluctance that seemed to be a disappointment to students looking for an exact answer to questions such as the "right number of participants" in a focus group discussion. Scholarly uncertainty is difficult for anyone, especially for junior academics to endure. University researchers and lecturers in Development Studies are expected to provide answers in a context of increasing societal pressure. All scholars fight with a sense of inadequacy and long for certainties. High quality teaching, then, helps participants to cope with the process when answers are slow to emerge and may remain only tentative and contingent.

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Most of the seminar participants had hopes that the professors would certify the truth-claims of their proposals. Approvals of foreign authority are a temptation in international collaborations. In the context of collaborations involving research, this relates to an important question of whose research agenda is realised. Notwithstanding the encouragement of uncertainty and students' own curiosity, our project was not left untouched by agenda struggles. The theoretical and methodological frameworks discussed were often those that were interesting to Finnish teachers, and not necessarily to the students. The themes of a number of workshops were designed solely by Finnish teachers, with few assigned contributions from senior staff from southern partners. The issue was further complicated by the diverging agenda of the students' local supervisors and the fact that some students were conducting their PhD in a research project funded, for example, by Danish or Norwegian research institutions with their own agendas. At times, the lack of ownership of the research and the multiple changes in research topics reflected the conditions set by external research funding.

Therefore, an important part of enhancing institutional capacity was developing skills on how to cope with a research process and especially of skills to endure the anxiety when confronting uncertainty, multiple demands and

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agendas. This can be seen as an expertise in itself. Such expertise needs to be developed and nourished like any other fact-based or practical skills. We do not teach, for example, the ideal numbers of women's representation in the Parliament in Tanzania, but we do teach skills on arriving at a number and interpreting this in the light of selected social theories. Important skills therefore include constant reflexivity, an ability to adjust to new interpretations and changing perspectives, and to tolerate the position of not-yet-knowing. Often such skills are not recognised as expertise but seen as a weakness. Something more tangible is required. Yet, if the aim is to support locally-rooted knowledge practices, the focus on coping with uncertainty and developing courage to listen to local voices and needs, and interpreting them to a wider audience are internationally-shared academic characteristics that

hold a lot of currency in development. And, perhaps not so surprisingly, an active engagement between local and foreign researchers can help to ask new challenging questions and identify yet new uncertainties.

The second theme where the uncertainty was evident was the management of the project itself. In our HEI ICI project, we could not escape the typical challenges of development project management. These general challenges, which are well-identified in research literature, include delays in money allocations at the beginning of the project, accompanied by the non-flexibility in extending the spending. The funding institution and the higher education institutions at both ends of the collaboration have certain management procedures to be followed before money allocated to a certain project can be used. In our case, the delay was over six months which in a two-year project amounts to one quarter of the project duration. There were a lot unnecessary uncertainties and delays in the actual money transfers, reporting and following the budget. At times, there seemed to be no accurate information about the money spent and about the guidelines from the funder to which kind of activities it could be used. Even if uncertainty might be an asset in academic terms, such uncertainties certainly equal loss of time and money in management terms. While the funding relationship can be criticised as an asymmetrical power relationship, the adequate transfer, spending and financial reporting might also be considered as a joint effort, which we see as a good example of institutional capacities on both sides.

Templates, theories and buzzwords

One typical moment at the beginning of our HEI ICI journey in a seminar room in Lusaka campus may illustrate our paradoxes further. In this particular situation, after a rather hesitant beginning, there was suddenly a heated debate between two Tanzanian students about one research proposal in an early phase. The author of the paper, let's call her Janet, was accused of not having the "background assumptions" and hypothesis clearly stated. She had, however, gone through all relevant literature on gender and political participation, of which a large chunk derives from the Scandinavian countries. She felt uncertain if this could serve as background assumptions from which to proceed to fieldwork in remote Tanzanian villages. Did she know enough about gender or politics, based on Swedish research? The opponent suggested that such knowledge must be there, otherwise her literature review and basis from which to ask local questions would be inadequate. The opponent clearly came from a tradition where a hypothesis is formulated and then empirically tested. But in social science research in new, little researched contexts this tradition is on shaky ground. Can Swedish theories about gender, however well-rehearsed, really inform our Janet about gender in a rural community in Tanzania?

The task of the teacher in this situation was to try to convince both the author and the opponent that they were right in their aspirations, but that the real skill of a researcher was to cope with a sense of loss when not being able to rely on literature and have the courage to explore unknown territory. The opponent rightly pointed out that one needed to make a comprehensive review of the literature. The teacher could add, however, that such a review could only generate good questions, not factualised background assumptions that settle conceptual uncertainties. The teacher should support the author of the research proposal by convincing her that her anxious uncertainty before going to collect data was a fruitful feeling, not a sign of weakness or academic failure.

The incident illustrates one of the central debates that went on throughout our project, again related to the uncertainty in concepts and structures of the research proposals. The preparation of a research proposal at times seemed to be more focused on fulfilling certain structural standards (such as "hypothesis") provided by the institutions rather than an open curiosity of the student to develop new questions on the basis of the research literature. This was partly related to the institutional processes of approving the proposals. If one did not have the expected sub-titles, there was a high risk of the proposal

not being accepted. Therefore, the ability to deal with uncertainty as an institutional capacity should be accepted also in the institutional procedures, not only developed as individual expertise.

A similar question was related to the relation between so-called development buzzwords such as “good governance” and academic concepts. While the development researchers and teachers in Tanzania and Zambia are working closely with the overall development industry, which offers consultancy and employment possibilities, the notions used in development policies are more likely to be taken as “theoretical frameworks”. In one of the workshops, which was conducted in Jyväskylä, there was a session on this theme of buzzwords. It created confusion and critique, but also opened new ways of thinking about these issues. Again, curiosity to look behind the buzzwords and related uncertainty was encouraged.

Role of visiting experts

What were the contributions of the visiting experts? In the situation in Lusaka cited above, any professor could have settled the discussion. However, in the Department of Development Studies at the University of Zambia, none of the teaching staff holds a PhD. The teachers therefore lack the authority and experience to comfort an uncertain researcher at the beginning of the PhD process – highlighting that the sense of being confused or lost is not necessarily negative, and that it may in fact be a productive one. One can convincingly say that there is light at the end oneself. “Maji usiyoyafika hujajui wingi wake”, i.e. you do not know the extent of waters you have not been to. Even if the visit-

ing teachers did not know the deep “waters” of the institutional and societal contexts in participating countries, they had experienced the depth of the pond of conducting a PhD.

Rather than providing only tangible capacities, such as computers, books and expertise in management of international exchange, we were able to enhance human capacities crucial for being able to participate in international academic community and local policy making.

Another reason for why non-local teachers may be needed in seminar rooms is that non-local participants and teachers are needed in most seminar rooms in the academia. All universities struggle to internationalise because new influences, perspectives and ideas help us to see our own case studies with fresh eyes, and may help to contrast our case with a similar one across the globe. This is something academics always do, but development aid funding may be crucial when a university is not adequately resourced. HEI ICI and other such funding may be crucial to create these seminar rooms in universities where funding for interna-

tionalisation is scarce. This also applies to providing opportunities for teachers in partner universities to visit Finnish seminar rooms and, maybe more importantly, the libraries in order to get access to the recent development research conducted on their respective countries and beyond.

A third reason similarly has to do with resources and origin: it is important for Nordic scholars to engage in a discussion on how social science theories that are mainly generated in the West – often in Anglo-American contexts – are translated and transformed. In some ways, Finnish academics are also in the margins in global theorising although we have an amazing access to literature and contacts. Together, scholars across the globe can and should take on the task of contextualising theory yet truly internationalising it in a non-hegemonic and non-imperialistic fashion. This requires reaching the next level of “collaborative reflexivity” in theorising.

Toward equal participation in global academic community

We conclude that the main outcomes of our project supported crucial institutional capacities required by social science research and meaningful participation in development policies, namely dealing with uncertainty and encouraging curiosity. Rather than providing only tangible capacities, such as computers, books and expertise in management of international exchange, we were able to enhance human capacities crucial for being able to participate in international academic community and local policy making. Positive and open uncertainty, continuous reflection, questioning the nature of knowledge, curiosity, courage and patience to produce new knowledge are crucial capacities. However, these need to be combined with institutional procedures that support reflexivity and facilitate the provision of sufficient resources and access to existing knowledge.

These are not capacities that can be fully realised in two years, i.e. during our HEI ICI project. These capacities require societal and institutional changes. However, we hope that the lessons learned in the seminar rooms and the joint discussions in other settings will contribute to the development of staff willing and able to contribute to these changes. This entails handling the tensions between the roles of a self-confident teacher and an uncertain PhD student.

The institutional capacities of higher education institutions all over the world are related to the capacities to conduct quality research and provide excellent education, combined with the struggles related to the adequacy of time and

other resources. In our view, the best way to support higher education institutions is to support the staff to be able to engage in a global research and teaching community. The capacities are strengthened by research partnership and teaching collaboration, not through preaching how the others should do it. Implications for this in regard to the funding instruments are that the core activities of the HEI ICIs should be eligible to be supported in such a collaborative way. We all come across uncertainty and confusion and, at best, are able to find productive ideas to overcome our challenges, and thereby develop the capacities of each participating institutions, both in the North and the South.

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■ Building Institutional Leadership and Management Capacity of Ugandan Universities through Training Programme Development

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Need for management training in the African context

Higher education institutions are increasingly regarded as key players in addressing the substantial socioeconomic asymmetries and in fostering sustainable competitive advantages (Audretsch, Keilbach, & Lehmann 2006; Geiger, 2006; Mowery & Sampat, 2005; Porter, 1990). Yet at the same time, in the past two decades, there has been little or no focus by governments and international donors on the capacity of universities to contribute to social change (The Association of Commonwealth Universities, 2010). Against this background, the Association of Commonwealth Universities (2010) has recommended that future development goals, at national and international levels, explicitly recognise the role of higher education. However, to perform their societal roles successfully and transform themselves into major societal actors, universities need not only changes in curriculum and missions but they also need to build strong responsive leadership and management capacities (UNESCO, 1998). This is premised on a consensus that institutional management of African universities is weak, inefficient and in need of rebuilding and professionalisation (Hölttä, 1995; Saint, 2004; Salmi, 2007; Teferra & Altbach, 2004). Thus, higher education institutions in Africa are increasingly being urged to pay considerable attention to, and to strengthen, their leadership and management capacities (Saint, 2004).

It is glaringly obvious that strong institutional management capacities enable universities to respond actively to societal changes, needs and expectations (Vogel & Kaghan, 2001; Salmi, 2009). It is also important to recognise that middle management (deans, heads of departments and heads of research institutes, etc.) has become crucial in helping the university to achieve its mission and to effectively interface with society in both the developed and the developing countries (Bisaso, 2010; Meek, Goedegebuure, Santiago, & Carvalho, 2010). But without adequate professional training in higher education management, middle management is constrained in its vital role (Schofield, 1996). Moreo-

ver, middle management – deans in particular – in Makerere University and other Ugandan public universities have been hampered by ambiguity and conflict of roles fuelled by the rise of market-oriented reforms for which it was unprepared (Mamdani, 2007; Visitation Committee to Public Universities, 2007). Additionally, emerging research points to the need for managerial improvement of middle management (deans in particular) and administrative staff at Makerere University in the use of information as a regulative element in academic and financial management (Bisaso, 2010). However, the drive to build capacities of institutional management and professionalise Uganda’s higher education management is curtailed by inadequate institutional capacities to provide specialised programmes of higher education leadership and management.

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Ongoing management training initiatives have concentrated on short learning programmes in higher education management and leadership, focusing on already serving academic managers and leaders (University of Oldenburg, 2010). In addition, earlier programmes on higher education management in Africa conducted by the Association of African Universities focused on research and barely extended the findings and recommendations to institutional capacity building (Association of African Universities & The World Bank, 1997; Liverpool, Eseyin, & Opara, 1998).

In Uganda, previous studies on university management have shed light on the shortage of professional higher education administrators and the unresponsive nature of public universities that curtails their engagement in national economic development. For instance, the Visitation Committee to Public Universities in Uganda discovered that private sector enterprises consider some public universities “ivory towers” and that in most cases university communities have not comprehended the development benefits that accrue from partnerships between universities and private and public sectors (Visitation Committee to Public Universities, 2007). Moreover, in its survey of sixteen private universities in Uganda, the Uganda National Council for Higher Education (2007) reveals that university managers and leaders have not had any formal management training and lack adequate skills and knowledge of managing universities. Along similar lines, the Visitation Committee to Public Universities in Uganda (2007, p. 78) has recommended, “...an overhaul of administrative structures and styles...and urgent management training and re-training”. Other stud-

ies show that most university managers are either lecturers that have taken up administrative responsibilities in addition to or at the expense of teaching and research, or people that have risen through ranks from clerical cadres; an arrangement that is increasingly incompatible with growing demands for a professional approach to university management.

Leadership and Management in Ugandan Universities (LMUU) project and results

The overall objective of the LMUU project *was to build responsive capacities of Ugandan universities for engagement in national development*. This was pursued by focusing on strengthening the universities' institutional management capacities by enhancing the institutional capacities of Uganda Management Institute to be able to professionalise serving and prospective university leaders and managers in Uganda and the East African region. The LMUU project followed a demand-driven approach by concentrating on jointly developing a Post-Graduate Diploma in Higher Education Leadership and Management (PGD-HELM) at Uganda Management Institute (UMI) and building capacities of UMI academic staff on theories and concepts of higher education management and administration.

Partners and institutional context

The main project partners were the Uganda Management Institute, Makerere University, University of Tampere and the University of Helsinki. The main stakeholders of the LMUU project were the Ministry of Education and Sports, the Uganda National Council for Higher Education, the Inter-University Council for East Africa and the Embassy of Finland in Nairobi. The conception of the LMUU project was a long-term commitment to institutional capacity building and co-operation between the Uganda Management Institute and Makerere University (MU) and the University of Tampere. The process that materialised as the LMUU project started several years before the Higher Education Institution – Institutional Co-operation Instrument (HEI ICI) was launched. The co-operation dates back to when the Director General of Uganda Management Institute initiated collaboration with the Higher Education Group at the University of Tampere on learning about its training programmes for higher education administrators in Finland. The HEI ICI instrument was found to be central in further developing this co-operation.

The idea of tailoring similar programmes to the African context was considered especially after several studies had shown that African higher education

management was weak and inefficient. On that basis – a need to reposition its role in management development for public and private sector organisations including universities – Uganda Management Institute identified its needs that are deeply rooted in its strategic plan and profile that were addressed through the LMUU project.

At the same time, the management deficiency at Makerere University and the need to understand the problem necessitated long-term commitment to building the capacity of the institution through training young academic staff. Ronald Bisaso who was working at Makerere University was granted study leave by the Vice Chancellor to attend the doctoral programme in Administrative Science/Higher Education Management at the University of Tampere thanks to the uniqueness of the programme from the African perspective. Ronald Bisaso successfully defended his doctoral work on the responsive capacities of institutional management at Makerere University and received a doctoral degree in Administrative Science. This is one of the fruits of institutional co-operation. The recommendations from the doctoral study were valuable for developing case study materials for the modules in the Post-Graduate Diploma in Higher Education Leadership and Management currently taught at Uganda Management Institute.

The project resonated with the strategic objectives of Uganda Management Institute (UMI) that focus on the transformation of UMI into an effective and efficient Management Development Institute (MDI) as well as generating and disseminating cutting-edge knowledge on administrative, managerial and leadership issues (Uganda Management Institute Strategic Plan 2008–2013). In its current strategic plan, Makerere University has expressed the need to transform its organisation and management structures in tandem with its mission *to provide innovative teaching, learning, research and services responsive to national and global needs*. At the same time, Makerere University has sought to collaborate with Uganda Management Institute where the Institute would conduct staff development programmes and training of managers of Makerere University. Moreover, in this collaborative effort, Makerere University has underscored the need for training in financial management, budgeting and human resource management for all PhD holders (Makerere University, 2010). The Finnish partners in the project were the Higher Education Governance and Management (HEGOM) research group within the Network for Higher Education and Innovation Research (HEINE) (which was based at the Department of Political and Economic Studies) at the University of Helsinki University and the Higher Education Group (HEG), an academic unit in the Department of Management Studies, Faculty of Economics and Administration (recently School of

Management) at the University of Tampere. HEG as a co-ordinating unit had a long history of providing instruction for higher education managers and leaders in Finland, and had extensive collaboration networks as well as longstanding experience on the African context and development co-operation. HEG was already involved in capacity-building efforts both in and outside Finland through the training of current and future higher education administrators and higher education researchers at Master's and doctoral levels.

Results

The LMUU project trained a total of 25 university teachers and two policy makers. The training was based on the curriculum of the corresponding Finnish programme (KOHA) in order to build the participants' competences to teach a similar programme in Uganda. The 25 teachers (10 female) were identified by Makerere University and the Uganda Management Institute (UMI) on the basis of their individual expertise. Additionally, two female experts in higher education policy came from the Uganda Ministry of Education and Sports (MoES). The training of trainers (ToT) spanned over six months in phases. The ToT facilitators – drawn from the University of Tampere and University of Helsinki in Finland, Association of African Universities, the Inter-University Council for East Africa (IUCEA), Uganda National Council for Higher Education (UNCHE), African Development Bank (ADB), Uganda Ministry of Education and Sports, and from the top university management of some Ugandan higher education institutions – gave an orientation on the core modules from the international, regional and national perspectives.

Engagement of multiple stakeholders ensures that institutional co-operation contributes to societal development.

As the main and most concrete result, a Post-Graduate Diploma in Higher Education Leadership and Management (PGD-HELM) was jointly developed by the Finnish experts and the 25 trained Ugandan experts. In other words, the Finnish non-degree programme (KOHA) curriculum (40 ECTS) of the University of Tampere in Finland was successfully transferred and adapted to the needs of Uganda Management Institute. It is important to note that two modules relating to the cross-cutting issues of gender and poverty reduction were added to the core KOHA curriculum to make sure that the transferred curriculum was more relevant to the African context. The two modules were: (1) *Higher Education and Sustainable Development* and (2) *Gender in Higher Education*. The PGD-HELM was accredited by Uganda National Council for Higher Education on 17 July 2012 for a period of five (5) years as an academic programme of Uganda Management Institute.

It was important to pilot the accredited content. This was done through team teaching and peer evaluation by the 25 trained academic staff from Uganda Management Institute, Makerere University and Ministry of Education and Sports. Finnish experts participated in the piloting phase by teaching topics related to competence-based education and assessment, and evaluating team teaching by academic staff to teach PGD-HELM at Uganda Management Institute.

The programme is currently running. It has eleven (11) fee-paying students registered on the PGD-HELM programme at the Uganda Management Institute, where teaching commenced in March 2013. This first cohort graduated in March 2014. This is an indicator that the programme became self-sustaining even after funding had ended.

Prospects

Engagement of multiple stakeholders ensures that institutional co-operation contributes to societal development. During the LMUU project, stakeholders from agencies considered actors in national innovation systems such as the Ministry of Education and Sports in Uganda, the Inter-University Council for East Africa, the African Development Bank, and the African Union participated in capacity-building activities carried out by Finnish and Ugandan higher education institutions. This added to the understanding of the dynamics of higher education in the context of sub-Saharan Africa.

With this wealth of knowledge and networks, sustainability is slowly emerging through other equally important avenues such as joint teaching, research and publications. Finnish and Ugandan experts are getting further involved in joint conference presentations such as the Nordic Development Research Conference in 2013, which will strengthen the network further. Moreover, such academic partnership ought to be extended to prospective students when the knowledge bases of Master's and doctoral level professional and academic programmes have been established through institutional co-operation in LMUU II (with funding from HEI ICI). These initiatives will be supported through such funding opportunities as the North–South–South and Erasmus Mundus Plus to further entrench knowledge sharing among the partner institutions, teachers and students.

Role of southern higher education partners in the development of society

Uganda Management Institute was established in 1969 as the Institute of Public Administration (IPA) to provide in-service training to public servants in Uganda. From the very beginning it was conceived as an indispensable component to the country's transformation and development. It acquired its present name following enactment of the Uganda Management Institute Statute in 1992 which granted it semi-independent autonomy and authority to develop its own programmes and offer its own certificate, diploma and degree awards (Uganda Management Institute, 2008). Following the amendment of the Universities and Other Tertiary Institutions' 2001 Act, in 2006, UMI has been categorised under "Other Degree Awarding Institutions". UMI has since redirected its mission from specialised academic programmes to more generic academic programmes that have been considered vital for the Institute to continue to play a leading role in current and future socioeconomic development. More specifically, the triggers for the change in mission hinge on the need to: build Civil Service Organisation's capacity; enhance performance of the public sector; develop leadership capacities in governments at all levels for better public sector governance as well as enhance national productivity and competitiveness. Consistent with these developments, UMI has stated its vision as "to be a World Class Management Development Institute" while the mission is "to excel in developing sustainable management capacity". The emphasis in the strategies to realise the vision and achieve the mission has been on various stakeholders including, but not limited to, the private, the public and the non-government organisations sector managers.

Makerere University was established as a technical school in 1922 and is one of the oldest and the most prestigious universities in Africa. By 1924, Makerere University was not only a Ugandan institution but was growing to serve the region of East Africa (Eisemon, 1994). As of the 1990s, the University has experienced tremendous transformation that has seen exponential growth in terms of student numbers, programmes, staff and international collaborations (Musisi & Nansozi, 2003; Mamdani, 2007). Recently, like UMI, Makerere University has sought to reposition with its vision statement as "to be the leading institution for academic excellence and innovations in Africa" and mission statement as "to provide innovative teaching, learning, research and services responsive to national and global needs" during the current strategic period 2008/09–2018/19 (Makerere University, 2008, p. 12). Three pillars have been identified. First, learner centeredness with a focus on cultivating in graduates not only traditional academic skills but also generalist skills "necessary to compete in the dynamic labour market of knowledge driven economies of the

world". Second, a research-driven university is envisaged in which research and teaching should be mutually reinforcing. It has to be noted as one of the oldest universities in Africa, Makerere University is well-placed to provide research leadership in Uganda. By producing relevant knowledge, Makerere University will increase its relevance by contributing to the growth of the country's economy. The third pillar is made up of knowledge transfer, partnerships and networking. The University has steadily shifted from the outreach paradigm to knowledge transfer, partnerships and networking on the premise that knowledge sharing between Makerere University and the private and public sectors would accelerate knowledge uptake, translation and utilisation for community development.

Whereas there is arguably no deliberate government policy to ensure that higher education institutions meaningfully contribute to national and regional development, there is evidence that Makerere University and Uganda Management Institute, although with varying history, strive to be responsive to national development needs. Indeed, their visions, missions and academic provisions can be aligned to the theme of the Uganda National Development Plan 2010/11–2014/15: growth, employment and socioeconomic transformation for prosperity. In fact, the National Development Plan recognises that higher education "is at the heart of education as well as the core of national innovation and development systems" (National Planning Authority, 2010, p. 214). Moreover, most of the activities at Uganda Management Institute and Makerere University seek to contribute to the realisation of Policy Statement 9 of the National Science Technology and Innovation Policy which focuses on supporting basic, applied and developmental research that enriches the indigenous knowledge base (Ministry of Finance, Planning and Economic Development, 2009, p. 18).

According to the model developed by Cloete et al. (2011), universities can be seen as engines of development. The model highlights that the universities are not only apolitical ivory towers or instruments but they may also have a proactive role in development policy. Both of the institutions can be considered to have had all of these roles. If we recognise the university as ancillary, we can look into the early development of these institutions. The Uganda Management Institute established as an Institute for Public Administration in 1969, but it was not until 2006 that it was granted the status of Other Degree Awarding Institution. Similarly, Makerere University has been transforming; the role of production of civil servants was more evident prior and during the 1960s as the country prepared for independence.

Makerere University can be seen as an engine of development.

By and large Makerere University can be considered to be a self-governing institution. As a premier institution, Makerere University provides leadership in the production of knowledge in Uganda and the region. Interestingly, the College of Health Sciences and the College of Agriculture and Environmental Sciences have had a reputation for scientific breakthroughs and have hence attracted funding from development partners. In the same way, Uganda Management Institute has created branch campuses in the western, northern and eastern parts of Uganda to embrace a nationwide outlook in contributing to social development. It is the only non-university public higher education institution that is equivalent to a university.

Both of the institutions have been important instruments for national development. As a flagship university, Makerere University has focused on addressing the development needs of the whole country by underlining human resource development for local government units in areas considered critical for development: human medicine, agriculture, computer science, engineering and physical planning (Musisi, 2004). In the same vein, Uganda Management Institute has stressed consultancy activities especially for government agencies, development partners and local communities as part of its strategy (UMI Strategic Plan 2008–2013).

Makerere University can be seen as an engine of development. There is evidence to show that Makerere University has indeed contributed tremendously to social development through invention of cheap sanitary pads made from local materials such as papyrus at the College of Engineering, Design, Art and Technology; and crop and food varieties discovered at the College of Agriculture and Environmental Sciences. In addition, there has been development of commercial software and customising of available software at the College of Computing and Information Technology. Overall, the Uganda National Council for Science and Technology (UNCST) has noted that over 70 per cent of national research and innovations originate from Makerere University. By its purpose the LMUU project aims to strengthen the role of the institutions as proactive members of national economic societal development. The aim of the PGD HELM is to provide academic concepts and tools for institutional leaders and managers to think out of the box, utilise scarce resources and map the policy environment for creation of responsive universities that engage in national development.

