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Mapping the World of Higher Education and Research Funders: Actors, Models, Mechanisms and Programs

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MAPPING THE WORLD OF HIGHER EDUCATION AND RESEARCH FUNDERS: ACTORS, MODELS, MECHANISMS AND PROGRAMS

1. Background

Universities Denmark (DKUNI), the association of eight Danish universities, created its own working group in 2008 to explore the ability of member organizations to build capacity in the field of tertiary education and research in developing countries. Its report a year later, "Building Stronger Universities in Developing Countries" (Danske Universiteter 2009) proposes the establishment of thematic platforms that can serve as the basis for partnerships between Danish universities and universities in Danish partner countries. The key objective of these platforms would be to strengthen the capacity of South institutions in research-based education, research, and information dissemination within the subject area of each respective platform. DKUNI is currently in discussions and negotiations with the Danish Ministry of Foreign Affairs regarding funding for four thematic platforms, whose exact content are also yet to be finalized.

The Danish Development Research Network (DDRN), a research and knowledge network with more than 2000 members (40% in the South) and funded by Danida, is expected to play a support role in the proposed project. DDRN, like two other similar networks funded by Danida, possess competences within the broader field of research for development that would complement the university-based contributions within or across specific disciplines.

DDRN and DKUNI have partnered to support this mapping project as part of the preparations for the launching of the Danish university cooperation program. Its terms of reference include the following general objectives:

- To summarize current models and mechanisms of leading bilateral and private donor organizations used in capacity building in research and research-based education and their feasibility, success and outcome;
- to develop an inventory of key issues and solutions applied in the programs reviewed;
- to provide an overview and opinion on the extent to which the programs reviewed have integrated typical network functions such as communication and knowledge sharing into their support of capacity building.

More specifically, this report is expected to provide answers to the following questions:

1. What types of *activities* are supported?
2. What *countries* are being targeted?
3. What types of *partnerships* are encouraged?
4. At what *level* is funding provided?
5. Are *co-financing arrangements* being used?
6. What is the *duration* of the programs?
7. How are they *administered*?

The study has been conducted by consulting available reports and documents from the various agencies included in the study. Most of these have been available on-line. The

research has been complemented by reading papers and articles produced by independent scholars on the subject. Interviews, some by email, have been conducted with staff of the relevant agencies in Denmark, Norway and Sweden as well as select academics in African countries. These interviews were conducted between June and September 2010.

The search for information has been confined to OECD member countries, development banks (notably the World Bank), and private philanthropies. The presentation of available information is divided into two steps. The first contains general background information about who are involved, what do they support, where do they give their money, and so on. This general mapping is followed by a more detailed analysis of the strengths and weaknesses of specific models and mechanisms. The report concludes with a discussion of issues that may be considered as DKUNI/DDRN finalizes the cooperation project.

The report is organized as follows:

1. history of donor funding for tertiary education and research
2. the needs on the ground
3. who are the donors today, what are they doing, and why?
    - justification
    - types of support
    - areas of support
    - level of support
    - countries included
    - management issues
4. Analysis: actors, models, mechanisms and programs
5. Conclusions

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2. History of donor funding

Support for higher education and research in developing countries is not new. It goes back to the 1950s and 1960s when the U.S. and eventually also European countries provided considerable support in this field. The U.S. did it as part of its strategy to counter Communist influence, initially in Latin America but later also in Africa and Asia. Some European countries did so in part for reasons relating to compensating for their colonial occupation. The Nordic countries with no colonial record to speak of did so for more altruistic reasons, especially when countries in Africa gained independence. Support for higher education was part of the nation-building project.

2.1. The first wave

This initial wave of support consisted largely of three components. The first was “mortar and bricks”, i.e. funds for construction of buildings needed to house universities, their teachers and researchers. Included in this “hardware” were also laboratories and other equipment needed in the more technical disciplines of the natural and physical sciences. Examples

include Norway´s extensive support for the creation of a forestry school at Sokoine Agricultural University in Tanzania, Germany´s funding of the establishment of a College of Engineering at the University of Dar es Salaam, and the Swiss general support for infrastructure development and maintenance at the same institution. Ford Foundation was also selectively involved in financing the erection of buildings, e.g. at Makerere University in Uganda and Ibadan University in Nigeria.

The second component was technical assistance. Many of the professors in the new universities in Africa were initially expatriates. They came from many different countries, but the largest contingents were Americans and Britons. The Nordic countries were also actively sending academic staff on shorter term contracts to various African institutions of higher education. This effort was particularly important in the 1960s and 1970s.

These were also the years when a large number of young African students were sent for doctoral studies at American and European universities, the third component of the first wave. Ford and Rockefeller Foundations were the main sponsors in the fields of agriculture and the social sciences. Germany focused on training in fields such as engineering while no particular pattern can be found in the scholarships offered by the Nordic countries, any way an insignificant percentage of the total. It should also be noted here that many of those who still teach in African and Asian universities, especially in the hard sciences, received their initial doctoral education in Communist countries like Bulgaria, East Germany and the Soviet Union.

2.2. The reversal

Beginning in the 1980s, higher education fell out of favor in the donor community. In African countries, governments adopted the same attitude. Higher education was seen as expensive and benefitting only a small privileged group. There were also initial signs of a “brain drain”. Why should donors support higher education, it was argued, when the benefits tend to be so few for these developing countries? The “nail in the coffin” was provided in a World Bank report (Psacharopoulos et al 1986) which estimated that the social rate of return, i.e. the increase in national income resulting from an additional year of education, was on average 13 percent lower for higher education when compared with basic education in developing countries. A subsequent review of 98 countries between 1960 and 1997 found that the typical social rate of return for primary education was 18.9 per cent, compared to just 10.8 per cent for higher education (Psacharapoulos and Patrinos 2002). This “return-on-investment” philosophy prevailed at the 2000 World Education Forum in Dakar where the international community agreed that only primary education could serve as a driver of broad social welfare improvements. This view was later confirmed in international accords like the U.N. Millenium Development Goals (MDGs). The result was that while World Bank funding for primary education spiked in the late 1990s (USD 1.4 billion 1998), support for higher education dropped to its lowest level in 2001 (USD 120 million).

The World Bank is often the pacesetter for other donors but like the large ship it is, it takes time to turn around. Already in 1998 when James Wolfensohn took over as bank president, it was beginning to launch itself as the “knowledge bank”. The World Development Report the same year was titled *Knowledge and Development* (King and McGrath 2004). Two years later

it published a report together with UNESCO in which it argued that higher education in developing countries was in a “perilous” state and while it could not guarantee rapid development, sustained progress was impossible without it (World Bank 2000). Thus the foundation was gradually laid for greater funding of higher education and research.

2.3. The second wave

Today donor support for this field is widely embraced in what amounts to a second wave. Its economic benefits to society are taken for granted at a point in time when knowledge equals power. In a globalized world, higher education and research help developing countries compete with more technologically-advanced countries. The example of the investments that were made during the first wave in the Indian Institutes of Technology is often held up as proof. Ideas about “brain drain” have also changed. By building good quality research and education facilities in universities at home, developing countries believe that they can attract the brains in the Diaspora to return home, i.e. encourage brain circulation rather than brain drain. China and India are the best examples but there are also African ones. The Network of Ethiopian Scholars encourages Ethiopian scientists in the Diaspora as well as at home to exchange knowledge on local issues (www.nesglobal.org/).In Ghana and Nigeria there are similar networks for tapping knowledge in the Diaspora. Political support for higher education funding has come from several sources, e.g. the 2005 U.K. Commission for Africa (www.commissionforafrica.com/) and more recently the Danish Africa Commission´s report aptly titled “Realizing the Potential of Africa´s Youth” (Danish Ministry of Foreign Affairs 2009).

Box 1. A Note on Glossary

The terminology used by the donors is, if not confusing, often not very clear. *Capacity building* is the broadest term but it is rarely clear whether it refers merely to individuals or covers also institutions or, as the case is in some instances, the policy environment in which higher education and research takes place. Given the inclination of some to apply the term this broadly, it makes sense to think of capacity-building as covering all three levels: individuals, institutions, and policy environment (DFID 2010). Some donors refer to *post-secondary*, others to *tertiary education*. Judging from the way the terms are used, tertiary refers more specifically to university and college institutions where academic degrees are awarded, while post-secondary includes also professional and technical education that end up with certificates being awarded. *Higher education* is another term that is not always specified. In this report, it refers to degree-awarding institutions. The concept of *research-based education* is sometimes used to denote a problem-based training that contrasts with regular course-based education.

