Chapter 4
Coordination and connectedness

As highlighted in section 1.3, our analytical framework proposes that the following three interrelated factors need to be in place in order for universities to make a sustainable contribution to development: agreement amongst the major actors (pact) about the role of universities in development; academic core capacity in universities; and coordination of and connectedness between the policies and activities of government, universities and external groupings.

In this section we focus on the latter aspects of coordination and connectedness. In this project ‘coordination’ is used to refer to more structured forms of interaction, mainly between government and institutions; in other words, the knowledge policies and implementation activities of different government departments, particularly departments of education, science and technology, and research councils.

Knowledge policies have become increasingly important in the context of the knowledge economy. Broadly speaking, knowledge policies refer to political mechanisms (such as policies and incentives) that are aimed at improving the (knowledge) capacity of a country to participate in the global knowledge economy. Such policies thus relate to the higher education and science and technology sectors, and to high-level skills training, research and innovation. The coordination of knowledge policies can take place at the level of both policy formulation and policy implementation. Braun (2008) distinguishes between ‘negative’ and ‘positive’ coordination. He defines negative coordination as follows (Braun 2008: 230):

... [where] actors – for example, two ministries – are not completely independent in their decision-making but obliged to take into account a negative backlash against their own actions by the other actor. ... Negative coordination is a non-cooperative game that leads ... to the mutual adjustment of actors, but not to concerted action nor to cohesiveness of policies.

Positive coordination goes beyond mutual adjustment: ‘Instead, actors start to cooperate with each other in order to deliver certain services ... It typically develops at the ministerial or agency level’ (ibid.). Positive coordination is a necessary but not sufficient condition for effective policy coordination. What is required is ‘policy integration’ (the coordination of goals) and ‘strategic coordination’ (‘the development of encompassing common visions and strategies for the future’) (ibid.: 230–231). These last two types of coordination point to the need for consensus or a pact. As Braun (ibid.: 230) observes: ‘Policy coordination as such does not absolutely need a whole-government perspective, but it implies at a minimum a perspective that is agreed upon by a number of political actors.’
Of specific interest to this study is the coordination of knowledge policies across ministries involved with higher education, science, technology and innovation, as well as those responsible for economic development or planning.

Implementation can be regarded as a component of the coordination of government policies and is a complex combination of agreement (relevant parties support the policy) and capacity to design and apply the implementation mechanisms or instruments. At the national level we looked at the role of the ministry responsible for higher education, steering and funding. At the institutional level, indicators were used that dealt with aspects such as units or structures to implement strategic plans, incentives and rewards, special teaching and research programmes that link to economic development and funding support for research.

We use the concept of ‘connectedness’ to depict looser forms of interaction such as the linkages and networking between the university and external groupings including business, foreign donors and community groups or agencies. We also explore the extent to which 44 development projects or centres identified by institutional leadership are connected to external groupings in ways that either strengthen or weaken the academic core of the universities.

In this section, we address the following three questions:

1. Do governments coordinate policies and programmes that are aimed at enabling the universities to contribute to development?
2. Do the universities connect to external groupings in ways that promote development?
3. Do development activities in the universities strengthen or weaken their academic core?

### 4.1 Coordination and implementation of knowledge policies

#### 4.1.1 National coordination

In this section, we present and discuss findings regarding the extent to which there is coordination of knowledge policies and activities at the national level. Table 6 summarises the ratings of the coordination indicators for the eight African countries and universities in the study (see Table C2 in Appendix C for an elaboration of these indicators). As can be seen, Mauritius rates the highest at both national and institutional levels.

The two countries that scored highest on knowledge policies – Mauritius and Kenya (Table 1, section 2.1.1) – also have the highest rating for coordinating policies and building agreement at the national level (Table 6 and Box 3). To this list is added South Africa. The most common structure for promoting coordination and consensus-building were forums. However, feedback from interviewees suggested that these are seldom more than talk shops; follow-up to agreements is weak and there are few attempts at monitoring progress and the implementation of decisions. Even in countries such as South Africa, where there
are stronger forms of coordination such as ministerial clusters, the same lack of follow-through occurs. In other cases, the efficacy of the structure is undermined by different departments sending officials of different ranks to meetings, leading to a gradual loss of confidence in the structure. The exception is Mauritius, where considerable effort is being made with multiple structures and networks to broaden agreement and buy-in.

**TABLE 6 Coordination of knowledge policies**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Max. score</th>
<th>Botswana</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Mauritius</th>
<th>Moz.</th>
<th>SA</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NATIONAL LEVEL</strong></td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Economic development and higher education planning are linked</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Coordination and consensus building of government agencies involved in higher education</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Link between universities and national authorities</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

There was also evidence of attempts at coordination through the creation of ‘super-ministries’. For instance in Mauritius, in order to implement plans to turn the country into a knowledge hub, a Ministry of Education and Scientific Research was created. This was then reorganised into the Ministry of Education, Culture and Human Resources and, in May 2010, reorganised once again into the Ministry of Tertiary Education, Science, Research and Technology. Kenya also established a Ministry of Higher Education, Science and Technology in 2008 (although, according to one interviewee, this had more to do with coalition politics than it did with attempts at policy coordination). Mozambique, in line with a very advanced Science, Technology and Innovation policy, established a Ministry of Higher Education, Science and Technology in 2000 but, in 2009, dissolved it into separate ministries of Education, and Science and Technology. South Africa, having a very sophisticated policy in the Department of Science and Technology, but not in Education, recently established a Ministry of Higher Education and Training, keeping a clear separation between science and higher education. A perpetual problem in the countries investigated, and in many international systems, is the absence of cooperation (Braun’s ‘negative coordination’) between departments of education and science and technology – but merging them does not seem to guarantee positive policy coordination either.

