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Evolving Asia-Africa cooperation in support of Africa's higher education development

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1. Introduction

The role of higher education for socio-economic development in Africa is gaining in critical importance. Due to Africa's growing sustainability concerns to meet the aspiration for accelerated industrial development while alleviating chronic poverty at the bottom of the pyramid, there is a new capacity-building demand for "home-grown innovations" by African universities (Assie-Lumumba, 2004). This new challenge may have a far-reaching impact not only for enhancing their relevance and utility to society but also for altering the structure and functioning of the universities. The rising capacity-building demand is for generation of professionals who are conversant in systemic and holistic thinking, familiar with field research methods, experienced in problem-solving approaches and endowed with leadership qualities for mediating among multiple groups of stakeholders (Mutisya & Nagao, 2014).

The challenge posed is indeed quite formidable. Under heavy pressure for coping with the massification of higher education, most African universities today lack resources, capacities and institutional base even to maintain their existing operation (UNESCO, 2010). The problems facing African higher education are many and diverse. Their manifestation differs from country to country reflecting the particular situation and circumstance in which this sector has evolved. Still Eshiwani (1999), Teffera & Altbach (2003), Samoff & Carrol (2004) and Assie-Lumumba (2006) concur that there are some common elements and challenges, such as the distorting impact of colonial legacy, inadequate financial resources in the face of rapidly growing demand for access, lack of integration with other levels of education, long-standing mismatch between the sector's output and the societal needs and its corollary impact in terms of massive creation of unemployed graduates and continued outflow of educated talents, and as a combined result of all these factors a decisively weak link with the society and public at large. Some of these problems are long-standing ones relating to the question of whether a nascent higher education sector can serve as an instrument for development or just as a status symbol (Van der Bor & Shute, 1991).

Underlying all these problems, however, there is an even more fundamental challenge of how to build up the human and institutional capacity to constitute the higher education as a sector in the first place. Largely due to Africa's colonial past this development has been closely linked to the evolution of external support (Teferra, 2005). However, international cooperation they have sought with industrialized country donors and universities has not helped redress this unsatisfactory situation either, because the cooperation more often than not is one-sided to meet the requirements of the donors and skewed towards benefitting the partner universities in industrialized countries. The consequence has been the lack of ownership and continued external dependence of the sector for both ideas and resources hindering localization of Africa's higher education (Samoff & Carrol, 2004; Assie-Lumumba, 2006). The so-called 'brain drain' phenomenon may be seen as both a symptom and cause of the problems faced by the sector, characterizing Africa's position in the world's higher education as the source of out-migration of highly trained manpower. (Teferra & Altbach, 2004; Jowi, 2009). It negatively affects growth in all areas of development and has further weakened academic institutions of African countries.

However, given the global shift in development discourse and international cooperation, seriously-disposed universities in African countries are beginning to respond proactively by instituting internal reforms to promote intra-national and international collaboration with other universities for increasing their contribution to the development of their respective countries. This is because they realize that knowledge mobilization through sharing to solve practical problems is the order of the day in the Age of Sustainable Development (Sachs 2016). Higher education institutions in fact have a key role to play as they are in a position to create knowledge through research, to distribute knowledge through education and training, to utilize knowledge through public outreach service, and, combining all these functions in an integrated manner, to assume leadership for the promotion of sustainable development (Mutisya & Nagao, 2014) .

During the last 20 years Asian countries, notably Japan, have emerged as cooperating partners of African higher education institutions. This paper traces the historical development of this cooperation, focusing mainly on the efforts to support the higher education development in Africa through research and education networking between Asian and African universities. The paper attempts to show how this cooperation compares with the preceding cooperation from the Western industrialized countries. It also demonstrates that Asia-Africa cooperation has led to some new innovative approaches to supporting the development of Africa's higher education, providing illustrative examples of concrete collaborative projects being carried out. But before turning to the discussion of the Asia-Africa cooperation, attempt is made first to construct a conceptual frame by examining the evolving views of external support mainly from the West for Africa's higher education development.