2.4. New Actors

Support of higher education and research in the South has been first and foremost a concern on Western donors but with new wealth being created in Asia and the Arab Gulf countries there is the possibility of investments in this sector also coming from new sources. The new actors seem particularly interested in the mortar-and-bricks side that today is largely ignored by bilateral Western donors. For instance, the new University of Dodoma in Tanzania is being constructed by a Chinese company. Another example is the Abu Dhabi Fund for

Development, in operation since 1971. Since its inception it had supported 52 different countries in Africa and Asia with a total of USD 5.5 billion in 2007 (www.uaeinteract.com/government/development_aid.asp) . Most of it had been provided as grants or soft loans and focused on infrastructure, including equipment support in various development sectors, including education. In countries, especially Africa, where infrastructure is still in need of much development, this support is important. If provided on a more generous scale to the higher education and research sector, such infrastructural investments would serve as valuable complements to the "softer" type of support given by the Western donors. With OECD being interested in linking up with these new actors, this may become even more of reality in the years ahead.

China is also getting increasingly active by offering fellowships for scientists from other countries to come to Chinese universities for a specified time. In January 2009, its Chinese Academy of Sciences announced that it will aim at bringing some 1500 "top" scientists, professors as well doctoral students, to work with Chinese researchers. A special program aimed at bringing Chinese scholars back to their homeland which started in the mid-1990s, has already benefitted 1300 researchers who are now working in China again (Zhiguo 2009).

The Republic of Korea has emerged as a donor in the past twenty years but its contribution to higher education and research so far has been minimal. Apart from a few training projects involving Korean universities and partner institutions in the South no comprehensive program has yet been developed for this sector. The Korean International Cooperation Agency (KOICA) is still focusing largely on other aspects of social development (www.koreafocus.or.ko/design2/layout/content_print.asp?group_id=102095).

3. Needs on the ground

A look at the map of its recently released report (August 15, 2010), the seventh Academic Ranking of World Universities (ARWU) provides a graphic illustration of the extent to which the quality of higher education and research is unevenly distributed. Its list of the 500 best universities is dominated by developed countries (OECD members). A grayish color, indicating no university on the list, characterizes East and Central Europe, Central Asia, Southeast Asia, and most of Latin America and Africa. Only three African universities, all in South Africa, make the list (www.arwu.org/).[1]

[1] The ARWU ranking is released every year by the Center for World Class Universities of the Shanghai Jiao Tong University. Its methodology is listed below:

Weights for ARWU

Criteria	Indicator	Code	Weight
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10%
Quality of Faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20%
	Highly cited researchers in 21 broad subject categories	HiCi	20%
Research Output	Papers published in Nature and Science*	N&S	20%
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	PUB	20%
Per Capita Performance	Per capita academic performance of an institution	PCP	10%
Total			100%

*** For institutions specialized in humanities and social sciences such as London School of Economics, N&S is not considered, and the weight of N&S is relocated to other indicators.**

The countries in gray are what sometimes are called “laggards on the knowledge curve”. These are the countries in need of support. The most extensive needs identification was done in 2000 by the UNESCO and World Bank-constituted Task Force on Higher Education mentioned above (see also www.tfhe.net/report). It divides the needs into two types, one stemming from “new realities”, the other from political neglect. The new realities are defined as (1) expansion, (2) differentiation, and (3) knowledge revolution.

Expansion is the result of the tremendous increase in number of students. Leading existing universities grow in size, some to the point of becoming “mega-universities” like the University of Buenos Aires and the National University of Mexico both of which cater for more than 200,000 students. Expansion has typically led to a lowering of the quality of these institutions. Differentiation refers to the creation of new institutions, many private, to meet the expanded need. For example in 2000, Indonesia, which in 1945 only had 1000 university students, had 56 public universities and no less than 1,200 private universities. In South Africa roughly half the student population is enrolled in private universities. This has often the effect of spreading educational, including staff resources thin.

Although information technology has made an ever-increasing knowledge more easily accessible, effective and powerful participation in the knowledge economy requires new skills that are still in short supply in developing countries. While the knowledge revolution has seen an exponential and continuing increase in knowledge in developed countries it has yet to have a similar impact in developing countries. This applies especially to the rural areas which lag behind the urban ones.

Needs that stem from political neglect include (1) improving faculty quality, (2) improving the conditions for students, (3) increasing resources and, (4) enhancing the autonomy of academic institutions. These needs exist in most countries that were victims of the “rate-of-return” policies of the 1980s and 1990s, but they are particularly pertinent in African countries. Huge expansion in student enrollment has been overwhelming African institutions because there has been no corresponding increase in academic staff capacity. Even when the universities establish new positions to meet increasing enrollments, many of these posts are not filled. This has resulted in a capacity deficit with vacancy rates in university staff positions frequently running between 25 and 50 percent (World Bank, 2008: 53). This shortage of academic staff can be attributed to many factors: poor conditions of service (Mihyo 2007), shortage of postgraduate education opportunities (Mouton 2008:29) and low graduation rates (Tettey 2010:11-13).

Cost-sharing has become the most common way of dealing with resource constraints in developing countries. It is strongly recommended by economists to be necessary for the future (e.g. World Bank 2010). The challenge has been to ensure that equity is not being compromised by such arrangements. There are good examples, e.g. from Mozambique of scholarships given to poor students from disadvantaged areas of the country and from Kenya where a loan scheme satisfactorily addresses the concerns of both efficiency and equity (University Leaders´ Forum 2008). The Nigeria Education Trust Fund which receives 2 per cent of national tax receipts is another example of relevance here (www.etf.gov.ng).

There has been some progress toward greater political autonomy for university institutions since the single-party days. In those days, governments tended to act heavy-handedly toward the universities as soon as academic staff or students behaved in ways that were perceived as independent. Heads of state used to be university chancellors. This direct control has now been lessened and there is generally more respect for academic freedom than in previous years. Governments continue, however, to ensure that public universities do not pose a political challenge to its position by using more subtle means.

All these factors have contributed to a brain drain from African countries. Academic staff has left for other countries, e.g. the U.S., Europe and the Middle East, where they can earn a higher salary and enjoy better working conditions. Students from families with private funding prefer to study overseas and following graduation often remain there rather than returning to their home country. Statistics on the brain drain phenomenon in Africa is scarce and inconsistent, but according to the International Organization of Migration, between 1990 and 2004, Africa lost about 20000 professionals a year. The same source claims that some 300,000 professionals lived outside Africa in 2004 (Tebeje 2005).

African governments, individually and in unison through the African Union (AU), recognize the importance of paying attention to the role that science, technology and research play in development. Since 2007, the AU has a comprehensive plan to realize this. A special council of ministers responsible for this sector meets regularly with a view to monitoring progress. Given competing priorities and shortage of funds, commitments made at political forums are not always followed up. Furthermore, priorities set by national governments often lack grounding among key stakeholders in the university sector. Thus, what individual students wish to study, what universities prioritize, and what governments state as official policy or strategy, do not really coincide. This makes the task of supporting higher education and research a complex and often sensitive task.

4. Who are the donors, what do they do, and why?

This sub-section of the report is primarily meant to provide information in response to the Terms of Reference for this assignment. It begins by providing an overview of what the OECD country donors give, how they justify their support for the sector, what type of support is being given, what areas are prioritized, at what levels they provide support, which countries that are included, and what some of the main management issues are.

4.1. What amounts do donors give?

At a first glance, the biggest donors of higher education, according to OECD/DAC (www.oecd.org/stats), are not the mainstream development donors, like DFID, Netherlands or the Nordic countries. Instead, the list tops by Germany, France and Japan. The contributions to higher education by the principal OECD countries and the European Commission for 2004-2008 are summarized in Table 1. This statistics, however, does not always tally with the figures given by the bilateral agencies themselves. OECD statistics for higher education does not include support for research-based education or development research, which has been the mainstay of the mainstream donors. For instance, according to

Sida´s own homepage, with that broader definition funding for support of higher education institutions through its research secretariat amounted to approximately USD 100 million 2009. Another reason is that the mainstream donors, unlike those that appear at the top of the OECD list, have provided their bilateral support in the form of budget or basket support, in which the contribution to higher education and research is not specifically identified.

Of the development banks, the World Bank is by far the dominant institution today. From its low of USD 120 million in 2001 and 2004 it has boosted the funding to considerably higher levels. In 2008 it amounted to USD 500 million. On the private and philanthropic side, the Partnership for Higher Education in Africa (PHEA), made up of seven foundations, was the single largest institution with a total spending of USD 300 million between 2000 and 2010 but its secretariat was closed in 2010 and work continues by some of the individual foundation members.[2] Other important funders include the Gates Foundation, the Wellcome Trust of the U.K., and the International Development Research Center (IDRC) of Canada.

4.2. Justification

Donors come at support for higher education from two principal angles: cultural/educational or developmental. These are not always mutually exclusive, but those that see such support as a cultural/educational mandate tend to be former colonial powers, Belgium, France, Portugal and Spain, with a policy to continue supporting institutions and individual students in their former colonies. Their portfolio tends to be dominated by scholarship programs. This incidentally applies also to Italy and Greece although their uptake is not limited to former colonial territories.