Role of development co-operation at the University of Tampere and University of Helsinki

The University of Tampere has a long tradition as an institution of higher learning that emphasises the development of the society. It was established in 1925 in Helsinki as a Civic College with a mission of educating the population outside of elite strata of the society and the urban areas. According to its latest strategy:

"The University addresses the central issues in contemporary society. By providing critical knowledge and education, the university helps people and societies to improve their health and their cultural, social and economic well-being..." "The University of Tampere takes an active part in debates about societal development."

Further, in its strategy:

"The University of Tampere is committed to promoting justice and equality in society, to enhancing the well-being of citizens at home and abroad, and to advancing multiculturalism and sustainable development. The basic values of the University are academic freedom, creativity and social responsibility. This means that everyone has an equal right to learn, to acquire knowledge, to participate and to make an impact on society. The University of Tampere is a culturally-committed higher education institution with the social mission of educating visionaries who understand the world and change it. By providing critical knowledge and education, the university helps people and societies to improve the health and their cultural, social and economic well-being."

In addition, the strategy of the University of Tampere has an internationalisation strategy that further emphasises the importance of development co-operation:

"The University of Tampere will bear its global responsibility. The University of Tampere will educate people who understand the world and know how to change it, who will promote justice, equality, the wellbeing of people in their own country and others, interaction between cultures and sustainable development. On international degree programmes citizens of the development countries will be educated who, after graduation, will support the development of their own countries. In addition to education and research co-

operation, the universities of the developing countries will be strengthened by support for the structures of their administration and teaching. Funding for co-operation will be obtained by applying for national and international funding with which to support the achievement of the UN objectives of the millennium and the strategy of Education for All. Sufficient administrative resources will be in place for applying for funding.”

In light of the history and the official policies of the University of Tampere, one might conceive that development co-operation was an organised part of the activities of the university. However, the university has no tradition in supporting the processes or individual academics or research groups in the area of development co-operation. Nor does it have official structures for co-operation within the university, measures for recognising the development work or financial structures for supporting development co-operation. This is especially true in projects which do not involve a research component or degree education. If research and degree education are involved, the institutional rewarding mechanisms will take the academic aspect of development co-operation into account.

The lack of organisational incentives is further emphasised by the full-cost model applied in the HEI ICI project. The overheads are counted by using a formula developed for research work conducted within university premises and using the facilities needed for research. In a sense, development co-operation substitutes the research work in the universities while the HEI ICI rules disallow research work within the project itself. Not all of the overheads are allocated to development co-operation or services supporting it. In the University of Tampere this is further emphasised because of vague internal management accounting and the lack of follow up of overheads during the whole project period.

Tampere may have lacked initiatives and practices, but the LMUU project has nevertheless been beneficiary for the academic community. The project has provided a possibility for several academics to travel to Africa for a first time and learn new cultures and contexts. However, the major result from the perspective of capacity building of the Finnish staff and institutional capacity of the Finnish universities has been the application of University of Tampere's PhD graduate's dissertation work to Ugandan education. The Ugandan PhD holder has secured ownership of the process and respected positions in the partner universities during the project and will in future act as an important liaison for the University of Tampere in Uganda. This link has so far led to a second phase

of the HEI ICI programme (LMUU II), an internship for a Master's student from the University of Tampere and to the establishment of a student exchange programme from 2015.

Relating development co-operation to academic values and values of university.

Traditional academic values originate from the academic profession and the institution of science. They are linked to the value of knowledge as opposed to other values (wealth, etc.) but also to social norms of science, coined by Merton (1973) as CUDOS norms (communism, universalism, disinterestedness, organised scepticism). The emergence of idea of the "third" mission of universities – understood as more organised societal interaction between university as an organisation and its external stakeholders – has opened possibilities for a new set of values.

For example, the strategy 2013–2016 of the University of Helsinki, entitled *The Best for the World* (University of Helsinki, 2012), identifies truth as its core value. Knowledge is understood as a value in itself. A critical mind and creativity are seen as the basic characteristics of an academic contributing to edification and wellbeing with the support of university autonomy. The strategy contains no direct reference to developing countries, but the university is described also as a "responsible social force" promoting wellbeing and justice and advocating "sustainable development in its research and other activities both in Finland and across the world". The University of Helsinki has no separate internationalisation strategy. Compared to the strategies of University of Tampere, the Helsinki strategy has less specified emphasis on outreach functions, but in practice, the university is involved with many projects linked to development co-operation in one way or another. As the introduction of the strategy document puts it: "The University of Helsinki is helping to build a better world by involving itself more actively in the resolution of global problems."

A more general background of the values of Finnish universities can be found in the University Act (558/2009):

"The mission of the universities is to promote free research and academic and artistic education, to provide higher education based on research, and to educate students to serve their country and humanity. In carrying out their mission, the universities must promote lifelong learning, interact with the surrounding society and promote the impact of research findings and artistic activities on society."

University graduates are expected to serve their country and humanity in general.

University graduates are expected to serve their country and humanity in general. Universities, including academic staff, should interact with the surrounding society and promote the impact of research findings. Projects like LMUU are clearly part of the interaction, but not with the locally surrounding, “national” society (except for funding from the Finnish Ministry for Foreign Affairs) but with “a foreign society”. As international co-operation in research and increasingly in education sets the background for academic activities, crossing national boundaries is an everyday academic practice. The Finnish actors of the LMUU project have not come across with any prejudices against academics’ role in development co-operation. This is at least partly related to external governmental funding by the Finnish MFA and the general focus

of the project, directly related to developing foreign university institutions, the members of universal scientific community and potential academic partners.

The LMUU project can be seen as a new example of the articulation of the third mission of the university. It is oriented to international community, not to surrounding national environment. It is oriented to developing foreign academic institutions, not directly to the surrounding institutions or the stakeholders of academic institutions. It is oriented to creating mutually beneficial infrastructure for future academic co-operation in research and education. It has shown how development co-operation can be academic co-operation and vice versa.

Lessons learned

The curriculum of the Finnish KOHA programme, mainly targeted to professionals of higher education administration, is mostly based on academic knowledge. The basic idea of the KOHA programme is to help the students to understand the special dynamics of a national higher education system and those of the university organisation rather than provide practical skills which may be system-specific. For example, the Ugandan higher education system has inherited its basic features from the British system of the colonial period, and the Finnish system is a modern European system with roots in the German and Nordic models of higher education. The basic concepts and theories are not system-specific, and they can be applied into practice in different systems and institutional environments. This has allowed us to apply the Finnish curriculum also to the Ugandan higher education system and institutions as the basis of the training of trainers programme.

Perhaps the most important part of the process has been the group assessment of the relevance of the Finnish curriculum from the African perspective. This could be called localisation of curriculum in dialogue among the Ugandan and Finnish experts. The process has also led us to identify the missing elements as the curriculum was applied to Uganda. In particular, this process led to the development of gender and poverty reduction contents and modules of the curriculum.

Trust building by working on an equal basis was a key challenge at the beginning of the project. It was important for the whole group, for Finns and Ugandans alike, to understand that we were starting to do something new by combining field-specific knowledge and experience with the local understanding of the Ugandan higher education system. We could see fairly soon that the expertise of the local participants complemented the Finnish expertise very well. This is why some local participants of the project team adopted leadership roles enthusiastically and efficiently. They needed to have enough “space” and autonomy. This was essential from the perspective of transferring ownership to Uganda.

The involvement of stakeholders, in addition to the project group, was central in the process of transferring ownership of the programme to the South. Vice Chancellors and other institutional leaders participated in two workshops, and their comments were considered carefully. They influenced the details of the final curriculum. Accreditation and the decision of UMI to include the programme as a Post-Graduate Diploma Programme into its teaching portfolio were essential and most concrete elements of the institutionalisation of the outcome of the LMUU project.

Finally, perhaps the most important lesson to be learned can be found in the Master’s and PhD training in Finland. The project manager did his doctorate at the Higher Education Group (HEG) of the University of Tampere and wrote his dissertation on management capacity building at African universities, using Makerere as his case (Bisaso, 2010). Also, another African member of the Finnish team studied the role of universities in poverty reduction policies in Africa (Doh, 2012). A third student has examined the institutionalisation of the service function at Ugandan universities. Academic programmes in the North can indeed be used as instruments in capacity building in Africa, and the young scholars may grow in new roles in Africa as they participate in the capacity-building programmes as team members.

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■ Strengthening Forestry Education in Kenya

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During the years 2011 and 2012, the University of Eastern Finland co-ordinated a HEI ICI project that aimed at improving university-level forestry education in Kenya. The main target was the Department of Forestry and Wood Science at the University of Eldoret (UOE) in Western Kenya. The project contributed to this aim through interventions that directly enhanced the quality of the forestry education (e.g. curriculum revision, teacher training) and more indirectly through improvements in the visibility and societal relevance and connections of the partner university (e.g. workshops and conferences, collaboration with primary schools). While it had both aspirations and potential to become an engine of development, particularly within the area of natural resource management and forestry, UOE can be currently regarded as an instrument in Kenyan development. This article discusses the context of the project within Finnish-Kenyan development co-operation, and reflects on the benefits, difficulties and the lessons learnt.

Social context of the project

The HEI ICI project “Improving of Forestry Education in Kenya” (11 May 2011–31 December 2012) was a joint capacity development initiative carried out (with a budget of 405,192 euros) between the University of Eastern Finland (UEF) and the Chepkoilel University College (CUC) of Moi University. Since 2013, CUC has been constituted as the University of Eldoret (UOE). The project was funded by the Ministry for Foreign Affairs of Finland, and supported by Arbonaut, Global Village and the Regional Council of North Karelia. The project targeted one department (Department of Forestry and Wood Science, within the School of Natural Resource Management) at one higher education institution, but the interventions were planned to support and complement other efforts carried out by the Finnish Government, mainly the Miti Mingi Maisha Bora (MMMB) programme providing support to the forest sector reform in Kenya.

The project originated in the clear need identified by local and international stakeholders for strengthening forestry education in Kenya. Forestry education suffers from low investment and a decline in interest (see figure below).

Among the recommendations made in the latest International Forestry Education Symposium, the need has been stressed for integrating internet and communication technologies (ICT) in learning, and the concept of curriculum development as a continuous and context-dependent process (Pelkonen, 2012). While thorough curricular reforms have taken place that reinforce the competencies of foresters in developed countries (such as Finland, Germany and Canada), forestry education has lagged behind in most developing countries, Kenya included. This is the case despite the increasingly recognised role of forests in critical issues such as the provision of livelihoods for rural communities, climate change adaptation and mitigation, or biodiversity conservation in addition to their role in industrial development.

The project originated in the clear need identified by local and international stakeholders for strengthening forestry education in Kenya.

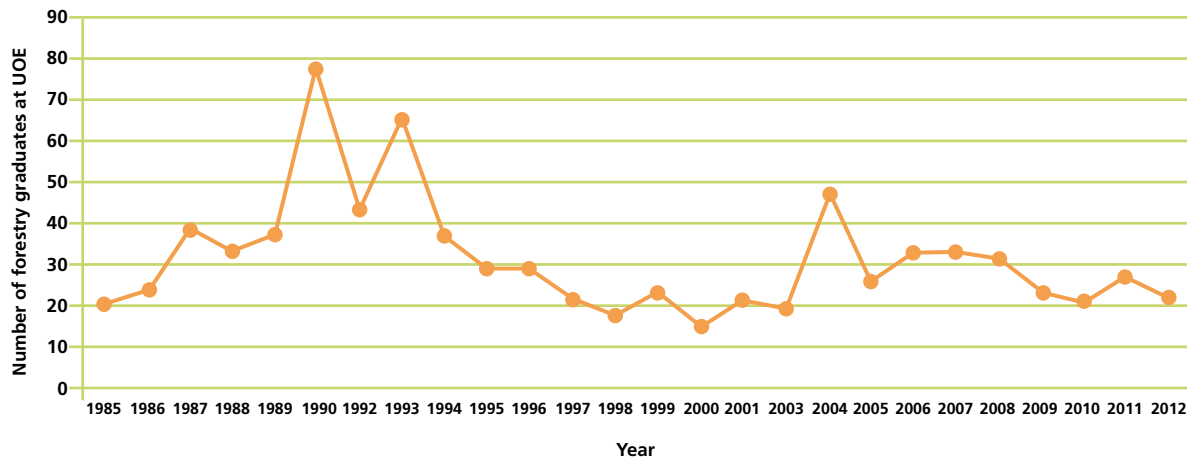


Figure 1. Number of forestry graduates at University of Eldoret from 1985 to 2012
(Source: UOE 2013a)

Kenya is a mega-biodiversity country served by various ecosystems ranging from marine, mountains and tropical to drylands, forests and arid lands. The population, currently about 38 million, is growing at a rate of over 1 million people a year (GoK, 2010a). According to the World Bank data for 2011, Kenya is a low-income country with a GDP per capita of USD 808. It performs poorly in environmental health criteria as laid out by the Environmental Performance Index, for example. While forests cover only 6% of the land area or 3.4 mil-

lion hectares (FAO, 2010), forests and trees outside forests constitute important resources for rural communities. For instance, the majority of the rural population depends on wood fuel, mainly firewood and charcoal for domestic heating and cooking which they obtain from forests and farmland. Furthermore, industrial forest plantations owned by the state can no longer meet the demand for pulpwood and sawlogs. This has led to a logging ban and consequently closure of most saw mills and the only pulp and paper mill in the country. Replanting in most of the harvested areas has also been slow. Thus, Kenya's natural resources are dwindling, and lands and forests are fast degrading due to increasing pressure on land and natural resources. Efforts must be made by stakeholders for sustainable use of these resources if Kenya is to develop.

Also, recent changes in forest policy need to be acknowledged both in the classrooms and in the field. In fact, during the implementation of the project, new policy directions for forestry were approved within the new Constitution of Kenya (2010b). The Constitution refers explicitly to the need to attain and conserve at least a 10% forest cover in the country, to give equal rights to women and men with regard to owning land (and therefore forests), as well as for the State to ensure the "sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits".

The project was implemented within a context of important changes in the whole education sector, which is marked by rapid growth. In the award ceremony of the charter to the University of Eldoret (11 February 2013), the Minister for Higher Education, Science and Technology Margret Kamar acknowledged that currently only 10% of those completing secondary education can be admitted to local universities. She observed that institutions of higher learning need to "ensure a clear staff development policy in order to cope with the growth of higher education sector" (GoK, 2013).

Online and Distance Learning (ODL) is seen as one of the solutions for education institutions to reach the increasing number of higher education seekers. Such initiatives were also supported throughout the project, with an important role played by the School of Computing of the University of Eastern Finland, in collaboration with the IT specialists at Eldoret. The e-learning solutions at the University of Eastern Finland that help to reach students in three campuses simultaneously (Savonlinna, Kuopio and Joensuu) were recognised as instrumental at Eldoret, which seeks to offer education in satellite facilities.

Along the lines of both Kenyan and Finnish development policies on promoting gender equality, the marginal role of women in forestry at the partner university (only 28% of female students and 7% of teaching staff) and in the forestry sector as a whole was addressed through gender mainstreaming. This included active involvement of the female staff and students in all project activities (including the project board), as well as the choice of the late Professor Wangari Maathai (Nobel Peace Prize laureate and founder of the Green Belt Movement) in the picture puzzle of the educative game targeting Kenyan school pupils.

Objective, purpose and results

The overall objective of the project was to enhance the management and conservation of forests and other tree resources in Kenya through improved forestry education. In accordance with the Kenya Forest Policy, this was to enable a sustainable environment and socioeconomic development. The project areas emerged from the joint evaluation and analysis of the needs of the University of Eldoret. In a nutshell, the project contributed to the general objective through interventions that directly enhanced the quality of forestry education at the partner university and more indirectly through improvements in the partner university's visibility, societal relevance and linkages. The main concrete achievements of the project are listed in the table below and can be summarised into two main achievements: improved forestry education at Eldoret and improved visibility and societal relevance. Both of these support sustainable management and nature conservation through enhanced and more international know-how of foresters graduating from university.

Improvement in the quality of the forestry education taught at the partner university includes a) enhancement and updating the learning contents, b) bringing up-to-date the pedagogical methods and know-how as well as updating ICT tools in teaching and learning, and c) development of quality culture. New learning contents are based on a revised BSc forestry curriculum, including revised course descriptions with updated contents and methods (especially in the pilot Forest Measurement course). Other vital components include the revised course on Forest Information Systems, with added contents of remote sensing, tools (Arbowebforest) and technical measurement equipment (Suuntos), and devising a course on bioenergy issues. The updating of both pedagogical and ICT methods involved new IT equipment (projectors, laptops, tablets) for teaching, creating a Moodle platform, providing training, development of digital learning materials and joint development of an "Online Seminar on Forest

Energy". But capacity building requires more than technology on its own. The project therefore provided staff training in the creation of learning materials, pedagogical methods and on the new ICT tools for forest information systems. Quality development included working on a quality assurance (QA) manual for standardising practices in teaching and learning (e.g. student feedback).

The other major achievement – improved visibility and societal relevance – related to increasing the overall visibility of forestry education at university level and to creating local, national and international connections and networks. These are vital issues when considering the contents needs and prospects of education. One of the most innovative solutions of the project was the creation of the Android mobile forestry game EntVenture in partnership with Chepkoilel Primary School and the Finnish Pielisjoki School, which helped to enhance societal links, develop capacity and raise awareness. A totally new level of co-operation (between universities and primary schools) was utilised to create a totally new and innovative way to learn about nature and forests (Android mobile game). National networking was carried out by organising stakeholder meetings and seminars, a stakeholder survey, and collaboration with the Embassy of Finland in Nairobi. International networking consisted of collaboration between experts of participating universities, and attending the International Forestry Symposium of the International Partnership for Forestry Education, which made it possible to meet other international experts in forestry education. Part of this improvement of international networking was also the development of the department's website and staff database to increase the university's information dissemination and visibility.

Improvement in the quality of the forestry education taught at the partner university	
Learning contents	Revised BSc forestry curriculum, including revised course descriptions
	Updated contents and methods (especially in the pilot Forest Measurement course)
	Revision of Forest Information Systems course; adding contents (remote sensing), tools (Arbowebforest) and technical measurement equipment (suuntos)
	Joint capacity development on bioenergy issues
Pedagogical & ICT methods	Improvement of capacity, training of teachers including creation of learning materials
	Improvement of capacity through training of teachers
	Development of Moodle platform, training, development of digital learning materials, and joint development of an “Online Seminar on Forest Energy”
	Training on new ICT tools for forest information systems
	Purchase of IT equipment (projectors, laptops, tablets) for teaching
Quality culture	Development of quality assurance (QA) manual for standardising practices in teaching and learning (e.g. student feedback)
Improvement in visibility and societal relevance	
Societal links	Development of capacity and awareness through creation of Android mobile forestry game EntVenture, in partnership with Chepkoilel Primary School and Finnish Pielisjoki School
National networking	Improved networking at national level (two stakeholder meetings and seminars, one stakeholder survey, and collaboration with the Embassy of Finland in Nairobi)
International networking	Improved international networking (collaboration between experts of participating universities, and participation in International Forestry Symposium organised by Interntional Partnership for Forestry Education)
Web image	Development of department’s website and staff database

Table 1. Summary of project achievements

The disciplinary and organisational context of the project

In order to address the increasing demands of sustainable management of natural resources and the fast developments of teaching and learning technologies, the project team included experts from two departments of the University of Eastern Finland: the School of Computing and the School of Forest Sciences. This partnership enabled the integration of the latest ICT uses throughout the project and in the curriculum revision in particular. The partnership also benefited from contributions from Arbonaut in the area of forest resource assessment, and Global Village in innovations and pedagogics.

The project has opened a channel for new joint research initiatives not only between researchers of the participating universities but also between experts from such organisations as the Kenya Forestry Research Institute (KEFRI).

From an organisational point of view, the project was led and administered by the School of Forest Sciences, where two persons worked on the project part time. The School of Computing was responsible for its own section of the budget, and employed a person full time (person rotation according to the needs in the development, i.e. general ICT teaching facilities, technology and mobile game). Other UEF teaching and support staff contributed sporadically. On the Kenyan side, about 15 persons (students and lecturers) from both the forestry and ICT departments actively participated in the project, kept a log of all the hours and received the salaries as specified in the project budget.

From a disciplinary perspective, forestry lies between theory and practice, with universities providing training for both scientists and practitioners. The forestry profession is facing dramatic changes, with an increasingly diversified employment market in which a few big employers no longer absorb the bulk of graduates. Modern curricula need to address these changes so that students can be trained to become versatile forest and nature management experts. In order to respond to the demands of the society and employers, a deep understanding of the needs of stakeholders is required. The gap analyses carried out by the project experts in similar curricula revisions at various universities as well as at pan-European level (e.g. Arevalo et al. [2010, 2012]) were used as a tool in the revision and update of the curriculum. A nationwide stakeholder survey and two stakeholder workshops were organised to incorporate stakeholders' views into the process. The stakeholder interaction brought broad perspectives from the forestry sector with regard to what knowledge, skills and attitudes are most needed by prospective graduates in relation to the current challenges which foresters face in Kenya and the region.

Development co-operation and capacity building of partner institutions

With a current enrolment of over 10,300 students and an orientation toward the pure, applied and natural sciences, the University of Eldoret seeks to be a premier university that is globally visible in knowledge generation and technological innovations. Among the objectives of the university are to excel in teaching, research, consultancy and outreach, and to advance science, agriculture and technology for sustainable development (UOE, 2013b). At the same time in the North, the University of Eastern Finland (UEF) is a multidisciplinary university with some 15,000 students and teaching in more than 100 major subjects. The UEF strongly supports and takes a key role in the internationalisation of the Eastern Finland region together with other actors. One of UEF's three key areas of expertise is forests and the environment. In its strategy, UEF highlights its vision of being a competitive high-standard international and multidisciplinary university, its societal service mission and social responsibility, and its commitment to sustainable development (UEF, 2010). Both higher education institutions thus emphasise sustainable development, and their expertise in natural sciences, resource management and forestry clearly supports the aims pursued by Finnish development assistance toward a more inclusive green economy and sustainable climate.

The project has opened a channel for new joint research initiatives not only between researchers of the participating universities but also between experts from such organisations as the Kenya Forestry Research Institute (KEFRI). Thanks to the project, some research articles on Kenyan forestry are in the pipeline. With regard to teaching, new knowledge has been acquired and learning materials (e.g. video lectures) have been developed, benefiting local students at both universities. This project has also strengthened the development work done at UEF by reinforcing and widening its activities and geographical coverage. Thus, while the School of Computing and the School of Forest Sciences have previously worked in many African countries (e.g. Ghana, Tanzania and Ivory Coast), only small and sporadic co-operation existed with Kenyan institutions prior to this project. Participation in events related to HEI ICI projects (e.g. international conferences and national workshops on the themes of development co-operation and higher education) have also contributed to increased capacity among the Finnish experts.

The project directly involved one student from the School of Computing, University of Eastern Finland, in the development of the forestry mobile educa-

tional game. This Finnish student travelled to Kenya to work with the technical team with Android programming. In addition, some forestry and computer science students from the University of Eastern Finland had the opportunity to interact with the Kenyan experts during their visits to Finland.

Numerous staff members have been involved in the different activities of the project (from accountants to experts in various fields), gaining new experiences as well as establishing contacts. Of the stakeholders, civil society organisations such as Global Village and EduSilva, companies such as Arbonaut or Tarmec, networks such as ANAFE, IPFE or ICRAF, and public institutions such as the Regional Council of North Karelia have also benefited from participating in and contributing to the project.

Role of the University of Eldoret in the development of Kenyan society

The University of Eldoret (formerly Chepkoilel University College, a Constituent College of Moi University) was constituted as a fully-fledged public university in February 2013, when 15 former constituent colleges of universities were granted the university charter. As with most Kenyan universities, the resources of this public university are rather modest and inadequate to cope with the increasing student enrolment. Examples witnessed first-hand during the HEI ICI project were the university teachers' salary disputes, which led to some strikes, and the shortage of in-campus student accommodation that resulted in the postponement of studies for dozens of first-year students.

The potential UOE contribution to Kenyan societal development is nevertheless enormous, especially with regard to rural development and the natural sciences (i.e. farming, environment and forestry). The university's location in Eldoret – the fifth biggest, and fastest growing city in Kenya – in the Rift Valley Province places it where most of the fertile land in the country is (combining an elevated plateau of good soil and good precipitation). The granting of the university charter is seen as part of the government strategy for strengthening its role. According to the framework by Cloete et al. (2011), UOE can be considered an **instrument** in Kenya's development, but at the same time it may not have a central role for new knowledge in development strategy. Despite UOE aspirations and potential to become an engine of development, the university's recent origins and administrative changes, as well as its peripheral location far from the centres of power in Nairobi and to a lesser extent in Mombasa may prevent it from being part of the development strategy at this moment.

