

## MAKING DOCTORAL EDUCATION WORK IN AFRICA AND FOR AFRICA – WHAT ROLE FOR THE IAU?

*Synthesis Report on*

*IAU Expert Seminar*

*UNESCO, Paris, 26-28 November 2014*

**Eva Egron-Polak**, *Secretary-General, IAU*, opened the seminar by stressing the importance of the presence of the past IAU President, Goolam Mohamedbhai, as well as former and current members of the IAU Administrative Board (Clifford Tagoe, Stephen Freedman, and Abdul Ambali). Members of the IAU Executive Committee, who had met just before the Seminar, had also expressed the importance of the seminar for the future work of the IAU. Eva thanked all the experts for having come to work with the IAU in the context of this Seminar.

The IAU-led project on Doctoral Education (2009) was born out of research undertaken, with financial support from Sida, which aimed at identifying burning issues on which IAU was to focus. The project started as a scoping exercise. It was based on the development of a questionnaire aimed at understating the key issues at stake for doctoral education in Africa, and was complemented by the establishment of strong institutional teams within each HEI taking part in the initial phase, as well as site visits which resulted in the first report on the [Changing Nature of Doctoral Studies in sub-Saharan Africa](#). Phase II, starting in 2012, focused further on innovative approaches to doctoral education in Africa, on data-gathering and planning, on strategy development, on specific key topics such as doctoral supervision. The second phase resulted in a series of thematic workshops, networking, reports and the creating of a portal on innovative approaches to doctoral education in Africa, [www.idea-phd.net](http://www.idea-phd.net).

Research is essential in a world where countries strive to build capacity that will enable them to develop into sustainable, sound societies. Work already carried out in the field shows that research needs to be home-grown in order to be meaningful, and this requires institutions to ensure strong, local doctoral education programmes. Yet, reports also show the importance of collaboration, to learn, to exchange, and to elaborate research agendas which can be locally-driven.

The main aim of the Seminar was to help IAU define its future strategy for its work on doctoral education and research while taking stock of and considering all related initiatives (see annex 3), in order for the Association to move into its service function more fully. IAU has developed normative statements and defined values, but it is also action and service oriented. Though IAU cannot fund research initiatives, it can act as a catalyst and assume its role as a strong accompanying body in order to foster research. Experts present at the Seminar were invited to help identify areas in which it would be appropriate for IAU to work.

**AnnaMaria Oltorp**, *Head of the Unit for Research Cooperation, Swedish international development agency (Sida)*, thanked IAU for having invited both Kwame Gbesemete and herself. Sida's main aim is poverty-reduction, and it currently works with a budget of \$US 120 million. Sida strategy is currently being revised, but no drastic changes are foreseen. It is likely to focus on research capacity-building; support of long-term, bilateral cooperation for a specific set of countries (Bolivia, Ethiopia, Mozambique, Rwanda, Tanzania, and Uganda); international and regional research institutions; and research programs and networks. Through bilateral research cooperation, Sida seeks to support to national and regional research systems to enable partner countries to independently identify research problems of relevance for development, prioritise areas for research, carry out research, and secure resources for research. Preference is given to projects and initiatives linking up public and private initiatives of relevance locally.

**Clifford Tagoe**, *former Vice-Chancellor, University of Ghana, and former IAU Board Member* set the context for the development of doctoral education in West Africa. With an increase from 10 to some

900 university-level institutions (with some 250 in West Africa), and the changing mission (from the initial focus, training civil servants to replace the departing colonisers), research within these institutions was mostly for career development, with postgraduate studies taking place overseas. The main question today is ‘doctoral education for what?’, the main purpose being to generate new knowledge to be applied to key contemporary, local issues. Faculty development is also key in Africa, as the continent needs to find innovative ways to respond to increased demand for higher education. The need for strong and new partnerships, as well as increased networking between projects was also underlined (such as the IAU project, the [CODOC project](#)). A number of challenges were also identified, such as funding, infrastructure, teaching load, low enrolment rates at PhD level and the resulting low levels of PhD production. A series of initiatives were identified to lead the way forward, which include creating national innovation systems, coherent research agendas, diaspora connections, industry-led PhDs, and research communities.