Table 1. Donor contributions to higher education in developing countries, 2004-08. (in USD millions)

Donor	2004	2005	2006	2007	2008
Germany	814.12	973.33	955.74	977.15	1,094.80
France	996.24	1,140.66	1,248.33	1,349.45	1,072.28
Japan	294.40	497.77	471.40	425.95	488.89
European Com.	13.98	125.80	162.68	209.19	185.25
Netherlands	84.93	76.42	98.45	113.48	132.26
Austria	67.86	84.63	95.08	112.06	124.75
Belgium	80.28	51.16	92.01	113.39	105.86
Spain	38.61	59.43	53.12	43.49	99.95
Greece	17.22	26.35	17.98	56.46	72.96
Portugal	42.67	42.14	44.09	47.02	49.02
Norway	26.91	28.72	31.21	48.38	46.04
United States	39.74	17.63	23.30	13.28	42.93
United	0.46	0.17	1.55	54.62	40.60

[2] The members of the partnership were Ford Foundation, Rockefeller Foundation, Carnegie Endowment, MacArthur Foundation, Mellon Foundation, Kresge Foundation and the Hewlett Foundation.

Kingdom					
Australia	21.98	7.00	28.68	40.97	26.75
Italy	5.63	1.14	8.39	5.62	17.84
Korea	__	__	21.47	37.21	15.59
Switzerland	3.95	10.34	11.74	11.04	12.08
Finland	__	__	5.47	5.05	7.00
Canada	64.9	4.83	7.48	7.43	6.68
Sweden	3.95	20.19	3.59	4.55	6.29
Denmark	0.90	1.31	2.88	1.31	2.51

Source: OECD/DAC statistics on allocations of development aid.

Those who get involved in the sector from a developmental perspective lean toward support of research or research-based education. With the exception of the United Kingdom[3], these countries do not have a history of close institutional links with the South and tend to be moved by the contents of the global development agenda. As it shifts, so do the donors. Their support has been less focused on scholarship programs and has prioritized partnership or networking arrangements between universities in the North and the South and, more recently between institutions in the South. Norway is interesting in the Nordic context because it is the only country that has continuously operated special scholarship programs for students from the South. The country´s provision of scholarship support is also why it is listed much higher in OECD statistics than Denmark, Finland or Sweden.

4.3. Types of support

Activities that donors support can be broadly divided into four groups: (1) scholarships, (2) partnerships/networks, (3) information technology, and (4) governance and management reforms.

4.3.1. Scholarships

Scholarships are less dominant in support of higher education today than they used to be but they still constitute a major part of it.

Southern European countries spend most of their support in this area. Even *France* spends approximately half of its aid on scholarships, mostly for postgraduate study in France but some for study in developing countries (Lewis 2009).

Germany, as illustrated in Table 1, is one of the biggest supporters of higher education. Much of it is managed by the German Academic Exchange Service (DAAD) and involves the provision of scholarships for study in Germany. Like the Fulbright Program in the United States, it does not run its own academic programs but offers scholarships on competitive, merit/based criteria for German students to go overseas and students from other countries to study in German universities. With a budget of over US$ 500 million it supports

[3] Most of the scholarship support from the British side has been organized through the Commonwealth Secretariat and does not register as part of its bilateral support for higher education.

approximately 50,000 grantees every year, 11,000 of whom are on long-term scholarships, making it the single largest academic grant organization in the world (www.daad.de/entwicklung/index.en.html).

Apart from the global Fulbright Program, the *United States* has had a number of specific scholarship programs. USAID has operated a graduate fellowship program since 1963. When it was evaluated after 40 years, it represented an investment of USD 182 million that had been used to sponsor no less than 3200 graduate students from Africa alone at over 200 U.S. universities. The same evaluation found that as many as 85-90 per cent of all beneficiaries had returned to their respective home country upon completion of their education (Lewis 2009).

The European Commission offers since 2006 its own support for higher education through partnerships between universities within the *European Union* and the rest of the world. These partnerships involve scholarships for students from outside the EU to study at European universities. Since 2006 approximately US$ 400 million has been spent on 65 partnerships. According to its own website, some 12000 students and staff on both sides have benefitted from these grants. Erasmus Mundus II, which runs from 2009 to 2013, is expected to extend this program further (http://ec.europa.eu/europeaid/what/education/education_erasmus_mundus_tempus_en.htm).

British scholarship support is also considerable, funded partly by DFID, partly by other government institutions in the UK. The major part of it is managed by the Commonwealth Scholarship Commission. The CSC offers 750 awards every year, although it should be pointed out that not all of them go to developing Commonwealth countries. The scholarships vary in type. The bulk is scholarships for PhD research or master´s study but quite a few are targeted on academic staff already on post in developing country universities. In addition, the CSC makes available what it calls “split-site” scholarships for students already enrolled for postgraduate studies in another country to allow them to benefit from a year of study in a U.K. university (www.dfid.gov.uk/working-with-DFID/Funding-opportunities/).

The *Netherlands* Ministry of Foreign Affairs is a generous supporter of scholarships through the Netherlands Organization for International Cooperation in Higher Education and Research (NUFFIC). Its main scholarship program is the Netherlands Fellowship Programme (NFP). It offers fellowships for PhD and master´s studies as well as short courses. It is demand-driven in the sense that organizations in the South apply for the fellowships on a competitive basis. Awards are made on two conditions: that half of available fellowships is awarded to female candidates and half of the budget is spent on candidates from Sub-Saharan Africa (www.nuffic.nl/international-students/scholarships/).

Although the mandate of the *Norwegian* flagship program – NUFU – is broader than merely support of individual students, its scholarship component has been significant. Between 2002 and 2007 no less than 171 doctorates and 629 master-level graduates had been funded. Many of these students have graduated from universities outside of Norway. The budget frame for the current five-year period (2007-2011) is NOK 300 million or approximately USD 10 million a year (www.norad.no/Satsingsomr%C3%A5der/Utdanning+og+forskning/).

To this list should be added the support provided by the *World Bank*. Through its Institute it operates two separate programs. The Robert S. McNamara Fellowship Program provides support to young researchers working in developing country academic or research institutions to allow them to spend a period of 5 to 10 months in a renowned university or research center. The other program is funded by the Government of Japan and focuses exclusively on graduate studies in subjects related to economic development. To qualify students must demonstrate that they have been admitted to a development-related master´s program in one of the universities preferred by the sponsors. This program, now in its 23rd year, has awarded 3,153 scholarships selected from 58,944 applicants (http://web.worldbank.org/WBSITE/EXTERNAL/WBI/EXTWBISFP/EXTJJWBGSP/).

Of special interest here, finally, may be the International Foundation for Science (IFS) based in Uppsala, Sweden. It provides research grants to younger scholars, giving priority to women, and follows up with briefer capacity-building courses and grants for obtaining necessary procurement. Its geographic focus is on the low-income countries and others with weak research infrastructure, the majority of countries being African. In 2009 a total of 248 individual grants were made from among some 1300 applicants. To strengthen its presence and role in Africa, it has established a "hub" for Eastern and Southern Africa, located in Kampala, Uganda. IFS is being financially supported by a consortium of bilateral donors, including Sweden, Norway, U.K., U.S., Switzerland and France, and private foundations, e.g. MacArthur Foundation and the Syngenta Foundation of Switzerland. (www.ifs.se/Publications/AnnualReports/IFS%20Annual%20Report%202009.pdf

4.3.2. Partnerships and networks

Partnerships and networks have become much more commonly used modes of operation in recent years. Although the distinction is not always clear, as used in this report, partnerships involve closer cooperation and deeper commitments than networks.

One of the older partnership programs is *USAID´s* Higher Education for Development which has sponsored collaboration between United States and developing country universities since 1987. By now, the number of such partnerships exceeds 300 in about 60 different countries. Examples include exchanges and internships between U.S. and Mexican universities, cooperation between schools of public health in East Africa and U.S. universities, and collaboration between Ohio State University and Punjab Agricultural University in India to research new crops and food products (Lewis 2009).

The Seventh Framework Programme of the *European Union* provides new opportunities for scholars outside the Union to benefit from funding through partnerships with European researchers. Such cooperation used to be confined to science and technological (S&T) programs but is now extended to all research activities funded by the EU. It involves individuals as well as public organizations and private companies with an interest in benefitting from links with EU institutions. This opportunity is accessible to individuals and institutions in 100 different countries outside the Union (http://cordis.europa.eu/fp7/public_en.html)

The *United Kingdom* supports partnerships between higher education institutions through its Development Partnership in Higher Education program (DELPHE). Managed jointly since its inception in 2006 by the British Council and the Association of Commonwealth Universities it had by 2009 supported partnerships and multi-institutional projects involving 245 higher education institutions worldwide. Projects range from agriculture, the environment, health, and information technology, and also include staff and student training, course redesign and communication workshops (Lewis 2009).

Germany´s Higher Education Excellence for Development Cooperation (ex)/(ceed) is operated for the Federal Ministry for Economic Cooperation and Development (BMZ) by the German Academic Exchange Service (DAAD). Support is given to institutions that contribute in an innovative manner to the realization of the Millenium Development Goals (MDGs) and other development cooperation goals. The aim is to strengthen higher education institutions in the areas of education, research and consultancy. Examples of partnerships that have already been funded by the program include collaboration between German universities and universities in various parts of the South in areas such as sustainable water management, food security, natural resources, and public health (www.daad.de/entwicklung/exceed/).