In terms of the interaction between universities and government, in all three of the ‘successful’ systems (Pillay 2010b), networks play an important ‘connecting’ role. In North Carolina the networks seem stronger than the structures, while in South Korea there are both formal structures coordinated under the prime minister’s office, and networks of academics and business leaders who had studied at particular universities such as the University of Seoul and abroad – mainly in the US. These networks are both political and productive, meaning they also foster collaboration on projects and new initiatives.
Five of the eight African countries in the study (Mauritius, Mozambique, South Africa, Tanzania and Kenya) had some form of structure or platform for linking universities to government, although these did not necessarily result in effective coordination (Box 3). What we observed in our sample of African countries is a strong connection between university and government leadership, although it seems more orientated towards the political than to the productive. It could be argued that the two are actually too close, because we encountered the constant refrain of policy instability, meaning that when there is a political leadership change in government, it affects both government departments and the university. Policy reversals, and associated staff changes described above in Mozambique, is an exacerbated example.

In response to weak ministries, and in following international best practices, all the countries in the sample have established higher or tertiary education councils, which are with few exceptions better resourced than the national ministries – and are more distant from direct ministerial influence. These structures are better placed and resourced than traditional ministries to play a coordinating role. However, these relatively new institutions are all going through some form of ‘role redefinition’; most were started as quality/certification bodies, but as is the case, for example, in Botswana, Mauritius and Tanzania, they are increasingly assuming a diversity of roles – from system planning to leadership capacity building and in, some cases, even making funding allocations.

**BOX 3**

**COORDINATION OF KNOWLEDGE POLICIES AND ACTIVITIES**

**Linking economic and higher education planning**

In none of the eight African countries is there an explicit link between economic and higher education planning. In Mauritius, the history of economic development over the past two decades suggests the existence of informal structures that ensure a high degree of linkage between economic and education planning. The close cooperation between the Ministry of Education, Culture and Human Resources and the Ministry of Finance and Economic Empowerment is testimony to this.

In South Africa, the institutional structures for the coordination of economic and education policy exist in, for example, the Presidency’s Policy Unit and, recently, in the National Planning Commission that was established in late 2009. Policy documents such as the *Human Resource Development Strategy for South Africa*, the *Accelerated and Shared Growth Initiative for South Africa* and *Industrial Policy Action Plan* have also taken up the need for coordination between the two sectors. Moreover, the higher education institutional funding policy provides incentives for institutions to produce more PhDs and rewards peer-reviewed publications.

In Kenya there is evidence of a degree of cooperation on this between the Ministry of Higher Education, Science and Technology and the President’s Office, which is responsible for the design and implementation of the country’s major policy document, namely *Kenya Vision 2030*. However, there is little evidence of explicit economic and education planning. >>
Coordination and consensus-building of government agencies in higher education

In Mauritius, there is evidence of consensus-building in higher education between the Ministry of Tertiary Education, Science, Research and Technology, the Tertiary Education Commission and higher education institutions. However, this appears to be intermittent and taking place in the absence of specific forums for this purpose. In South Africa a specific forum, Higher Education South Africa, has been established for coordination and consensus-building between the Department of Higher Education and Training and universities. Former President Mbeki also created a Higher Education Working Group primarily to assess the role that universities can play in the country’s development. In Kenya, there is some evidence of informal collaboration between government, universities and donors on higher education goals and implementation.

Structures linking universities and governments: The national commissions

All of the eight countries have regulatory bodies (called councils or commissions of higher or tertiary education) that constitute the link between higher education institutions and the government. However, the effectiveness of these institutions varies in terms of their regulatory and other functions. In Mozambique and Tanzania, it is not possible, on the basis of available information, to comment on the effectiveness of their regulatory bodies, namely the National Council for Higher Education and the Commission for Universities, respectively. In Uganda, the National Council for Higher Education appears to be regulating public universities and undertaking appropriate research. In Mauritius and Botswana, the Councils appear to be relatively influential in policy-making and regulation. In both Ghana and Mauritius, they play a prominent role in institutional funding. In Kenya, the commission appears to be relatively weak in relation to its role and responsibilities vis-à-vis public universities, but appears to be playing a much more appropriate role with respect to private universities. In South Africa, the Council on Higher Education is supposed to play both an advisory policy role to the ministry and act as a qualification regulator. In practice, however, it is the latter role in which it has been most active up to now.

FINDINGS

- At the national level, there are considerable coordination activities in most countries, ranging from forums to clusters and the reorganisation of national ministries. However, this is mostly weak or ‘symbolic’ coordination.
- There are certainly many tight networks between government officials and university leadership, but it seems these are more orientated towards political connections.
- In all the countries, tertiary or higher education councils have been established, partially to compensate for weak ministries, and also to do ‘independent’ certification and quality assessments. Currently they are all undergoing ‘role redefinitions’, but could become key players in coordination and implementation monitoring.
4.1.2 Implementation

Table 7 summarises the ratings of the implementation indicators for the eight countries and universities (see Table C2 in Appendix C for an elaboration of these indicators).

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Max. score</th>
<th>Botswana</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Mauritius</th>
<th>Moz.</th>
<th>SA</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATIONAL LEVEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role of the ministry responsible for higher education</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Implementation to ‘steer’ higher education towards development</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Balance/ratio of sources of income for institutions</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Funding consistency</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>INSTITUTIONAL LEVEL</td>
<td>18</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>7</td>
<td>13</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Specific units, funding or appointments linked economic development</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Incentives and rewards for development-related activities</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Teaching programmes linked to the labour market</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Special programmes linking students to economic development</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Research activities are becoming more economy-oriented</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Levels of government and institutional funding for research</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOTALS</td>
<td>30</td>
<td>18</td>
<td>16</td>
<td>16</td>
<td>21</td>
<td>12</td>
<td>24</td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

South Africa is the only country with steering capacity, a stable funding regime and a sustainable ratio of sources of income. However, it does not have a vision of the role of higher education in development, meaning that steering is mainly based on dealing with issues internal to the higher education system. The two systems that appear to have the most serious national-level capacity problems are Uganda and Mozambique, with the latter being de-capacitated by the dissolution of the Ministry of Higher Education, Science and Technology.