**Ama Aitkins**, representing Ernest Aryeetey, VC of the University of Ghana, and Chair of the IAU Working Group on Innovative Approaches to Doctoral Education in Africa, went on to explain both the external and internal factors impacting on doctoral education, and which led to changes. Crisis in doctoral education, poor infrastructure, growing number of private institutions, need for better training and research initiatives, weak capacity, are all factors which led to the VC at the University of Ghana to strive for research university status. Actions undertaken include: increasing PhD admissions, establishing high calibre research groups/units, establishing academic exchanges with overseas universities, and strengthening international networking for UG faculty. The PhD programme was restructured into a 4-year programme, with year one used for reinforcing theoretical and methodological grounding, year 2 made up of comprehensive exams followed by internship/experiential learning, and years 3 and 4 for the doctoral thesis. Support structures put in place (and mainly funded by the Carnegie Foundation) include UG-Diaspora Linkage Programme, and the Pan African Doctoral Academy (UG-PADA). These measures led to a huge increase in PhD enrolment.

**Goolam Mohamedbhai**, IAU Honorary President, Former Secretary General of AAU and former VC of the University of Mauritius, stressed the importance of doctoral education, and while bemoaning the low enrolment in higher education, advocated for more institutions, and more qualified faculty, either by training, or by recruitment. It was essential for countries to have a differentiated higher education system, with a few strong research-based institutions on one hand, and institutions with a specific focus on teaching and training on the other. For the latter, having faculty with a Master’s degree should be sufficient, whereas strong PhDs would be needed for the former. PhD training, especially where funded, should be linked to the local development agenda. Historically, PhD candidates were sent overseas, whereas the current trend is for local training. Sandwich-course type training could help to limit brain-drain, and to maximise local relevance. He also underlined the lack for ICT support for research, often linked to lack of funding. Collaboration with other regions also needs to be developed for sharing resources with Africa. Early models for this were [USHEPiA](#), led by the University of Cape Town, and their programme aimed at promoting collaboration amongst established African researchers ; [DAAD’s Partner in Development Cooperation](#); [RISE Africa](#); and the African Union’s [Pan African University](#).

Goolam also highlighted the successful ‘Revolution’ being carried out at Addis Ababa University<sup>1</sup>, increase in publicly-funded universities, and a big increase in PhD enrolment, with most of the PhD training taking place locally, with only short periods abroad in an effort to reduce brain-drain. Research is tied to local needs and priorities. Goolam also presented the PASET project, a World Bank initiative for skills development and aimed at identifying new partner countries to improve investment - China, Korea, India and Brazil<sup>2</sup>. **Suggestions for IAU** include the identification of funding opportunities, initiatives for training to assist PhD researchers in requesting funding, and sharing best practices. He advises as well that IAU further develops the IDEA-PhD Portal.

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<sup>1</sup> See the notes he shared and which were circulated after the Seminar.

<sup>2</sup> See his paper in WUN: <http://www.universityworldnews.com/article.php?story=20130718162040419>

**Hilligje van 't land**, *IAU Director Membership and Programme Development*, presented the work of the IAU since 2009 and focused on recent developments and impacts of the project, inviting Mamadou Sy, Abdul Ambali and Gilles Breton to highlight some of the initiatives developed over time in Senegal, Nigeria, Cameroon and Ethiopia more specifically.