Although *Sweden* has been one of the strongest proponents of the MDGs, its support for higher education and research has not been as explicitly targeted on these as it has in the U.K, Germany and other OECD countries. For instance countries like Spain and Portugal have generally been regarded as "laggards" when it comes to aligning their aid with the principles of the Paris Declaration and the MDGs (Meyer 2010, DAC Peer Review 2010). The Swedish "model" recognizes that partnerships that are initiated and dominated by researchers in the North will have a negligible effect on capacity-building in the South. Sida´s policy has been to provide core funding to research-based universities in the South to enable them to improve conditions for research, including libraries and laboratories as well as training of academic staff. It has emphasized looser links between Swedish universities and those in the South so as not to make the latter "prisoners" of Northern research priorities. By providing core funding the expectation is that universities in the South will formulate their own strategy and steer external support into areas determined by them rather than by donors or universities in the North. This principle is one reason that support for development research in Sweden is a relatively small component of Sida´s overall budget for research. Such research is important to keep an interest in and capacity for development work at home but it carries with it the expectation of researchers in the South to be partners on premises over which they have little if any control (Olsson 2009).

Canada´s support for research and innovation is managed by the International Development Research Center (IDRC) which since 1970 has helped researchers and innovators in developing countries find new ways of overcoming poverty, improving health, promoting democracy and protecting the environment. In carrying out its mission, IDRC supports partnerships between Canadian and international organizations, on the one hand, and organizations in the South in order to enhance the resource base for research on these critical issues. According to its Strategic Framework for 2010-2015, IDRC focuses on four broad fields of enquiry: agriculture and the environment; science, technology and innovation; social

and economic policy; and health and health systems (www.idrc.ca/en/ev-150773-201-1-DO_TOPIC). IDRC is one of very few donors that have explicit emphasized the importance of dissemination of research information through networks.

The *Partnership for Higher Education in Africa* (PHEA), sponsored by seven U.S. private foundations (see above) was a major supporter in the higher education field in the past ten years. Working in seven countries with 22 different universities, this loose network sponsored four initiatives that had been identified by the participating institutions: (1) information and communication technologies, (2) higher education research and analysis, (3) regional networks for research and postgraduate training, and (4) a university leaders´ forum for exploring the frontiers of knowledge (www.foundation-partnership.org/about.php).

The *Wellcome Trust* has launched its own African Institutions Initiative with a USD 50 million commitment to strengthen Africa´s universities and research institutions through partnerships and networks. More than 50 institutions from 18 African countries are partnered in seven international and pan-African consortiums. Each is led by an African institution and includes research and higher education partners from Australia, Europe and the U.S. The seven consortiums are concentrated to the biomedical field. They operate independently and set their own agenda. Activities include: leadership training and professional development; PhD and post-doctoral fellowships; improved infrastructure; competitive grant schemes; and the provision of up-to-date equipment (www.wellcome.ac.uk/Funding/Biomedical-science/International-funding/Global-health).

These examples of partnerships and networks would be incomplete without a reference to SANORD (Southern Africa-Nordic Centre) that operates out of the University of Western Cape. It is a low-cost arrangement for networking between universities in southern Africa and the Nordic countries that has grown out of an earlier Norwegian exchange program with South African universities. SANORD operates in a manner similar to what DKUNI has in mind but with a Nordic mandate. Its members include 16 universities in southern Africa and 15 universities in the Nordic countries plus the Nordic Africa Institute which has joined the Centre recently[4].

There is little doubt that researchers in the South recognize the importance and value of networks to improve higher education. They also realize that these networks should be initiated by local scholars and be set up at various scales in multiple forums. In the case of Africa, one research director argues that a first step would be to establish an Africa-wide accreditation scheme (Muchie 2010).

4.3.3. Information technology

Information technology, as indicated above, is an integral part of what many donors support. With the understanding that improved access to knowledge is critical for universities in the South extending the benefits of faster and more reliable computer technology is a shared concern in the donor community. As indicated above, PHEA has focused on information

[4] Other Africa-based research networks include one for the social sciences at University of Cape Town, one on human rights at University of Witwatersrand, and another one incorporating business schools around Africa.

technology. A much-publicized project is its regional satellite bandwidth consortium which has launched a satellite network to provide cheap reliable access to the Internet for African universities. Among its many activities in this sector, the Global Libraries program of the Bill and Melinda Gates Foundation should be mentioned here. It helps public libraries in the South to offer free Internet access and computer training. In some countries in the South, the challenge is often even more basic like ensuring reliable supply of electricity. Whatever the issue may be, the Gates Foundation is currently working in ten countries in trying to narrow the digital divide (www.gatesfoundation.org/libraries/Pages/global-libraries).

4.3.4. Governance and management reforms

Governance and management reforms have not been a major concern of bilateral donors but have been an issue handled in the case of Africa by the Association for the Development of Education in Africa (ADEA), a partnership between the World Bank and the Association of African Universities. ADEA and its Working Group on Higher Education (WGHE) has been the lead agency for monitoring governance and management issues as well as recommending reforms in this field. The WGHE has been instrumental in bringing to attention in Africa the experience of other countries that have gone through the process of expansion that currently characterizes the Africa region.

Innovation and reform have become issues in recent years in the light of the rapid expansion of students and the proliferation of new private and public institutions of higher education. Most new institutions of higher education in Africa have come about in response to the demand for education among the public rather than in response to market needs (Ng´ethe et al 2008). Furthermore, there is little coordination between these institutions to build a system of higher education that is efficient and, for instance, enables students to move from one to another. This situation is particularly evident in English-speaking countries while in French-speaking ones, this articulation between institutions is more advanced because they all operate within a common policy framework inherited from and still tied to France (Mourin 2009). In the former group of countries there is a tendency for competition and blurred boundaries between universities and other post-secondary training institutions. In order to earn enough income, universities tend to be in a “vocational” drift, seizing market opportunities by offering vocational courses while polytechnics and other similar post-secondary institutions are in an “academic” drift, i.e. seeking university status (Ng´ethe et al 2008). The aspiration among polytechnics to become universities tends to leave a lacuna between the bottom and the top of the educational pyramid. The overall result of these two types of drift is that institutions tend to become more similar rather than different; they imitate each other rather than innovate.

Educational reform is first and foremost a national responsibility, but African governments have not paid as much attention to these issues as the situation warrants. It is not out of control but it is clear that inefficiencies in the system, a tendency to spend more money on student allowances than on investments in new equipment and infrastructure means that the financial situation of many of Africa´s universities is not sustainable, a point that has been made in more than one study of African universities (see e.g. Association of African

Universities 2004). Pressures to fund primary and secondary education, not the least by the international donors, have not made the situation for universities easier.

4.4. Areas of support

Many members of the international donor community, like in other sectors, do not approach higher education and research institutions as ends in themselves but rather as means to development. The exceptions have been the World Bank and PHEA and among bilateral donors, Sweden. These agencies have approached universities as institutions with their own needs. As a result they have offered core support and financed other activities that are needed to sustain these institutions. For the large European donors, the rationale for supporting universities has been cast in the context of prevailing OECD aid policies. Thus, they give support in the belief that it helps to reduce poverty, improve governance or meet the MDGs. Although this may be a valid belief in the long run, it is difficult to prove that such support really makes a difference within the time horizons of the donors. Support for higher education and research, therefore, tends to be based more on faith than science. Furthermore, some observers have criticized the excessive focus on the MDGs among the donors because it risks undermining the long-term investment required for building scientific capacity (Dickson 2010). Lemuel Cacho, a Philippine researcher, argues that when donors fund science based on market or political considerations, it tends to limit the incentives and opportunities for basic research as well as local scientific discourse (Cacho 2009).

The problems that donors fund has shifted over time but they include agriculture, public health, natural resource conservation, and engineering. Support for the biomedical sciences at large has been less common, although the Wellcome Trust through its partnerships covers much of it. It is also worth mentioning that the Obama Administration recently announced a US$ 130 million to train doctors in a dozen African countries over the next five years. The money will go to about 30 medical schools and teaching hospitals in these countries and to about 20 American medical schools that have agreed to collaborate with them (New York Times 2010). The social sciences have not been ignored but it is economics rather than any of the other disciplines that have been favored, again because it is believed to have a direct bearing on policy.

Funding fields like the hard sciences, engineering and biomedicine tends to be expensive because these fields rely heavily on laboratory equipment and software that are costly. Because the unit cost is so much higher, money does not go that far. Furthermore, maintenance of these assets is important but also more challenging in tropical climates and in institutions where the large number of students using them brings faster wear.

Donors have largely ignored the teaching side. Although it is critical for the reproduction of a scientific community it has received a cold hand in recent decades. The result is that teaching facilities, including libraries, remain inadequately equipped. For instance, seminar rooms built in the 1960s at the University of Dar es Salaam to seat twenty students are now used for tutorials with over fifty students making it necessary for many to stand outside the class-room and listen. Textbooks and other material that academic staff and students need are in short supply and, when available, often outdated.