In a number of countries the government subsidy system is not only unstable, it also discourages enterprising behaviour through a system that ‘penalises’ institutions for raising third-stream income by subtracting the amounts raised from the next year’s government subsidy.
BOX 4

IMPLEMENTATION OF KNOWLEDGE POLICIES AND ACTIVITIES

South Africa rates 'strong' on three implementation indicators: Implementation to 'steer' higher education towards development; balance/ratio of sources of income for institutions; and funding consistency. South Africa uses the institutional funding formula to steer the system by providing incentives for doctoral study and publications. The university funding system is diversified between government provision, tuition fees, and institutional own income. Finally, the country provides a good practice model of consistency in funding based on higher education institutional plans, government budget constraints, and the medium term expenditure framework.

Ghana and Kenya rate high on the indicator 'balance/ratio of sources of income for institutions'. In the case of Ghana, there is evidence of attempts at both funding innovation and diversification of institutional funding sources. In the case of the former, a percentage of value-added tax is used to fund higher education capital expenditure, student loans and research. With regard to the latter, student fees are rising relative to government funding. Kenya (as well as Uganda) has developed a dual-track tuition-fee scheme to address the challenge of declining state funding. The scheme, which is highly inequitable, provides free education for a specific number of students who produce the best results in the school-leaving examinations, and charges fees to everybody else who is admitted. The inequity stems partly from the fact that most of those who get the full scholarships also attended the best schools in the country, and most often come from the richest households.

Implementation at the institutional level, refers to units or structures linked to economic development, incentives for such activities, funding available, special programmes linked to the labour market and research activities that are economy-orientated (Box 5).

Of the eight universities in the sample, the University of Mauritius is the only one with a number of specific structures and appointments linking the institution’s activities to economic development. Most of these are focused on research, innovation and technology, as well as support for small and medium enterprises (SMEs). Mauritius also has a well-established focus on work-based learning, and a strong focus on economic development in its research and innovation clusters.

Interestingly, although NMMU has a low knowledge economy score (Table 1), it scores high on the implementation ratings. The university has set targets for enrolments in fields considered to be of high economic relevance and, of all the eight universities, has the highest level of research funding from both government and the institution. There are also moves towards the introduction of special programmes linking students to the labour market, and towards introducing an economic development focus into research agendas.

In the other universities, evidence of structures, appointments or funding for activities linked to economic development was only to be found in specific pockets in the institution.

While many of the universities had some form of incentive for academics to engage in research (e.g. Makerere), none of the universities incentivised their academic staff to
engage in (economic) development-related research or teaching per se. At NMMU, there are (financial) incentives for academics to get involved in innovation but there are no incentives to get involved in other forms of engagement activities (e.g. community service or outreach), in terms of funding or time allocation. There are plans to develop a policy on the recognition and reward of research, teaching and engagement activities as well as the development of a workload policy that will ensure an appropriate balance between teaching, research and community engagement responsibilities.

**BOX 5**

**IMPLEMENTATION OF KNOWLEDGE POLICIES AT INSTITUTIONAL LEVEL**

**Specific units, funding or appointments linked to economic development**

Over the years, the University of Mauritius has established a number of appointments and structures linked to furthering the institution’s activities in relation to economic development:

- The Office of the Pro Vice-Chancellor for Research, Consultancy and Innovation, which manages and provides facilities and funding for all research, innovation and consultancy activities in the institution.
- The Consultancy and Contract Research Centre which coordinates all consultancy and contract research between the university and government, industry and other stakeholders.
- The Technology Management Group, which liaises between the university and external companies around research collaboration and the commercialisation of results.
- The Excellence Park with Multidisciplinary Centres of Excellence, the aim of which is to address national priorities and opportunities through promoting research and development.
- The University Support Network for Small and Medium Enterprises, which aims to utilise university resources to contribute to the development and enhancement of SMEs, in line with the government’s policy for promoting the sector.

**Special programmes linking students to economic development**

In recent years there has been increased emphasis at the University of Dar es Salaam on entrepreneurial training and small business development, in response to changes in the economy and wider business environment. The university has a policy on entrepreneurship which requires that every student is exposed to entrepreneurship training. While some faculties and colleges offer a separate entrepreneurship course, others have mainstreamed entrepreneurship into their programmes. A Postgraduate Diploma and a Masters programme in Entrepreneurship and Enterprise Development have also been introduced.

In partnership with the University of Bradford, the University of Mauritius was awarded a grant from the England-Africa Partnerships in Higher Education project of the British Council to incorporate work-based learning into the undergraduate curricula and to support work placements for undergraduate students to improve their employability. The Work-Based Learning Unit identifies and trains mentors from industry who provide guidance and support to students during their work placements. These mentors also assess the students on a range of competencies including communication, team work, improving own learning and performance, solving problems, working and applying numbers, using information technology and developing professionalism. >>
Teaching programmes linked to the labour market

In 2006, the national Department of Education in South Africa required NMMU to identify five academic growth areas as part of its Institutional Operational Plan and enrolment plan for the period 2006–2010. The university consulted a wide range of national policy documents and economic growth strategies in order to identify the five priority areas which included: infrastructure development; environmental and natural resource management; economic and business development; community and health development; and education, culture and communication.