**Mamadou Sy**, *Director of Planning within the Ministry of Higher Education, Senegal*, presented an overview of developments in the country. In October 2012, and following up on the initial institutional review undertaken by IAU at UGB-SL in 2010 and the IAU- and ACUP-led meeting in Addis Ababa in 2012<sup>3</sup>, a new law was passed creating a unique doctoral degree (Doctorat unique), which replaces the old-style 3rd cycle doctorate, and the doctorate of state (Doctorat d'Etat). The main aim of the reform is to streamline and improve. The law thus gives the power to the Ministry of HE &R to authorize the delivery of doctoral programme and the awarding PhDs degrees to the institutions; quality assurance bodies are to oversee the creation of doctoral schools; PhDs are to be of 180 study credits after the Master's degree; and training within doctoral schools should be multi-disciplinary, and be offered by units, or research teams. The overall mission of these doctoral schools is to organize PhD training, ensure coordination between the various elements of the school, improve working conditions and supervision of students, develop internationalisation of training and research, manage allocation of research, aid PhD holders in career-planning. In Senegal there are some 3000 PhD students, spread over 95 doctoral programmes. Main challenges include quality supervision on areas of relevance to the country's needs, adequate funding, and motivation for full-time professors to supervise. There are currently some 500 teachers/professors authorized to supervise (because they detain an HDR = *habilitation à diriger des recherches*), making roughly 1:6 (supervisor to student ratio). At Université Gaston Berger de Saint-Louis, the ratio is 1:3 within the Doctoral School of Science, Health Science and Technology, while within Education, Social Sciences and Humanities it is 1:18. Sandwich programmes do exist, especially between Senegal, Europe and the US, but the *Conseil africain et malgache pour l'enseignement supérieur* (CAMES) now requires PhD students to register with a full professor at a local university with a doctoral school, where supervision must be carried out. Sy identified fields for improvement:

- Research funding schemes;
- Quality of Master-level student supervision;
- Recognition mechanisms for supervisors;
- South-south co-supervision mechanisms (the newly created [World Bank Centres of Excellence](#) could assist);
- Research infrastructure (office space etc.) for PhD students within their institutions;
- Reorientation of research towards STEM subjects;
- Gender balance.

In 2014, the Senegalese Directorate General for Research (DGR) was created; its mission is to define main research areas of relevance to the country, as well as aligning research with the country's economic and social development project ([Programme de Renforcement des Dynamiques de Développement Economique et Social \(PRODES\)](#)), better equipping institutions with adequate research infrastructures, and to set up an appropriate evaluation system for national research, innovation, and science projects, and to create a [national fund for research and innovation \(FNRI\)](#). Sy also identified areas where **IAU support could be envisaged**:

- Institutional review
- Training in writing grant requests and project proposals;
- Sharing best practices;
- Workshops like the one in Addis Ababa, and dissemination of reports etc;
- Assist with the development and implementation of performance assessment tools.

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<sup>3</sup> the report of the Addis Meeting is available online at: [http://www.iau-aiu.net/sites/all/files/Final\\_Report\\_IAU\\_ACUP\\_Seminar\\_on\\_innovative\\_approaches\\_to\\_doctoral\\_education.pdf](http://www.iau-aiu.net/sites/all/files/Final_Report_IAU_ACUP_Seminar_on_innovative_approaches_to_doctoral_education.pdf)

**Gilles Breton**, *Graduate School of International and Public Affairs, University of Ottawa, Canada*, reflected on past IAU initiatives and work with the University of Ilorin, and the University of Douala, restating that strong data-collection is required to develop institutional strategy. He recalled how both seminars debated the importance of data collection for overall strategy development, how to collect data, and what kind of data should be collected. He called for the mobilisation of knowledge creation, development of applied programmes, diversification and needs-based PhDs; improved research infrastructures, including library and lab facilities. He also underlined the need to create an institutionalized university; enterprise offices to foster the development of innovative projects and to generate needs-based research leading to social innovation. Programmes for IAU to look at to better define its own niche:

- NEPAD (<http://www.nepad.org/fr>) which had commissioned studies to find out who finances research;
- ADEA's outlook report (<http://www.adeanet.org/portalv2/en/working-group/education-management-and-policy-support/news/monitoring-african-union-second-decade>);
- Centre National de Recherche en Science et Technologie (CNRST), Morocco ([http://www.cnrst.ma/index.php?option=com\\_content&view=article&id=64&Itemid=44&lang=fr](http://www.cnrst.ma/index.php?option=com_content&view=article&id=64&Itemid=44&lang=fr))

He **suggested that IAU** work on mapping different kinds of PhD programmes available, and to subsequently map the nature of programmes to address the gap between research carried out and needs of society; he also stressed the need to create research funds (see, for example, the Tertiary Education Trust Fund in Nigeria - <http://www.tetfund.gov.ng/>) and thus suggested that IAU map as well the research funding available in and for Africa; to revisit supervision.