2. Evolving views of external support for the development of Africa's higher education

External support for the development of Africa's higher education has been a hotly debated issue along its evolutionary path (King, 2008; Jowi, 2009; Singh, 2013). Samoff & Carrol (2004) provides a comprehensive account of the historical changes in the external support with a particular

focus on its nature and impact. Assie-Lumumba (2006) reviews the historical development in terms of the changing patterns of forces and their influences with the aim of identifying and analysing the challenges and opportunities for increased African ownership of the sector. Kenneth King has compiled a multitude of expert views on different aspects of higher education development, covering also Africa, for a number of years (NORRAG News, 1991, 1994, 2004 and 2008). The many and varied views expressed so far may be broadly categorised into (1) cooperationist views rooted in the colonial and post-colonial links, (2) collaborationist views based on joint research interest, and (3) stakeholder-oriented partner views emphasizing localization approaches. These views emerged at different times – respectively, during 1960s, 1980s and 2000s, and still co-exist today with varying influences.

2.1. Cooperationist views rooted in the colonial and post-colonial links

The term 'cooperationist view' is used here to refer to those conceptions of external support which are based on financial and technical assistance by donor governments. In this connection, the colonial and post-colonial links cannot be ignored since pioneer higher education institutions in many parts of Africa were established for creating skilled manpower to manage the concerns of the metropolitan institutions or to replace expatriate civil service employees. They mostly operated as affiliated institutions of counterpart universities in Europe (Jowi, 2009). It is therefore not surprising that the curriculum, organizational system, and physical structure were patterned after British, French and other European universities. Scholarship support was provided for enrolling students in higher education programs, and there was also a large number of academics and graduate faculty from Europe and North America who moved to Africa after independence to occupy teaching and research positions (King, 1990). Thus, early external assistance was a key to their existence.

The cooperationist views for external support of Africa's higher education sector experienced ups and downs in accordance with the donors' stance for aid to Africa in general, and for educational assistance in particular. Most notably, following initial optimism of the immediate post-Independence period, the support slowed down in the 1970s and dwindled during the 1980s against the backdrop of the structural adjustment policy pushed by the World Bank and donor governments and the donors' shifting priorities from the support of higher education to that of primary and secondary education (Assie-Lumumba, 2006). Even with financing difficulties, however, the demand for university education kept increasing with corresponding growth in enrolment, putting a huge pressure on maintaining the quality standard of individual universities and, at the same time, intensifying inter-university competition (Materu, 2007).

The inter-university competition occurred not only nationally but also, and perhaps even more critically, on an international scale, as the elite African universities sought financial and technical support from the same external sources. Higher education support via bilateral ODA obviously depended on the particular disposition of the donor countries concerning aid destination and priority fields. Support by the private foundations, which was quite significant especially relative to the dwindling official support, was also highly selective (King, 2009). The Partnership for Higher Education in Africa, a grouping of 7 American foundations which provided grants totalling US$ 440

million between 2000-2010 for higher education support, targeted just 9 African countries, although universities in the other countries were covered through 'Africa-wide' support (Lewis et. al., 2010).

The cooperationist view is a 'realist' view in the sense that the weak local resource base for higher education in most African countries left no other choice but external support for any major initiative to improve its situation. More recently there is a new wind blowing for this view against the background of globalization and associated emphasis on the need for science and technology capacity for international competitiveness, which has given rise to new demand for technical assistance such as strengthening of ICT in African universities (Juma, 2007). This view, however, has come under criticism because foreign aid tends to serve as disincentive to the pursuit of more self-reliant approach by the African higher education sector (Ellerman, 2004) with the result of extended external dependence and control (Samoff & Carrol, 2004; Sifuna, 2000) .

2.2. Collaborationist views based on research interest

Since around the beginning of the 1980s there was observed a shift in emphasis in the international practice of external support for Africa's higher education – from technical assistance to research partnership or collaboration (Gaillard, 1994). The corresponding shift in international discourse saw mushrooming of collaborationist approaches based on genuine concern for capacity building in the South, but often misconceived and misguided with not so 'desirable' consequences, such as encouragement of participation of young African researchers in joint research projects leading to their out-migration to the partner universities in the North. In addition, research collaboration often focused on satisfying the research interests of the North. Much has been written about North-South collaboration involving African universities and discussion is still continuing for the potential and actual benefits (and costs) it brings to the African universities and practical ways to improve the chances of success in terms of fair division of leadership and management roles, development of communication strategies and dealing with cross-cultural differences and research ethics (Knight & de Wit, 2005; NORRAG News, 2008; Holmarsdottir et al, 2013). If there was a common shortcoming for the North-South collaboration approaches, it was that much of the collaborative research effort was directed to capacity building of individual researchers but not to the strengthening of the institutional research set-up (Velho, 2002)