The University of Botswana’s strategic plan highlights specific targets for undergraduate enrolments at the discipline level (following the Student Enrolment Projections to 2016 report, published in 2008). The targets for 2016 include Business and Information and Communication Technology 20%; Science, Engineering and Health Sciences 30%; Humanities and Social Sciences 31%; and Education 19%.

Research activities are becoming more economy-oriented

The University of Botswana has identified a number of priority research themes based on existing areas of research strength, national research priorities, international research trends, and emerging social needs. This institutional research agenda includes a direct economic development focus in the economic diversification and entrepreneurship theme, as well as an indirect focus in other themes linked to sustainable development and poverty reduction.

Makerere University has an institutional research agenda which is driven by the university and its researchers, by national priorities and, at times, by the agendas of foreign donors. The current, multidisciplinary research agenda is informed by the government’s Poverty Eradication Action Plan. An economic development focus is inherent, albeit indirectly, in most of the themes, such as: education for development; food and nutrition; sustainable environment development; natural resources utilisation and conservation; and cross-cutting themes such as appropriate technology, economics and biotechnology.

The University of Mauritius’ Strategic Research and Innovation Framework outlines a number of priority clusters for research and innovation activities. A number of these include an economic development focus, such as those relating to science and technology and to transforming the Mauritian economy, while others have an indirect focus as they relate to health and the environment.
FINDINGS

- At the national level one of the weakest aspects of linking higher education to economic development is implementation: most ministries of education do not have steering instruments or mechanisms.
- Some ministries disincentive institutions from generating third-stream income.
- Every university has at least one development-related structure and one or more special programme/s. The problem is that in too many cases these initiatives are driven by individuals rather than being institutionalised. In addition, these special implementation efforts need to be more connected.
- Despite policies that extol the importance of research related to development activities (mainly through focus themes), few institutions have special funds for this. Neither is research related to development rewarded through incentives beyond the traditional academic promotion system.

4.2 University connectedness to external stakeholders

4.2.1 Industry and community

Most of the universities in the sample talk about the importance of engaging with external stakeholders in their institutional plans or research policies. Indeed, in all of the universities there was evidence of such engagement through their teaching, research, consultancy and other forms of ‘service’ activities. A review of a selection of development-related activities in the eight universities (see section 4.3) indicates that a wide range of external stakeholders stand to benefit from the teaching, research and service undertaken by academics – from government, foreign donors, industry, the private sector and non-governmental organisations (NGOs) to fishers, small-scale farmers, street traders and people living with disease burdens. Universities also collaborate with or undertake work on behalf of a range of external stakeholders, especially government, industry, the private sector, and non-governmental or community-based organisations.

While these linkages were not a key focus of this study, we did gather some evidence on the nature and extent of the universities’ interactions with the key external stakeholders during the interviews – in particular with industry and the private sector (including SMEs), and foreign donors (section 4.2.2).

While there was evidence of linkages with industry and the private sector in all eight universities, this was generally confined to the level of units or centres rather than institutional level partnerships or linkages. In addition, except for ad hoc consultancies at NMMU and Mauritius, there was virtually no evidence of university engagement in research and development (R&D) with or for industry. To a large extent this is because the industrial sector in most of these countries is under-developed, and because there is very limited
private sector R&D – where global companies do have operations in African countries, their R&D is usually undertaken elsewhere. Of course, this is a problem in most developing countries but it is particularly acute in Africa. Some of the universities are beginning to address the lack of interaction between their institutions and industry or the private sector through the establishment of university-industry liaison offices (e.g. Mauritius). Some interviewees suggested that part of the problem is also the attitudes of academics, some of whom are unwilling to engage with external stakeholders.

Evidence of interaction with the private sector took two forms. The first is in the area of education and training. Examples include the use of people from the private sector on advisory committees responsible for curricula design and revision (Mauritius and Botswana); work placements; and for specific, customised training programmes. The second and most prevalent form of interaction is business development and support for SMEs. Examples include: the business incubator projects or units at Mauritius and Dar es Salaam; the Automotive Components Technology Station at NMMU; the Innovation Systems and Clusters Programme in Eastern Africa operating at Eduardo Mondlane, Dar es Salaam and Makerere; the Uganda Gatsby Trust at Makerere; the University of Botswana Business Clinic; and, the African Clothing and Footwear Research Network at Nairobi.

Only two of the universities – Nairobi and Mauritius – had units dedicated to coordinating the activities with external stakeholders (Box 6).

**BOX 6**

**UNIVERSITY CONNECTEDNESS TO EXTERNAL GROUPINGS**

External stakeholders involved in curriculum design

At the University of Mauritius, faculties and departments are required to engage advisory committees, which include external stakeholders from the public and private sectors and NGOs, around the development of new academic programmes and revisions to curricula. At the University of Botswana, every department has an advisory board which informs curriculum development. These boards comprise members of the department as well as key stakeholders from outside of the university (e.g. government, the private sector and NGOs).

Coordination of consultancy and other engagement activities

The University of Nairobi Enterprises and Services (UNES) Ltd was established in 1996 with the aim of promoting and coordinating the various income-generating activities of the university, including teaching, research and consultancy activities. UNES is registered as a private company, limited by shares, and operates as a separate legal entity, independent of the university. Amongst other things, UNES is responsible for promoting, coordinating and providing managerial services for income-generating activities within the university.