**Nadja Gmelch**, *Project Manager, ACUP, Barcelona*, and **Nicholas Poulton**, *IAU Editorial Assistant and Assistant to IDEA-PhD Project, IAU*, presented the outcomes of the **Member Survey** which IAU undertook in preparation for the Seminar<sup>4</sup>. Aim was to evaluate the IDEA-PhD Portal: to present user statistics, survey findings and some reflections on the future of the portal. The survey allowed concluding to the interest in and needing for a portal like IDEA-PhD. It allowed stressing the fact that if the portal was consulted in Africa to a large extent, it is as well accessed by many internet users from many countries from outside Africa. The survey allowed to estimate that the content made available on the portal is the right one, but that there is a real request for more information to be shared. African HEIs would for instance like to use the portal to showcase their PhD programmes on offer. The survey as well showed that the portal is not visible enough yet, that it would benefit from a stronger communication strategy. An IDEA-Flyer has been created, promotion at international conferences is being done, a twitter account has been created, IAU Member institutions are contacted regularly and this needs to be continued. The portal calls for constant up to date information and calls for African HEIs to get involved more strongly.

The above formed the basis for the discussion that followed.

### **Open Discussion**

**Celestino Obua**, *VC, Mbarara University of Science and Technology, Uganda*, took an optimistic view and considering all the afore-mentions as challenges and not problems. In the case of his institution, one of the greatest challenges was lack of faculty (Mbarara is some 260 km away from Kampala), and has one of the highest attrition rates in the country, also linked to low salaries. There is no graduate school; since his election, he has undertaken an internal institutional survey; will be focusing on the development of institutionalized research groups; and on team-building. **IAU, with Sida funding, could work on** the development of institutional research agendas and policy development with interested institutions.

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<sup>4</sup> The PPT presentation is available.

**AnnaMaria Oltorp** questioned the idea of governments setting research agendas and priorities; social sciences and humanities are important for country development yet may be disregarded by governments due to the critical perspectives they may shed on governments themselves. Sida favours strong institutions in general, including in STEM and social and human science disciplines.

**Stephen Freedman**, *Provost, Fordham University, New York*, confirmed that social sciences and humanities are being undervalued in the US and Europe, and foresees a negative impact on societies over the next generation or two. **He stressed four specific issues and areas of work for the IAU:**

- There is a misunderstanding of the quality of African higher education in other parts of the world; a project developed by IAU could help improve understanding and appreciation;
- Quality offered by public institutions is also questioned – private institutions are deemed to provide better teaching and research especially in science and technology; IAU could foster research on this;
- Higher education calls for special focus on ethics – IAU guidelines should to be made more visible and seminars to develop institution-specific guidelines could be offered
- He also calls for a special focus on partnership building. IAU could have a strategic role to play in this field.

**Judy Backhouse**, *Associate Professor in Information Systems, University of the Witwatersrand, Johannesburg*, suggested long-term relationships with diaspora such as the one presented by Ama on the UG Diaspora linkages project. IAU could look into this and generalise this for Africa beyond UG and Ghana.

**Samuel Annim**, *Associate Professor of Economics, University of Cape Coast, Ghana* asked whether an institution should have one model, and if so, which one? Or should different models be used according to context, outcomes required etc. How improving quality should be tackled? Training of faculty? Leaders? Staff? It institutional reviews are needed, what funding is required? Carnegie supported a review mechanism at the University of Ghana, for example. Special reference was made to [AfriQAN](#).

**Mamadou Sy** stressed the importance of applied research: doctoral education needs to be applied to shore up national development, a point which was reiterated by **Goolam Mohamedbhai**, saying that we cannot gaze into the stars. Research and research results need to find adequate resonance and recognition in society to be of value (says Sida). Institutions and researchers need to figure out how to translate research output into solutions for societal needs and use, to work out how best to ensure adequate knowledge transfer. Stephen Freedman mentioned a publication that could be used to debate this issue further: **The Pasteur Quadrant**, by Donald Stoke (1997).

The group called for communication on projects and between organisations and donors to be improved and promoted. For instance, the AAU is supporting doctoral students, but universities are not aware. The IAU Portal is a useful tool that needs further development and visibility to support this idea.

**Justin Ahanhanzo**, *Intergovernmental Oceanographic Commission of UNESCO*, talked about fundamental research vs. romanticized research, i.e. to solve societal challenges or research for research's sake. How can universities address the challenges? How are societal challenges communicated to universities, in order for them to respond?