It is significant that the limited donor support for teaching has been concentrated on distance learning. Open universities have received support because, again, they are seen as catering for the poorer segments of the population and it is more directly related to reducing poverty. One example is the Agricultural Open Curriculum and Learning Initiative (AGROCURI) supported by the Consultative Group on International Agricultural Research (CGIAR). Together with its research centers, it runs Master´s programs together with some 30 universities in Africa, Asia, and Latin America (www.openaguniversity.cgiar.org/)

There has been a rapid growth of research networks in the South in the past ten years. Most of them focus on a particular sector such as agriculture, theme such as gender, or problem such as environmental deterioration. The Alliance for a Green Revolution in Africa (AGRA), based in Accra (www.agra-alliance.org/) , is not exclusively a network but serves as such within the community of international and African researchers in the field of agriculture. It is funded by private foundations as well as bilateral donors. The Council for the Development of Economic and Social Research in Africa (CODESRIA), based in Dakar (www.codesria.org/), has engaged in a broad social science research agenda, but like its sister organization, the Organization for Social Science Research in Eastern and Southern Africa (OSSREA), based in Addis Ababa (www.ossrea.net/), has also given special attention to issues such as gender. Both organizations are funded by private foundations and bilateral donors and serve as networks for a broad range of social scientists across Africa. The more specific the focus becomes, the more networks tend to involve activists as much as researchers. The latter are also likely to be engaged in applied work that brings together members of the research community with policy makers and civil society actors. The African Centre for Technology Studies (ACTS), based in Nairobi, is an example of such a network institution that works closely with the World Agro-Forestry Center on environmental policy issues (www.acts.ac.ke/).

In sum, one can say that in the current donor regime, research gets more money than education. In the minds of African governments, science and technology gets priority over other fields. Among students in Africa, preference lies with something marketable; hence the vocational drift in universities toward offering evening courses for those interested in a vocational upgrade. Given the low quality of education associated with the first degree, this upgrading is often seen as a necessity.

4.5. Level of support

Donor support of higher education and research is given at different levels from individual scholars, to specific departments, faculties or universities as well as regional entities catering for multiple participating institutions.

Scholarships or fellowships for individual researchers are typically given for studies in a developed country, although there is an increased readiness to consider location also in countries of the South. Support at this level is either open-ended within a given field and thus demand-driven or associated with a specific research project or institutional twinning arrangement.

Support for specific departments tends to be project-based and linked to institutional cooperation with a corresponding department at a university in the North, although, again, there is readiness to extend this to involving South-South cooperation as well. Because support at departmental level tends to be driven by individual scholars it tends to be research-based and benefit first and foremost those directly involved in such projects. The spillover effect for the department as a whole differs but generally, gives it prestige. As the case is in the North, being able to generate funding for research is a criterion of success both for individual researchers and their departments.

Support for individual faculties (or colleges as they are sometimes called these days) and universities tends to focus on cross-cutting issues such as broadening the recruitment of female staff, curricular reforms, and management problems, notably in the field of finance. Such support tends to be given as core funding or in the form of money to hire consultants. An interesting part of Sweden´s core support to several universities has been the establishment of faculty-wide research funds for financing smaller projects initiated by local scholars.

The proposal by DKUNI centers on the creation of networks of excellence that include not only individual universities in the North and the South but also other partners such as sector research institutes, government agencies, NGOs and the private sector. The premise is that a holistic approach is needed in order to provide long-lasting results. Each network, therefore, should operate on the basis of a comprehensive strategy in which inputs from all internal and external sources are included. The 39 capacity-building components cover everything from the political and legal framework; governance, leadership and management; infrastructure; to research, tertiary education and dissemination. Partners and activities of each network would be selected on the basis of needs identified by participating developing countries (in accordance with the principles of the Paris Declaration). To be meaningful, the proposal recommends a 15-year commitment.

The Danish proposal should be seen in the light of other networks of excellence already in operation. Three may be of special interest and relevance here: (1) the African Economic Research Consortium (AERC), (2) the International Institute of Water and Environmental Engineering, also referred to as 2iE, and (3) the Abuja University of Science and Technology (AUST).

AERC was established as a public, not-for-profit organization in 1988 with the objective of strengthening the capacity to conduct independent and rigorous research on issues relating to the management of African economies. It is made up of member institutions around the region using the network mechanism to coordinate and manage the program. It offers individual research grants as well as a collaborative training program at master´s and PhD levels. Especially innovative is its Joint Facility for Electives, which allows students from a particular university that does not offer a specialized course to take it at another member institution. Its publications have received considerable attention in and outside of Africa. Researchers have made contributions to African governments, especially in the field of trade policy. It also has a collaborative research project on poverty that has been instrumental in helping governments prepare strategy papers on the subject. It regularly organizes policy-

oriented seminars to which government, civil society and private sector representatives are invited. The Consortium is governed by a Board of Directors drawn from member institutions and its professional work is guided by an independent advisory committee made up of African and international scholars. Its secretariat, based in Nairobi, is led by an Executive Director. Among those who have served in this capacity is the current Governor of the Bank of Tanzania, Professor Benno Ndulu. It is currently supported by 16 different donors[5] who make regular contributions to AERC´s corporate account (www.aercafrica.org/about/index.asp).

2iE as a university institution has been in existence since 2006 when two technical colleges that had trained engineers and technicians in Burkina Faso merged into a single unit. It is located in Ouagadougou, the country´s capital. Its premise is that African development requires students trained at high-quality institutions on their own continent. Although it was initially catering only for French-speaking students, it now has programs also in English. Its degrees are accredited in Europe where it works with a number of universities and polytechnics, primarily in France and Switzerland. The result is that students from Europe come to 2iE and those who graduate from there are at par with those with degrees from European countries. More recently it has extended its network to prestigious institutions in Japan and the U.S. Being a public-private partnership it is set up as a foundation and governed by a board made up of three representatives each from its four partner categories: African governments, academic institutions, funders, and business. It has a number of special committees, e.g. for student affairs, academic issues, program strategy and audit, responsible for overseeing the day-to-day management of the institution. Major research themes include climate change and its impact on resources; biodiversity; agriculture; energy; and water issues in Africa. Its training courses cover a wide range of subjects, from mining management to entrepreneurship. The Institute has 13 financial sponsors, among which are the World Bank, USAID, IDRC, SDC, JICA, UNDP, EU, AfDB and the French Ministry of Foreign Affairs (www.2ie-edu.org/index.asp).

The Abuja University of Science and Technology constitutes the first project under the Nelson Mandela Initiative (NMI). Founded in 2007 it is a Pan-African, co-educational venture aimed at advancing knowledge and educating students in science and technology. It was conceived by Africans in the Diaspora and has been incubated with assistance from the World Bank. It is important to mention here that the Indian Institute of Technology and the University of Cape Town, two prime institutions, have been closely involved in the development of AUST. Another institution that has been actively involved since its inception is the World Bank Institute. There are both permanent and visiting faculty. Students come mainly from English-speaking West Africa but the ambition is to recruit on a pan-African basis as it continues to grow. Its Board of Directors is made up of internationally recognized

[5] Member funders are: DFID, IDRC, MacArthur Foundation, Danida, Norad, Sida, Swiss Development Cooperation (SDC), Netherlands Ministry of Foreign Affairs, Rockefeller Foundation, USAID, the World Bank and the Hewlett Foundation. Other funders are: African Development Bank (AfDB), African Capacity Building Foundation, Ford Foundation and Gates Foundation.

academics and former political leaders. It is chaired by Dr Ngozi Okonjo-Iweala, a Nigerian who is also Managing Director of the World Bank (http://aust.edu.ng/content/research).

The AERC, 2IE and AUST are examples of successful partnerships that are locally owned and managed. They are first and foremost academic institutions but their work is policy-oriented and problem-driven. There are others, like AGRA, which brings together many types of stakeholders in a networking arrangement but where the academic or research component is not core.

4.6. Countries included

Donor support for higher education and research tends to be concentrated to sub-Saharan Africa, although a few countries in Asia like Bangladesh and Nepal, also receive support for higher education from the international donor community. Most of Asia and to some extent Latin America, however, tend to be South destinations for students from Africa. India, China, Singapore and Malaysia are countries where universities are involved with partner institutions in Africa, sometimes funded by northern donors. Brazil has a growing involvement with Portuguese-speaking countries in Africa, often offering training in its universities. In Africa, South African universities attract students and institutional cooperation from other countries in the region. In this respect, South Africa serves as a higher education magnet for the whole continent.

Donors tend to select countries using three main criteria. The first is donor-driven and countries included are identified as principal program countries in the donor government´s strategy. Following calls in the Paris Declaration to avoid duplication and organize a form of "division of labor" in the donor community, the number of program countries has in some instances been reduced. Sweden is an example of that. This way of selecting countries tends to lead to scattered support based on institutional linkages or twinning arrangements between universities in the donor and recipient countries respectively.