The key unit in the University of Mauritius for coordinating linkages and activities with government and industry is the Centre for Consultancy and Contract Research. The centre aims to encourage and facilitate consultancy activities amongst staff as a way of contributing to the socio-economic development of the country. It coordinates all consultancy and contract research, and manages intellectual property generated by university research, licensing and technology transfers. The centre’s Consultancy Watch Unit was established in 2006 to assist staff to identify and develop consultancy opportunities.
While there is evidence of connectedness between the university and industry or the private sector in all eight universities, this is generally confined to the level of units or centres rather than institutional-level partnerships. Except for ad hoc consultancies at NMMU and Mauritius, there is virtually no evidence of university engagement in R&D with, or for, industry.

4.2.2 Foreign donors

Development aid contributed to the development of post-independence universities in Africa. However, as was discussed in the introduction (section 1.1), aid diminished dramatically during the 1980s and 1990s following the World Bank policy shift to primary education, and as relations between governments and universities deteriorated.

Development aid to higher education in Africa picked up again significantly in the post-2000 period. The CHET development aid study (Maassen et al. 2007) estimated that about USD 1 billion was donated to higher education in Africa during the 2000–2005 period. This new interest was considerably strengthened at the G8 Gleneagles summit (July 2005) where Africa and the Millennium Development Goals were the major focus. Following the summit, the office of the British prime minister issued a communiqué proclaiming an ‘historic opportunity’ and ‘a renewed commitment’: ‘This is a moment of opportunity for Africa. Its leaders have embraced a new vision for the continent’s future which recognises their leading role in addressing the continent’s challenges and realising its opportunities’ (G8 Gleneagles 2005: 11). The prime minister urged a focus on Africa because it ‘is the only continent not on track to meet any of the goals of the Millennium Declaration by 2015’ (ibid.).

The summit made a pledge to increase annual Official Development Assistance to Africa by USD 22.6 billion by 2010. As the G8 accounts for 70% of all Official Development Assistance spending, this increase would more than double G8 aid to Africa. Specific goals included massive investments in education, and HIV and poverty reduction, which could have constituted a major push towards achieving the Millennium Development Goals.

According to an independent assessment of the G8 ‘promises to Africa’ (Gastfriend & Morton 2010), ‘the G8 is on track to deliver 61% of the Gleneagles commitments by 2010, an increase of approximately USD 13.7 billion per year [of the 22.6 billion promised]. The bulk of the shortfall falls on three countries: France, Germany and Italy’, while ‘by the end of 2010 Japan, the US and Canada will have exceeded their commitments’ and the UK is expected to almost fulfil its promises. So, while not living up to the ambitious pledge of 2005, substantial amounts of funds are going into development aid, and there is a renewed interest in higher education.
A reading of the main international declarations and agreements on development aid in Africa shows widely divergent approaches, with no generally accepted ‘development model’ or approach that links a set of key drivers for development. This is probably owing to the particularity of the national interests of the participating countries. But, in Africa, there is also no agreement on the role of higher education in development aid. For example, the Economic Commission for Africa (ECA) produced a weighty tome in 2004 entitled *Economic Report on Africa – Unlocking Africa’s trade potential*. There is no reference in this highly publicised document regarding the role of higher education and its importance for knowledge creation, skills development and development in general (Maassen et al. 2007). A similar lack of focus on higher education characterises the official documents of the New Partnership for Africa’s Development (NEPAD) and the Southern African Development Community (SADC).

Even if the G8 has only managed to meet 61% of its target, it still amounts to a substantial increase in development aid to Africa in general, and to higher education in particular, and to significant amounts of funds. The issue is thus not only about more aid, but importantly how to spend the aid more effectively. In the context of this study, our interest in the relationship between foreign aid and higher education in Africa has three dimensions. These include agenda-setting, the coordination of aid projects, and the possible effects of development aid on the academic cores of African universities.

According to institutional leaders at the University of Dar es Salaam, not all donor agencies take the government’s priorities into account, while others do. The Swedish agency Sida was mentioned as a particular example of a big donor that responds to proposals from local demand. Some interviewees suggested that donors are more likely to push their own agendas with individual academics. For example, one respondent said that ‘there are those donors who have special agendas and they will always go to a particular member of staff or a particular head of department’.

At the University of Ghana, a number of respondents spoke about the tensions between responding to the agendas of foreign donors in order to secure research or project funding, on the one hand, and addressing local needs, on the other. For example, one project leader talked about the difficulties of raising funds for new health problems such as chronic high blood pressure, heart disease and diabetes when donors only want to fund research into tropical (malaria) and infectious (HIV/Aids) diseases. Another highlighted the tension between donor and country priorities, as well as traditional forms of academic assessment.

Some senior academics also commented on the changing of, and increasing lack of clarity about, what donors want to fund, particularly in the social sciences. In the words of a senior academic at the University of Nairobi: ‘I’m not sure I know what the donors are interested in. I don’t mind ideology, even if I don’t agree with it, at least I know where I stand, but with many of the major donors I don’t know anymore where I stand – for the life of me I don’t know who is funding the social sciences.’
Coordination of agendas and projects is a major problem, not to mention the considerable administrative effort required for accounting to multiple donors. At some institutions the data collected and formatted for donor reports were much more systematic and organised than the data for government or institutional management.

Two universities where considerable effort and resources have been put into donor coordination are Dar es Salaam and Eduardo Mondlane (Box 7). According to the Director of Planning and Finance at Dar es Salaam, they are trying to move towards institutionalising the strategic plan in terms of foreign donor funding that comes into the university. This is only beginning to be possible now since, in the past, the institution’s needs were so many that they would accept any money that was offered:

You know, when you have so many needs – we have deteriorating students’ hostels, we don’t have enough teaching facilities, the laboratories are dead, the workshops are dead. You see, wherever you get funds you tend to say: yes, please give me because I’m in need of this. But I think now given what we have received in terms of a loan from the World Bank support, we can now say: these are the areas that we now need support, in the next five years.