It is also important to note that the collaborationist discourse also ignited the emergence of South-South collaboration. Initially this new modality was proposed as North-South-South collaboration, a variant of North-South collaboration. Whereas North-South collaboration or partnership tended to be dominated by Northern research interest as well as control of the research process (Gaillard, 1994, Baud, 2002), North-South-South arrangements may modify the asymmetric nature of the North-South relationship. However, if the latter really represents a different modality remains largely an empirical question, since the North may continue to retain the control of the way the partnership is structured and operated (Chege, 2008). South-South cooperation attempts have been observed especially in the area of education. Within Africa, there have been institutionalized attempts to promote such cooperation as exemplified by ADEA (Association for the Development of Education in Africa), AAU (Association of African Universities) and IUCEA (Inter-

University Council for East Africa). These initiatives have sprung up on the basis of recognition by the African universities and researchers themselves that there is serious lack of indigenous or local research capacity to tackle development problems and also that the commonality of these problems should compel the African universities to work together (Juma, 2006). The most recent manifestation of this trend in Africa is the establishment in 2016 of ARUA (African Research Universities Alliance).

2.3. Stakeholder-oriented partnership views emphasizing localization approaches

The third view, stakeholder-oriented partnership views emphasizing localization approaches, has emerged from the lessons learned with the cooperationist and collaborationist approaches, such as "the asymmetry is unavoidable in spite of all rhetoric about mutuality (Olsson, 2008, p. 79), "typically, once the funding ran out, the programme died, along with its practice and policy benefits" (de-Graft Aikins, 2008, p. 97) and "relationship between researchers and other stakeholders, including policy makers, remains a major issue" (Baud, 2002, p. 168). Specific and narrow focus suggested for effective research collaboration may have served well the academic audience especially in the North, but led to limited impact on the development reality which increasingly demanded more holistic and practical problem solving approaches for more complex sustainable development concerns (Velho, 2002).

Questioning the relevance of the research outcome suggested the need, on the one hand, for greater participation by the African researchers in determination of the research priorities and planning and conduct of the research process, and for closer attention to the socio-economic situation of the locality under study (Baud, 2002). In actual practice of international research collaboration involving African universities what is increasingly observed is effort by all the parties concerned to contextualize the research undertaking emphasizing the localization of both research process and outcome.

3. Asia-Africa cooperation in higher education

Asia-Africa cooperation in higher education is not an entirely new phenomenon. To take Japan as an example, Kyoto University started its African studies already in the late 1950s and developed the tradition of ecologically oriented research based in Africa helping to train many African researchers along the way through its Center for African Area Studies (CAAS) established in 1986. In Kenya the Japanese Government assisted the establishment of a college of agriculture and technology in 1981 and supported its development to become a comprehensive university in 1994 as Jomo Kenyatta University of Agriculture and Technology. However, a more broadly based Asia-Africa cooperation in higher education started only in the late 1990s when the Japanese Government initiated technical assistance to African countries for supporting their mathematics and science education (M & S education). As shown in Chart 1, the Japan International Cooperation Agency (JICA) carried out nearly 15 such projects between 1998 and 2015, with some significant achievements as well as shortfalls (JICA Research Institute, 2007; Matachi & Kosaka, 2017).

Chart 1 JICA's math & science education cooperation projects in Sub-Saharan Africa

1998-2008	M&S secondary teacher retraining project in Kenya (SMASSE)
1999-2006	M&S secondary teacher retraining project in South Africa (MSSI)
1999-2008	M & S primary/secondary teacher retraining project in Ghana (STM)
2004-2012	M&S secondary education in Malawi
2005-2012	M&S secondary teacher training in Uganda
2005-2015	M&S and school-based INSET in Zambia
2006-2009	Primary education in Mozambique
2006-2013	M&S education at the primary level in Nigeria
2006-2013	M&S secondary education in Niger
2007-2015	M&S&T education in Senegal
2008-2015	M&S education at the primary level in Burkina Faso
2008-2015	M&S education at the secondary level in Rwanda
2009-2013	M&S education in Southern Sudan
2011-2014	M&S education in Ethiopia

Source: Table 1 in Matachi & Kosaka (2017)

For many university-based M & S education specialists and their education colleagues around Japan who were mobilized for these projects, these technical assistance projects provided a new frontier for research, and for some universities interested in internationalization a fresh platform for overseas networking engagements. The subsequent development over the 20 year period may be described in two sub-periods: (1) from 1998 to 2008, when many deliberate attempts were made to experiment with modified cooperationist approaches, and (2) from 2009 to present, when modified collaboration approaches flourished.