**Judy Backhouse** raised the question of vibrant research environments; doctoral education should not be seen in isolation; also there needs to be development for supervisors, and to develop “research-savvy people.” This is one of **IAU's major roles: to convene key actors and stakeholders involved in doctoral education. Research should be valued, and recognized in society.**

The discussion allowed to raise a series of additional issues, each of a different nature, yet interlinked: Other issues raised and which could be of interest to IAU's work in the field:

- Chinese higher education policies and impacts in Africa: many Chinese initiatives are being developed throughout Africa, such as a medical project at KU, a STEM project in Uganda, IT in Rwanda, etc. IAU could try and map different initiatives with a view to generate innovative synergies between initiatives;
- e-scholarships : how to accompany these in order to generate interconnections with other projects;
- HE institutional diversification: new types of institutions are developing; what support could be provided?
- due to the fact that Africa is to become the most populated continent on earth in the decades to come, major new issues will arise. University has a major role to play to develop future thinking / innovative research that would give rise to policies of relevance to address the challenges to come;

Considering the above, the group advocated for IAU's role as a convener, exchange platform, think tank to be developed further. IAU should continue to help foster networking and partnership building at the regional and international levels. It can bring in experts from all horizons, network initiatives, and develop new projects.

Building on the discussions and presentations four main topics were selected for further debate in small groups:

1. Research on models of doctoral programmes;
2. Institutional support;
3. PhD training and supervision;
4. Mobility.

Report on break out session I on: **Research on models of doctoral programmes.**

**Moderator:** Judy Backhouse

**Rapporteur:** Nicholas Poulton

Different models were discussed and the discussion showed that research on all existing models would be useful as it would allow for analysis, and to share information on the pros and cons of each model; ensure better recognition of diplomas issued using each model and enable better links between universities using different models.

A study on models would look at types and structures; successes and failures of models; provide for an understanding of how each model is defined, used and implemented; the study would look at resources as well; and result in a set of case studies.

The study would be based on a literature review to identify related studies, researchers, research groups and organisations working in this area to avoid any possible duplication.

The group identified an initial set of researchers in the field who could be invited to work on this. An open call for participation would be sent to all African HEIs offering PhD programmes.

The group finally discussed possible funding sources including the UK Department for International Development, DFID (innovative approaches to higher education is one of the themes it works on.)

Report on break out Session II on: **Institutional support.**

**Moderator:** Stephen Freedman

The group discussed 4 key areas of possible work for the IAU:

- I. The development of an ISAS<sup>5</sup> type of service as a mechanism for institutional reviews of doctoral programmes and assistance in the development of a future oriented institutional strategy.
  - a. This service could be seen as an institutional audit and lead to generating guidelines for doctoral education for IAU Member institutions
  - b. The work done by IAU in phase one of the project on the Changing Nature of Doctoral Education in Africa, including the Questionnaire that has been developed and is made available through the IDEA-PhD portal could be adapted and used for this purpose
- II. Interdisciplinary or transdisciplinary research: thematic areas of research? Individual researchers may come with ideas to be supported by others. Identifying partners to foster interdisciplinary research
- III. Quality assurance or quality of doctoral education: curriculum development, supervision; develop generic guidelines for quality doctoral education
- IV. Networking / Convening: the IAU being an association of universities and other higher education institutions and of Associations and networks can provide institutional support to individual institutions, to networks of institutions and link up institutions, experts, practitioners, leaders and policy makers. The facilitation role it can play at the global level is unique and is one that the group suggests the IAU develops further in the context of this project.