The director also reported that while there is some coordination between donor agencies at a national level (e.g. where donors are aware of what other donors are funding at the government level), there is no coordination in terms of what is being funded in the university (as the money is channelled via the national treasury):

It was very interesting to see, with just two more partners we could see already there was no coordination. They didn’t know each other and they were overlapping some activities. So it made us realise that it’s very urgent and important to have this horizontal dialogue, not just vertical dialogue. I mean, the donors communicate with us but they don’t communicate with each other.

At Eduardo Mondlane, the newly established Donor Coordination Unit, which reports directly to the vice-chancellor, is responsible for coordinating institutional and foreign donor interests and agendas. This unit emerged out of the long-standing unit responsible for coordination of the Sida/SAREC\(^{12}\) cooperation. The unit at Eduardo Mondlane will also be responsible for bringing together major donors to meet and discuss their activities in order to coordinate funding areas and reporting mechanisms, and to avoid duplication or overlap where possible. However, the unit’s coordinator reported that at a recent meeting of large donors, it was evident that there was little coordination between them in terms of funding areas and activities and it is virtually impossible to ensure coordination with the smaller donor-funded projects since these are usually negotiated with individual researchers.

\(^{12}\) SAREC is the Department for Research Cooperation of Sida, the Swedish International Development Cooperation Agency.
Eduardo Mondlane University, which has probably received the largest proportion of donor aid amongst the universities in our sample, has had a more than 30-year relationship with Sida/SAREC in addition to large development grants from the World Bank via the government. Over this period, Sida/SAREC has funded individual projects, capacity development (including masters and PhD degrees), bigger research programmes and a facilities fund which covers expensive equipment and the maintenance of laboratories and so on. Over the past few years, it has been mandatory to include masters and PhD training in the larger research programmes funded by Sida.

However, although there has been an increase in enrolments in masters programmes at Eduardo, their doctoral enrolments are the weakest in the sample of eight countries (Table 3). This is partially due to the fact that many doctoral candidates still enrol at overseas universities, particularly in the donor countries, but more importantly because there is no coordinated triangle of government, university and donor support. Government has abdicated the contribution to research and doctoral training to donors. But donors cannot be a ‘surrogate state’: training at the highest level and knowledge production at a globally competitive level requires concentrated effort from the government, donors and the university.

**BOX 7**

**CONNECTING INTERNAL UNIVERSITY AND EXTERNAL DONOR INTERESTS**

At Eduardo Mondlane University, the newly established Donor Coordination Unit, which reports directly to the vice-chancellor, is responsible for coordinating institutional and foreign donor interests and agendas. This includes negotiating with the larger donors that the programmes funded are aligned with both institutional and national priorities. The unit will also be responsible for bringing major donors together to discuss their activities with a view to coordinating funding areas and reporting mechanisms.

The key coordinating body at the University of Dar es Salaam is the Department of Planning and Finance. The department coordinates planning and implementation of the strategic plan in various units, raises funds from different sources, and oversees the income and expenditure on these funds. Of particular interest to this study is the department’s role in ensuring a degree of alignment between the institution’s strategic objectives, academic activities and foreign donor interests.

**FINDINGS**

- The coordination of agendas and projects with donors is a major problem, not to mention the considerable administrative effort required for accounting to multiple donors. Only two institutions (Dar es Salaam and Eduardo Mondlane) had established strong coordination structures.
- Particularly amongst social scientists there is a perception of a decrease in donor interest, and an increasing lack of clarity about what donors want to fund.
4.3 The connectedness of development activities to the academic core

A key issue for the relationship between higher education and economic development is to establish a productive relationship between knowledge and connectedness. On the one hand, if there is an overemphasis on the basic knowledge activities of teaching and research – in other words, an excessive inward orientation towards strengthening the academic core – this results in the university becoming an 'ivory tower'. Or, if the academic core is weak, an overemphasis on knowledge results in the 'ancillary' role of the university (i.e. no direct role in development). On the other hand, an overemphasis in the university on connecting to development activities weakens the academic core and the university has little new or relevant knowledge to offer in the exchange relationship.

The challenge for universities, then, is to deal with this inherent tension between 'buffering' (protecting) the core technologies of the institution, and 'bridging' (linking) those with external actors (Scott 2001: 199–211). In reality, the boundaries between internal and external are not that clear cut. A number of higher education experts, such as Gibbons et al. (1994) and Scott (2001), have argued that with globalisation and its associated 'new' forms of knowledge production, the boundaries are becoming increasingly blurred and permeable.

The higher education studies literature describes this problem in terms of the conceptual notion of 'coupling' (Scott 2001; Weick 1976); that is, the extent to which the core and the external (or ‘periphery’) are linked with, or connected to, one another. In ‘tight coupling’, the boundary is weak and the university is in a direct, ‘instrumental’ relationship with external actors such as government or industry. In ‘loose-coupling’, the boundary is stronger, such as in the traditional notion of the university as a self-governing institution, which assumes an indirect contribution to development. The more complex relationship is with the ‘engine of development’ notion where there are multiple, simultaneous forms of knowledge production and exchange.

For the purposes of this study, we are using the term ‘connectedness’ to refer to the relationship (and tension) between the inward focus on strengthening and maintaining the academic core, and the outward focus on linking with external stakeholders and development. In this section, we present a methodology for investigating this tension and apply this methodology to a small selection of projects from the eight universities in the study.

We begin with a brief overview of the methodology employed in collecting and analysing the data in order to address these questions.

4.3.1 Methodology

In preparation for the research team’s visit to each institution, institutional leaders were asked to identify five to ten development-related projects (i.e. with an economic development or poverty reduction focus) to include in the investigation. In the end, a wide range of information was gathered on 44 projects and centres across the eight universities. While
these projects and centres might not necessarily constitute ‘flagship’ or ‘exemplary’ projects in every case, they are considered by university leadership to be strongly connected to development.