3.1. Modified cooperationist approaches from 1998 to 2008[1)]

(1) Research support mechanism for JICA's M & S education assistance to Africa

JICA-led engagements for Japanese universities and their faculties in African education typically started with a cooperationist approach concerned mainly with provision of accumulated M & S education experience in Japan to African primary and secondary schools through teacher training projects. Although JICA's M & S education package cooperation project in the Philippines from 1994 to 1999 provided some useful knowledge and experience on the technical assistance delivery, its limited knowledge base on African education hampered the smooth beginning of M & S education assistance in Africa. [2)] To cope with this situation, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) established in 1997 a research center dedicated to international cooperation in education at Hiroshima University, named Center for the Study of International Cooperation in Education (CICE), with four full-time professorial posts and a foreign visiting professorship position. Its mission was to organize and conduct practical research "to

contribute to the effective and efficient implementation of Japanese educational cooperation and function as a network center for Japanese practitioners and researchers in this field". [3)]

CICE was immediately mobilized to serve as the research support mechanism for JICA's M & S education assistance to Kenya, South Africa and Ghana, on the basis of a close working relationship established with education researchers in several teacher training colleges and graduate schools for international cooperation in Nagoya University, Kobe University and Hiroshima University. [4)] The exact terms of CICE engagement varied from one technical assistance project to another reflecting the different demands that came from the aid receiving countries. However, there were three common practical concerns that needed to be addressed, which were: (i) how to frame the educational assistance to African countries following the self-help (or aid recipient's project ownership) principle of Japan's basic aid policy philosophy; (ii) how to utilize the accumulated knowledge and experience of M & S education in Japan in defining the contents and methods of assistance projects; and (iii) how to make academic contribution through aid project engagements. CICE approach to answering these questions was to start by studying the actual situation of M & S education in the African countries concerned. CICE researchers made considerable efforts in this respect. For example, during the 1998-2008 period they combined to conduct 7 major research projects on educational development in Africa with the grant aid from the Japan Society for the Promotion of Science (JSPS), and invited 12 African researchers and 2 European researchers specializing in African educational development as Visiting Professors for a four month research engagement and interaction with CICE researchers. [5)] Sawamura (2006) characterized this process as an integration of policy research and field work. How this process actually evolved is illustrated in the following section in terms of CICE engagement in M & S education assistance to South Africa, which may be characterized as a modified cooperationist engagement.

(2) Modified cooperationist approach: M & S education cooperation to South Africa

JICA's M & S education cooperation to South Africa was carried out from 1999 to 2006 as technical assistance to the Mpumalanga Province, one of the country's 9 provinces with the poorest secondary M & S test scores, for improving the quality of M & S teaching in classrooms through teacher retraining. The teacher retraining was needed to compensate for the gaps and deficiencies that existed in their instructional capacity owing to the training shortfall dating back to the apartheid times. The department was interested in instituting an in-service teacher training (INSET) system using a cascading model that should start with capacitating of 'Curriculum Implementers' (i.e., teacher advisors), who provide training to head M & S teachers of secondary schools, who in turn conduct training of M & S teachers at their respective schools. JICA called on Hiroshima University CICE to work with the Mpumalanga Department of Education (MDE) for this project, named Mpumalanga Secondary Science Initiative (MSSI). [6)] CICE engagement was to comprise a comprehensive set of support activities, including: (i) provision of substantive leadership, (ii) formulation and implementation of project intervention, (iii) support for internal evaluation conducted by JICA, and (iv) conducting of policy research to backstop the project operation. Since JICA provided most of the funding for the project, MSSI at its initiation was very much a cooperationist conception.