The potential contribution of UOE to the development of Kenya is especially high in natural resource management and forestry. In fact, the University of Eldoret, formerly a college of Moi University, has been the only local state university offering degrees in forestry until about five years ago when forestry degrees were also introduced in two other colleges of Moi University. The first undergraduate students in forestry graduated in 1985, and the university has since graduated an average of 32 graduates annually. The department of Forestry and Wood Science is being modernised with new facilities and equipment through development aid from Finland and other organisations. For example, the most modern building in the campus, where the School of Natural Resource Management sits was completed recently with financing by the World Bank.

While facilities have been enhanced and improvements have been brought by the MMB and HEI ICI projects, many challenges still lie ahead. One of them is curriculum development at postgraduate level, which should be accompanied with important developments in research. Some of the research challenges seem to be shared by other Kenyan universities, too, on issues such as quality standards, relevance and impact. Some teaching staff also have heavy teaching loads and less time for research. From a policy point of view, such administrative hurdles as an obligatory and costly research permit (which applies even for a bachelor's thesis and is increasingly expensive for a foreign post-doc) should be removed.

The University of Eldoret faces tough competition in natural resource management and forestry, especially with bigger universities. A stronger department (at MSc and PhD levels in particular and in research) could better compete for best prospective students in Kenya and the whole of Africa, and become an engine not just for western Kenya but for the continent and the world at large.

In this respect, a key element will be online and distance learning (ODL), especially to cater for professionals demanding such education at MSc and PhD levels in Nairobi or around the country. Other core elements are exchanges, modern pedagogics combined with student-centred approaches, quality culture and increased international collaboration. Also, the renovation and increased use of the Baringo Field Station, which is now a semi-abandoned facility of the University in the vicinity of poor, natural resource-dependent communities, offers great potential for dryland forestry education and extension (80% of Kenya is considered arid and semiarid land). Improving links beyond the traditional employers (Kenya Forest Service, Kenya Forestry Research Institute, saw mills,

paper and tea industries) to new diversified employers and self-employment (such as conservation organisations, small plantations and product businesses, villages and towns, etc.) and the extension role to directly benefit farmers with new knowledge is another of the challenges ahead.

Through the HEI ICI programme and other current and future instruments of Finnish development assistance, the University of Eastern Finland and other Finnish universities have an incomparable opportunity: to continue to build on the previous co-operation in assisting Eldoret to consolidate itself as a relevant and outreaching university which positively impacts the Kenyan society and especially those communities more in need. In light of the current Finnish development policy of concentrating efforts on effective and long-lasting impacts, Finnish HEIs are encouraged to draw on the past and current efforts to support Kenyan education and policy development in the broad area of natural resource management.

A forestry computer game for sensitising local communities, especially school children, was developed by Chepkoilel forestry students and computer science students under guidance by UEF experts.

Means of institutional co-operation in societal development

We need to revise and improve the ecological, social and economic criteria in choosing between the many management options and to accommodate new paradigms, but we also need to bridge the knowledge and understanding gap between countries, generations, specialists and ordinary people. Within the project and through its various interventions, the partner HEIs have built human capital in a joint manner to extend beyond the primary recipients of knowledge (students, teachers), that is, to reach the younger generations of Kenyan society at large.

The curriculum revision process has encompassed all major Kenyan stakeholders including employers (e.g. Kenya Forest Service, industries, NGOs) and other higher education institutions, some of which intend to adopt the resulting revised curriculum (e.g. University of Kabianga). The project also involved students and staff with local communities in, for example, interviewing farmers on the challenges that they face.

A forestry computer game for sensitising local communities, especially school children, was developed by Chepkoilel forestry students and computer science students under guidance by UEF experts. School children from the neighbouring Chepkoilel Primary School were extensively consulted and tested the

functioning of the game with respect to the relevance of the content to their age. The EntVenture – downloadable free of charge from the website <https://t.co/1RYBudAV> – can be used on any Android-based smart phone, and proved to be an effective educational tool according to the feedback of the pupils (for details on the game design process, see Duveskog et al. [2013]).

All in all, the project partners jointly worked with various Kenyan organisations from both the public and private sectors in what was felt a rather encompassing and successful case of institutional co-operation link to societal development.

Values and development

The Finnish development policy is based on the idea of freedom and equality of each human being. One important part of this is to secure a life worthy of a human being for everyone. The environment and the livelihoods are in a vital role in this, and our project promotes education that aims for better livelihoods and environments. Also crucial to the Finnish development policy is that all actions are carried out on the basis of a true need of the partner country and are defined by them. Our project supports these basic ideas. The initial need for this project came from Chepkoilel College in a meeting of forestry education: the activities and outcomes of the project were planned to fulfil this need. The list of needs was defined by the staff of Chepkoilel and were modified into results areas together with the experts of UEF. The project thus combines local knowledge and international expertise.

The cross-cutting themes of Finnish development policy include gender equality and increased climate tolerance, because climate change has the most dramatic effects on the poor areas of the globe, as in Africa. Equality and freedom were taken into account in the development of education by: 1. modernising the teaching (e.g. utilisation of ICT in teaching, and modern course and curricular content, which made education available also outside Eldoret and more attractive to young people, women in particular), 2. increasing co-operation with local and national societies and organisations to emphasise and open the meaning of forests for wellbeing, 3. making university-level education available also for women (gender inclusiveness was thoroughly considered within the project activities; examples include formation of the project board and the student team in charge of developing the student game, or the incorporation in a puzzle information about environmentalist and Nobel Peace Prize laure-

ate Wangari Maathai). The last example is especially significant since it involves civil rights and equality. Forests and forestry offer equal possibilities for women and men and is an attractive career choice when it is realised that it is much more than just felling and selling timber. It is important to show the different goods and environmental benefits related to forests and forestry, as these can help to make it into an interesting possibility not only for an individual but also for the whole community.

Green economics and green jobs are also central development political aims. This means improved livelihoods, sustainable forestry and use of natural resources as well as development of ecosystem services. As these are key issues in modern forestry, too, education is the most effective tool for the dissemination and implementation of these principles in practice. By improving and updating the forestry curriculum it is possible to educate professionals with knowledge and expertise on climate change, carbon sequestration, biodiversity, bioenergy, etc., which is necessary in realising this green economic idea. Stakeholders and citizens also need to be given the opportunity to express their opinions, fears and hopes for decision making. The project workshops and seminars did exactly this, providing means of impacting on curriculum content and working effectively to disseminate information in general and about the project in particular.

The strengthening of education is recognised as a key to implementing development work. This principle was high up on the project agenda. Education is the most effective tool of ensuring that the development co-operation and the activities are sustainable and will continue after the project ends. Our project was especially effective in this regard, as the whole curriculum was updated and brought onto an international level. The curriculum now offers continuous development in Kenyan forestry education and thus also in forestry.

The successes of this project include the enthusiastic and proactive co-operation between the partner institution and UEF. The co-operation has also extended beyond the two universities: the project has been an excellent platform for activating and developing local and international partnerships. The project has also been a good example in Kenya; Kabianga College is very interested in the revised curriculum, which it wants to adopt. This is an extremely positive and welcome impact of the project. The different workshops with the staff of Chepkoilel and different stakeholders as well as the meetings between Chepkoilel and UEF staff were fruitful and effective ways to disseminate information about the project aims and later about the results. They also made it possible to utilise the results outside Chepkoilel College. Further, the purchase

and utilisation of ICT and other modern teaching equipment in teaching in Chepkoilel is already improving the quality of education provided. One final success story is the mobile game on forests. This game is at the moment aimed for school children and contains information about the importance and different goods of forests in Kenya and in Finland. It is already in use in primary schools in Kenya and is an excellent example of what can be achieved in information dissemination with simple and innovative solutions.

Lessons learned

The self-evaluation made by the project team was very positive. The project was felt to have established an honest and truthful relation and team spirit between staff of the partner universities and other participating institutions. While most of the goals were achieved, more time will be needed to measure some indicator-based impacts: revised courses and curricula, for example, can only be measured during the actual implementation. An issue that was beyond the control of project co-ordination was the short implementation period given its delayed start and consequent reduction from the original 3 years to 1.5 years. Nonetheless, the granting of a second project for the years 2013–2015 enables us to strengthen the co-operation and tackle some newly identified needs and areas that could not be addressed in the 2011–2012 project.

Within the partnership, a number of issues emerged that were openly discussed in a constructive spirit. A main issue was the slow and complicated administrative procedures at the partner university, which affected the purchase of equipment locally and the invoicing of costs to the co-ordinating university UEF. In practice, the server which was needed to support ODL and Moodle development, for example, had to be bought and shipped from Finland, as it proved too difficult to raise the money locally. A second issue was that the University of Eldoret was very slow in claiming the salary fees agreed within the project, to the point that most of the fees were only transferred in the last two months of the project. Lessons have thus been learnt on how the universities' administrations operate and on the need to initiate these processes much earlier. We have also come to appreciate the need to review the state of financial matters more frequently (e.g. every two months).

A third issue, to some extent beyond the control of the Finnish HEI, was that some Eldoret staff were left out from the project by the leading team at the partner university. Their teaching areas consequently benefited less from the interventions. While this situation improved to an extent toward the end of

the project, the experience can perhaps serve as a warning of increasing internal conflicts and money disputes that such projects can bring.

With regard to the equipment budgeted for the partner university, we had initial difficulties purchasing the equipment locally because of the partner university's financial situation. There was reluctance to open a bank account for the project at CUC for fears that the central administration would misappropriate part of the funding. Given these issues, the most urgently needed equipment was bought and brought from Finland during the first part of the project. Later, however, these issues were solved and the remaining equipment was bought locally, making it possible to entirely spend the funding in the developing country.

Although there were no major conflicts between the two collaborating institutions, the initial invoicing of activities done by UOE staff was constantly late. On many occasions it did not meet the standards and criteria set by the UEF. Corrections, numerous messages and additional information were required by the UEF to deal with invoicing. These problems were, however, sorted out as the project progressed. Another obstacle was encountered when Eldoret colleagues, burdened by a heavy teaching load, found it hard to register for an online course with UEF staff.

The main issue came with finalising the project documents, especially the curriculum review. This was a slow process, and many reminders were sent from the UEF to hasten the process. Besides these, the project documents were completed successfully by the end of the project.

As to how the project activities developed, this was clearly slower than expected at the beginning of the project, partly because we did not yet know each other and each other's institutions, partly because there were cultural differences in the setting of deadlines. Nevertheless, the amount of time invested and the progress made increased over time, which compensated some initial delays. A key reason for the delays was that the project activities fell as additional tasks on the already overworked Kenyan colleagues. The option of hiring new staff or liberating staff members was not seen as viable in the circumstances. Because the staff were hugely committed to the project, however, the difficulties were dealt with through intensified work and frequent virtual meetings (weekly meetings at some stages).

While it is evident that an increased student enrolment at Eldoret and other higher education institutions in Kenya is a key step in the country's road to development, this vision must be supported by an investment plan in the facilities and the reinforcement of the university staff so as to ensure increased quality in education and research, as well as the promotion of innovations.

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■ Improving Educational Leadership and Management Capacity of Quang Tri Teacher Training College in Vietnam

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The social context of the project

Quang Tri province in central Vietnam was badly destroyed during the Vietnam War. It is also where JAMK's development cooperation project is situated. Quang Tri was heavily bombed and is still affected by the explosive remnants of war. Although Vietnam has in general made remarkable socioeconomic progress during the last 25 years, Quang Tri province is one of the poorest regions and still needs external support.

In 1986, the Vietnamese government moved from planned economy to a policy of doi moi, which can be roughly translated as economic renovation. This process toward a "market-oriented socialist economy" unleashed the entrepreneurial spirit of the local population and serves as a powerful magnet for foreign investment from a number of countries (McCornac, 2009). In 1991, five years into the "Doi moi", Vietnam started to emphasise investment in education as investment for development. During the late 1990s, the idea of human resource development was clearly defined in the Educational Development Strategy for 2001–2010: "A high quality human resource is one of the primary driving forces to enhance industrialization-modernization processes; it is an essential factor for social development, rapid and sustainable economic growth." The strategy was also clear about the need to develop teaching staff

and to foster innovative educational methods to enhance educational quality and effectiveness. In order to do this, the strategic plan recognises the urgent need to improve teacher training in the country.

In order to meet the socio-economic demands, Vietnam invests significantly in renovating its higher education sector.

The Socio-economic Development Plan 2006–2010 similarly argues that improving the quality of human resources is essential in enhancing the development of knowledge society (National Assembly of the Socialist Republic of Viet Nam, 2006). Improved teaching is essential if national development objectives are to be met. The needs of the industry for competent, creative and adaptable problem solvers must be reflected in the way teachers

are trained. This requires new approaches, as many teachers continue to teach in ways in which they themselves were taught. Through pre- and in-service training, teachers must be exposed to thought-provoking and student-centred teaching.

In order to meet the socioeconomic demands, Vietnam invests significantly in renovating its higher education sector. According to the Higher Education Reform Agenda 2006–2020 (HERA), Vietnam aims for an advanced higher education system by international standards by 2020 (Government of Socialist Republic of Vietnam, 2005). The specific objectives of the Agenda include curriculum development, quality assurance and accreditation development, improved quality of teaching and its relevance to societal needs.

Higher education is still evolving in Quang Tri province. The project beneficiary institution Quang Tri Teacher Training College (QTTTC) serves as the leading education centre, and is the only higher education institution in the province. Currently there is no university in Quang Tri, but QTTTC is planning to apply for an upgraded status to become a university by 2015. Hue University College of Education – a long-term co-operation partner of QTTTC – is in the neighbouring province.

Vietnam has 21 universities supplying teachers for upper secondary schools, and about 50 teacher training colleges supplying teachers for lower secondary, primary and pre-primary levels. One challenge is that many teachers are still unqualified. Standard-targeted training is provided by the Ministry of Education and Training (MoET) for under- or unqualified teachers to reach the minimum level of education set by the MoET. All training programmes will be gradually accredited. In the future, higher education institutions without accredited training programmes will not be entitled to grant degrees.

Teachers at vocational colleges possess mostly a diploma from a vocational training college. Currently there are 10 higher education-level institutions that provide training for future vocational teachers. Most of the vocational teacher education institutions are located in the Red River Delta area (in or close to Hanoi), such as the HungYen University of Technology and Education. Another significant vocational teacher training institution is located in Ho Chi Minh City (Ho Chi Minh City University of Technical Teachers' Education). All these institutions are far from the province of Quang Tri, and only Hue Agriculture and Forestry University has a Teacher Training Faculty that provides training for vocational teachers.

Raising the quality of vocational training instructors at all levels is currently emphasised by the Minister of Labour, War Invalids and Social Affairs. Furthermore, the Minister of Education and Training Nguyen Thien Nhan has recently urged the north-central regions to boost vocational training (including college level) to meet the increasing demand for high-quality human resources in the region. This is connected to shifting the labour structure of the rural areas from the agricultural sector toward science, technology and service sectors (tourism in particular). These plans set considerable challenges for QTTTC, as it is the only higher education institution in the province, covering both teacher education and vocational higher education.

Objectives, purpose and results

The purpose of the HEI ICI project “Improving Education Leadership and Management Capacity of Quang Tri Teacher Training College” was the following: “QTTTC administration and teaching staff have acquired new educational leadership and management skills in order to better respond to the challenges of the on-going higher education sector reform in Vietnam.” The project purpose was approached from two perspectives. First, the project enhanced capacity of administrative staff to direct and support the change in terms of a new credit-based curriculum system and related quality assurance work. Second, the teaching staff’s capacity was supported by new pedagogical methods and implementation of a credit-based curriculum.

Figure 1 summarises the objective, purpose and results of the project. The overall objective describes the long-term development goal to which the HEI ICI project contributed. The project purpose defines the goal of the HEI ICI project, and the results tell the expected outcomes.

PROJECT PURPOSE: QTTTC administration and teaching staff have acquired new educational leadership & management skills in order to better respond to the challenges of ongoing higher education sector reform.

RESULT 1: Administrative staff of QTTTC have the expertise in directing and supporting the change in terms of new credit-based curriculum and quality assurance work

RESULT 2: Teaching staff are acquainted with new pedagogical methods and credit-based curriculum implementation

Figure 2. Objectives, purpose and results of the project

During the project, three training programmes (Educational Management, Pedagogical Training and a small-scale Training of Trainers programme) were implemented. The participation rate was as high as 80–100% among the administrative and teaching staff of the college. During the planning phase of the project, one of the indicators of successful project implementation was agreed to be the participation rate, which was set at 70% for the whole staff. So, the project got good results in this respect. The commitment of the partner was strong. Also, the gender balance was expected to be 43% women in the educational management programme, 56% women in the pedagogical training programme and 50% in the training of trainers programme. The majority of the participants were women.

Regarding the teaching staff's capacity to plan diverse courses and use a variety of methods, 17 teachers have planned and also piloted e-learning courses with their students. In addition, 36 teachers have created e-learning courses, which were not yet piloted during the project, but were going to be implemented during the next academic year. About ten courses were of very good quality in terms of pedagogy and technical implementation. Diverse learner-centred methods have been used by 47% of teachers and 37% have made written plans to use them. Project-based learning was introduced as an approach to strengthen working life relevance of education. During the first phase, 25 teachers piloted the model of project-based learning. Thanks to the project, the whole teaching staff is acquainted with new pedagogical methods that support credit-based curriculum implementation. In practice, this means implementation of more learner-centred and active teaching/learning methods; improved skills in planning, leading and assessing learning (including peer assessment and student assessment); participation of teachers in institutional development, emphasising new learning environments (learning at work, working life connections); as well as drawing up credit-based course descriptions with working life relevance. Working life connections and working life relevance of the courses were on the whole still rather weak.

Management and leadership capacity was strengthened on change management and development of QTTC through strategy work, group development discussions, a bottom-up feedback system and by outlining the competence framework of staff. Strengthened strategic thinking and action planning were one of the most important results according to the QTTC's representatives. In addition, involvement of the teaching staff in strategy work and planning strengthened commitment and participation. The administrative staff also had a workshop in which students from different programmes were present and

they had a chance to voice their opinions regarding development of QTTC and education. According to the above examples of monitoring data gathered, the results of the project were achieved as planned.

The project was evaluated by external evaluators from Vietnam. Also according to their report, the project has reached its objectives (Nguyen Phuc Nghiep & Nguyen Phu Vinh, 2012). However, further support for institutional development is still needed, especially in relation to:

- Facilities to create a modern learning environment which can help students self-study; teachers should have enough teaching equipment such as multi media, visual aids, rooms, tables and chairs for discussions
- Continue training in research and development methods
- Improve teachers' abilities to assess students in a modern way
- Continue training teachers to develop courses that satisfy social needs (relevance of education)
- Create a career guidance system to students
- Further support for training students in Soft Skills in order to improve the employment ratio and working life skills.

Capacities developed at QTTC

When looking at the results from a capacity development point of view, it is necessary to go back to the basic concepts. Discussing definitions of capacity development, Bolger (2000) has found that some consider capacity development as an approach or a process while others see it as an objective. There are also many definitions between these two. "Capacity" is defined as: abilities, skills, understandings, attitudes, values, relationships, behaviours, motivations,

resources and conditions that enable individuals, organisations, networks/sectors and broader social systems to carry out functions and achieve their development objectives over time. The definition includes the core of **what** is to be developed. When stressing the **how**, "capacity development refers to the approaches, strategies and methodologies used by developing country, and/or external stakeholders, to improve performance at the individual, organisational, network/sector or broader system level". At root, capacity development is about change and transformation – individual, organisational, societal. Capacity development as an approach to development is based on a set of principles such as broad-based participation and a locally driven agenda; building on local capacities; ongoing learning and adaptation; long-term

Capacity development refers to the approaches, strategies and methodologies used by developing country, and/or external stakeholders, to improve performance at the individual, organisational, network/sector or broader system level.

investments; and integration of activities at various levels to address complex problems (Bolger, 2000).

Capacity development is thus a multidimensional and multi-level concept. As a phenomenon, it is a complex whole impacted by diverse factors, dynamics and inter-relationships. Bolger (2000) introduces a capacity development framework which consists of four levels of capacity: individual, organisational, network/sector levels and the enabling environment.

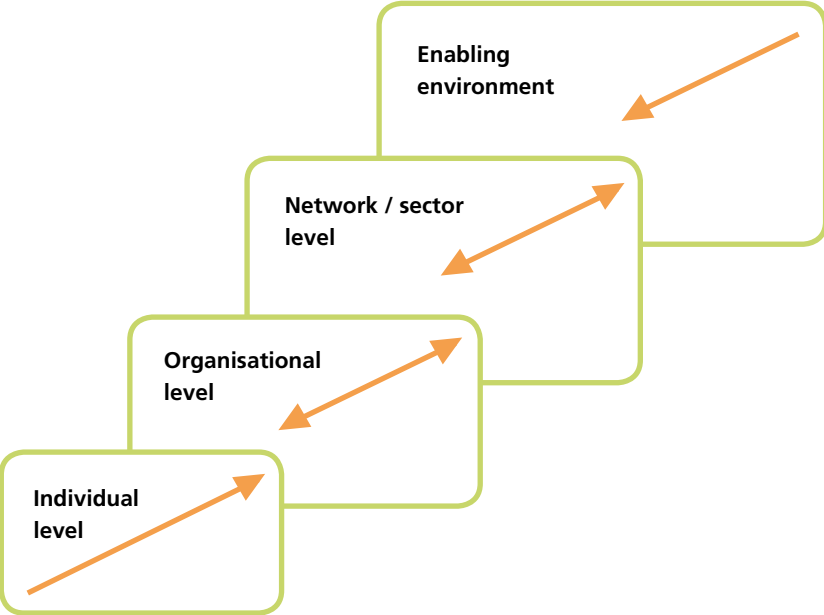


Figure 3. Conceptual framework of Capacity Development (Bolger 2000)

When the main results of the project are placed into the framework of capacity development, a more holistic summary comes across than when introducing separate outcomes. Capacity development is a systemic whole.

On an individual level, the administrative and teaching staff of QTTC gained new knowledge and skills through the training programmes. The programmes included different development tasks, which aimed at piloting learnt things in practice. The training also influenced attitudes, as the knowledge and experiences had an impact on the personnel's mindset toward changes.

The project boosted networking between Finland and Vietnam as well as between the partner organisations in both countries. Learning to collaborate effectively and gaining good results is an important achievement regarding long-term commitment and future collaboration.

As an organisation, QTTTC strengthened its self-assessment capacity in various ways: the baseline study process and report provided a model of how to start the self-assessment process. The online feedback system and the questionnaires gave experiences of new tools for self-assessment, and feedback was gathered in the group development discussion of departments and faculties. The ways of strengthening student involvement in the institutional self-assessment were practised and the students' voices encouraged by, for example, inviting them into the workshop.

QTTTC established new ways of working and new learning possibilities for the students. The teaching staff developed e-learning courses (53), which continue their life after the project. Altogether 17 e-learning courses were ready for use already in the academic year 2012–2013. About 10 of those courses were of high quality and can be regarded as model courses for future development. New pedagogical methods and approaches were also used. Such methods as gallery walk

were well-rooted in practice. Project-based learning was piloted by 25 teachers, while 23 teachers made a plan of using it. As a result of these developments, the teachers' planning, pedagogical leadership and assessing skills as well as practices were improved.

QTTTC similarly developed its leadership and management tools and practices. Tools and processes rooting the strategies of QTTTC were changed by strategy maps, competence framework for staff and faculty and departmental development discussions and plans in order to get all staff members to understand and be involved in the changes taking place in the college. The development plans for the near future were relevant and realistic.

Communal learning at the QTTTC took place in many forms. First, there was a lot of working in small groups with diverse tools of developing and sharing ideas and experiences, but also for presenting ideas to the whole personnel and goal setting as a work community. Second, the study guides of the three training programmes and the related materials (Management programme, Pedagogical programme and Training of Trainers programme) are there to be used further after the project.

On the level of the education sector, QTTTC strengthened its role in teacher education in particular by piloting new teaching and learning approaches and

gaining new knowledge on the basis of them. A publication was produced of development work at the QTTTC to disseminate the outcomes in the Vietnamese education sector. Information about the development actions and the published book were disseminated through the Ministry of Education.

The project boosted networking between Finland and Vietnam as well as between the partner organisations in both countries. Learning to collaborate effectively and gaining good results is an important achievement regarding long-term commitment and future collaboration.

Both the administrative reform as such and the regional integration needs were considered to be very much linked with the contextual challenges of educational management and pedagogical methods. By choosing the two needs areas to be addressed in the project, QTTTC as an institution will be able to better respond to the challenges of the ongoing higher education reform in Vietnam. The project has also enabled QTTTC to be better equipped for the accreditation process which is closely linked to the HE sector reform, as well as for the goal to be upgraded to a university by 2015.

The broader context and the operational environment of this project are first the Quang Tri Province and then the whole country. The authorities of the province were committed to support the development at QTTTC. There was good communication between the local authorities, the representatives of the QTTTC and the Finnish experts. The Ministry of Education and the Ministry of Labor, War Invalids and Social Affairs were also kept up-to-date about the actions.

Development co-operation and institutional mandate of higher education in Finland

The Finnish Development Co-operation Plan for Vietnam 2013–2016 states that Finland is committed to supporting poverty reduction efforts in the poorest areas of the country according to the national target programme of the Government of Vietnam. Thematic focus areas of co-operation are water and sanitation, forestry and climate change, as well as promotion of good governance and development of an information society and knowledge economy.