We operationalised ‘connectedness’ along two dimensions. The first dimension is ‘articulation’ which has a number of aspects. Firstly, it refers to the extent to which the aims and outcomes of development-related activities articulate with national development priorities and the university’s strategic objectives. Secondly, it refers to the linkages the project has with two of the groups of stakeholders in the triangle – the government (usually through specific government departments or agencies) and external stakeholders (e.g. industry, small businesses, NGOs or community groups such as fishers or small-scale farmers). In particular, our focus is on the extent to which there are linkages with an ‘implementation agency’ (i.e. an external body which takes up the knowledge and/or its products generated or applied through research or training). Thirdly, articulation takes into account linkages generated through sources of funding in two respects: whether the project/centre obtains funding from one or more of the three stakeholder groups (government, an external funder or the university itself); and the extent to which the project/centre develops a relationship with its funders over time. This latter aspect is determined through the nature of the financial sustainability of the project.

The second dimension focuses on the extent to which development activities serve to ‘strengthen the academic core’ of the university. This was operationalised in terms of the extent to which the work undertaken in projects/centres feeds into teaching or curriculum development; is linked to the formal training of students; enables academics to publish in academic publications (journals, books etc); is linked to international academic networks; and generates new knowledge (versus applying existing knowledge).

These various aspects relating to ‘articulation’ and ‘strengthening the academic core’ were converted into indicators (Table 9) which could then be applied to an analysis of the development-related projects and centres included in the study. On the basis of the indicator ratings, the projects/centres were plotted on a graph depicting the intersection between ‘articulation’ and ‘strengthening the academic core’. Detailed descriptions and analyses of the 44 projects/centres can be found in the eight case study reports which are available on the CHET website.

4.3.2 The project data and analysis

For the purposes of this synthesis report, one project or centre from each of the eight universities has been selected for analysis and discussion. Together, these projects/centres represent the spectrum of different types or categories, such as long-term research programmes or short-term consultancies, institutionalised training and small business support. Table 8 provides an overview of the eight projects/centres. Table 9 provides the summary ‘articulation’ and ‘strengthening the academic core’ ratings, respectively. The projects/centres are then plotted along the two axes in Figure 3.
<table>
<thead>
<tr>
<th>University</th>
<th>Project/centre</th>
<th>Classification</th>
<th>Timeframe</th>
<th>Funder(s)</th>
<th>Beneficiary(ies)</th>
<th>Initiation/agenda-setting</th>
<th>Economic development focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>UB Business Clinic (BC)</td>
<td>Practical training and support services</td>
<td>1995, ongoing</td>
<td>University, income generated through student businesses</td>
<td>Students and the public who want to start or grow their SMEs</td>
<td>Faculty staff Support to establish new, or grow existing, SMEs</td>
<td></td>
</tr>
<tr>
<td>Dar es Salaam</td>
<td>SME Gatsby Clubs (SMEGC)</td>
<td>Small business support</td>
<td>2004, ongoing</td>
<td>Foreign donors, the university</td>
<td>SMEs in Tanzania Staff in the university</td>
<td>Training, support and facilities to SMEs in target groups</td>
<td></td>
</tr>
<tr>
<td>Eduardo Mondlane</td>
<td>Energy, Environment and Climate Change (EECC)</td>
<td>Research programme</td>
<td>2006, ongoing</td>
<td>Foreign donors, government agency</td>
<td>Government, private sector, NGOs, students, people living in rural areas</td>
<td>Academic staff Development of renewable energy solutions</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>Noguchi Memorial Institute for Medical Research (NMIMR)</td>
<td>Research institute and postgraduate training programmes</td>
<td>1979, ongoing</td>
<td>Foreign donors, government</td>
<td>People of Ghana, government health agencies, local NGOs</td>
<td>Foreign donors, institute staff Research, training and diagnostic services for the public health sector</td>
<td></td>
</tr>
<tr>
<td>Makerere</td>
<td>Community-Based Education and Service (COBES)</td>
<td>Community-based education and service provision</td>
<td>2003/2004, ongoing</td>
<td>Foreign donors, the university, some income generation</td>
<td>College of Health Sciences students, local communities</td>
<td>University staff Healthcare provision to poor and rural communities</td>
<td></td>
</tr>
<tr>
<td>Nairobi</td>
<td>African Collaborative Centre for Earth System Science (ACCESS)</td>
<td>Long-term research and capacity building programme</td>
<td>1989, ongoing</td>
<td>Government agency, the university, foreign donors</td>
<td>African science and policy communities, NGOs, local communities</td>
<td>University academic, international academic network Research and capacity building around environmental issues that are linked to poverty</td>
<td></td>
</tr>
<tr>
<td>NMMU</td>
<td>Automotive Components Technology Station (ACTS)</td>
<td>Consultancy projects and training</td>
<td>2002, ongoing</td>
<td>Government agency, income generation</td>
<td>SMEs in the automotive components industry</td>
<td>Academics with industry experience, donor Consultancy projects and training for industry (especially SMEs)</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 9 Development projects/centres: ‘Articulation’ and ‘strengthening the academic core’ ratings