Report on break out Session III on **PhD training and supervision.**

**Moderator:** Ama de Graft Aikins

**Rapporteur:** Nadja Gmelch

### 1.) Discussion about how supervision is done at different institutions

- a. importance of having a thesis committee; external collaborators on committee; “if you only have a relationship with your supervisor you are in trouble”
- b. importance of setting guidelines ahead of time to assure clarity of process;
- c. thesis and publication, could help African continent to raise number of publications
- d. promote status of research professors, to be able to centre on research and supervision;
- e. worst model: “star-supervisor”
- f. best model: thesis committee combined with e-supervision

Proposals for IAU to act in this context: Study how does supervision work in different contexts? Who is doing what and how? Map different models

Disseminate this information on the IEAD-PhD portal, providing information from different African universities

### 2.) e-supervision

- a. must be incorporated in university structures
- b. understood as “enhanced” supervision, not simply “electronic” supervision - building of network, relationship with society/industry, peer to peer reviews
- c. e-supervision as a plus, not a replacement of good supervision

### 3.) Changes in supervision

- a. Investigate changes and new modes of delivery

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<sup>5</sup> Internationalization Strategy Advisory Service (ISAS, see: <http://www.iau-aiu.net/content/internationalization-strategies-advisory-service>).

#### 4.) Equity in supervision

- a. need to build equity into partnership starting at proposal writing stage; for research to be a driving force for development in Africa, it has to be part of global research arena

Proposals for IAU to act in this context: organise an international conference on the new global agenda of research and what it means for North-South relationships; what does it mean for PhD and supervision?

#### 5.) Cotutelle

- a. No negative impact on supervision itself, double PhD degree + sandwich programmes model to fight brain drain?

#### 6.) Training of supervisors

- a. ethics of supervision, how supervisors relate to students, not just intellectual life, also social and emotional life, a good supervisor manages the person; holistic education
- b. soft skills, responsibility of graduate school;
- c. institutional innovation, good management of graduate studies, assure that people involved have good tools
- d. for students, information on how to approach supervisor

IAU programme on how to train supervisors; or annual conference, meeting for graduate school deans how to empower them to train supervisors; manual/guidelines.

- 7.) **Relevance of PhD:** assure that thesis is related to a research project, not individual support, but embedded in institution and related to local problems.

#### 8.) Access to data:

- a. library support;
- b. support movements for open access;
- c. educate to avoid plagiarism.

IAU activities: map out what exists and how to move forward, organise another conference, topic: supervision in the digital age.

Report on break out Session IV on: **Mobility.**

**Moderator:** Goolam Mohamedbhai

**Rapporteur:** Eva Egron Polak

The group was very pragmatic and looked at a concrete proposal that could be developed. The terms and conditions of a mobility programme could read as follows:

- grants for 4 to 6 month stays to any institutional candidates who would wish to go to access resources, test their methodological approaches abroad;
- Applications would be submitted to the IAU;
- The grants would be titled: IAU doctoral fellows; mark of excellence for those who would be selected.

Financially, the IAU doctoral fellows would receive a stipend for air travel and for accommodation; Host institutions would not charge the regular admission fee but rather a small honorarium. Total amount allocated per person: 7000 €, with a maximum number of 20 candidates per year, which would approximately amount to 1.7 million euros over 4 years.

Aim: South-South collaboration; serve least strong institutions

Names of potential funders cited: Alvaro Sobrino (who funded some 10,000 students through the World Bank, focusing on science only) and Aliko Dangote.

## Conclusions

The seminar came to a close with the the participants agreeing to the need for strong PhDs of relevance locally and globally, and of high quality. The following areas of work for IAU to investigate as each was considered equally important are :

1. research project on models / comparative approach;
2. ISAS-like institutional advisory service;
3. supervision: research, sharing, training;
4. mobility scheme: design a programme and to source funding bodies;
5. the portal: clearinghouse for information to be interactive and collaborative ; technological issues to be resolved; dedicated staff / back-office staff for the portal and also doctoral education.

The participants in the Seminar carried out an informal vote to initially identify the projects that IAU could undertake on a priority basis. Results, however, showed that the group considers all 5 areas of work of similar importance: ISAS type of service comes first with 59 points; Mobility scores 53 points; Research on Models, 50; Supervision, 48 and Quality of Doctoral Education, 45. The further development of the portal was deemed relevant by all.

The Seminar debates and outcomes will help IAU draft its upcoming 4 year programme of work and grant proposal to Sida for 2015-2019.

IAU thanks all the experts for their excellent contributions to the Seminar.

***Annex 1.***  
Seminar Programme

***Annex 2.***  
List of Participants

***Annex 3.***  
Random list of references made to projects/initiatives/organisations made by the seminar participants