According to the Polytechnic Act (351/2003) article 5, Finnish universities of applied sciences are expected to collaborate with national and international higher education institutions and other educational institutions. In its mission

and vision, the JAMK University of Applied Sciences highlights its willingness and the goal to be an internationally oriented institution with strong evidence of international actions. HEI ICI projects enable Finnish higher education institutions to take global responsibility and be active members of international higher education networks. The project has also strengthened national networking as it was implemented together with the HAMK University of Applied Sciences. Further, HEI ICI projects develop capacity of Finnish higher education to work in diverse environments and with diverse people. They have increased organisational awareness and interest in collaboration possibilities with developing countries. The projects therefore have a meaningful impact on human resource development of Finnish higher education institutions.

The Finnish partners' academic development shows in practice as development of contextualised training programmes and materials for beneficiary organisations. Improved pedagogical processes, strategies and teaching and learning methods are similarly a crucial part of academic development. In addition, small-scale research was conducted separately from the projects, and the outcomes were presented in an international conference. Thus, the project has provided a context to study different phenomena even though research as such has not been a project activity.

The HEI ICI project has provided a learning environment for teacher students of the Teacher Education College of JAMK and HAMK University of Applied Sciences to act as junior experts. This is significant from the teacher students' professional development point of view. Furthermore, HEI ICI projects have made it possible to involve academic personnel and other staff who have expertise required in the project but not much international experience. The projects have opened a route to international action.

Ngee (2011) found positive outcomes in civic engagement, competence skills and development of a sense of self of students who participated in in-service projects in developing countries. The JAMK personnel and students also identified similar experiences of working in the project. The categories of learning experiences (Ngee, 2011) are described in the left column of Table 1, while the right column outlines the organisational viewpoint on the basis of the HEI ICI project experiences.

Organisational learning took place in many ways. First, the planning phase of the project involved about ten to fifteen persons, who did some background study to better understand the partner's context and needs. Second,

Personal learning (Ngee, 2011)	Organisational learning, HEI ICI experiences
Shaping civic attitude • Civic action • Political awareness • Social justice • Diversity attitude	Shaping global attitude • Global action • Political awareness • Social justice • Diversity attitude
Developing competence skills • Inter-personal and problem solving skills • Leadership skills • Sensitivity	Developing competences • Networking and inter-organisational skills • Leadership skills of development processes
Building self-capacity • Strengthening self • Pursuing academic goals	Building capacity of organisation • Strengthening humanitarian capacity • Communal know-how • Academic development

Table 2. Learning within development cooperation project(s)

the project was introduced and discussed regularly in the personnel meetings of the Teacher Education College of JAMK and HAMK. The teacher educators at JAMK recognised that the project has made them more interested in the political and economic situation in Vietnam as well as in Vietnamese culture and history. Awareness of and collaboration with developing countries have increased in the Finnish organisation, and have made general attitudes more positive than before the project. The actual work in the partner country has strengthened leadership skills in complex development processes. The used approaches, methods and tools are applicable into other contexts. In addition, development of training programmes in the project have contributed to academic development at JAMK and HAMK. The HEI ICI project has supported growth of humanitarian capacity, fostering a communal sense of global responsibility, ability to work with people who live in challenging circumstances or come to Finland from such circumstances.

Role of southern higher education partner in the development of society

The Quang Tri Teacher Training College (QTTTC), in central Vietnam, is a public higher education institution under the auspices of the Ministry of Education and Training of Vietnam. Its mission focuses on training and developing human resources and conducting scientific research in order to meet the demand for educational administrators, teachers, cadres, civil servants and technicians, and to serve the cause of socioeconomic development of the region. QTTTC is not the only teacher training college in Vietnam to grants degrees also in fields other than education. This arrangement is common in the poor/remote provinces with no universities. The QTTTC serves as the leading higher education institution in the province. Currently there is no university in Quang Tri, but QTTTC will apply for a community university status in 2015.

QTTTC has currently a staff of 170 (60% female) consisting of teaching staff, administrative staff and staff of functional departments and centres. A majority, about 60%, are under the age of 35. QTTTC offers three-year Associate Degrees in education (pre-school, primary and lower secondary school teachers) and in different professional fields (e.g. IT, accounting, tourism, office administration) as well as four-year Bachelor Degree in-service programmes in co-operation with Hue University College of Education (HUCE, partner in the second project phase) and other universities in Vietnam. The total number of students at QTTTC is currently around 3,000; 200 students represent ethnic minorities and one student has special educational needs. The proportion of female students is as high as 80%.

The Quang Tri Teacher Training College faces several challenges in the coming years. These challenges are partly connected to the higher education reform being carried out at the national level and partly to the regional socioeconomic development plans that refer to structural economic transition, increased number of trained labour force and the role of enhanced training quality to support these objectives.

As the main and only higher education provider in the province, QTTTC is considered a catalyst for change by local authorities. The challenges QTTTC faces are well articulated in their own development strategies (Overall Development Scheme for 2009–2010 and Vision to 2020). There are big challenges in meeting the needs of the operational environment; the fact is that the students' employment rate is rather low. Only 45% of the students get a job in the field that they are trained for (Report of Department of Training and Education,

Quang Tri Province). Postiglione (2011) maintains that quality is a problem of the higher education sector, in particular in terms of how university education aligns with the needs of the labour market. Working life relevance of education has clearly to be improved.

At the moment QTTTC operates mainly in the Dong Ha capital area of Quang Tri Province. In the near future QTTTC should address more the needs of remote areas of the province and develop open and distance learning structures, methods and processes. Those living in the mountain areas represent different minority groups which are very poor and therefore have limited possibilities to educate themselves. The credit-based curriculum reform would provide a basis for innovative solutions, but the reform concentrates on action at the campus. To be a real dynamo of development, QTTTC should establish and strengthen its connections with the world of work. Current partnerships are very limited, and there is limited understanding of the needs of companies and working life.

The Finnish universities of applied sciences have a strong emphasis on regional development. They want to be reformers and draw on continuing learning and open dialogue to enhance professional know-how and the region. The societal effectiveness of these institutions arises from working life-based education, research and development, and innovation action that supports companies' competitiveness (Seppälä, 2013). Finnish higher education institutions can provide various models and strategies of all of these for benchmarking in addition to training and academic support.

Means of institutional co-operation in societal development

Education and educational institutions should not act in a vacuum. This is particularly relevant in Vietnam, where connections between higher education institutions and the world of work are rather weak. The following aspects appeared to be important steps toward better linkages between education and society in the HEI ICI project.

Toward strengthened societal awareness: The role of education and educational institutions can be promoted by raising awareness through training programmes. The personnel of an educational institution need to be socially aware in order to develop education, curricula, structures, methods and practices. During the project, the participants discussed their own roles and responsibility regardless of position. In Finland the role and function of education

is relatively widely understood by teachers, and co-operation encourages the flow and promotion of ideas. During the training of administrative staff and teachers the question “why” was constantly brought up.

From vision to action – strategy work: The project included plenty of strategy work. There were big gaps between ideal views and concrete actions, which is why strategy work and action planning were crucial in order to link societal goals with real QTTTC action.

From courses toward education services: New ways of implementing education, such as web-based courses, open new routes to study and can simplify access to education in a long run. The improving of course and teaching planning impacted on the quality of education.

Toward possibilities to impact: A bottom-up approach showed how one can make a difference and develop one’s work and environment. The project made use of group development discussions, different possibilities to give feedback and opinions, and many forums for sharing ideas.

Toward widened collaboration and networking: Partnerships and networks are an important part of societal effectiveness of higher education institutions. They contribute to development of education, research and development projects and innovation actions. The HEI ICI project strengthened and widened the QTTTC’s networks within the country and internationally.

Toward informing, communication: The dissemination of the project supported provision of information from QTTTC to different stakeholders and public. Articles in newspapers and in the Educational review journal, conference presentations and interviews on local TV, the book, etc., are concrete means of informing the operational environment about work done at the QTTTC. Two-way communication between educational institutions and the operational environment is a key in development.

Academic values and development co-operation

HEI ICI collaboration was based on the premise that both administrative reform and regional integration were considered to be very much linked with the contextual challenges of educational management and pedagogical methods of QTTTC. Therefore, the project aimed to develop QTTTC’s educational management toward an idea of shared leadership, a bottom-up feedback system,

quality orientation and organisational self-evaluation. In terms of pedagogical development the project aimed to support teachers' planning, leading and learning assessment skills. In particular, implementation of more learner-centred and active teaching/learning methods and development of e-learning courses was emphasised. Differences between the Finnish and Vietnamese organisational and learning cultures posed some challenges during the project.

Knowledge of Confucian principles is an asset in working with Vietnamese organisational culture.

In contrast with many other developing countries, Confucian philosophy strongly influences the way that Vietnamese society views education (Oliver, 2004; Pham, 2010). In Confucian philosophy, teachers should always know better than students. Teachers select, interpret, analyse and explain information to the students. Confucian students are passive receivers of information without processing, questioning and producing their own opinions. Individuality and uniqueness are relatively unimportant, and the students are not encouraged to provide personal interpretations of content or find alternative knowledge and interpretations on the contents to be learnt. The focus of teaching is not how students can create and construct knowledge, but on how extant authoritative knowledge can be transmitted and internalised in a most effective and efficient way (Brick, 1991; Jin & Cortazzi, 1995). Confucian philosophy and student-centredness seem to represent two extremes. Student-centredness, co-operative learning and traditional Vietnamese assumptions about the roles of the teacher and students do not meet in these opposing philosophies about the nature of teaching and learning (Pham, 2008).

Knowledge of Confucian principles is an asset in working with Vietnamese organisational culture. Respect is a guiding principle of all relationships in Confucian Heritage Culture, pertaining also to teachers' community and work culture. People are treated with the respect that their age, social status or authoritative position commands. Society is based on unequal relationships: "The father is the leader in the CHC family; the teacher is the leader in CHC class. There is also a class prefect, several unit leaders and sub-leaders for small groups. There are strong hierarchy rules. If there is a group, there is a leader. Without a leader, the group is not stable in this view" (Nguyen et al., 2006). Vietnam is a nation with a high Power Distance Index (70), and accordingly there is greater emphasis on hierarchical relationships (Hofstede & Hofstede, 2005). Pham (2010) discusses some aspects regarding educational reforms in Vietnam.

First, Vietnamese education reforms and educators are eager to import and follow Western approaches. Second, from the basis of Western research, new teaching and learning approaches have potential for higher student achievement. Third, student-centred, rather than teacher-centred, learning should be culturally quite appropriate, as Vietnam is culturally oriented toward collectivism rather than individualism. However, a credit-based curriculum and a student-centred learning approach are still new. While educators are familiar with some of the concepts, pedagogical practices have not changed accordingly. Many reforms have failed because new approaches are hindered by various local infrastructure conditions and cultural barriers (Pham, 2010). Conversely, Hung Van Dang (2006) reports how learner-centredness is successfully employed to get the students actively involved in learning.

Globalisations, economic competitiveness in global markets and effectiveness of education systems, have pushed developing countries to take advantage of modern technologies and to apply the newest approaches developed mainly in Western countries. Cultural issues in, for example, web-based learning are not yet paid much attention to. Hue & Ab (2013) have found that the integration of information and communication technologies (ICT) into the curriculum has not been adequately considered by higher education administrators and lecturers in Vietnam. Although it is known that ICT has a crucial role in the advancement of society, and everyone has to be able to use modern technology, lecturers do not necessarily integrate ICT into their practice. Hue & Ab (2013) stresses the point that "ICT alone will not improve the effectiveness of teaching and learning; they need to be integrated into the curriculum through a systematic approach." Teaching and learning processes, the cultural heritage of the country and viewpoints of culturally appropriate pedagogy have often been neglected in modernising an education system (Nguyen et al., 2006). There is thus a need to further study cultural issues regarding use of new technology in pedagogical processes.

Lessons learned

Planning together:

The Goal-Oriented Project Planning (GOPP) method was used in the preparation phase of the project. The strength of the method is a participatory way of working, a logical and precise model of progress. In particular, the method supported finding the real needs of the partner institution, which is a basis for everything. Also, the two-day GOPP workshop supported commitment to common development action.

Participation of whole personnel:

Given the short time span of the project, institutional capacity development required broad commitment and contribution from the personnel of the institution. It was crucially important that the whole personnel of QTTTC participated in the training programmes and development actions. The high participation rate assured that the direction of development was known by all people of QTTTC, good pilots were implemented, and capacity of QTTTC was improved.

Use of facilitating tools:

Active participation in the workshops was ensured by using tools such as forms, models, structures and assignments to facilitate internalising the content and applying the content into the context. Everyone got tasks to develop their work, and the development process was supported.

Translation and interpretation:

The materials were translated and the workshop discussions were interpreted by QTTTC's English language teachers. This arrangement not only improved the teachers' language skills but also encouraged others to communicate in English. The project made a visible change in foreign language learning.

Working in pairs:

The Finnish experts found it beneficial to work in pairs in the workshops. Pair working supported reflective practice and enabled a better understanding of the context, culture and people. Also, it increased flexibility during the workshops.

Conclusions

This article arose from the idea of CIMO and HEI ICI project co-ordinators to publish an academic reflection on the projects, their role in development co-operation, and their meaning and benefits for the participating Finnish higher education institutions. The article conveys only a fraction of the rich and multidimensional experiences in the project. The glimpses into different aspects of co-operation draw a picture which is necessarily incomplete. Development co-operation is always a reciprocal learning process. Some of the learning outcomes can be seen already during the project implementation. Some are carved out gradually.

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■ Landscape Management Planning and Training for the Environment in South Sudan: Collaboration with a New Country

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Background on South Sudan

Located in east-central Africa, the Republic of South Sudan became an independent country on 9 July 2011 and is one of the least-developed countries in the world. Prior to independence, South Sudan had as a part of Sudan been treated like a backcountry where only few investments were made, for instance, in the oil sector relevant for Sudanese business. This may have been a major reason for the overwhelming voting majority for independence. When South Sudan was declared independent, neither of the two new Sudans was actually ready for the situation, for the two regimes were unable to agree on many issues related to the separation. Many northern Sudanese managers of various national organisations that were to split up caused substantial damage to South Sudan by withdrawing in the last minute and taking with them special equipment and long-term statistical data (such as meteorological, agricultural yield and land ownership records) when retreating back to Sudan.

During the decades of open conflict between the southern and northern parts of Sudan there were hundreds of thousands displaced southern Sudanese people who sought a better life in larger towns of northern Sudan or were settled in huge refugee camps in neighbouring countries, which also functioned almost as towns. Even if these displaced people originally came from rural villages, both they and their children born outside the home villages turned into city people. When they eventually returned to South Sudan, they usually refused to go back to a rural lifestyle which was no longer theirs.

The majority of the South Sudanese rural people depend on subsistence farming and livestock management, although South Sudan is rich in natural re-

sources, most notably arable land, forests and oil. The White Nile floodplains in South Sudan are potentially one of the richest underutilised agricultural areas in Africa, with plentiful water supplies and fertile soils. The number of cattle in South Sudan is estimated to be in the range of 10 to 20 million at the moment. The large wildlife herds found in some parts of the country may offer future business opportunities that could attract a substantial flow of eco-tourists to the country. These natural resources and opportunities are not efficiently exploited, mainly due to lack of basic information, for instance, on land cover and land use. The lack of technical know-how is also significant. In particular, there is little knowledge about forest resources and their use as well as on rangeland management to support the large livestock herds.

Background on LAMPTESS and VITRI collaboration in Sudan and South Sudan

Based in the Department of Forest Sciences at the University of Helsinki, the Viikki Tropical Resources Institute (VITRI) has worked in Sudan since the early 1980s in various kinds of projects with several founding sources. Until 2008, the VITRI experience only covered the northern parts of Sudan, but in 2008 the time was ripe for new thinking. At the time, The Ministry for Foreign Affairs of Finland (MFA) launched the Institutional Co-operation Instrument (ICI) Programme which supported capacity building by one Finnish (i.e. northern) and one southern state organisation. VITRI had just tried to obtain EU funding for a collaboration project involving the forest administrations both in Upper Nile State (to become part of South Sudan) and in White Nile State (to become part of the new Sudan). Financing from the EU never materialised, so the Finnish ICI programme as a funding instrument became a new viable option for the project. At that point, the MFA obviously wanted to avoid support to the regime in Khartoum, which led VITRI to mainly focus on new project formulation with the forest administration in Renk County of Upper Nile State with some training activities to be implemented with two southern Sudanese universities.

The LAMPTESS Project got financing from May 2008 to March 2010 under the ICI programme with VITRI acting as the Finnish public sector organisation partner and the Federal Directorate of Forestry in Juba as the southern counterpart. Already at this first phase the two southern Sudanese universities, Upper Nile and Juba, were involved as sub-partners. In April 2009 the MFA informed VITRI that the project could not continue as an ICI-funded project after that year. This was because the status of Finnish universities would change after a new University Act would enter into force by the beginning of 2010, and a new Higher Education Institution ICI programme would continue to finance

collaboration between Finnish and southern universities and polytechnics (universities of applied sciences). As we got some bridging funds for the second half of 2009, we immediately started the process of reversing the partner statuses of the southern Sudanese partner organisations. In this way the former sub-partners (i.e. the two universities) became full southern Sudanese partners, while the Federal Directorate of Forestry became a sub-partner. As the actual start-up of the new HEI ICI Programme was substantially delayed, the LAMPTESS project continued in 2010 as a micro-project, mainly by supporting the project's demofarm operations in Renk in Upper Nile State. In May 2011 the first phase of the HEI ICI-funded LAMPTESS started up, while the southern Sudanese universities effectively became full South Sudanese partners after the country's independence from Sudan on 9 July 2011.

Social context of the project

A narrow focus on the forest sector alone would not enable the project to tackle the numerous challenges on landscape or watershed scale in South Sudan as many bottlenecks stem from outside the forest sector.

In the light of this history, it has been clear from the start that the activities of this project partly focus on rather pragmatic development collaboration and partly on more narrowly defined HEI capacity-building collaboration. Based on VITRI's long-term experience in the region it was recognised from the beginning that a narrow focus on the forest sector alone would not enable the project to tackle the numerous challenges on landscape or watershed scale in South Sudan as many bottlenecks stem from outside the forest sector. Such bottlenecks ultimately have to be tackled simultaneously in order to actually solve or even understand the challenges in natural resources management on an integrated rural landscape scale.

The main project location in Renk County, Upper Nile State, was from the start in May 2008 seen as a highly interesting model site for sustainable natural resources management and rural development in a southern (and later South) Sudan context. Most of the actual field work of LAMPTESS has since then been conducted in this county with the Upper Nile University (UNU) and the Renk Forestry Administration as the main partner and sub-partner. Renk has traditionally been the main centre for irrigated agriculture in the whole of South Sudan (a few smaller irrigation schemes existed in neighbouring counties), and it has still by far the largest mechanised rainfed agricultural schemes in the country. The savanna vegetation in Renk County has during the last years been under severe pressure from new farmland clearing and forest destruction, accelerated by decreasing farmland productivity. Man-made for-

est destruction is moving southward in Upper Nile State and in South Sudan as a whole, as forest exploitation is often the only income source for poor people. Until the separation of South Sudan from Sudan, there used to be some 15 million heads of cattle and smaller livestock annually migrating through the State en route to find green pastures. There are no and have not been any land mines in the project area, which has further facilitated safe fieldwork in rural areas. Until recently this has not been the case in many other parts of the country.

The two partner higher education institutions, which were sub-partners (2008–2009) first and full HEI ICI partners later (from 2011 on), were the Upper Nile University (UNU) and the University of Juba (UoJ). The UNU was established in 1991 as a public university and is one of the oldest universities in South Sudan. The UNU has got its main campuses in Malakal (the state capital) and in Renk. The central administration of the university used to be in Khartoum, but since July 2011 it has been in Malakal. The UNU campus in Renk hosts the Faculty of Agriculture relocated from Malakal in 2006, and also the Faculty of Forestry and Range Sciences relocated from Malakal in May 2008. Since the independence of South Sudan many of the teachers have been changed as the northern Sudanese teachers have left and new ones have substituted them. The older students have faced a challenging change of teaching language from Arabic to English. The capacity building support from LAMPTESS to UNU began already during the Project's inception phase with a substantial scientific library donation from VITRI to the UNU Renk campus and with assessments on training, research, curriculum development and facility needs, and with planning so as to enable the UNU/Renk faculties to promote rural development through extension services.

Established in 1977, the University of Juba is the oldest university of South Sudan, with activities in ten colleges and four university centres. The University of Juba was the first of the emerging new national universities to take into account the regional conditions in the management and the philosophy of education. *The College of Natural Resources and Environmental Studies (CNRES)* is the oldest faculty of the UoJ and covers a broad range of academic subjects in agriculture, forestry, food sciences, nutrition, fishery, limnology and environmental studies. The CNRES has had a situation similar to that of the UNU in Renk in terms of teacher substitutions and language problems of those older students who were transferred from the campus in Khartoum to the campus in Juba in 2011.

Other main stakeholders involved in the project have so far been the following:

The Federal Directorate of Forestry has since spring 2008 been given the mandate to manage the forest sector in South Sudan in accordance with the Comprehensive Peace Agreement (CPA) signed in 2005. The overall aim of the ROSS DF is a “Greener South Sudan”, with emphasis on rehabilitation of natural forests and plantation development for economic benefits. The Directorate of Forestry is decentralised to states and the local level, but a lack of trained staff is conspicuous. The forest policy and legislation have been reformed and are now gradually being enforced in all South Sudanese states. The ROSS DF has inherited the facilities, many staff, central nurseries and equipment from the forestry authorities in Khartoum. However, the scales of land degradation and poverty have been too overwhelming for the ROSS DF to tackle alone. The Federal Directorate of Forestry under the Director General Timothy Onak was originally the main South Sudanese partner during the first phase of LAMPT-ESS that started in 2008. The Director General and his deputy came also on a LAMPT-ESS study tour to Finland in December 2009.

The University of Juba Central Administration has so far been mainly in the background, although it has provided support as needed in terms of invitation letters, signing of documents and facilities such as accommodation in Juba. One former dean of CNRES visited Finland in October 2009.

The Upper Nile State political leadership in the form of the State authorities in Malakal (i.e. the State Ministry for Agriculture and Forestry) and the Renk County Commission Authority have also been highly supportive of LAMPT-ESS since the start-up in May 2008. The various commissioners and deputies have themselves been crucial in building up the trust for LAMPT-ESS in Renk County. Of the technical authorities in Renk County, the *Forest Administration* has been rather close to LAMPT-ESS from the start. There has also been some collaboration with the *agricultural and range authorities in Renk*, although not as closely as with the Forest Administration. Also, several local and international organisations such as various UN organisations and local NGOs have discussed a number of issues with the project.

The Upper Nile University Central Administration is located both in Malakal and in Renk. There has been almost from the start a broader academic memorandum of understanding between UNU and VITRI than just one for LAMPT-ESS. The Dean of Forestry and Range Sciences Selim Otuk Tupach came to Fin-

land on a LAMPTESS study tour in December 2009, and a new study tour was included in the project also in the HEI ICI phase, but this failed due to unexpected Schengen visa problems.

Jointly, the UNU and VITRI experts involved in LAMPTESS selected a *primary project area in Renk County covering several rural communities* for the project, located north-northeast of Renk town. This area includes the lands and villages of three irrigation schemes along the White Nile (Gaiger, Magara and Abu Khadra), three traditional rainfed or rainfed-mechanised scheme villages (Goz Fami, Goz Rhum and Nger), as well as two semi-pastoral villages comprising about a dozen sub-villages spread out over several square kilometres in the project area. These villages comprise a total of around 40,000 persons. The whole of Renk County has a permanent population of approximately half a million people. The primary project area has been logistically convenient for project operations taking place from Renk town.

Objective, purpose and results

The overall objective of HEI ICI LAMPTESS has been the “Strengthening of Southern Sudanese human resources at UNU and UoJ to improve natural resources management and promote rural development with particular emphasis on Renk County in Upper Nile State and on Juba and Kagelu areas of Central Equatorial State”.

The project purpose has been “To build up the capacity at the Faculties of Forestry and Range Sciences as well as Agriculture at University of Upper Nile and at the Centre of Natural Resources Management and Environmental Studies at University of Juba to deliver decisive contribution to the improvement of Southern Sudanese natural resources management and rural development. This is done through better education of graduates, direct leading role in rural development and in finding new solutions to increasing climate change challenges.”

The LAMPTESS project has been implemented with two technical components focusing on capacity building at UNU in Renk and at UoJ in Juba. A third component has been tying the two project sites together into one project and incorporating activities jointly operated for the whole project such as a study tour to Finland and the supply of procurements. Activities of LAMPTESS which have so far been conducted in earlier phases and those that are to be implemented in the new second HEI ICI phase are presented in Figure 4.