The second criterion is colonial legacies. This applies especially to Belgium and France. Both countries helped create universities in Africa based on their own model at home. While there has been a lot of effort in former British colonies to "Africanize" the universities not only with regard to staff but also curriculum, this has been much less of an issue in the former Belgian and French colonies where the higher education sector has continued to be closely related to the systems in the mother countries. Thus, the Belgian University Commission (www.cud.be/) and the French Universities Agency (www.auf.org/), acting on behalf of their respective foreign ministries, have been actively involved not only in providing scholarships but also broader institutional support to African universities in the francophone countries.

The third approach is based on self-selection and assumes that institutions in the recipient countries have initiated the project and own the ideas behind it. In this situation, donors will, if interested, support higher education and research also in countries that lie outside their range of priority countries. AERC as well as 2iE are examples where students and universities from a number of countries are included that would otherwise not have benefitted

from donor support. In this approach, local institutions play a primary role in building capacity. In the case of AERC it happens through networking and a division of labor to enable students to take advantage of a broader range of opportunities than what exists in their own country. In the case of 2iE it takes place through the creation of a "center of excellence" that can compete with institutions in the North and therefore expose students from a number of African countries to education and research that is as good as anything offered in Europe, America or Japan.

It should be added here that not only is donor selection often confined to a small number of countries. So is the choice of universities in the recipient country. Support tends to be concentrated to the "founding" national university, e.g. Makerere in Uganda, Nairobi in Kenya and Dar es Salaam in Tanzania. The choice is understandable given that these universities are better endowed than those that have been established later and thus have a proven track record. The expectation is that by concentrating their support to a single institution, the donors can achieve a stronger impact. The backside of this approach is that it tends to be driven as much by donor criteria as by those most relevant to the country. Furthermore, instead of being demand-driven and aimed at broadening the opportunities for the rapidly growing number of institutions of higher education and research, it tends to lock out promising new institutions and the inevitable need for differentiation and innovation. Sida has under consideration a pilot project to open its support to other universities in Uganda than Makerere.

4.7. Management issues

This sub-section covers three issues that have not been covered already: (1) how are activities administered? (2) what is their typical duration? and (3) what are the financial management arrangements?

The pattern of administration varies according to which model and organizational arrangement is in place, but the general tendency has been to encourage as much local involvement as possible. Board of Governors or its equivalent has a majority of local representatives with typically some international experts. The daily management tends to be in the hands of a locally appointed Executive Director supported by program staff also recruited locally. This pattern may have been reinforced by the principles of the 2005 Paris Declaration but it was being used long before that in most research and higher education projects. An issue that has arisen in several contexts, e.g. the evaluation of the Norwegian twin programs of NUFU and NOMA is the complicated systems for reporting and obtaining funds encountered both in the donor agency and at Northern universities (COWI 2009).

There is a general agreement that support for higher education and research has to be long-term. The DKUNI study refers to a 15-year time span for its proposed project. Most projects do not specify the timeline but assume that support will be granted for a long period, although there may be a pilot or start-up phase which they need to pass successfully in order to continue. AERC and 2iE, both of which have existed over 20 years, have experienced a decline at points but given the investments donors have already made, their inclination has been to revive, not close it.

How a given activity is being financially managed may be less important than how a self-sustaining finance arrangement can be achieved and donors have not really adequately addressed the latter. There are very few specific examples of co-financing. Donors have preferred to give their money to a local institution or one based in the donor country in order to facilitate accounting and accountability. This preference has led to a tendency to overlook the contributions made by recipient governments and host institutions. For example, their contributions in terms of scholarships or allowances to beneficiaries of these projects, infrastructure, etc. tend to go accounted in the overall costs and benefits of donor-funded activities. In this respect, there is typically a co-financing or matching contribution, albeit unacknowledged, by host institutions and their governments.

The significance of financing arrangements for higher education has increasingly been raised as an issue not only in reference to Africa but the world as a whole.The Commission for Africa that was established by Prime Minister Tony Blair and in its 2005 report called on the donor community to increase funding to higher education in Africa, notes in its follow-up report – Still our Common Interest – published in September, 2010, that investment in higher education has not improved (University World News, 19 September). Another warning about the finances of higher education worldwide concludes that cost-sharing, however politically unpalatable, is essential for the financial health of colleges and universities if they want to combine efficiency, equity and responsiveness in their operations (Johnstone and Marucci 2010). A warning to this effect was issued with specific reference to Africa already a few years ago in a World Bank report examining the sustainability of higher education funding in Africa (World Bank 2007).

5. Analysis: actors, models, mechanisms, and programs

The overall impression of this effort to map the donor world in the field of higher education and research is that it is both crowded and cluttered. To sort out the many actors and how they operate is not easy. An attempt is made here to identify types of actors, models, mechanisms and programs that provide a sense of what the principal distinctions are in the field. It does not necessarily include everything but it tries to cover the most important differentiating parameters.

5.1. Actors

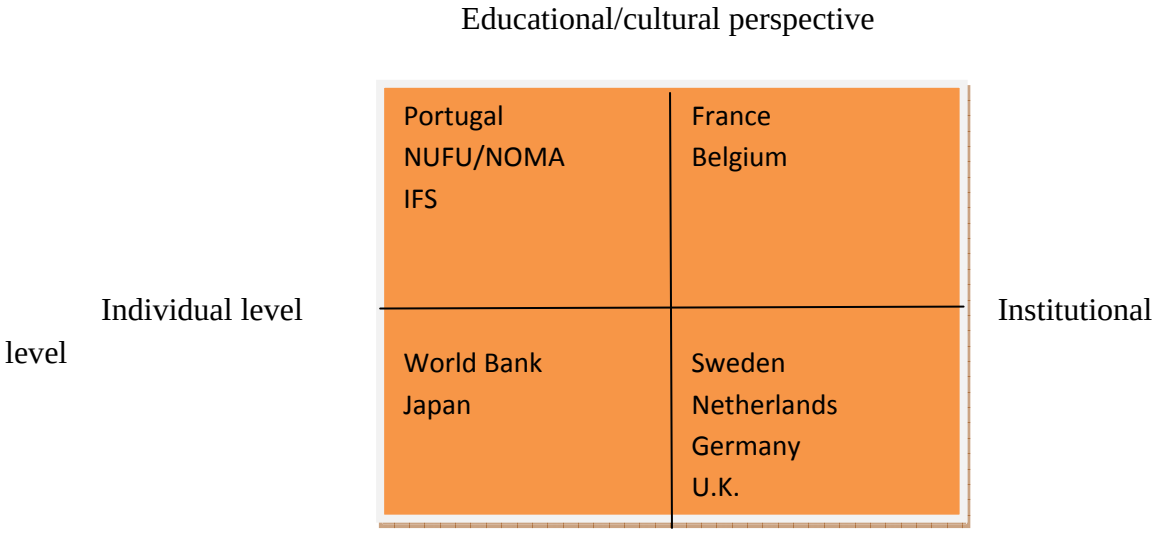
The main parameters for identifying the actors in the field – the donors – are twofold. They can be divided according to whether they focus primarily on individual or institutional capacity-building and whether they approach the field largely from an educational/cultural or developmental perspective. In all fairness it should be said that some donors have multiple approaches but their main effort is nonetheless identified with one more than the other. A map of the actor field, therefore, is summarized in Figure 1 below.

There are several examples of actors approaching the subject matter from an educational/cultural perspective while doing so with a focus on individuals. Portugal is doing so with its extensive scholarship program aimed at strengthening the lusophone sphere of interest. The Norwegian programs – NUFU and NOMA – have also been largely focused on

training individual scholars in the South. The International Foundation for Science can also be added to this list.

France and Belgium are prime examples of donors that provide institutional support from an educational/cultural vantage point. They have been in the forefront of strengthening universities in the francophone world, not the least in Africa. The latter are institutions created in the French mould and it has been relatively easy for French universities and scholars to work with them since the system is the same. The result, however, is also that the French system tends to be rather conservative and less open to outside influences.

Figure 5.1. The key actors divided by rationale and level of support.