<table>
<thead>
<tr>
<th>Projects/centres</th>
<th>UB Business Clinic</th>
<th>SME Gateway Club</th>
<th>Energy, Environment and Climate Change</th>
<th>Noguchi Memorial Institute for Medical Research</th>
<th>Community-Based Education and Service</th>
<th>Review of Strategies for Poverty Alleviation</th>
<th>African Collaborative Centre for Earth System Science</th>
<th>Automotive Components Technology Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTICULATION RATING (maximum score = 13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional objectives</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>National priorities</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Number of funding source(s)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Funding sustainability</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Implementation agency</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total articulation rating</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>STRENGTHENING ACADEMIC CORE RATING (maximum score = 5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching/curriculum development</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Formal training of students</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Generate new knowledge</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Academic publications</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Link to international academic networks</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total academic core rating</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

‘Articulation’ key:
- Institutional objectives/National priorities:
  2 = Direct (link to specific strategic objective or national priority)
  1 = Indirect (broad/general reference)
  0 = None (no reported link)
- Number of funding sources:
  1 for each of the following: University; Government; Foreign donor; Income generation
- Funding sustainability:
  1 = Once-off, short-term (a project that is one year or less in duration and which receives only one round of funding)
  2 = Long-term but capped (a project that is more than one year in duration and which receives one or more rounds of funding, but the funding is capped)
  3 = Ongoing (a project which receives ongoing funding, e.g. from the university or from income generation)
- Link to implementation agency:
  2 = Direct
  1 = Indirect
  0 = None

‘Strengthening the academic core’ key: 1 = Yes 0 = No
FIGURE 3 Plotting the development activities

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Project/centre</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>UB Business Clinic</td>
<td>Botswana</td>
</tr>
<tr>
<td>SMEGC</td>
<td>SME Gatsby Clubs</td>
<td>Dar es Salaam</td>
</tr>
<tr>
<td>EECC</td>
<td>Energy, Environment and Climate Change Research Programme</td>
<td>Eduardo Mondlane</td>
</tr>
<tr>
<td>NMIMR</td>
<td>Noguchi Memorial Institute for Medical Research</td>
<td>Ghana</td>
</tr>
<tr>
<td>RPAS</td>
<td>Review of Poverty Alleviation Strategies</td>
<td>Mauritius</td>
</tr>
<tr>
<td>ACCESS</td>
<td>African Collaborative Centre for Earth System Science</td>
<td>Nairobi</td>
</tr>
<tr>
<td>ACTS</td>
<td>Automotive Components Technology Station</td>
<td>Nelson Mandela Metropolitan</td>
</tr>
<tr>
<td>COBES</td>
<td>Community-Based Education and Service</td>
<td>Makerere</td>
</tr>
</tbody>
</table>
4.3.3 Discussion

In terms of our analysis, which focuses on the interaction between the articulation of these projects with external stakeholders and strengthening the academic core of the institution, the projects/centres fall into three groups.

The first group are those which fall within the top right-hand quadrant of the graph, which indicates that they score strongly on both the articulation and academic core axes. There were examples of such projects/centres in all eight universities in the study. In practice, this means that these projects/centres have found a way of balancing the potential tensions between the two objectives of articulating to external stakeholders whilst also strengthening the core knowledge activities of the institution. On the one hand, projects/centres such as the Automotive Components Technology Station, the Noguchi Memorial Institute for Medical Research (NMIMR), the African Collaborative Centre for Earth System Science (ACCESS) and the Energy, Environment and Climate Change Research Programme reflect specific national development priorities in their aims and objectives; have more than one funding source and plans for financial sustainability; and have links to one or more implementation agencies. On the other hand, the work of these projects/centres provides opportunities for the formal training of students, feeds into teaching and curriculum development, generates new knowledge and academic publications, and has linkages to international academic networks.

A second group of projects/centres are those which fall somewhere within the middle of the graph, indicating that while they are connected to external stakeholders in some respects, and go some way towards strengthening the academic core, they are not strong on either. The example in the selected projects above is the Community-Based Education and Service.

The third group, which contains the smallest number of projects/centres, mostly falls within the top-left quadrant of the graph. These projects/centres are often well-connected to external stakeholders via funding or implementation agencies, but they score poorly on the academic core axis, meaning that although they are making a contribution to development, they are not strengthening the core knowledge activities of the university. Amongst the selected projects highlighted above, the three examples of this include UB Business Clinic, the SME Gatsby Clubs and the short-term consultancy project on Reviewing Poverty Alleviation Strategies – all of which are disconnected from the academic core.

The first observation is that these projects/centres were chosen by the institutional leadership as cases of their university's contribution to development. What we could not ascertain, owing to a lack of information, is how many short-term consultancy projects there are and how connected/disconnected these are to development goals and the strengthening of the academic core. Doing an indepth case study of a sample of institutions would be very illuminating in this regard.
The second observation is that the development activities which scored high on articulation and strengthening the academic core are world-class. To mention two: ACCESS at the University of Nairobi is a multi-funded centre of excellence that plays a significant role in the United Nations Framework Convention on Climate Change, while having postgraduate students and fellows from all over the world. The NMIMR in Ghana, co-funded by the Japanese government for 30 years, is a leading biomedical research and training centre in communicable diseases that also performs national health laboratory services. In terms of sustainability, the only difference between the two centres is that the NMIMR is very institutionalised, with successive directors coming from the faculty, while ACCESS seems much more dependent on one exceptional individual. The problem in our sample is that there are simply not enough of these activities that are connected to both development goals and the academic core.

**FINDINGS**

- Projects/centres that are considered by university leadership to be strongly connected to development tend to score well on the articulation indicators – in other words, they reflect national priorities (and to a lesser extent institutional objectives), have more than one funding source and, in some cases, plans for financial sustainability, and may have a connection to an implementation agency.
- A number of these projects/centres also manage to keep a strong connection to the academic core of the university, whilst others are virtually disconnected from these core knowledge activities.
- At each of the universities there are ‘exemplary’ development projects/centres. The problem is scale: there are simply not enough, and some seem overly-dependent on exceptional individuals.