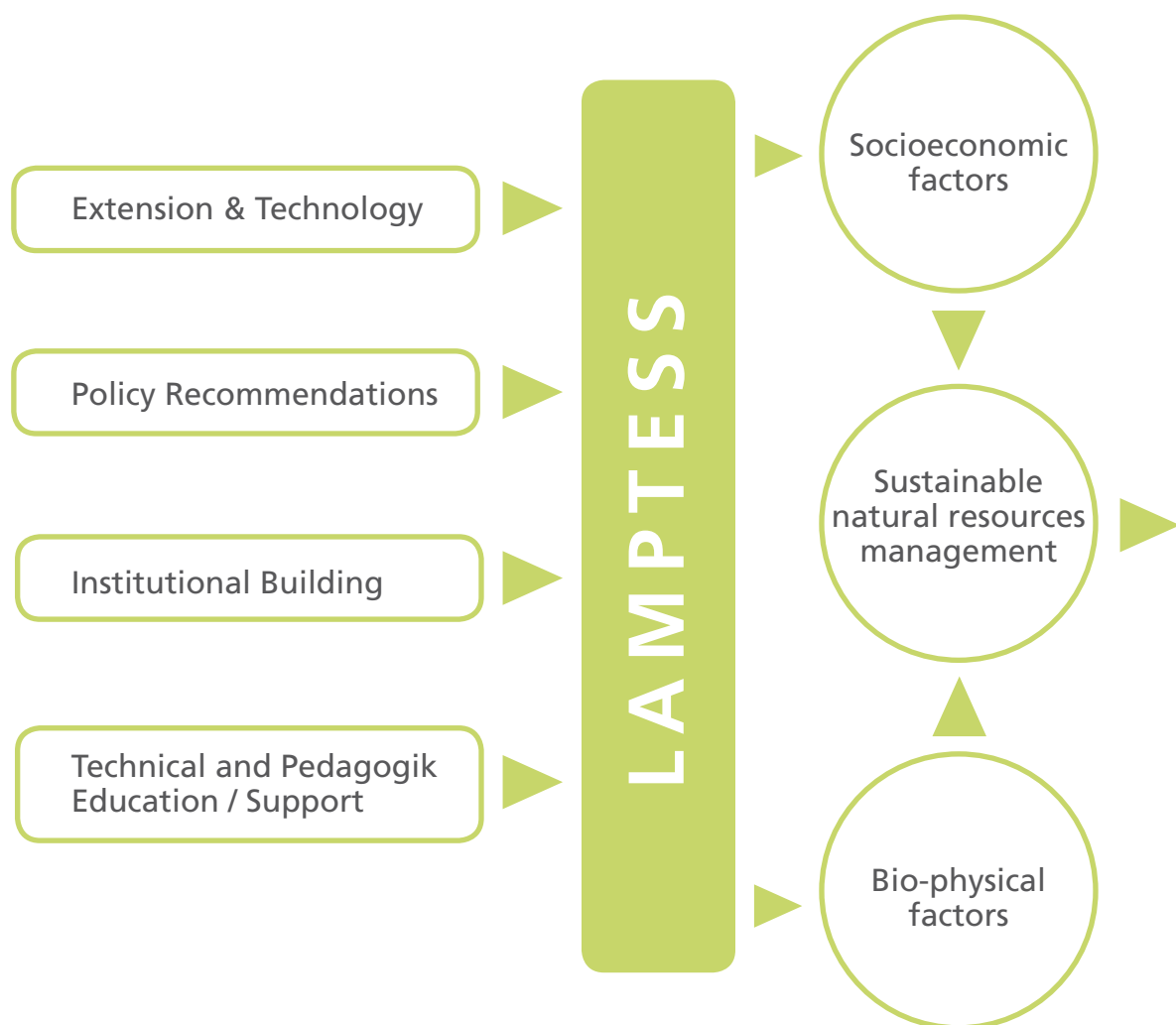


Figure 4. Model of Intervention for LAMPTESS during each phase of the project

ICI-Project

Institutional needs assessment;
Donation of books and system design for UNU library;
Education and administration assessment;
Extension needs assessment;
Socio-econ. & env. assessment;
Demonstration farm operations;
Landscape & Watershed Mgt. Planning;
Initiating planning of forest nurseries;
MEA and forest policy assessment;
Rural business management need assessment;
Study tour to Finland.

HEI-ICI Project

Institutional & curriculum improvement;
Training of Trainers and other courses;
Extension development and field practices;
Demonstration farm operations;
Agroforestry & gum arabic development;
Landscape & Watershed Mgt. Plan prepared and in use;
Central & Comm. forest nurseries establishment;
Training on Rural and forest business development;
Participation in South Sudanese forestry networks;
Study tour to Finland.

HEI-ICI Project

Institutional & curriculum improvement;
Library donation;
Pedagogical teacher training;
Scientific training;
Extension on agroforestry & forestry;
Landscape & Watershed Mgt. Plan updating;
Central & comm. forest nursery operations;
Tree planting scheme/User Plan;
Forest business development training;
Participation in South Sudanese forestry networks;
Attracting additional project financing;
Study tour to Finland.

Inception Phase
18 months

Implementation I
20 months

Implementation II
22 months

Disciplinary and organisational context of the project

The intervention model for LAMPTESS during each phase of the project is presented in Figure 1. The graph shows our four main approaches in the project: (a) Extension and technology, (b) Policy recommendations, (c) Institutional building, and (d) Technical and pedagogic education/support. These approaches all supported the project strategy that aimed at sustainable natural resources management considering both socioeconomic and bio-physical factors in the operations.

Each partner institution in the project has participated by making its staff available for a wide range of rural development and landscape/watershed management activities. From the VITRI side each expert had his/her own specific role in the project, making the support as broad as possible. By the end of 2012, VITRI had had ten experts from various fields involved in the field activities in South Sudan. From the University of Juba a whole range of the College of Natural Resources and Environmental Studies (CNRES) staff (in forestry, agriculture, livestock, the food sector, fishery, wildlife and environmental studies) have been attending training courses, although many of the current teacher cadres have been employed only after the main training events. From the University of Upper Nile the whole Renk campus with its two Faculties of Forestry and Range Sciences as well as Agriculture also had a similar range of personnel attending training courses and some other activities. The training situation of the teacher cadres in Renk was similar to that of Juba. Most of the core staff personnel involved in LAMPTESS have come from the forestry departments in all three HEIs, although we have tried to keep the door open for other departments as well. In Figure 2 the two project sites are shown on a map of South Sudan.

Figure 5. The map indicates the two LAMPTESS project sites with the University of Upper Nile in Renk and with the University of Juba in Juba. The map base has been laid out by the CIA.



Development cooperation at VITRI

Since 2000, the University of Helsinki has been evaluated three times by international scientific panels. The latest of these evaluations, on research and doctoral training performance of the whole University of Helsinki during the years 2005–2010, was titled as “To the top and out to society – International evaluation of research and doctoral training at the University of Helsinki”.

One of the five panels covering the whole of the University focused on biological, agricultural and veterinary sciences and thus on the four faculties and one centre at the Viikki Campus. These faculties incorporate the Faculty of Agriculture and Forestry, the Faculty of Biological and Environmental Studies, the Faculty of Veterinary Medicine, the Faculty of Pharmacy, and Biocenter Helsinki. The evaluation was focused on so-called “Researcher Community” (RC) entities, which could be multidisciplinary and built up from several research units at different departments.

VITRI participated in this evaluation as one of the RCs by itself, and the results from that evaluation can therefore be directly presented as VITRI’s own evaluation results by this international panel of experts from Germany, Australia, Sweden, Belgium, USA and Finland. We present this evaluation here, as the evaluation results are still as relevant for HEI ICI LAMPTCESS in 2011–2012 as they were for the project that ran in 2008–2010.

The RC evaluation provided an assessment on each of the following focus areas:

- Focus and quality of RC research;
- Practices and quality of doctoral training;
- Societal impact of research and doctoral training;
- International and national (incl. inter-sector) research collaboration and researcher mobility;
- Operational conditions;
- Leadership and management in researcher community;
- External competitive funding;
- The RC’s strategic action plan for 2011–2013.

The overall evaluation has since 2005 had three pillars of performance quality, namely scientific research, educational standard and societal impact. VITRI participated in a category focusing foremost on cutting-edge research quality, but the evaluation panel stated in their assessment that had VITRI participated in

Projects like ICI and HEI ICI LAMPTESS also provide opportunities for the development, improvement and upkeep of project management, leadership and expertise skills, which can be used later in all kinds of situations both academically and otherwise, even in pragmatic work opportunities.

another category focusing on societal impact the RC would have got even higher marks. This statement shows that such societal impact is acknowledged rather well at the University of Helsinki; this may not be the case in smaller Finnish universities.

The external RC evaluation results presented by the international panel gave VITRI an overall mark for the whole evaluation which was only one point short of an outstanding performance (i.e. VITRI got 19 points when the outstanding result had been graded from 20 points upwards). These results are for the overall performance of VITRI, which means that the ICI (and the HEI ICI) LAMPTESS is just a part of the overall work conducted by VITRI. LAMPTESS

is, however, mentioned directly or indirectly in several of the focus areas, and it is specifically mentioned as the ongoing flagship activity under the focus area on "Societal impact of research and doctoral training". In this particular focus area VITRI got its only full "outstanding" mark in the whole evaluation.

In the focus area on "Leadership and management in researcher community" the evaluators assessed that VITRI has got a very well-structured leadership organisation. The statement further stresses that this "provides the best conditions for the functioning of the RC. In particular, stronger project implementation for development projects and private sector co-operation will be achieved as well as facilitating the senior staff to focus more on high quality research and doctoral training".

The evaluation panel goes on to claim: "Nevertheless, it can be assumed that the group is in a very good stage to reach a position among the leading research communities in Europe in regard to multi-functional and multi-disciplinary approach to the tropical forest and dryland related research of developing countries". The LAMPTESS is only part of all activities at VITRI, but during the evaluation period it was, together with an EU-funded project, the largest and most challenging project ongoing for the RC.

The main tangible benefits of the LAMPTESS project to VITRI have primarily been in the form of long- and short-term employment of VITRI staff who are not permanently employed by the university and therefore needed project financing. Projects like ICI and HEI ICI LAMPTESS also provide opportunities for the development, improvement and upkeep of project management, leadership and expertise skills, which can be used later in all kinds of situations both

academically and otherwise, even in pragmatic work opportunities. To a certain degree this is also true for the South Sudanese personnel of UNU and UoJ. The project has also provided indirectly the opportunities to develop and prepare training course and lecturing materials by a few VITRI team members. Such materials have later been used on other occasions in Finland and abroad. Further, one doctoral thesis has been prepared after a work assignment in LAMPTESS, based on data collected at the project sites; another such thesis is on its way.

The project has further supported the contact networking with the International Center for Research in Agroforestry (ICRAF), Center for International Forestry Research (CIFOR) and other international research institutions as well as with many financing agencies and other organisations, which later may prove useful when initiating new projects. The ICI-LAMPTESS was the best reference of VITRI in 2010 when NIRAS Consulting Finland requested its partnership for an ongoing new large consultancy project in Sudan. After a joint fact-finding mission to Sudan and a heavy tender process, the NIRAS-VITRI-UNESCO Chair of Water Resources (from Sudan) consortium eventually was awarded the Sudan Community-Based Watershed Management Project (SCBWMP), where the LAMPTESS Project Co-ordinator was involved in the project team for a while as the capacity building and training expert. In this position he was also able to get two core staff members of UNU employed on a long-term contract for the SCBWMP after the VITRI and UNU experts had gained experience in LAMPTESS together.

As mentioned above, a total of ten staff members or researchers of VITRI have been employed by LAMPTESS in either the ICI or the HEI ICI phase of the project. So far LAMPTESS has benefited VITRI and the South Sudanese partner HEIs in the following concrete terms:

- The Professor/Director of VITRI was the responsible project leader and was also involved in the project by providing his technical duty work contribution to the project, which directly enabled VITRI to get the project in the first place (as his contribution was part of the own financing);
- The project has provided the bulk of the salary financing for two of the VITRI experts in both phases of the project during some 3.5 years;
- The project was the first major employment for three of the experts after they had completed their doctoral degrees at VITRI;

- The remaining project staff have been doctoral students at VITRI, who have got a substantial amount of their salaries from the project (for conducting technical project work only) during their doctoral study period;
- Two of these doctoral students have also worked as experts on the project and used the field data material from the project site in Renk for their doctoral thesis (their project work was well integrated with their thesis subjects).

The two doctoral students who collected their thesis data in Renk worked in the project as an multilateral environmental agreements (MEA) and forest policy expert, and as a demonstration farm expert, respectively. In the first case, the doctoral student first prepared a report on multilateral environmental agreements and forest policies and later after his assignment with LAMPT-ESS ended, he expanded the data material with additional data from Ethiopia for a full thesis. In the second case, the doctoral student collected most or all his data at the demonstration farm while co-ordinating both LAMPT-ESS and his own research trials side by side and partly overlapping. His doctoral studies are now continuing outside the LAMPT-ESS.

Also, one former VITRI team member from the ICI LAMPT-ESS that ended in early 2010 has since the beginning of March 2013 been co-ordinating another HEI ICI project for another Finnish higher education institution.

Among the UNU staff, two of the core staff members participating in LAMPT-ESS in 2008–2009 got such a good experience that they were able to be employed on long-term contracts by the large internationally-financed Community-Based Watershed Management Project. The project, funded by the World Bank and the Ministry for Foreign Affairs of Finland, started in 2010 and has its head office in Khartoum. The Project Co-ordinator of LAMPT-ESS was at the time also employed by this large project and was in a position to influence the selection of these UNU experts to the project.

It is also known that some other South Sudanese staff from at least UNU and the Forest Administration in Renk have later used their participation in LAMPT-ESS as reference for new employment elsewhere.

Role of southern higher education partners in the development of society

South Sudan is currently the youngest nation in Africa and in the world, having gained its independence on 9 July 2011. Almost all policies and regulations for the academic and education sectors in the country are brand new or still in the process for formulation and acceptance. In a sense the situation is good, as South Sudan is about to benefit from modern policies and regulations, but not everything has been enforced or even planned or prepared yet.

Both of the South Sudanese HEIs participating in this project have got mandates which stress societal development. The University of Juba Act 1995 stresses as its mandate to train manpower for the developmental needs of South Sudan. It envisages the development of this skilled manpower to seek and to determine rational methods of exploitation of the vast natural resources of the country for development. The objective takes into account the building up of social life within the national goals of economic development, forging national integration and promoting human and international understanding. The two partner faculties of the Upper Nile University in Renk have as their two main mandates (a) *To educate professionals for Upper Nile State* and (b) *To act as a promoter of rural development in the State* (i.e. using extension and other ways of supporting rural development). The mandates of the two partner HEIs are thus very well in line with what the HEI ICI programme is aiming at as concerns societal development.

In terms of the four notions described and presented by Cloete et al. (2011) on the role of knowledge and universities in a societal development context, the two universities clearly have active roles. Whether the main emphasis is on the universities being instruments or engines for knowledge in the national or regional strategies for societal development is not yet clear, but their roles are slowly evolving as the new nation sets out on its road to development among the other nations of the world.

Analysis of current situation

It is only recently that the two South Sudanese universities have been able to even start living up to their mandates. At the time of independence neither of the two universities was prepared for the separation. The majority of the teachers were comprised of northern Sudanese, who chose to become employed in Sudan at the newly formed Bahri University in Khartoum. This new

university got its staff from the southern Sudanese universities which were forced to move their headquarters and campuses to various South Sudanese locations just before the independence of South Sudan.

During the decades of open conflict between southern and northern actors in Sudan these universities had been out-located to the northern parts of the country in order to have peace and capacity to function. Since January 2005 when the Comprehensive Peace Agreement (CPA) was signed between the two governments, things have changed fast, particularly in Juba and in other state capital towns. Renk town in Upper Nile State was a few years before the signing of the CPA attached to the northern Sudanese road network by a proper paved highway, and less than two years before independence the town was also connected to the northern Sudanese electric grid from the Roseires hydro-electric dam. The availability of electricity has been stable in Renk since August 2009.

Since the independence of South Sudan there has been substantial new recruiting of teacher cadres at both of the South Sudanese partner HEIs. However, most of both the older and the newer staff members have a serious lack of pedagogic training, although most of them do have an MSc or doctoral degree in their own teaching subjects.

While the two universities have also lacked resources, some new facilities have been built or old ones have been renovated. Due to unresolved national issues which have been hard to negotiate between Sudan and South Sudan before or even after the separation, South Sudan has had difficulties in paying out salaries to its employees in governmental offices. There have also been delays in other payments to the universities and other governmental institutions. On top of the financial challenges there have also been some ethnic conflicts among students at least at the University of Juba, which caused this university to close down for a few months in 2012.

Given such challenges, the two South Sudanese universities have not been able to act fully on their mandates. The intentions and commitments for fulfilment of the mandates are still there, both on the part of the universities and of the national and state government authority. The situation is new for all governmental bodies, including the two universities, and requires some time to be solved.

Examples on how the situation could change

As its full name indicates – Landscape Management Planning and Training for the Environment in South Sudan – LAMPTESS is a landscape management project where a substantial focus is on societal development of sustainable natural resource management and on sustainable rural development. From the beginning of the project there have been several ideas on what this means in practice and how this approach really functions, and it was only during the end of the 2011–2012 phase that it started to become clear overall. Landscape management planning was initiated already during the ICI phase in 2008, but as this LMP approach has evolved slowly it has helped us in concretising the general manner in which the whole vision becomes a reality.

In Figure 6 below the LAMPTESS project has worked out a graph on how the vision for societal development may become real. To date the project has worked on the development of all the steps in concretising the vision, which is presented in the Landscape Management Plan (LMP) prepared within the project. This LMP was also handed over to the Renk County Commission Authority in early June 2012, and it seems that it may now have become part of the whole Upper Nile State's development vision.

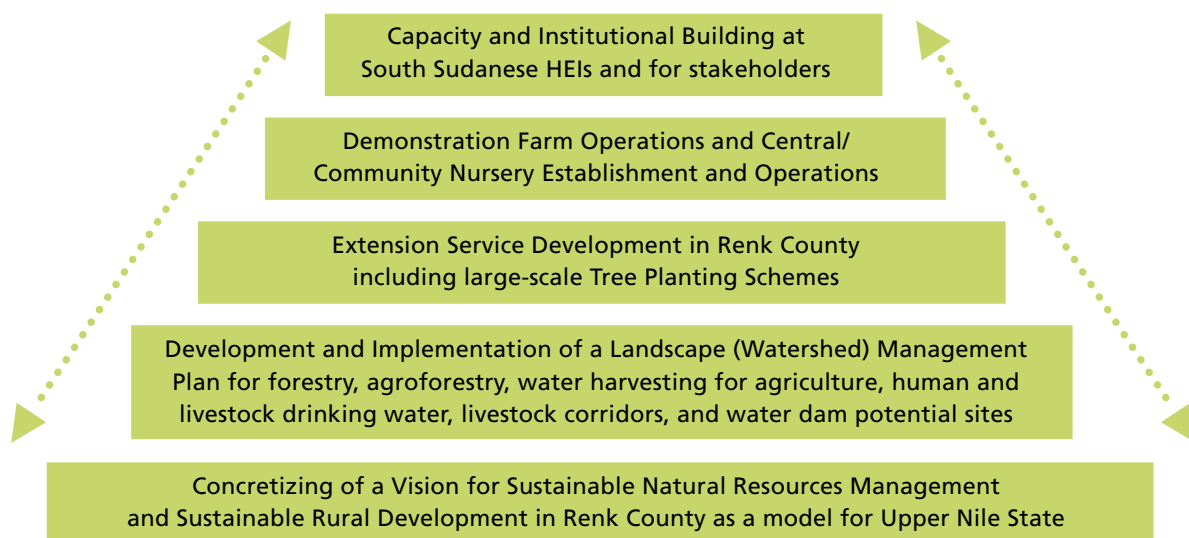


Figure 6. A societal development approach for a landscape (watershed) management intervention on a county or state scale.

In September 2012, the LAMPTESS team received from the state Minister of Agriculture and Forestry a written statement where he strongly supported the project and requested the project to support the state in funding and developing the actions recommended in the LMP. He also presented parts of this vision and the necessary tasks before a national and international audience at a high-level national workshop “Forum on Agricultural Development in South Sudan”, which was funded by USAID and held in Juba in June 2012. Representatives of LAMPTESS and the two South Sudanese universities also participated in the forum. The full-scale implementation of the LMP is beyond the financial resources of the LAMPTESS, but the aim has from the start been to indicate the roles and actions needed in order to achieve this vision and also to enable the local HEIs capacity to participate in the whole chain of actions needed for the achievement of the full vision.

Role of VITRI in societal development as supported by LAMPTESS

In LAMPTESS the role of VITRI (the Finnish HEI) has been the following:

- VITRI has been supporting the two South Sudanese HEIs on general capacity building of human resources and institutional building;
- To initiate, plan and prepare a Landscape Management Plan for Renk County in Upper Nile State;
- Further, VITRI has within LAMPTESS introduced several concepts which were rather new to the two South Sudanese HEIs. These included project management, landscape and watershed management, GIS mapping, rural business development, environmental economics and natural resources valuation, and water harvesting from dams along seasonal rivers;
- Some of these concepts have later been expanded through training opportunities at and with other international HEIs outside the LAMPTESS collaboration;
- VITRI has also provided updates, for instance, on some educational and extension concepts as well as on agroforestry and tree nursery management;
- VITRI has supported the establishment of a demonstration farm and the establishment and renovation of various tree nurseries in Renk County.

There are also plans for capacity building support on subjects such as scientific planning and conducting of research and statistical analysis, and to promote expansion of the subjects already presented above. There is likely to be several other subjects, which could prove useful for the local HEIs for both their academic educational institution and for their societal development role.

Means of institutional co-operation in societal development

To support the implementation of the partner institutions' tasks, the LAMPT-ESS project has provided some interventions for strengthening other key stakeholder institutions. These also incorporate some pilot communities where, for instance, field operations have been demonstrated. The overall LAMPT-ESS interventions have focused mainly on three elements:

1. Institutional capacity building that intends to foster an enabling environment for enhancing the implementation of various sustainable rural development practices and concepts with the aim of acting as a model for rural areas in South Sudan;
2. Human capacity building, which refers to training of male and female individuals; and
3. Fairly large-scale field operations, jointly with various other local stakeholders, in order to develop permanent dialogues and common practical planning models for sustainable rural development practices for the future.

The general aims of the project can also be understood as an overall vision (cf. Figure 2) based on theoretical, pragmatic, educational and other similar aspects demonstrated to the South Sudanese HEIs and other stakeholders, on training courses, lectures, extension services, demonstration farm activities and planning of large-scale tree nursery and plantation scheme operations, all presented as a landscape management plan. The LMP is similar to a watershed management plan (WMP), but its borders are determined by humans and not by nature itself as in the latter case. By integrating these levels of actions, the specific aim has been to provide capacity building that incorporates the concrete building blocks needed for rural landscape (or watershed) management planning and implementation in a dryland and developing country.

The academic teachers and other professionals in South Sudan have in general stayed on their campuses and have not been much involved in activities of-office doors. Younger HEI partner teachers or professionals have, due to lack of resources and skills, not much experience from societal development issues, while most of the more senior academics have some earlier involvement experience from the 1980s and 1990s, gathered from various international projects or some other activities such as field extension or national development work. Both the younger and the more senior teachers need encouragement to carry out fieldwork, but the younger teachers also lack many of the necessary skills.

Projects such as HEI ICI LAMPTESS must aim to change this by providing new resources and new development of skills to enable and encourage participation in societal development.

Role of practical field operations in concretising the vision

The aim of the demonstration farm in Renk County has been to show how such a site should be established and how trials should be managed while providing opportunities for on-site studies both for teachers and for students from the Upper Nile University, as well as for local farmers in the neighbouring villages. Special objectives include crop varieties and their yield as well as correct management methods.

A serious border conflict between South Sudan and Sudan during these activities caused an almost war-like situation along the whole northern border of South Sudan, and all trade between the two countries was banned.

The planned large-scale tree nursery was not completed in the first phase of HEI ICI LAMPTESS due to major challenges in the prevalent political, security and economic realities of South Sudan. Instead the project renovated the much smaller old central forest nursery and supported two other small nurseries in parallel with the establishment of the large-scale one (which was therefore also reduced in planned capacity) in order to get some quick results. A serious border conflict between South Sudan

and Sudan during these activities caused an almost war-like situation along the whole northern border of South Sudan, and all trade between the two countries was banned. This led to high inflation and serious shortages of most fencing materials and other equipment needed for the new central forest nursery establishment. The inflation also increased labourer salaries and many other costs.

The most serious setback was caused by huge numbers of so-called returnees, South Sudanese expelled from Sudan after the separation of the two countries. Over half a million people were transported from Sudan over the border to Renk town, where they temporarily settled before being transported by river boats further south in South Sudan. At least 150 of these households settled at their own will on the land that LAMPTESS had rented from Renk town administration for the central forest nursery establishment, and until the end of 2012 there were still some 56 households who refused to leave the area without financial compensation. There were returnees all around Renk, which put huge stress on resources, food and sanitation in the county.

So far the tree plantation schemes have mainly been planned and agreed on in the LAMPTESS Landscape Management Plan. Only some 10,000 seedlings of fruit, agroforestry, amenity and timber trees were planted out with funding from LAMPTESS in 2012. The aim is nevertheless to provide the UNU teachers and students, the professional local foresters, other authorities and the local communities with a possibility to see concretely how large-scale operations would function in the county. It would hopefully also contribute to their personal visions on how their near-by environment should be improved and developed.