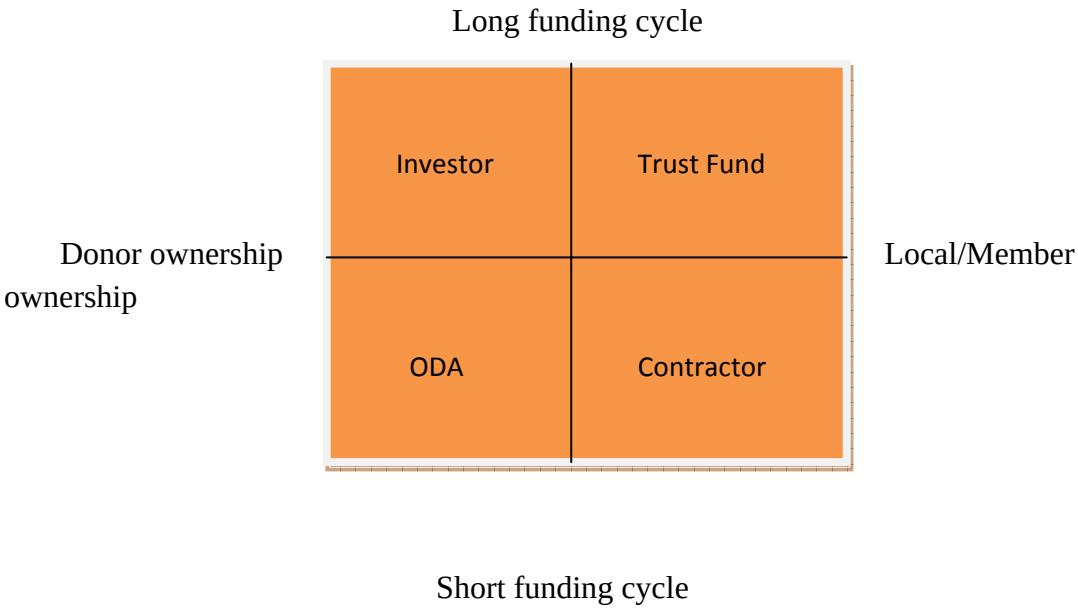
The World Bank has multiple approaches but among those, it offers a series of professional training scholarship aimed at strengthening capacity to analyze development issues. So does Japan which partly does it through the World Bank. The more common approach among the European donors is to justify their approach to higher education and research from a developmental perspective and in so doing focus on building institutional capacity. Germany, Netherlands, Sweden and the U.K. are all examples of how the MDGs and the Paris Declaration feature in the rationale for their support.

5.2. Models

The models for supporting higher education and research can be divided along two dimensions, one being ownership, the other finance. The latter is very much a determinant of the former and despite the rhetoric in recent years in favor of local ownership by recipients of aid it has been difficult to identify models that achieve this, especially if the ultimate objective is sustainability. The most common models have continued to rely on funding cycles set by the donors, whether under the rubric of Official Development Assistance (ODA) or via contractual arrangements with an outside institution. The Contractor model has allowed a greater local autonomy for the university institutions involved and it has removed some of the bureaucratic hurdles associated with the ODA model. The former model has been

more common in North America than in Europe where support for higher education has been subject to ODA principles.

Figure 5.2. Models for supporting higher education and research in the South.



Donors have been generally slow and often unwilling to change the models by which they operate. Their insistence on ODA is a case in point. The short term funding cycles that the ODA and Contractor models impose by requiring a renewal every two or three years is especially unhelpful if the commitment is otherwise long term, i.e. it is expected, as the case typically is in the higher education field, that funding will continue for a long period of time. It goes contrary to the idea that funds should be owned by local stakeholders and eventually become self-sustaining.

It is against this background that the Investor and Trust Fund models must be seen. The investor model has become more interesting to donors because of the experience with the AERC where donors invest their money in a not-for-profit corporation that constitutes the financial basis for the Consortium. The Investor model is a first step toward sustainable financing because it is one step removed from the pressures of the ODA and Contractor models to adhere to the shifting fashions in the international development community.

The Trust Fund is still to be tried out in the higher education field but here, as in other fields like climate change where long term considerations are important, this model is making increasing sense. The World Bank is already launching it as a means of ensuring local ownership and sustainable financing of critical activities. This model requires a considerable

up-front payment that subsequently yields constant funding for the activity or institution. Most donors have so far been hesitant for political or legal reasons to consider the model but such an up-front payment may in the long be less expensive than paying money on an annual basis. Nigeria has already taken a step in this direction with its Educational Trust Fund. It is also likely that the amounts which donors have already paid to support AERC exceed what would be necessary as an up-front payment had it been paid in 1988 when it was started. The Trust Fund model may be relevant today for two initiatives under way: the Partnership for Social and Governance Research (PASGR) and the Pan-African University (PAU). Both aim at building research and teaching capacity by bringing African universities into closer coordination and cooperation, the former in the field of Social Policy and Governance, the latter more broadly across fields and disciplines of science. PASGR with initial funding from DFID is furthest along although the longer term funding arrangements still have to be worked out. PAU launched by the African Union is a bold political initiative but because of its ambitious scope is likely to take longer to come to fruition.

Box 5.1. The Pan African University: the Joker in the deck.

Supported by the African Union, the Pan-African University will not construct a new higher education infrastructure - at least not for now - but will use existing universities as satellites across the continent to train masters and PhD students.

It will eventually comprise a main campus linked to a network of five regional centers, chosen for their academic and research strength and the relevance of their work to Africa's needs. The centers will be located in North, West, East, Central and Southern Africa.

A satellite centre, focusing on energy and water research, is being launched in Algeria this year. The other regional centers - in the fields of life and earth sciences, basic science and engineering, and governance and social sciences - are expected to open in 2011.

The aim is to create a specialist science and technology university that contributes to Africa's development and helps to reverse the continent's under-achievement in science by training scientists, supporting research and encouraging collaboration between scientists in Africa and the Diaspora. It will also promote greater collaboration between universities and industry.

It is expected that the PAU project will cost US$66 million. Funding would be obtained from the AU, international partners and host institutions, and would mainly be spent on bursaries for students.

The question is whether and how donors and African governments will respond to this initiative. Because of this uncertainty it is like the Joker in the deck of cards. It is not clear how much political and funding attention it will get and at the expense of what other activities and support.

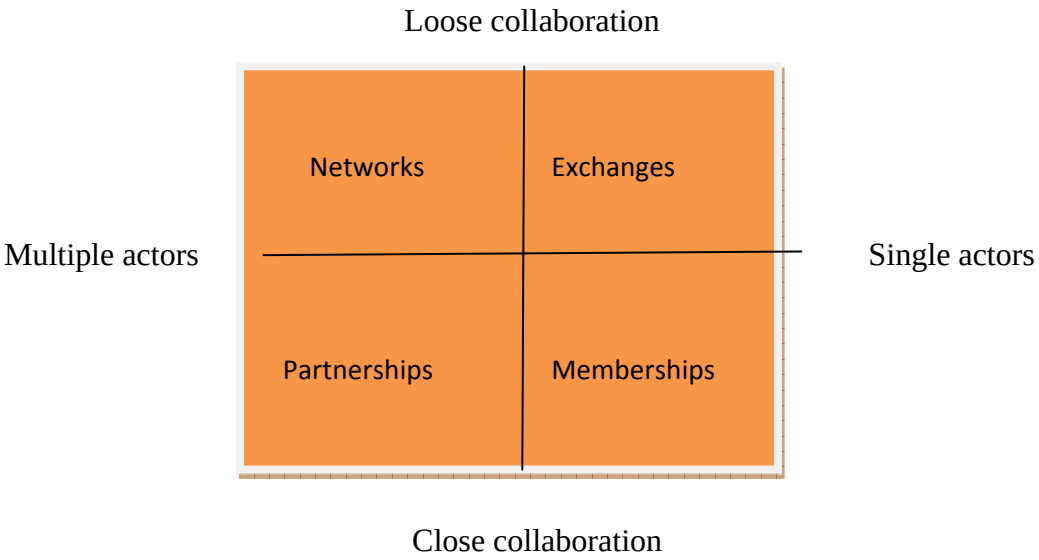
Finally, it is doubtful whether one can speak of such thing as a “Swedish” or “Norwegian” model. Although the two countries in a Nordic context may distinguish themselves in one respect or the other – Sweden with its core support and Norway with its extensive scholarship programs – they are by no means alone in what they are doing. Other donors, like the PHEA, have provided core support and, as demonstrated above, fellowship programs are administered by many donors.

5.3. Mechanisms

The mechanisms that have been developed to promote higher education and research tend to differ according to whether they are close or loose collaborative arrangements and whether they cater for individuals or multiple actors. An example of a loose arrangement can be found in the exchanges that exist within specific research projects or training programs between individuals in the North and the South. These are sometimes one-time or occasional events where the involvement, financially and in terms of human resources, tends to be limited. Scholarships operated e.g. by NUFU and NOMA, have this character as have collaborative arrangements in specific research projects.

An example of a closer collaborative arrangement that tends to be longer lasting but still focused on individual researchers is CODESRIA which is a member organization and whose success relies on personal commitment to its objectives. The Council has been in existence for some forty years and it has been quite remarkable in retaining its member support. The backside of this achievement, however, is that its members have tended to become a rather closed group in which ideology has been as significant a factor in holding it together as has research skills.

Figure 5.3. Mechanisms applied in support of higher education and research.



Networks are loose forms of collaboration involving multiple actors. They have become particularly important and common in the light of improved information technology. They bring together researchers and scholars from many countries and tend to have a North-South dimension. As such they help share and disseminate information and thus help sustain the research community. Obligations within the networks, however, tend to be minimal and many may exit or remain dormant. Examples of networks in the higher education field are plenty. DDRN is obviously one, the Science and Development Network (www.scidev.net) another. The largest of them all is probably the Global Development Network (GDN) (www.gdn.net) that operates with support from the World Bank and covers multiple individuals and institutions across the world. Judging from the mapping exercise, projects

focused on higher education and research do not give priority to information exchange or dissemination (although it takes places e.g. through conferences and publications). Instead, this activity tends to take place in specially created networks like those mentioned above.