Taking substantive leadership of a JICA project meant having to face immediately and squarely the question of how to frame the educational assistance in a manner consistent with the self-help principle of Japan's basic aid policy philosophy, which is a long-standing tradition of Japanese ODA dating back to the middle of 1970s and firmly grounded in Japan's own development experience characterized by self-reliance, especially for educational development (Nagao, 2004). The question was a difficult one of how CICE could exercise substantive leadership for the project and at the same time make sure that the aid recipient side assumed, or at least felt the sense of, the project ownership (Sawamura, 2004). In the MSSI project CICE found the answer in the participation of the University of Pretoria (UP) as a full project partner on the supporting side. [7)] UP's M & S education program, jointly managed by its Faculties of Education and Science, was one of the strongest in the country. Their staff could not only provide substantive guidance for all the training and learning activities which took place in the Mpumalanga project schools but also learn themselves and interpret for the Mpumalanga teachers lessons to be drawn from the knowledge and experience of Japan's M & S education. Because of their strong presence in the project, the physical presence of the Japanese support team could be kept to a minimum – one JICA resident staff in South Africa combined with short visits by small teams of Japanese M & S experts 2-3 times a year. This arrangement was significant also because of the promise of sustainability of project impact beyond the project term.

Another challenging question at the start of the technical assistance concerned the question of how to utilize the accumulated knowledge and experience of M & S education in Japan in defining the contents and methods of assistance projects. JICA's M & S education cooperation in the Philippines which preceded its African engagement had already demonstrated that the long-standing tradition of Japanese school teachers' peer learning practice, termed 'lesson study', could be relied upon as a major tool of technical assistance (JICA, 2004; Nakajima, 2007). In fact, 'lesson study' has become the main stay of Japanese educational assistance to developing countries ever since (Matachi & Kosaka, 2017). In the case of the MSSI Project, CICE added a project component of group study visits to Japan for the Mpumalanga Curriculum Implementer and Education Administrators in order to observe and learn from the Japanese teachers' practice in schools and classrooms, including not only lesson study approach but also curriculum development, classroom management, reflection methods and so forth. Between 1999 and 2006 a total of 116 such Mpumalanga educators visited Japan in groups of 10 for a duration of four to six weeks. This immersion type approach was developed as 'experience-sharing' model (Nagao & Matachi, 2003). Naruto University of Education, (NUE) played a key role in the implementation of this model by hosting their long stays and dispatching its teaching staff to South Africa for follow-up support activities. The essential characteristic of the experience-sharing model was the combination of self-learning orientation and group practice, aiming not only at individual gains from training but also collective learning of a group practice. [8)]

Regarding the third and final question for CICE of how to make academic contribution through aid project engagements, the joint technical support activities by its faculty staff and NUE faculty with UP faculty served as a platform for generating many joint research projects. The Visiting Professorship facility was used by both CICE and NUE to bring UP faculty for a long stay in Japan,

enabling joint authorship of papers on different aspects of the MSSI Project. One concrete outcome of these research activities was a joint publication entitled *Mathematics and Science Education in Developing Countries: Issues, Experiences and Cooperation Prospects* (Nagao, Rogan and Magno (Eds), 2007). Perhaps even more significant was the joint evaluation exercise that the three partners of the project, MDE, JICA (CICE and NUE) and UP, conducted at the end of the 6-year term of the MSSI project, which CICE edited (CICE, 2006). This multi-stakeholder collaborative exercise, involving both the aid providing and receiving sides as equal partners, signified that this engagement of CICE was a clear departure from the conventional cooperationist engagement.

(3) Modified cooperationist approach: Research networking through Japan Education Forum

At the G-8 Summit in Kananaskis, Canada, in 2002, the Japanese Government announced its new initiative to support basic education development in developing countries named BEGIN (Basic Education for Growth Initiative) in line with the global concern for Education for All and MDG Goal for improvement of educational access and quality. BEGIN also stressed developing countries' ownership and commitment as a priority concern of the Japanese Government based on Japan's own experience of educational development. This was significant because the global push for improvement of educational access with funding schemes tended to abstract from the local adaptation requirements for policy interventions and, still worse, take away from the developing countries' own commitment, thereby threatening the sustainability of the efforts (Nishimura, 2008). In March 2004, at the initiative of CICE, Hiroshima University, jointly with the University of Tsukuba and supported by the Ministry of Foreign Affairs (MOFA) and MEXT, established the Japan Education Forum (JEF) as an annual half-day meeting to host in-depth multi-stakeholder exchanges on the educational development experiences of developing and developed countries, especially for encouraging 'collaboration toward greater autonomy in educational development'. [9] Annual JEF conferences brought together many and diverse participants, including education researchers, teachers, policy-makers, NGO staff and students from developing countries, especially in Africa and Asia. Asia. This provided numerous opportunities for international research networking for CICE based on modified cooperationist approach.