The Landscape Management Planning preparation was included from the very start of the LAMPTESS project, and it has been improved and expanded throughout the project duration. The aim has been to give the local stakeholders an idea for how to develop the whole Renk County, which is about 150 km long from north to south and some 60 km wide from west to east. Apart from the forest and agroforestry operations included in the LMP there are also recommendations, shown on GIS maps, for livestock corridors and water harvesting for irrigation and drinking water for humans and livestock. The LAMPTESS team gave copies of these recommendations to the Renk County Council and the State Ministry of Agriculture and Forestry, both willing to utilise the plans for developing Renk County.

The challenges are simply too many for a small HEI ICI project to operate at a national level in a country like South Sudan.

Academic values and development co-operation

The challenges are simply too many for a small HEI ICI project to operate at a national level in a country like South Sudan. Many bottlenecks that exist in the project areas have had to be tackled almost simultaneously in order to get good results. The partner HEIs have trained staff who, with some further capacity building, should be able to support national and local society development while also providing themselves with better chances to compete on the national labour market. The LAMPTESS project can in the future mainly introduce new concepts and working methods to the relevant stakeholders and hope that by presenting a clear vision or clear alternative scenarios the South Sudanese are better equipped to tackle the future challenges of their country.

The funding regulations for the HEI ICI programme rule out any major research undertakings in these projects. This we consider a weakness in the overall HEI ICI concept. There would be a need to have, side by side with capacity building/development co-operation work, also another block of scientific work, which could help in verifying the development work. This would be particularly important in a setting where the research resources are very limited as is the case in the universities in South Sudan. If a research package were included, then the southern HEIs could benefit more in building up their own capacity with the support of VITRI.

HEI ICI regulations also rule out academic degree studies. The regulations even preclude stays longer than one month in Finland, which quite effectively prohibits any South Sudanese from participating in major research or education activities in Finland. From the perspective of VITRI's own doctoral students these regulations do not cause problems, as these students can integrate their project work with data collection for a doctoral thesis. The main parts of the doctoral studies have even in these cases been left outside the project. The South Sudanese HEIs have been quite disappointed with this situation, but they have instead to some extent been able to link with degree programmes offered to them by universities in the USA, Germany, the UK, Norway and Sweden.

When the LAMPTESS project started in 2008, VITRI was caught in the middle of serious political conflicts between the two forestry administrations in Khartoum and in Juba before the independence of South Sudan. This constrained VITRI's academic and development co-operation with institutions in Khartoum for a little less than a year until the northern forestry administration overcame most of its recalcitrance, perhaps due to an overall change in the Sudanese national politics during the last months before the referendum voting event. VITRI has enjoyed continuous strong and wide support from the Southern Sudanese forestry and other government offices from almost the start of the project. Only in the first months of implementation was there a time of some mistrust directed toward VITRI staff by some actors inside the forestry sector.

Serious border and other conflicts between South Sudan and Sudan in 2011–2012 had negative effects on the project work as they created various societal, academic, financial, security and personal problems to many individual stakeholders of the project in South Sudan.

Lessons learned

The HEI ICI LAMPTESS project has, apart from financial resources, also provided VITRI with much new experience on project co-ordination, technical and financial management, academic and professional capacity building, networking with stakeholders, logistical challenges, society collaboration, etc. We will limit ourselves here to just raising a few key issues which we have found particularly important in our HEI ICI project implementation.

The first lesson is related to the fact that the now completed phase of LAMPTESS was the first time that our experienced project co-ordinator was confronted with a situation where practically all the risks and assumptions in the project's Logistical Framework Analysis became reality. In this project the logframe analysis was of great value, not just for planning the whole project, but also for project monitoring and for mitigating many external factors affecting the project. Once identified, such critical factors are no longer real surprises when they actually occur. They are then treated as potential courses of action that the project has to embark on. Also, such precautions include at least mentally a Plan B scenario for almost all situations, such as having two separate project sites in case there are substantial security problems in the country.

Another main lesson is related to linking the capacity building of the partner HEIs with societal development. Although the landscape planning and management concept was included in the LAMPTESS project from the very start, the importance and actual meaning of this concept has only gradually evolved and expanded in overall project implementation. This concept has eventually enabled us to concretise a vision for sustainable natural resources management which has been promoted by capacity building with our South Sudanese partners (see the text and Figure 2).

While there were a number of serious development challenges in South Sudan, we find that the most difficult issue in the whole project implementation was the financial management. This is the most regulated part of any project implementation, and in the present case it has been heavy and cumbersome under three different bureaucracies. First, the Ministry for Foreign Affairs has enforced guidelines that are partly politically motivated, and second, the CIMO HEI ICI guidelines have been somewhat opaque and have changed a few times. The lowest tier of financial management has been the bookkeeping system and project administration of the University of Helsinki, which has been

stretched and strained, fairly inflexible and slow. The financial management in South Sudan has not been too easy either, with a rather undeveloped banking sector, but it functioned somehow as it was mostly under the control of the Project Co-ordinator directly and was thus easier to handle than the Finnish financial management with many external persons involved (i.e. persons who are not directly part of the project team).

For the next phase of HEI ICI project implementation we would like to see clear guidelines for financial management, mainstreamed all the way and built on an understanding of the challenges in the field, so that the implementer need not have to provide own innovative solutions over gaps between Finnish regulations and the factual financial management context in South Sudan.

Another issue related to financial management is the Total Cost model, which is at least partly the cause of the heavy financial management for a Finnish HEI ICI implementing the project. The high TC overhead costs dilute a sizeable amount of the financial resources and reduce the person months included in the project as compared with, for instance, the situation in the Added Value model. The low numbers of person months are then reflected in a forced shorter duration of the project, as the core team experts cannot work for longer periods than approximately two years in HEI ICI projects of the current budget size. A larger project always needs almost continuous co-ordination efforts, but three years of implementation is extremely difficult to arrange with the present budgeting structures.

Together Towards Seven-Star Doctors

The MEDUNAM Project at the University of Oulu

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The MEDUNAM I and II projects lay the foundation for a sustainable partnership between the University of Oulu, the University of Namibia (UNAM) and Lurio University (UniLurio) in Mozambique. The projects seek to improve curricula, medical education and institutional management in these southern African institutions. Early achievements have seen continuous pedagogical improvement and rural community outreach embedded into the culture of these new medical schools. Expansion of these programmes is ongoing. Building on the successes, there is a push within MEDUNAM II to integrate interprofessional medical education at all levels. All project partners see improving continuous education for working healthcare professionals as a simple and efficient mechanism to improve the quality and accessibility of healthcare within all communities. It is also a critical step in improving student training. By combining improved training with improved management, another goal of MEDUNAM II, these projects hope to produce a lasting effect on health in southern Africa.

Introduction: Prehistory

Namibia is a study in contrasts. It has one of the lowest population densities and one of the highest measures of income inequality ever recorded. Health services are fairly developed in urban areas but the majority of the population is predominantly rural and poor. Financial disparities are exacerbated by distance. The average Namibian will travel approximately 70 km to a clinic, close to a 100 km to see a doctor and nearly 110 km to the nearest hospital. These are of course averages, so many will travel further. In this context, it is obvious why the government of Namibia is labouring to address disparities in healthcare and access and why improving health service delivery is critical.

The Namibian government has initiated a rapid expansion in health professional education. Prior to 2009 the country was principally dependent on South Africa for the training of most health professionals. Domestically, nurses were trained at the School of Nursing and Public Health at the University of Namibia, and there were a number of other certificate and diploma level programmes available from other institutions, but doctors and other allied health professionals were trained abroad.

The matter of establishing a Medical School in Namibia was broached soon after independence in 1990. A number of domestic and international parties deliberated and ultimately determined that, at the time, the new nation neither had the human capacity nor the capital wherewithal to launch such a project concurrent with other ongoing nation-building priorities. The government revisited the topic again in 2002/03 in partnership with the WHO, the University of Oulu and other stakeholders. Professor Peter Nyarango, then a WHO expert, prepared a feasibility document on the establishment of a medical school at UNAM. It was from this document and the meetings that a framework for

The Namibian government has initiated a rapid expansion in health professional education. Prior to 2009 the country was principally dependent on South Africa for the training of most health professionals.

the foundation of a National School of Medicine was developed and a pre-medical foundation programme was established within the UNAM system. This pre-med programme would initially feed qualified students into South African Medical Schools and then, as positions became available, shift placements to the Namibian School of Medicine. It was only in late 2008 and early 2009 that the master plan for the School of Medicine was finalised and in late 2009 that the first operational units were formed. Without fanfare Dr Quenton Wessels gave the inaugural lecture, in Anatomy, to the first intake of students at the University of Namibia, School of Medicine on 8 February 2010 at 7:30 am. There were 56 students and five lecturers using a single borrowed classroom on that day.

The expectations for the first and only Namibian School of Medicine are set high as there is a great need for qualified medical doctors in the country. The School of Medicine aspires to produce a medical graduate with the following qualities and characteristics referred to as the 7-Star Doctor: Care provider, Decision-maker, Communicator, Community leader, Manager, Researcher and Life-long learner. The very first graduation ceremony will take place in May 2015.

MEDUNAM I: 2010–2013

The establishment of the School of Medicine marked the beginning of a dramatic expansion and reorganisation of health sciences at the University of Namibia. Nursing and Public Health, which had previously stood alone within the University, was reincorporated as a school within the Faculty of Health Sciences alongside the School of Medicine. In 2013 the Pharmacy programme, which had been operating as a department within Medicine, was rationalised and elevated to become the third School in the Faculty. Further expansion is planned. A School of Dentistry, whose planning was done in partnership with Dr Raija Lähdesmäki from the University of Oulu, will be inaugurated in 2015, while Nursing and Public Health is anticipated to be split into two separate schools. Over a five-year span, the Namibian Government will have funded the creation of a full portfolio of professional health programmes.

The curricula of these schools reflect those of the many partner organisations involved in aiding the UNAM in their establishment. Early on these included the University of Stellenbosch, the University of Cape Town and the University of Pretoria, but ongoing revisions mirror the participation of the UNAM School of Medicine in wider regional partnerships such as the Consortium of New Southern African Medical Schools (CONSAMS) and North–South initiatives such as the MEDUNAM I and II projects funded by the Finnish Ministry for Foreign Affairs. Under the auspices of MEDUNAM I, several delegations have conducted benchmarking exercises on infrastructure, education management and governance in southern Africa and Finland. With these inputs there has been increased focus on the role of civil society and community outreach in all of the UNAM programmes.

Community outreach programmes such as the *one student – one family* approach pioneered by UniLurio and adopted by UNAM soon after a MEDUNAM benchmarking exercise, and *Continuous Outreach*, a MEDUNAM II continuing education programme designed for practising professionals, have benefited greatly from improved transportation provided by MEDUNAM I and proposed additions under MEDUNAM II. The purchase of vehicles by these two projects has improved and will continue to improve student and faculty access to rural patients and clinics.

Enrolment in all health professional programmes has increased from year to year. Over the past four years, medicine has increased its yearly intake from 56 to 87 students. Similarly, Pharmacy admissions have grown from an anticipated

25 students per year to over 40. It is anticipated that 15 students per year will enrol in dentistry in 2015. Combined, the Faculty of Health Sciences currently educates nearly 1,100 students. With future expansion into occupational and physiotherapy and the re-launch of the School of Public Health, the numbers may reach 1,400 within 5 years. In a decade there will have been nearly a four-fold increase in the number of students enrolled in health-related professional programmes.

The majority of the Faculty of Health Science students study at the new University of Namibia Medical Campus in the Khomasdal section of Windhoek. Construction work for this campus started as a result of government investment of over N\$600 million (\$60m USD, €46mM), and present and future buildings on the 38-hectare campus incorporate lecture, laboratory, administration, clinical, residential and social spaces. To date four buildings with over 20,000 square metres of space have been completed and a further three structures covering nearly 10,000 square metres are under development.

Building design was influenced early on by input from the School of Medicine at the University of Oulu. Early concerns about faculty to student ratios necessitated the inclusion of electronic teaching aids and multimedia into student spaces. Designed to use modern and constructive teaching resources and techniques, these auditoriums and labs have brought students closer to the subject matter, even if they were configured not to current enrolments but to an anticipated twofold increase in student numbers. Growth also motivated a movement away from fixed resources to multifunctional and multidisciplinary environments. Labs can be rapidly reconfigured to support practical sessions in histology, microbiology, biochemistry or physiology. The clinical training spaces are similarly flexible, consisting of active simulation and practice spaces and (soon) outpatient care facilities.

All training spaces stress team-centric approaches to learning, and these ideals are further reinforced in clinical settings where additional stress is placed on the development of relationships between patients and health professionals. Applying novel ideas to facility design and staffing has the potential to solve human resource and funding concerns while improving education and health care outcomes.

Faculty, staff and students need to be as flexible as the space in which they work. They need to develop as educators and to embrace new pedagogical techniques and innovative teaching methods. The projects of MEDUNAM and

I-STEP (North–South–South project funded by the Finnish Ministry for Foreign Affairs) and the training courses developed and implemented by the University of Oulu and collaborators through these projects have attempted to address these needs. To date a number of short pedagogical courses have been presented to students and faculty within the UNAM School of Medicine. Examples include the MEDUPEDA entity for the faculty and “How to be a university student” and “Growing into a professional doctor” for the students, presented by Drs Essi Varkki, Tuula Kaisto and Teija Parpala, all from the University of Oulu. Further examples are two intensive courses, “Innovative teaching methods” and “Inter-professional education” (a NSS Intensive course), given to lecturers in September of 2012.

MEDUNAM I also supported teaching assignments in Namibia, which have added depth and specialty training to ongoing lectures. Instructors such as Drs Olli Vainio, Tuula Kaisto, Essi Varkki and Kati Ojala have combined to add nearly a year of teaching content in immunology, histology, internal medicine and obstetrics and gynaecology to the School of Medicine at UNAM.

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MEDUNAM I ACHIEVEMENTS		
RESULT AREAS	ACHIEVEMENTS	COMMENTS
Result 1: Improvement of teaching quality and pedagogical methods	Pedagogical training (MEDUPEDA) was planned and courses and work-shops were arranged accordingly.	- MEDUPEDA levels 1 and 2 for teachers carried out twice - "How to be a university student" for students
	Supportive teaching visits from Oulu	In 4 disciplines 1–2 times a year
Result 2: Quality management system of medical education established and implemented	Several benchmarking visits to sub-Saharan medical schools and Finland	Zambia, Mozambique, Kenya, Botswana, Finland
	A topic included in MEDUPEDA training	
Result 3: Physical infrastructure and operational systems developed	Two cars purchased for transport of students and staff to rural training hospitals and clinics	Official inauguration of cars in February 2012
	Networking UNAM School of Medicine with the other new Medical Schools in the region led to the birth of CONSAMS	Further information on CONSAMS, www.consams.org

Table 3: MEDUNAM I Achievements

Going forward with MEDUNAM II: 2013–2015

Training, managing and retaining human resources place a considerable burden on any organisation, as personnel costs typically represent the greatest proportion of any operational budget. It is therefore imperative that the skills sets of employees are in tune with the organisation's mission and that they grow and evolve in tandem. Through MEDUNAM II and in collaboration with UniLurio Mozambique and the University of Oulu, the UNAM School of Medicine seeks to address human resource issues both internal and external to the schools.

Pedagogical training and the strengthening of the pedagogical system are crucial components of MEDUNAM II. Few faculty members, regardless of rank, have had any pedagogical training and therefore continue to educate in a purely objective style. As a result students encounter principally didactic lectures in their first several years of preclinical training before finally being exposed to more experiential learning in clinics. One of the goals of MEDUNAM II is to train lecturers in those critical first years of study to utilise the multimedia capabilities and the design of facilities to create a more interactive and effective learning environment even in instances where there are more than a hundred students in a class. Curriculum revision will speed pedagogical change. How the material is taught and assessed is obviously a critical component of any curriculum, and during curriculum review changes can be made to codify particular pedagogical methods. MEDUNAM II entails an opportunity to assess the material taught, how it is presented, and how outcomes compare to other institutions. It will also provide an opportunity to introduce and implement and perhaps mandate the use of simulations, interactive class and e-learning technologies.

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Multimedia plays a significant role in the second major objective of MEDUNAM II, community outreach. Improving rural medical outreach and practice is critical to meeting Millennium Development Goals for health in both Namibia and Mozambique, which both have predominantly rural populations and low population densities. Students studying to be health professionals in these countries now spend a significant portion of their clinical training in rural areas. Their work however has exposed deficiencies. It is apparent that both countries must

improve the availability of continuous education to *in situ* health care workers to ensure best practices within these rural medical facilities. Plans include the development of video conferencing facilities at rural sites, the distribution of educational DVDs and improving access to online resources including podcasts.

The unique nature of the Faculty of Health Sciences and its rapid growth has stressed administrative systems within the UNAM. Human resources, finance, student affairs, purchasing and estate services and others are all centralised and none were prepared for unique exigencies of developing four *de novo* professional programmes. For example, the school is dependent on a purchasing department and system unable to supply equipment, reagents or expendables in a timely fashion. In some instances a year has passed from placing an order to its delivery. Also, hiring process sometimes stretch beyond a year. The Faculty should create internal processes that are more efficient. Crucial to this is the training of administrative staff and senior management to anticipate possible delays and to plan pre-emptively. Further, given the paucity of effective educators and staff in southern Africa, senior leaders must be cognisant of faculty morale and effective managers of talent.

The MEDUNAM II project has partnered with The School of Management Higher Education Group (HEG) at the University of Tampere in Finland to provide leadership and management in higher education institutions with training. HEG personnel have extensive experience with African higher education systems, and the group was a leading partner in the HEI ICI programme (2011–2012) “Building Institutional Capacity for Training Leadership and Management of Ugandan Universities (LMUU)”. We have already completed a two-day assessment session with key administrative and academic managers. Key stakeholders were interviewed to determine competencies within the management structure and management challenges in the schools of the Faculty of Health Sciences at UNAM. From this a proactive process will be designed to find and implement sustainable management solutions within the Faculty. At present the proposed training includes three thematic components. The first concentrates on management and leadership concepts and practices within universities while the second will address specific examples derived from the early needs assessment meetings. Finally, there will be organised group work designed to develop best practices to overcome administrative challenges within the Faculty.

MEDUNAM II PLANS	
RESULT AREAS	ACTIVITIES
Result 1 Pedagogical training of faculty and students	Activity 1.1 Pedagogical training and retraining of faculty and students at UNAM Activity 1.2 Pedagogical courses in Mozambique Activity 1.3 Starting Health Professionals Education and Training Unit Activity 1.4 Supportive teaching visits Activity 1.5 Interprofessional education pilot courses
Result 2 Curriculum evaluation and development	Activity 2.1 Preparations for the curriculum review at UNAM and UniLurio Activity 2.2 Realignment of current and future curricula to allow both graduate and postgraduate IPE Activity 2.3 Developing /modifying curriculum for rural satellites
Result 3 Developed executive and administrative skills; Institutional strengthening for health professionals	Activity 3.1 Leadership and management training Activity 3.2 Developing information management system Activity 3.3 Establish the Department of research and institutional development

Table 4: MEDUNAM II Planned results

Lessons learned

Diplomacy is not a typical subject of study in most professional degrees. It is not a course offered in any medical curricula, either. It is through these projects that many participants from Finnish universities have had their first exposure to and contact with other national bureaucratic structures and individual roles within those bureaucracies. MEDUNAM I and II have been, and continue to be grass roots diplomatic missions. Finns interacting with Namibians, Mozambicans and other southern African people are now more adept at dealing with cultural differences that might have previously detracted from project goals. The HEI ICI and NSS projects co-ordinated by the University of Oulu have strengthened the university's goal for internationalisation. These activities

have opened more windows for functional co-operation within higher education as well as in research. Based on our HEI ICI and NSS projects, we are closely involved in a larger consortium, CON-SAMS, aiming at productive co-operation on health care professionals' education and health systems research within southern Africa in collaboration with the northern partners in Finland and the United States. HEI ICI activities are also a cornerstone for building successful academic collaborative actions, and they are fully in line with the internationalisation programme of Oulu University. These projects provide an important possibility for the administrative personnel to familiarise themselves with colleagues and working cultures from different countries. Further, there is a better understanding of the necessity for educational flexibility in the face of these cultural differences. These lessons learned will be increasingly important as the developed world becomes more cosmopolitan through immigration.

Projects provide an important possibility for the administrative personnel to familiarise themselves with colleagues and working cultures from different countries.

Conclusion

In September of 2000 all 191 member countries of the UN signed the United Nations Millennium Declaration committing to fight poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women. Of the eight principal goals, three target health-related issues directly: MDG 4 seeks to reduce child mortality, MDG 5 to improve maternal health and MDG 6 to combat HIV/AIDS, malaria and other diseases. Through MEDUNAM I and II the University of Oulu and its developing world partners in southern Africa have formed a global partnership (MDG 8) attempting to address these goals by improving medical education, the dissemination of information and leadership. It is hoped that these and similar initiatives will enable sustainable improvement in health care education, which would lead to quality health care for all individuals throughout sub-Saharan Africa.



Promoting 21st Century Literacy Education in Zambia

Päivi Fadjukoff



■ Case description

The aim of the project CAPOLSA (Centre for Promotion of Literacy in Sub-Saharan Africa) was to establish a strong literacy centre at the University of Zambia (UNZA). The long-term goal is to have international visibility and impact, specifically in African countries facing similar challenges to Zambia. This literacy training approach is based on the Grapho Learning Initiative and the innovative and efficient digital-based learning game, GraphoGame, that has been developed based on scientific studies led by Professor Heikki Lyytinen at the University of Jyväskylä (JYU). He was the responsible project leader, together with Professor Robert Serpell at UNZA. The project implementation period was from 1 May 2011 to 31 December 2012.

The social context of CAPOLSA

As emphasised by UNESCO (2013a, 2013b), literacy is a fundamental right. It is the foundation for both basic education and lifelong learning, as well as for career development. Promotion of literacy is also a key strategic requirement for progressive social change in Africa aimed at poverty reduction and democratisation. Literate citizens are able to interact more broadly over space and time with other humans, accessing and contributing to the cumulative wisdom of humanity. They are better able to understand and claim their civil rights and to participate effectively in the critical evaluation of public policies. And they are able to acquire new skills and knowledge relevant to productive economic activity. Due to the importance of literacy to national wellbeing and the economy, the World Bank (2013) maintains records of national literacy rates, defined as *“the percentage of the population age 15 and above who can with understanding, read and write a short, simple statement on their everyday life. Generally, ‘literacy’ also encompasses ‘numeracy’, the ability to make simple arithmetic calculations.”*

Although literacy has long been acknowledged to be instrumental in enhancing human capabilities, illiteracy has remained a challenge specifically in the African continent. It has received too little political attention in many African countries: According to the UNESCO (2013a) Regional Bureau for Education in Africa, only 1% of the national education budget of most African governments is earmarked to address the issue of literacy. Africa is the only continent where more than half of parents are not able to help their children with homework due to illiteracy. As many as 38% of African adults (some 153 million) are illiterate, two-thirds of these are women. In Sub-Saharan Africa, the total adult

literacy rate in the years 2005-2011 was 71% in men and only 54% in women, although noticeably higher rates among youth (76% in young men and 67% in young women, 15 to 24 years of age) signals that an increase in female literacy may be forthcoming. In Zambia the literacy rate was in total 81% for adult men, and 62% for women, and 82% and 67% for young men and young women. (World Bank 2013.) However, it is uncertain whether the above minimum requirement for literacy is sufficient for optimal educational, vocational, or political development and involvement.

In Zambia the literacy rate was in total 81% for adult men, and 62% for women, and 82% and 67% for young men and young women.

In Africa, multilingualism constitutes a great challenge both for individual literacy development and for national literacy programs. The one language-one nation ideology of language policy and national identity was increasingly questioned in the 1980s and 1990s. Since then, multilingual language policies, which recognise ethnic and linguistic pluralism as resources for nation building, have increased (Hornberger 2002). Since the beginning of their independence, the language of teaching and

initial literacy has been a topic of debate in many post-colonial Sub-Saharan countries (Obanya 1996). Specifically in the multilingual countries, the medium of instruction has in practice continued to be English. The learning of one's indigenous mother tongue is regarded as less important. (Obanya 1996; Banda et al. 2012).

Our partner country Zambia, situated in the centre of Sub-Saharan Africa, has a very rich linguistic heritage. There are 73 tribes of which each has its own dialect. Nevertheless, all Zambian indigenous languages belong to the Bantu languages and are related to one another. A comprehensive survey of the languages in Zambia was carried out in 1978 (Ohannessian & Kashoki 1978). At present, seven indigenous languages have an official status in the country.

Zambia has consistently, since its political independence in 1964, placed a high priority on making education widely available to its citizens and has invested heavily in the expansion of educational provision, especially at the basic level. Year after year since 2005, an almost universal primary school enrolment has been achieved. Zambian children are expected to learn initial literacy skills in their provincial language (one of the seven indigenous languages) during first grade and gradually switching to English starting in second grade. Both an indigenous language and English are mandatory subjects in public schools, but the language of instruction is still usually English. The language of instruc-

	Nursery School Education*	Primary School Education	Secondary School Education	Tertiary Education
Language of Instruction (LoI) in Education	English	English	English	English
Language for Initial Literacy in English and Zambian Languages (Grade 1–2)	Not regulated, but they do more activities in English, e.g. learning the English alphabet	One of the seven official Zambia languages (grades 1–2) only for the literacy hour	N/A	N/A
Literacy Hour		One of the seven official Zambian languages and English (grades 3–7)	Extensive reading lessons are only in English	N/A

Table 2: Post-independence language policy in education in Zambia (obtained from Banda, Mostert & Wikan, 2012, 14).