Partnership is the fourth mechanism. It is characterized by closer collaboration between institutions that typically enter into contractual arrangements to achieve a particular objective. Partnerships are more demanding for those who participate and individuals have to contribute to a bigger "cause". They cannot easily "free ride" as may be possible in networks. Partnerships may involve collaboration between several or just two universities, but even in the latter cases, many individual researchers are likely to be engaged on both sides. The DKUNI project is a case in point as are both the AERC and the 2iE.

5.4. Programs

Programs in the higher education field can be divided into four categories, again using two parameters. The first is whether the emphasis is laid on research or education, the second whether the objective is to develop comprehensive/holistic or partial/incremental programs.

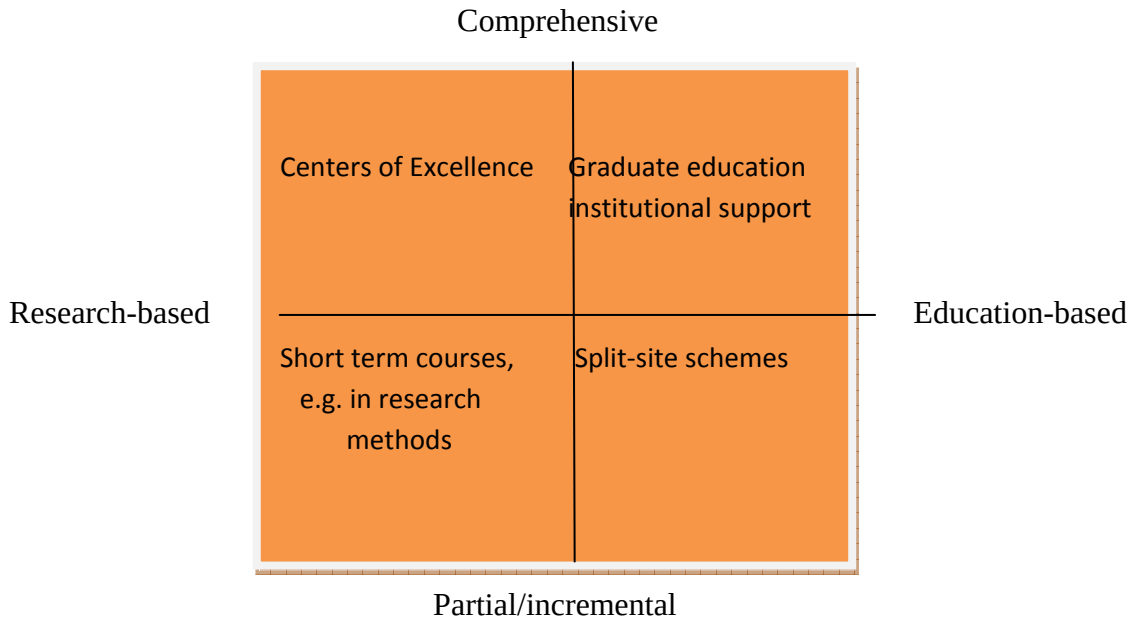
Research tends to get priority over training or education in the minds of the donors. Despite the uncertainty of the proposition, their belief is that research is a viable instrument to solve development problems. Education is subordinated to research and appears typically only in the context of "research-based education", the implication being that education has to take place in a problem-solving environment. While this proposition makes pedagogical sense, it is not easy to operationalize in an institutional environment void of core facilities for training students.

Creating centers of excellence has been a popular program among donors and virtually all these examples have been justified in terms of research, apparently because it is seen as the context in which capacity-building can be best pursued. Centers of excellence are typically comprehensive in that they involve institution-building, not just interim or partial contributions. The latter are generally arranged to boost research capacity through short term courses or involvement in specific research projects, e.g. in collaborative endeavors between university departments in the North and the South.

The educational and pedagogical challenges rarely feature in the minds of the donors, especially those that approach the subject from a developmental perspective. Reproducing an academic cadre through support of education is a much more explicit concern among those donors like France, Belgium and Portugal that focus on offering scholarships. One may have doubts about the pedagogy of training programs in these countries because it tends to be overly "arm-chair"-oriented. The U.S. and many of the philanthropic foundations have been more ready to emphasize the educational side than the other European donors although the NICHE Program in the U.K., the DAAD program in Germany, and the main NUFFIC programs in the Netherlands nowadays also include such considerations. The Swedish "split-site" or "sandwich" program is an example of less comprehensive efforts to offer support for graduate education in the South.

The next figure summarizes the various types of programs that feature among the donors.

Figure 5.4. Different types of programs for support of higher education and research.



6. Conclusions

This mapping exercise does not end with a set of recommendations but it addresses two questions that seem valid after gleaning through all this material: (1) are there things that work? and (2) what are the issues facing DKUNI/DDRN?

6.1. Are there things that work?

Higher education and research is not a field for the fan of measuring results. It is possible to measure outputs, e.g. number of students who have obtained a specific degree or how many research projects have been completed. Such data, along with interviews with beneficiaries, tend to be the basis for project evaluations in this field. Trying to measure outcome, leave alone impact, however, is virtually impossible because tracing multiple causal links and accurately attribute a scientific achievement to a particular investment or grant is at best guesswork or faith. There is also the problem of knowing what timeline to adopt for evaluation. Doing so for what is a stipulated project period misses the obvious point that in higher education and research the outcome or impact may be years away.

Reading through various documents about donor-sponsored activities in this field it is evident that the main findings rest on subjective data and interpretations. Who does not have a positive view after having received a scholarship or a research grant? Who can claim that a research project or training grant is a failure? Because the parameters of the many activities that are supported by donors vary and so does the context, it is impossible to identify a “best practice” that applies across the board. It all depends on objectives, mechanisms and contexts. Each activity, therefore, is best assessed on its own terms and all that can be said with some certainty is that the higher the ambitions, the greater the risk of falling short of satisfactory results.

This set of reservations does not preclude the possibility of identifying trends in the field toward greater national ownership and a preference for the hard sciences, but none of these is the result of evaluations of higher education. Instead, they tend to reflect shifts in general donor thinking as confirmed e.g. in the Paris Declaration.

6.2. Issues facing DKUNI/DDRN

This final sub-section consists of a number of questions that have arisen as a result of this exercise. Many, if not all, may already have been subject to discussion in DKUNI/DDRN circles, but for whatever they are worth at this point, they are independently raised here as a result of mapping the donor world:

1. How big a challenge are the DK partners ready to take on? Focusing on individuals is easy, taking on institutions difficult. Focusing on one country is easy, covering many is difficult. Running the program from Denmark is easy, respecting local ownership in the South complicated. These are some of the basic design issues that matter.
2. Should the DK partners start their own or join existing activities and networks? One may not exclude the other but because donors tend to think in identical terms and the field is already crowded and cluttered what is the added value of one or the other of these alternatives? Should Danida be asked to invite other donors to support the program?
3. How many countries in the South should be involved? This may not be an issue over which the DK partners have full control, but it is necessary to consider the variations that exist between educational systems in various parts of the world, e.g. in the African context between the Francophone and Anglophone countries.
4. How much attention should be paid to official government priorities? This is an issue that calls for attention given the differences that often exists between what different stakeholders want in the higher education sector. For instance, national research councils are often bureaucratic entities that are at loggerheads rather in collaboration with local universities.
5. Should the program be supply- or demand-driven? Should requests for participation come from institutions in the South or should activities be initiated by Danish researchers or institutions? If the former, should it be open-ended or confined to a small number of countries with a similar educational system and legacy?
6. How much emphasis should be laid on research? Research cooperation between individuals and institutions in the North and South is relatively uncomplicated but it may not address more fundamental institutional issues in the latter countries. What are the pros and cons of extending the program mandate to include support of research, governance and infrastructure issues?
7. Should the collaboration be loose or close? The choice may be between a close partnership arrangement with a few universities in the South and a looser network arrangement with a larger number. Should financial and human resources be

concentrated or should they be spread broadly in response to new requests within the network?

8. How can knowledge-sharing be best incorporated? Knowledge-sharing in university-based projects is rarely a conscious and strategic function, leaving it more to chance (beyond what occurs through publication). Should it be encouraged within these projects or should it be organized within special networks drawing on people with communications skills and experience?
9. What should be the distribution of funds between purchase and maintenance of equipment and other hardware, on the one hand, and staff salaries, grants and scholarships, on the other? Given budgetary constraints, it is realistic to assume that not everything that DKUNI members wish to do can be done.
10. How would program money be best disbursed? Should platforms compete among themselves and allocations be based on performance and should platform money in turn be subject to competitive allocation, e.g. through the use of a research or multi-use fund?

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