* Please note that nursery schools are primarily in the private sector, subject to minimal regulation and accessed by less than 30% of the population.

tion is then differentiated from the language for initial literacy as described in Table 1. With the exception of the literacy lesson, all subjects in schools are taught in English.

Reading difficulties have constantly been very common in Zambian schools. The Zambian Ministry of Education concluded in the national curriculum “Educating our Future” already in 1996 that the results of the educational policy had thus far been unsatisfactory. Children with very little contact with English outside school were required to learn concepts through English medium. The curriculum (Ministry of Education 1996, 39) concluded: *“The fact that initial reading skills are taught in and through a language that is unfamiliar to the majority of children is believed to be a major contributory factor to the backwardness in reading shown by many Zambian children.”*. Yet, the Ministry

simultaneously noted (ibid.) that a transformation to using the indigenous languages in education would mean unbearably huge costs and implementation problems as both learning materials and teacher training have been developed in English.

Although significant reforms were introduced in 1998, including a policy change to using the indigenous languages familiar to children as the medium of initial literacy instruction in the first grade of all government schools, literacy levels among enrolled primary school learners continue to fall far short of expectations. In a study by Matfwali (2005), 106 randomly selected third grade pupils who had participated in the new reading program were tested for their literacy skills in the indigenous language studied, Cinyanja. Only 46% could name the letters of the alphabet, and only 29% could relate the given sounds to appropriate letters. Due to orthographical transparency of this language, reading acquisition should have been possible for the majority of pupils during the first year of school.

The aim of the project CAPOLSA was to establish, at UNZA, a strong literacy centre with international visibility and impact. The Centre would carry out applied research and teacher education on ways of improving reading acquisition in the indigenous languages of Africa, specifically concentrating in the Sub-Saharan countries facing similar challenges to Zambia.

Banda, Mostert, and Wikan (2012) remind us that merely changing the medium of instruction from English to an African language would not improve the quality of education. They see challenges in three main areas: (a) the standardisation of the orthographies of the various Zambian languages used for initial literacy in various regions, as various dialects are used by learners; (b) the production of reading materials in the children's mother tongues, and multilingual dictionaries to promote a reading culture, and (c) the development of teacher training and teaching aids in the Zambian languages, and use of effective and innovative teaching methods. In addition, they consider it necessary to identify possible ways of raising the social and economic status of the Zambian languages and culture in the area of entrepreneurship and apprenticeship.

The overall aims and achieved results of CAPOLSA

The aim of the project CAPOLSA was to establish, at UNZA, a strong literacy centre with international visibility and impact. The Centre would carry out applied research and teacher education on ways of improving reading acquisition in the indigenous languages of Africa, specifically concentrating in the Sub-Saharan countries facing similar challenges to Zambia. Establishing this African centre of expertise was part of the larger *Grapho Learning Initiative*,

launched in 2011 by JYU and the Niilo Mäki Institute. This global initiative aims at assisting millions of children in learning to read in their local language, with the help of technology and the know-how of the most well-informed experts of reading acquisition in the world, using the innovative and efficient digital-based learning game, GraphoGame, that was developed based on scientific studies led by Professor Heikki Lyytinen at JYU. (Grapho Learning Initiative 2013).

According to the project plan, the planned activities of the established CAPOLSA included the following:

1. the promotion of support for children's acquisition of literacy in Zambian languages among parents, families, and pre-school teachers,
2. the provision of technical support in curriculum and instruction to the various training institutions mandated to prepare teachers for initial literacy instruction in the nation's lower primary school grades,
3. the creation, collation and dissemination of child-friendly reading materials in the Zambian languages used as media for initial literacy instruction,
4. the development of guidelines for the harmonisation of orthographies across the different Bantu languages as used in the various countries of sub-Saharan Africa, and
5. the specialised, advanced education of a critical mass of experts at UNZA for the conduct of such research.

The ultimate beneficiaries of the present project will therefore be the next generation of Zambian children, who will receive more appropriate and effective support for the initial acquisition of literacy.

The final goal was to have an efficiently functioning resource centre for supporting all Sub-Saharan African children in learning to read in the indigenous language they speak when entering school. The ultimate beneficiaries of the present project will therefore be the next generation of Zambian children, who will receive more appropriate and effective support for the initial acquisition of literacy.

The project report summarised the main achievements of the project during the 20-month funding period under review as follows:

- the foundation and institutionalisation of CAPOLSA, a Centre for applied research and teacher education on ways of improving reading acquisition in the indigenous languages of Africa.
- the creation, collation and publication of a set of child-friendly reading ma-

- materials in four of the Zambian languages, based on a storywriting competition.
- the development of guidelines for the harmonisation of orthographies across the different Bantu languages.
- the advanced training of a team of five Zambian experts for the conduct of applied research on ways of promoting early grade literacy learning in low-resource Zambian schools.

The Centre also supported the dissemination of applied research findings to policymakers, planners, in-serve teachers, and their school administrators.

The disciplinary and organisational context of CAPOLSA

This CAPOLSA project was based on a longstanding Finnish-Zambian collaboration and brought together a capacity-building agenda (post-graduate training) at Zambia's leading university, a need felt by the Zambian government for policy-oriented research and development in a priority field of public education (promotion of universal basic literacy), with an emerging programme of international research collaboration (on optimising conditions for initial literacy acquisition).

JYU has collaborated with the UNZA, and the Zambian government's Ministry of Education from the early 1990s onward, focusing on the study of learning difficulties among Zambian children. In addition, the Niilo Mäki Institute, a foundation-based unit for multidisciplinary research and development work for learning disabilities, based in Jyväskylä, Finland, has been active within and has added value to this collaboration. This collaboration has included, for example, the development of a Special Education Degree Programme at UNZA in the 1990s (Chakulimba & Kokkala 2001), and the joint research, design and field-testing of effective methods of intervention to support the acquisition of initial literacy skills by both Finnish and Zambian children (see, e.g., Lyytinen, Erskine, Kujala, Ojanen, & Richardson, 2009; Kaoma, 2008). As most funding instruments are targeted to certain types of aims and actions, using various and parallel funding instruments has made it possible to tackle a wide scope of challenges. During the CAPOLSA project, collaboration was enriched by several projects and various funding sources. The following projects, aiming for empirical research collaboration and degree training, for material production, and for enhanced international networking, strongly underpinned CAPOLSA as a functional centre, were undertaken:

JYU has collaborated with the UNZA, and the Zambian government's Ministry of Education from the early 1990s onward, focusing on the study of learning difficulties among Zambian children.

A. RESUZ (Reading Support for Zambian children), a research project funded by the Academy of Finland in 2010-2012 and awarded to Professor Heikki Lyytinen of JYU. This study was designed to document the process of initial literacy acquisition among children enrolled in first grade classes at government schools, in Lusaka, a multilingual city facing many challenges of basic service development. An agreement between the UNZA and JYU on joint-degree doctoral studies was signed in 2010 for five Zambian scholars, who lead the implementation of the project. At the core of the project was an intervention study, for which a representative sample of 582 children that were enrolled in Grade 1 classes at 42 Lusaka urban government schools were recruited and assessed on several locally developed measures by a team of trained UNZA undergraduate Student Research Assistants.

B. the GraphoRead project, funded in 2010-2011 by National Agency for Technology and Innovation (Tekes) and awarded to Professor Heikki Lyytinen. The project developed ways to produce easy-to-access reading material in indigenous languages for African children. Together with CAPOLSA, the project launched the Kalulu Storywriting Competition in August 2011. The project ended in November 2011.

C. a scientific workshop on support for language and reading acquisition, funded in 2011-2012 by the Finnish Cultural Fund and awarded to Professor Heikki Lyytinen. The Zambian partners participated in the GraphoWorld Summer School in Jyväskylä in September 2011 through this funding.

It was seen highly important to ensure progress in this successfully developing collaboration, and to enable full ownership and leadership by the Zambian experts of the ongoing research and its effective deployment in Zambian public policy, teacher training, and instructional practices in classrooms. The Higher Education Institutions Institutional Cooperation Instrument (HEI ICI) funding provided an opportunity to establish an administrative centre (CAPOLSA) at UNZA in 2011. The CAPOLSA activities were coordinated by Professor Robert Serpell, jointly implemented by academic staff of several existing departments, and coordinated by the Psychology Department in the School of Humanities and Social Sciences. Close collaboration was maintained with the Ministry of Education's Curriculum Development Centre and other relevant arms of the Ministry.

To be able to operate as a functional unit, the newly formed CAPOLSA had to have autonomy both in planning the operations in Lusaka, and in being

financially liable for them. Due to the long collaboration and mutual trust that had already grown between the partners, the project budget was divided and administered according to a joint agreement in part by UNZA, in part by JYU. The funding allocation between the partner universities was planned already in the application phase while constructing the budget and re-agreed and clearly marked on the budget sheet in the first project board meeting at the onset of the project. Those activities that took place in Zambia were agreed to be UNZA's responsibility, while the salaries of Finnish experts as well as the travel costs were JYU's responsibility. The project action plan and budget was accepted and tracked by the Project Board, to which representatives of both universities, as well as representatives of the Zambian Ministry of Education, and Embassy of Finland in Zambia were invited. In addition, the project had a distinguished Advisory Board, chaired by Professor Stephen Simukanga, the Vice-Chancellor of UNZA. In project administration, the management and internal reporting procedures and requirements of the partner organisations were followed, as well as those imposed by the project funding body, the Finnish Ministry of Foreign Affairs.

■ Developing cooperation and institutional mandate for the project at the University of Jyväskylä

JYU is one of the largest and most popular multidisciplinary universities in Finland. It is an internationally renowned research university and an expert in education that focuses on human and natural sciences. The University's seven faculties host some 15 000 students from all over Finland and from nearly 100 countries around the world. The strategic objective is to be "one of Finland's leading and most successful multidisciplinary research universities, in which the tradition of education provided in Finnish is combined with modern internationality". In addition, "the University will be sustainably competitive, attractive and innovative, and it will have a major societal impact. The operating culture at the University is based on openness, equality, and trust" (Excellence and Dynamism, 2010).

Established in 1863, the University has its roots in teacher training, being the first Finnish-medium college for teachers. Thus, at present in 2013, the University of Jyväskylä is celebrating its 150-year-old history of first establishing Finnish Teacher Education (Excellence and Dynamism, 2010). Education has remained one of the key areas of the JYU functions, and it continues to be a nationally leading expert on teacher education and adult education, as well as a major exporter of education. "Education, learning, and teaching in the future" is one of the University's strategic key areas.

To promote the aims of internationality and impact, the international office coordinates international student and staff mobility, negotiates new partnerships with foreign universities, and supports the development of international competences of its staff. Despite the strong emphasis on internationalisation, the University's strategy does not mention anything about development cooperation. Instead, a stated objective focuses on promoting active cooperation and sustainable partnerships with the best universities and research institutes in Europe, Asia, North America, and Russia (Excellence and Dynamism, 2010). In any case, the University has committed to development cooperation and coordinates the Finnish University Partnership for International Development (UniPID), a partnership network between ten Finnish universities that promotes institutional partnerships and long-standing research, education, and development cooperation in the field of sustainable development. At present, JYU collaborates with more than 400 foreign universities around the world, including in the developing countries. Many of these partnerships initially started as collaboration between single researchers or research groups in small-scale pro-

jects with little University support. Such projects have grown into the bilateral university-level cooperative agreement signed between JYU and the UNZA.

As described above, the University supports internationalisation in general but offers no specific support for development cooperation. All project activities have traditionally been based on the researchers' own interests and activity but the University has recently increased its administrative support and training related to project applications. The increasing self-financing demands related to project funding, combined with strict management by results, force all units and researchers to direct efforts to projects that are expected to bring merits to the applying unit. These merits include degrees, publications, and student mobility.

The interdisciplinary research group led by Professor Heikki Lyytinen is one of the flagships of the University's achievements in education. Based on the scientific follow-up study of Finnish children at familial risk for dyslexia from birth to reading age, which Professor Lyytinen started in the early 1990s, the group has developed GraphoGame, an innovative digital-based learning game which helps children learn to read. After successful pilots the Graphogame (in Finnish, Ekapeli, see <https://ekapeli.lukimat.fi/>) was taken nationally into use in the Finnish education system, financed by the Ministry of Education. The research and its results have gained international attention, and the research group gained the rare status of a "Centre of Excellence in Research" (1997-2011), nominated by the Academy of Finland. Based on his discoveries, Professor Heikki Lyytinen has become an international leader in research in his field (Research Evaluation Report 2011).

The CAPOLSA project is part of the international approach Grapho Learning Initiative, run by Professor Heikki Lyytinen and JYU, and is based on the above mentioned research and learning technology GraphoGame. International pilots of the GraphoGame in different languages have first been carried out in Europe. The high illiteracy rates and therefore need for new interventions in many developing countries, specifically those in Africa, gave a reason to build on to the already existing collaboration with this approach. Discussions, collaboration, and training on the approach took place in a network of universities and teacher training institutes in several Sub-Saharan countries. Of these, UNZA proved to be the strongest candidate to host a literacy centre.

In short, the Grapho Learning Initiative combined the ambitious aim of providing a strictly evidence-based new technological tool for literacy education with

the mission of providing this support as widely as possible to all learners globally, with a special emphasis on countries where access to literacy education is limited. Evidently, this is in line with the JYU strategic aspirations to achieve an international, high-quality research-based impact on society. Internationally, this approach has attracted interest not only among researchers and education policy makers in the countries struggling with the challenge of illiteracy, but also among the leading researchers around the world. In November 2010, a group of distinguished researches from a number of top-ranked universities (including Harvard, Stanford, Cambridge, and Oxford) met in Finland to sign a "Declaration on establishing a Language /Literacy Network of Excellence GraphoWorld" (2010), proposed by JYU and the Niilo Mäki Foundation.

According to the declaration, the GraphoWorld collaboration will benefit the participating universities *"in enabling high quality research due to collaboration between appropriate multidisciplinary groups of experts representing researchers of cross-cultural and -linguistic issues and brain researchers interested in children's language learning. A second benefit results from the availability of the GraphoGame (GG) research environment (owned by the University of Jyväskylä and the Niilo Mäki Foundation) supporting not only assessment and individually adaptive intervention but also detailed online examination, feedback and basic analysis of the data."* Another significant benefit of the collaboration is the enhanced possibilities of collecting research funding and of sharing actual research knowledge among members. The network will also provide a significant contribution to the mobility and training of researchers (summer schools, lab visits, etc.). These options provide great opportunities to the students and researchers of JYU for internationalisation and collaboration with the world's leading universities and researchers. Through the CAPOLSA project and collaboration, these benefits are also extended to UNZA. Several Finnish and Zambian master and doctoral students have benefited already from the collaboration.

■ The role of the University of Zambia in the development of Zambian society

UNZA is a public university, established in Lusaka in 1966 during the country's independence. The University was thus a national flagship of a new independent position in determining the most important areas of research and education and thus acting as an engine to facilitate the development of the new country. The University's motto "*Service and excellence*" emphasises the task of the University to have a science-based impact on society.

UNZA's School of Education has institutional arrangements for the supervision and quality control of pre-service teacher training at several Teacher Training Colleges around the country. These colleges are tasked with the training of the more than 5000 teachers responsible for imparting initial literacy to the next generation of Zambian children in one of the seven Zambian languages approved as a medium of instruction. CAPOLSA aims at mediating that process by imparting the knowledge derived from the most recent research on effective methods to support the crucial initial stages of literacy learning, which generally can make or break the impact of education.

Despite a proliferation of new Higher Education Institutions (HEIs) since 2005, UNZA has remained the leading provider of quality tertiary education in the country, and the only HEI to show a substantial output of rigorous research. UNZA includes nine schools and within them about 50 departments, with a complement of 621 academic staff, 221 of whom (i.e. 35%) have a doctoral degree, while the rest hold master-level degrees. Under the University's Staff Development Programme, about 75 (i.e. 12%) of the academic staff are at any one time registered in a doctoral studies programme. The Schools of Humanities and Social Sciences (HSS) and Education at UNZA enrol the bulk of incoming undergraduate students each year and together they currently turn out about 1500 graduates per year. Several departments in these two schools offer courses at the undergraduate and master level relevant to the understanding and correction of Zambia's crisis of inadequate educational provision to enable the majority of its citizens to acquire basic literacy, but there has not been a productively sustained connection between research on this matter and the development of national policy by the government (information obtained internally at UNZA for CAPOLSA Phase II application).

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methods to support the crucial initial stages of literacy learning, which generally can make or break the impact of education. CAPOLSA aspires to integrate the knowledge, methods, and technology generated by applied research into the curriculum and instructional resource development efforts by the Ministry of Education, and into the training programmes for early primary teachers.

During the first year of its operations, CAPOLSA forged strong links between relevant departments of UNZA (Psychology, Educational Psychology, Sociology & Special Education, Literature & Languages, Language & Social Sciences Education) and between UNZA and the relevant sections of the Ministry of Education (Directorate of Teacher Training & Special Services, Curriculum Development Centre, and the Zambia Institute of Special Education). Building on those links, CAPOLSA generated consensual guidelines among a panel of experts for a revised and harmonised set of orthographic rules for the seven Zambian languages approved as a medium of initial literacy instruction in the public schools. CAPOLSA also collected (with the support of JYU's Tekes-funded GraphoRead project), edited and translated a set of child-friendly stories and poems by indigenous authors in four of the target languages. These stories are in the process of being published in collaboration with a local publishing firm. In parallel with those initiatives, CAPOLSA disseminated research findings of the collaborative literacy research to primary school teachers and national policymakers. In addition, CAPOLSA has convened several consultative meetings with a broad range of stakeholders in Zambian society about key steps to be taken to consolidate and build on the initial progress achieved by CAPOLSA in 2011-2012.

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CAPOLSA has clearly brought added value both to the University and the Zambian society already during the first 20 months of its existence. According to the University's motto, the centre has served the society by advancing and disseminating knowledge regarding literacy learning, by developing guidelines for the harmonisation of orthographies across Bantu languages, as well as by publishing reading materials for children in four indigenous Zambian languages. All these actions tackled challenges that had been widely acknowledged (see, e.g., *Educating our Future*, 1996; Banda et al., 2012). The centre also promoted excellence in research and teacher education, and networked internationally with the world's top researchers in the field. In the framework of roles of knowledge and the University in development, both UNZA and CAPOLSA represent the strongest possible engine-role (see Cloete et al., 2011).

A shared concern has been the future and sustainability of CAPOLSA: Although the unit has been supported by both the Vice-Chancellor of UNZA, and the Dean of School of Humanities and Social Sciences, they did not see it possible to establish a permanent unit based on the short-term funding of less than two years. Therefore, CAPOLSA has acted with a temporary status. The closure threat was about to actualise at the end of the HEI ICI funding period in 2012 due to delayed decision processes in Finland: The first project phase ended with no information as to whether or not there would be funding available for a second HEI ICI period. However, the progress achieved had convinced the Dean, Dr. Siamwiza to take a risk. The UNZA School of Humanities and Social Sciences offered bridge funding to cover the expenses during the first months of 2013. In his request, the Vice-Chancellor, Professor Simukanga, endorsed this proposal from the School on November 13, 2012 by approving a grant to CAPOLSA in support of the project while awaiting funding decisions by the Finnish Government. This kind of commitment would not have been possible without mutual trust and true partnership. An important indicator of this trust was that the CAPOLSA project budget was shared between the partner organisations, allowing UNZA to receive its part of this well-appreciated external funding. Openness and sharing of the budget is not yet mainstream practice in development cooperation projects.

The project and the Centre received HEI ICI funding for its continuation and next steps within its second period, starting from April 2013. Additional funding possibilities will be sought and the operations widened to other countries in Sub-Saharan Africa. Through the deliberations of the Centre's Advisory Board, chaired by the Vice-Chancellor, the University will also be invited to consider further institutionalisation of CAPOLSA within its permanent structure.

The sustainability challenge may become an issue in the future also at a time of CAPOLSA personnel changes. A key factor behind the achievements of the centre is that it has been coordinated by an eminent member of UNZA senior academics, Professor Robert Serpell. He started his career as a young Junior Research Fellow when the University was established and became one of its founding staff members. Since then, he has actively published internationally in a wide range of scholarly journals and edited volumes, as well as writing four books, which have gained international interest. He also has exceptional experience from different levels of university administration, including a period of service as the Vice-Chancellor of UNZA from 2003 to 2006. This extensive expertise will be difficult to replace by a younger scholar. On the other hand, the prestige already gained by CAPOLSA, with support from the Univer-

sity, may mitigate the challenges. The agreed upon plan is to make succession arrangements for the post of Coordinator of CAPOLSA in 2015, the third year of Phase II funding. Several candidates have been identified and trained in the CAPOLSA activities. Highlighting the eligibility of several candidates for appointment to this position when the present incumbent retires, it is hoped and expected that a competent, highly motivated, and committed scholar will take over responsibility of CAPOLSA, already by then possibly a fully integrated permanent unit of the UNZA. JYU will facilitate a smooth process by training and tutoring the young researchers working for CAPOLSA, facilitating their international contacts, and bringing international credibility to their work. In addition, JYU is in a central position to search for additional funding for the continuation of CAPOLSA's work in the larger Sub-Saharan region.

■ Conclusions

The concrete means of institutional cooperation in societal development

The CAPOLSA project and establishment of the CAPOLSA unit was based on two decades of more or less active, largely depending on suitable funding available for such purposes, collaboration between JYU and UNZA. A significant contributor in continuing the collaboration has been the Niilo Mäki Institute, an independent foundation-based unit in multidisciplinary research and development work for learning disabilities, and the major collaborator of JYU in the Grapho Learning Initiative. Often development cooperation funding in the educational field has been easier to find for an NGO than for a university. Based on earlier projects and achievements, an NGO can expect continuity in the form of new project funding. Thus it is possible to build on earlier work and maintain sustainable, trustworthy partnerships. The funding schemes for universities are more competitive and unsecure (e.g., Academy of Finland), and often focus on mobility between the countries instead of on larger collaboration activities. During these years, there have been several Sub-Saharan partners in this collaboration network, focusing on the training and development of expertise and services in the areas of learning disabilities assessment, special education, and enhancement of basic scholastic skills. Possibilities for success are determined by not only access to funding, but also on the ability to set achievable goals, on local circumstances such as political trends, or on organisational or personnel changes in core functions. Progress and new learning for both partners, as well as the growth of mutual trust has taken place little by little. The right people have to be in the right places for success—and they have to find each other! For sustainable development, a critical mass of people is needed to make the difference. This takes time.

The major advancement of the CAPOLSA project as compared to the earlier attempts was the strong shift of concrete project ownership to the UNZA, necessitated by the aim of building an efficiently functioning resource centre at UNZA. The project funding was shared in full agreement between the partners, and about 40% of it was transferred to UNZA. This was done through a direct transfer of funds from JYU balance, not through an invoice. The arrangement followed the practice of EU-funded projects. This was a decision and an administrative risk for JYU, as the Ministry of Foreign Affairs held the Finnish coordinator of the project responsible for all expenditures in the HEI ICI project, contradictory to the idea of collaborating independent partners.

Through this arrangement, it was possible to establish a committed, reputable local centre of expertise to advance literacy research, assessment, and education at all levels, instead of just relying on visiting foreign experts. The timing was right, and CAPOLSA lived up to the expectations of high impact in the society. No particular challenges arose in the management of the project funds at UNZA as evidenced by an independent audit. At present, the Zambian Ministry of Education, Science, Vocational Training, and Early Education is reviewing the education curriculum from early education to tertiary education, and re-defining the national language policy in order to enhance the teaching and learning process. Promoting such development has been within the focus of CAPOLSA collaboration. According to the Permanent Secretary, Dr. Patrick Nkanza, the language of instruction policy has been reviewed in all the necessary documents, specifically in the Education policy and the Education Curriculum Framework. In the new education curriculum, the familiar local languages will be used as languages of instruction, as well as languages for teaching initial literacy from pre-school to Grade 4. (Lusakatimes 2013).

Academic values and development cooperation

The academic environment has become more and more competitive: the universities as organisations, as well as their departments and individual researchers have to compete both nationally and internationally for funding, for talented staff and students, and for accreditation. Therefore it is evident that sustainable academic collaboration, also in the case of development cooperation, should be based on academic interests, and should include possibilities for upgrading one's academic qualifications (e.g., through publications). The academic interest can be based on the contents or collaboration networks related to the project. This applies to both sides of the collaboration. In the developing countries, where there is shortage of well-trained professionals, it is crucial to be able to attract talented students and young academics by offering long-term prospects beyond the short-term project work. This can be achieved through training, joint efforts to improve academic qualifications, and international networks. A good example of such networking was the symposium co-convened by Professors Serpell and Lytinen in the International Society for the Study of Behavioural Development 2012 Biennial Meeting, devoted entirely to reporting on the collaborative work of the RESUZ research project on reading

Therefore it is evident that sustainable academic collaboration, also in the case of development cooperation, should be based on academic interests, and should include possibilities for upgrading one's academic qualifications (e.g., through publications).

acquisition support for Zambian children, including oral presentations by three of the Zambian PhD students who have been leading implementation of the project with support from CAPOLSA.

Only a university of high qualifications in its primary tasks of research and research-based education can provide credible, research-based knowledge to support progress and development in the surrounding society. Decision-makers all over the world follow the university ratings and want to raise the status of their own universities. In addition, there is a growing interest in many governments, including those of Finland and Zambia in being able to ground policy decisions in scientific evidence, and that universities are typically regarded, with good reason, as the best-placed national institutions to gather such evidence and secure its credibility. These needs were discussed by Professor Serpell in Zambia with the Parliamentary Committee on Education, Science and Technology in 2012. Enhancing and confirming that quality of research should thus be a major concern in any academic collaboration.

From a researcher point of view, a good way to secure sustainable, communicable project results is through joint data-collection and research, related to the project contents, and via the systematic follow up of project actions and results. This basic nature of academic functions is disregarded in the HEI ICI programme, in stating that “the programme cannot support academic research or applied research” (HEI ICI Programme Document 2010, 7).

As the present case demonstrates, it is possible to combine international top-level research with tackling the big societal challenges in the developing countries. Being able to contribute meaningfully, based on one’s own research, is a good motivator for such collaboration. This attitude is currently promoted in science policies, such as Horizon 2020, which emphasise tackling of big societal challenges (see, e.g., European Commission 2011).

Lessons learned

Following the ideal of the university as an engine of development in the society (Cloete et al., 2011), the key issue of HEI collaboration should be the empowerment of the partner universities. The processes of building mutual appreciation, trust, and mutually understood goals and commitment in them, as well as finding the best-fitting combination of collaborating experts can be slow. True partnership can thus only be gained through longstanding, gradually deepening collaboration. If empowered to do so, the local partner can best

tackle the local challenges and can thus most credibly advocate the endeavours towards which the development cooperation projects are aim.

Full partnership necessitates funding arrangements, in which each partner is responsible for using its own budget according to the jointly agreed project plan. However, in the present HEI ICI arrangements, this was not enabled in the project plan budget form which did not allow dividing the budget according to the partners. Splitting the budget was an administrative risk for the Finnish HEI, as the Ministry of Foreign Affairs held the Finnish coordinator of the project responsible for all expenditures in the project. Maintaining Finnish control of the budget would have been contradictory to the programme idea which required “eligible partners” from both Finland and developing countries, and “evidence of strong ownership and cooperation”. We hope the HEI ICI programme will develop towards a true partnership programme in the future, enabling arrangements similar to, for example, the European framework programmes. Naturally, securing a joint understanding of financial guidelines is important. In the CAPOLSA project, one goal was to develop the centre also administratively to be able to attract external funding and maintain its own budget. The appropriate management of finances was validated in an independent, external audit at the end of the project. JYU has also allocated funds to CAPOLSA through an Academy of Finland project RESUZ. With the gained experience and portfolio of successfully run projects, the unit will be much more competitive and credible in attracting other funding as well. As described above, also its credibility as a sustainable unit within UNZA has grown.

We hope the HEI ICI programme will develop towards a true partnership programme in the future, enabling arrangements similar to, for example, the European framework programmes. Naturally, securing a joint understanding of financial guidelines is important.

Even in well-functioning partnerships, patience is required from both sides as it takes time to navigate the cultures and bureaucracies of both parties. The value of interaction and discussions between the partners and relevant stakeholders must not be underestimated. Furthermore, it is difficult for any organisation to activate a fully functioning project at short notice. Instead, the operations can usually be activated during the first months from the positive funding decision. An optimal funding decision would then be made some months before the project is expected to be launched and include sufficient resources for a long timespan, for example, three to five years. Intermediate reporting and results could be required. A long term perspective would enable

stability and trust in the cooperative relationships. Sustainable progress cannot be made quickly but takes place gradually. Therefore it is also important to retain predictability in the funding opportunities.

In Finland, we tend to appreciate our own timeliness, the “African time concept” represents something not as efficient. However, in our experience, there is slowness and friction on both sides. For instance, the HEI ICI decision making and reporting processes in Finland were slow and overly bureaucratic. As described, without the flexibility of the UNZA administration, the smooth continuation of project work to project Phase II would have been damaged.

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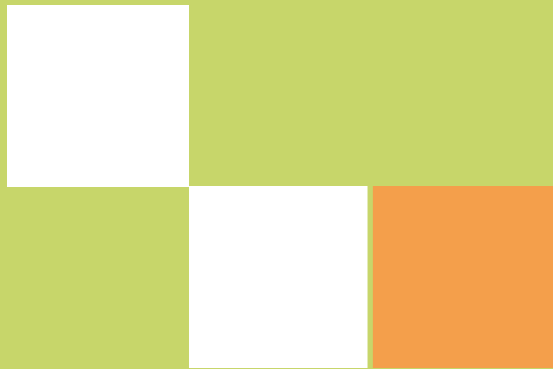
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In Conclusion



■ Capacity Development is the Way: Sustainable Impact of Higher Education Development Policy in the South

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There is a way to make a more sustainable low-cost investment and development for partners of the South. This is through capacity development. With the advent of knowledge economy, the old Chinese proverb “teach a man to fish” rather than “giving him a fish” has an added relevance in knowledge development discourses. There is a way to develop the capacities in the South and this is through education, especially when a more holistic approach to educational development involving the different levels is embraced (see Development Policy Programme of Finland 2007). There is particularly a way to enable the countries of the South to adapt more quickly to the knowledge-driven realities of the time, which is through higher education. The only sustainable way to enable the countries of the South to respond more effectively to their complex (old and new) development challenges is to build programmes and institutional capacities in higher education. Higher education should be able to speed development in the South, including development of the lower education sectors.

There is no other way for transferring the capacity-related knowledge to the South than through North–South collaboration in higher education on the basis of equal partnerships and mutual respect. There is a way for capacity-building knowledge to create the required impact in the South, which is by engaging in South-initiated projects other than traditional donor-initiated projects, which have often failed to reflect the shifting priorities of the recipient countries. There is again a way for the knowledge to be more contextually relevant. This is by engaging in mobility and visiting schemes, especially of the northern (donor) partners to the South such that they are better educated about the development challenges and could also help improve the teaching and research standards in the South. Finally, there is a way to ensure continuity and sustainability. It is to strengthen South–South collaboration in the North–South projects such that in the event of the exit of the North (donor) partners, the South–South partnerships remain.

Earlier experiences and testimonies of the related actors suggest that these are some of the key elements that could make the Finnish Higher Education

Institutional Capacity Programmes special and attractive especially in the eyes of the beneficiary countries and institutions. We would also argue that the impacts of these programmes could be more sustainable than any form of material aids to the South.

Are we providing development and change aid?

Previous discourses from the 1960s as to how and whether higher education delivers and impacts development are mere historico-theoretical distractions. Scholars of this school of thought have often questioned the social value of higher education because it was perceived to be more a private than a public good. Scholars argued that its social rate of return was insignificant in developing countries (Schultz, 1961; Becker, 1994; Blaug, 1965; Psacharopoulos, 1981; Psacharopoulos & Woodwall, 1985; Psacharopoulos, 1994; Asworth, 1997). Alison Wolf, for instance, has expressed concerns about the shortage of evidence. According to Wolf, there was not really a very strong case of the way the value and uses of universities have been presented over time. She concluded that the case for universities as drivers of growth was weak (Wolf, 2002). Wolf actually postulated against investing money in universities, and that resources might be better spent on other or earlier forms of education (Wolf, 2002). The knowledge economy has made the role of higher education more visible. Today, no amount of unfounded ambivalence should be allowed to conceal that higher education “immeasurably” contributes to social, cultural and economic progress (Teffer, 2014). This article goes further to articulate some of the immeasurable and inexhaustive manners in which higher education impacts on socioeconomic, cultural, scientific and technological developments – poverty reduction in particular – in the developing countries.

The empirical base is taken from a case study by Doh (2012) on higher education and poverty reduction in a sub-Saharan African country. The means and ways in which higher education intervenes in poverty reduction range from the human resource, workforce and skill development perspectives directly related to the employability of the graduates (graduate poverty) to the national human development perspective. There is a relationship between the accumulation of employable graduates to the nation’s economic performance. The citizens’ educational level (skills and competences) determines the performance of the national work force.

One of the major connections of higher education to poverty reduction in the countries of the South is in infrastructural development. Higher educa-

tion is directly linked to and upgrades the research, technological, industrial and innovation systems. University actors in the study (ibid.) were also seen to provide advocacy and advisory services to the poor who may be illiterate and ignorant on some of their economic rights and pro-poor policies. Higher education provides other intangible services and capitals such as social cohesion, social capital, national cultures and national identity, which lubricate economic growth. There are direct designed and spillover effects of higher education which are felt by the immediate regional environment of the university. Any project to examine the ways in which higher education or knowledge impacts development is unrealistic given that knowledge with which it works is intangible and connected to so many unseen channels of the society.

Do we really need advocacy about the role of higher education?

Did we really need the advent of the knowledge economy to confirm the central and strategic role of higher education in development? Doh (2012) argues that higher education is a *passe-partout*. It is the only sector (though subsector) that is comparable only to the state government in terms of its ability to intervene to develop all the other sectors of the national economy. Through embodied knowledge from teaching, training, research and capacity building it intervenes to develop, operate and upgrade the health sector, the military, the lower education sectors and agriculture, and promotes women emancipation policies (among others). A related question is did or do higher education institutions and actors really need theories, advocacy and accountability on their roles in socioeconomic development, when it is obvious that the teachers, doctors, nurses, engineers, accountants and economists who are critical of development are themselves trained by universities?

The knowledge economy describes a passage from resources to knowledge in production and wealth creation whereby economic production and services are based on knowledge-intensive activities or the production and management of knowledge (Powell & Snellman, 2000; Drucker, 1994; Gibbons et al., 1994; Romer, 1986, 1990). Knowledge becomes a cardinal intrinsic factor and key resource to production. One of the main bases of knowledge is undoubtedly higher education. The indispensability and impact of the university in developing countries could be so significant because whereas there may be alternative knowledge institutions in the more industrialised countries, the university in the developing country is its main knowledge institution. Even the alternative knowledge institutions in developed countries cannot claim to be independent from universities. They are either deeply enmeshed in or parasitic

upon the university (Scott, 2003) simply through the traditional role in human capital production. In the knowledge economy, the university assumes its role in supply of graduates and knowledge for research and development (R&D). The role of higher education in manpower training for national science and technology is highly critical. Bloom et al. (2014) articulate the correlation between higher education and the entrepreneurial status of a nation. It is hard to overemphasise the relationship of a country's science, technology, engineering and mathematical capacities with its development status. Higher education as per Bloom et al. (2014) improves a country's technological catch up and diffusion, which consequently facilitates economic growth. Again, do we have to split hairs in finding the different unseen channels through which higher education works? The university is implicated in all the different meanings of the knowledge society. The university is linked in many ways to the national production and innovation systems, including in poverty reduction. The university is a major supplier of knowledge and skills to industries and society, providing the physical environment for research, teaching and training and disseminating specialised knowledge for research and development and science and technology.

Do we undermine the "learning economy" and the university as "centre of learning"?

It is indeed inescapable to discuss capacity development especially through higher education in the knowledge economy (Lundvall, 2002b) without the role of learning in sustaining institutional and individual capacities. In the knowledge economy, the main "resource" is "knowledge", and the main "process" is "learning" (Lundvall, 1992), hence the learning economy. The learning economy here refers to all aspects of competence-building that contributes to the performance of the (knowledge) economy. By default, the university is a centre of learning with mission and basis of providing continuous learning resources to update innovations. Higher education institutions are centres of skills and competences for capacity development. They are there to train graduates and upgrade the learners in the economy. They provide both formal and non-formal advanced competences. By implication, the learning economy is leading to the "learning organisation" as a model for stimulating the performance of organisations and individuals. This learning organisation provides the institutions with the bases for continuous learning and adaptive capacities to the external environments and pressures on the organisation. The learning organisation facilitates the learning of its members and continuously transforms itself (Senge, 1990). The learning organisation depicts the organisation

as a whole unit hosting a “group” of people who are continually enhancing their capabilities to create what they want to create or to adapt. This learning organisational model applies even to the university as a strategic organisation adapting, responding and influencing the development of the knowledge economic system within which it is enmeshed (Bisaso, 2011). Smart learning universities will contribute more speedily and efficiently to the learning and knowledge capacities in their environments. The importance of the learning economy is premised on the fast rate at which services, processes and products (for which higher education is supposed to adapt to) become obsolete. Proficient learning economies will constantly have an edge over dormant ones; the route and rate of learning will determine the gap between nations (Lundvall, 2002b; Doh, 2012). In like manner proficient learning organisations and individuals will have an edge over the others. The learning economy therefore gives a premium to fast learners (Lundvall et al., 2002); proficient learners will certainly have an easy time (Doh, 2012).

One of the main implications of the learning organisational and individual models is the transition from a traditional pattern of learning which was “learning” by “studying” to “learning” by “solving”, thus requiring more sophisticated pedagogical methods of teaching and learning. This suggests that the traditional way of studying was simply meant to enhance capabilities but the transformation to knowledge society has necessitated learning to “open opportunities to apply capabilities creatively for problem-solving” (Lundvall & Soete, 2002). It implies that people must learn specific ways of learning. While on the labour market, the students (graduates) will experience specific situations which will test their capabilities on what and how they have learnt and what and how they have learnt will be useful (ibid.). The university contributes in building and conditioning workers in the job markets as “Learning Workers” and “Learning Citizens” through, for instance, adult and continuing education as well as life-long learning. Nations, organisations and even universities also acquire competitive advantage from steering, policy and management capacities (Nelson, 1993). That is why reinforcement of management and governance capacities of higher education institutions in the South is strategic to drive programmes and capacity development.

Do we undermine our “teaching only” universities in the South?

No! They are as important and complementary to the research universities because of their direct roles in the “learning” (economy). Learning is the major process and instrument for the sustainability of the knowledge economy. The

strengthening processes to the knowledge economy actually begin from the teaching levels in higher education. Whereas research is critical for the knowledge economy, every university type contributes to the knowledge economy in its way. In fact, besides strengthening the universities' research potential, successful institutional capacity for countries of the South should begin from the teaching capacities in relation to the link between "learning", research and third mission. As opposed to the alternative knowledge institutions, teaching is the comparative advantage of universities (especially when linked to research and economic development). Teaching-only institutions inevitably face the needs of an extremely heterogeneous student body. They nurture the capacity for specialised functions (Altbach et al., 2009). Students are potential inventors and represent the dynamic flow of human capital as opposed to more static forms of other organisations (Etzkowitz & Leydesdorff, 2000). The university helps to combine "continuity" with "change" through continuous passage of students (ibid.). The university's role in providing lifelong learning, and continuous and adult education for non-traditional students is crucial in sustaining and upgrading the learning and knowledge economies.

What about the university in poverty reduction strategies?

In the study on higher education and poverty reduction in Africa, Doh (2012) identified several "inexhaustive" channels by which higher education addresses poverty reduction in the most visible and direct ways.

There is the direct human resources perspective that refers to the university's contribution to the labour market and employability of the graduates, which has a direct effect on graduate poverty elimination. There is also the skills development perspective which entails higher education offering skills for creativity, technology mindedness and entrepreneurship. Whatever transition is taking place in higher education today, this graduate-human resource perspective remains the major contribution of the educational system and the strength of any production and innovation system. Of all the roles higher education plays in the production and innovation system, the number, quantity and quality of graduates with relevant embodied knowledge and skills is central (Lundvall, 2002b; Laredo, 2007; Etzkowitz & Leydesdorff, 2000). Studies by Dalman & Nelson (1995) on 14 countries portrayed that the development of human resource as opposed to other factors such as science & technology and other research and development inputs is critical to a successful development strategy. Other studies on the Japanese and Finnish innovation systems have showed the research system (directly linked to the quality of the educational

and higher education system) to be critical (Freeman, 1987; Miettinen, 2002). In fact, if higher education increases the productivity of individuals, then an accumulation of individual productivity increases the national productivity, increases national capabilities to pay taxes among others. The starting point of every development effort is man, the end point is man and the means is man (Doh, 2012).

One of the main channels for the use of higher education in developing countries is infrastructural development. This includes basic communication, consumption and production, and the information and communication infrastructures are indispensable for today's knowledge society. Infrastructural development is of course one of the main parameters on which a country's development status is assessed. University institutions present the main training bases for the engineers and technicians critical to infrastructural development. Infrastructural development reduces cost of production. For instance, road construction in most of sub-Saharan Africa is as costly as in the OECD countries and three times more expensive than in middle-income countries (Bloom et al., 2014). This cost is further exacerbated by lack of technologies to produce domestic materials and a limited number of local engineers and technicians. High expatriate salaries, mobility-related expenses and fees to international contractors also contribute to the high cost.

One of the visible areas for higher education's institutional, individual and programmatic capacity for poverty reduction is in research capacity. Although poverty is multifaceted and manifests itself through various channels and although it is difficult to tune higher education to all the related channels and levels of poverty, those different poverties are minimised or mitigated in knowledge-based societies. Research can contribute significantly to reducing poverty in society. The reinforcement of research capacity of countries of the South would obviously have to embrace the quantitative, qualitative and application dimensions as an indispensable part of the higher education capacity-building process and programmes. Indeed, Doh (2012) has identified that the problem in the case study was not the absence of research but in most cases the lack of the institutions' and researchers' capacity and lack of structures to apply the research for poverty reduction. Reinforcing the application capacity of research is crucial and a more direct and immediate way of capacity development in sub-Saharan Africa as seen from respondents below.

"Our activities are handicapped by the fact that there is no structure, means and prospects to take us from scientific results to product development. We could have more direct relevance and impact on poverty with products in the markets if... Most often our work does not go out of the laboratory, "nobody takes us out of the laboratory". (Doh 2012, p. 183)

The volume of research including publications from sub-Saharan Africa at 1% remains the lowest in the world and is insignificant to propel economic development in the countries. The starting pathway for increasing the research

Higher education contributes to capacity building through continuing and on-the-job capabilities and programmes.

volume, capacity and application (contributing to processes, products and services in the market) would obviously be the reinforcement of the knowledge generation and dissemination capacity which constitutes most of the research activities of the institutions of the South. Universities in the South that are fully engaged in poverty reduction-related research are likely to produce research results and consequently wealth that will alleviate poverty. Some of the major channels for poverty reduction through university research in sub-Saharan Africa are in the health sector (research toward disease eradication, malaria, drug discovery, etc.) and energy and agriculture. The study by Doh (2012) revealed that most of the researchers in the national case study were

actively and dominantly involved in knowledge generation and dissemination with poverty reduction as follows:

The drug discovery project entailed "conducting scientific research to ensure that certain traditional medicinal plants actually cure what (charlatan) traditional doctors claim that they cure". How would this university project have alleviated poverty? In a well-structured national innovation system with appropriate incentives and an inclusive intellectual property regime, it will be possible that the poor who are the usual originators of knowledge of plants will be part of the property rights and proceeds. Another university researcher "was engaged in a project to manufacture prototypes for rural electricity supply in a country where electricity supply is still very limited" (ibid.). If there were sufficient funding, the activities of this researcher could be scaled up to help the national electricity corporation to produce power plants of a higher capacity instead of using the smaller ones for the rural areas. We note that energy which is the source of economic growth and industrial development is limited in most developing countries, especially in the rural areas. The third

researcher was “doing research on malaria”. We note that the adverse impact of diseases such as malaria to the human development capacity in most sub-Saharan Africa countries is enormous. The socioeconomics and the cost effectiveness of related research to the national economy bear thinking about. Whereas it may take up to 12 billion dollars which African countries lose every year on malaria, it takes less than 3 billion dollars to put it under control (ibid.). Higher education in most of the countries of the South is indispensable for poverty reduction in terms of knowledge generation and dissemination and could be more logically indispensable in terms of applicability to reinforce the knowledge economy and poverty reduction.

Higher education cooperation, such as that of the HEI ICI programme, contributes to capacity building through continuing and on-the-job capabilities and programmes. It is not new that many universities all over the world provide short training to the political class and managers. This has administrative, efficiency and developmental advantages. In the study by Doh (2012) one of the universities provided short management courses to newly elected council staff who may have been elected without prior knowledge of management of public affairs. Another university hosted short training management courses to company executives.

Above all, higher education provides intangible and immeasurable knowledge materials which are crucial for growth. For instance, it strengthens social cohesion, national identity and national cultures. At the end of the last century, higher education was engaged in the European Union through the Bologna process as a vehicle of social cohesion, as a way of constructing Europe (Froment, 2003). As far back as the 1960s it was engaged in Cameroon as an instrument of national integration and reunification, in reuniting the French and English Cameroons which had been separated for 42 years during the colonial rules (Doh, forthcoming). The engagement and role of higher education in the South African transformation process following the collapse of apartheid cannot be underestimated. The very fact that the university is uniquely placed to provide a sense of national culture (thereby conditioning citizens) and leading to social cohesion, doing teaching, creating graduates who are steeped in the same culture leads to several social, administrative and economic benefits. This is because, for growth to be effectively driven, some sort of cultural tradition must be created, which the university is well placed to provide (Cowan, 2005).

In developing countries where a significant portion of the population may be illiterate and ignorant of their rights, higher education actors can play an important role in providing advisory and advocacy services and in influencing pro-poor policies.

In developing countries where a significant portion of the population may be illiterate and ignorant of their rights, higher education actors can play an important role in providing advisory and advocacy services and in influencing pro-poor policies. A famous quote by President Nkapa of Tanzania that “the greatest fight against poverty is the fight against ignorance” describes the relationship between ignorance and poverty in the countries of the South. The university’s role in capacity building, in advisory and advocacy services against poverty-related ignorance is more so, because the university is the conscience of the society. Doh (2012) presents a university project which involved enlightening nearby local population on their economic rights and claims upon their displacement during an immense energy pipeline project in that locality. A second group (ibid.) was involved in building capacities of administrative officers and women of a locality in relation to customary laws that violate the women’s human rights. These include customary laws that restrict women’s land ownership. Studies in Cameroon have shown less poverty in homes headed by women (GESP, 2009). When women acquire rights of land ownership (land being an important collateral), they can apply for loans to invest and improve their economic situation. The university is also an engine of its immediate community and regional development. Besides, it is a major employer and provider of contracts and other small, medium-size and large businesses in its immediate community and region. This employer role significantly reduces household poverty in the community and region where the university is located.

Some conclusions

The use of the term “inexhaustive” at the beginning of the previous section was premised on the fact that any attempt at establishing the list of the roles, means and ways in which higher education impacts socioeconomic development and poverty reduction is unrealistic. This is also because any attempt to establish how knowledge impacts on different channels of society is similarly illusive (Miettinen, 2002). Again, we did not really need the knowledge economy to confirm the inexhaustive roles of higher education when we understand that from time immemorial human embodied knowledge has been a developer of every sector of the national economy. As Teferra (2014) contends, “... any argument for further evidence about how higher education contributes to development and poverty reduction is a meaningless distraction” (ibid.).

The articulated empirical evidence in this book suggests that the Finnish institutional and programmatic capacity-building projects could be the most sustainable pathways for capacity development toward economic and social

development as well as for poverty reduction in the South. The timeliness of the projects is also buttressed by the knowledge economy. In the short term some of the outcomes of the projects may not be visible, given the intangible and immaterial nature of knowledge and higher education but the knowledge transfer, exchange and programmes and institutional capacities will remain sustainable and last longer than immediate material aids.

Both the twentieth and the twenty-first centuries have shown that unidirectional aid diplomacy and dependence do not eradicate poverty. Without local capacity, material and financial aid can only produce and exacerbate a vicious cycle of dependence. This leads us to re-reflect on the Chinese proverb “give a man a fish and you feed him for a day. Teach a man to fish and you feed him for life time”. The point is that any material aid solves a particular problem within the given period but does not solve the problem of continuous neediness and dependence. On the other hand, capacity and “know-how” developments provide the basis for solving the problem in a long-lasting manner. This suggests that the impact of each euro put in capacity (by implication education) development in the South through the likes of the HEI ICI programme, will be more strategically significant and long-lasting than money spent on immediate material aids; indeed a low-cost investment.

What countries of the South, and Africa in particular, require in the knowledge-driven twenty-first century is scientific and technological capacities entailing financial investments in the related sources such as higher education capacity. Although it may be observed that knowledge does not work in the same manner everywhere and that there are significant differences on how higher education affects socioeconomic and cultural development (in the face of such factors as policy environment, politics and geographical location), some conclusions broadly apply everywhere (Bloom et al., 2014). Again, there is no need for any advocacy on higher education because the evidence is obvious and immeasurable. If advocacy should be needed, it is because higher education’s inherent nature as a subsector within the wider educational sector. The higher education sector thus competes internally with the other subsectors for funding and priorities. Recently other educational sectors have been prioritised in many developing economies. However, the post-2015 educational development agenda is still being formulated. Governments in the countries of the South and the international community should invest in higher education beyond what is being done now.

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