3.2. Modified collaborationist approaches from 2009 to present

While the initial impetus for higher education collaboration with Africa came from M&S education technical assistance for Japanese universities and led to many trials of cooperationist engagements with modifications to reflect Japanese aid philosophy and educational experience, the interest of the Japanese researchers shifted increasingly to pursuit of research collaboration in broader areas, involving more universities and with much greater participation by other Asian countries. The scope and contents of the collaboration were also expanded accompanying the qualitative improvement of the research outcome. CICE continued to lead higher education collaboration in the field of education development, but other institutions also joined as the target field was expanded to other fields with the spread of global concern for sustainable development. The modified collaborationist approach Some of these developments are reviewed below.

(1) Modified collaborationist approaches in educational development research

In the field of educational development, Hiroshima University CICE opened a new frontier with the establishment of Africa-Asia University Dialogue for Education Development (A-A Dialogue) project.[10] The project received a major grant from MEXT in 2009 for creating a research network linking African and Asian universities and in 2010 joined UNESCO's University Twinning and Networking (UNITWIN) Program with CICE serving as the Chair. The subsequent development in three 3-year phases of collaborative work has expanded to include 16 African universities from 12 countries and 13 Asian universities from 8 countries (including 6 universities from Japan). The joint research activities have been conducted in three groups on 'gender and equity in education', 'quality of education and educational policy' and 'teacher professional development', respectively, and 'general assembly' meetings and sharing seminars are organized periodically for coordination of expanded activities, including not only research undertakings but also student exchanges, and sharing of research results. The Director of CICE continues to serve as the Project Coordinator, but the formal mechanism established for the management of the project appears to be run in a democratic way, helped also by a favorable funding situation.[11] The ready availability of access to research output publication in the CICE journal for all the project participants also help. The collaborationist approach has definitely been modified and improved for 'localization' of the research process through Africa-Asia research collaboration.[12]

The most significant aspect of the A-A project, however, may still lie elsewhere. It is the fact the research activities undertaken address key policy issues affecting the African countries as seen by the participating African researchers. The choice of topics for joint research, such as gender and equity in education and teacher professional development, and the approaches taken for actual studies seem to reflect closely the views of stakeholders of school education. The basic research approach of CICE for integrating policy research and field work is in full bloom in the A-A Dialogue project.

(2) Modified collaborationist approaches in sustainable development education and research

One spill-over effect of the Africa-Asia higher education collaboration in educational development research was the extension of the inter-university network established to other areas. The United Nations University based in Tokyo, which participated in the earlier phase of the A-A dialogue project as a supporting partner, has relied upon part of the contacts established through the project to initiate a new collaboration undertaking in capacity building for sustainable development in Africa, entitled Education for Sustainable Development in Africa (ESDA) in 2008 (Mutisya and Nagao, 2014. With initial funding from MEXT it organized a team consisting of several African and Japanese universities to develop and test a new capacity training scheme for Africa's sustainable development., which materialized in the establishment and implementation of three Masters-level programs in integrated rural development, sustainable urban township development and mining and mineral development, respectively. These programs are provided in six African partner universities and by the end of 2018 graduated 55 Master's degree earners. In order to support the curricular programs geared to field-oriented studies by students using problem-solving approaches,

ESDA partner universities established a team of 'Next Generation Researchers' to conduct joint research to produce learning materials and to strengthen their research capacity. These young researchers, combined with their senior faculty counterparts, published five books on Africa's sustainable development so far. The NGR team is stating to collaborate with their Asian counterpart, and has jointly published a compilation of papers based on their Ph.D. dissertations (Kudo and Kapfudzaruwa (Eds), 2018).

ESDA provides a unique case of intra-African university collaboration with the support from Asia. The ownership and running of the three Master's programs is by Africa partner universities and programs' inter-university collaboration promotes equal program ownership and partnership. In addition, the education, research and practice components of the programs are delivered within the collaborative framework further promoting program excellence (quality education and research) as well as high impact (practice) to stakeholders and community development. As such, the ESDA programs have the potential to enhance the critical role of universities for sustainable development in Africa. In the longer term, the ESDA NGR team will serve as the main carrier of inter-university collaboration in Africa and with outside world for Africa's sustainable development. The ever-changing sustainability concerns in Africa would require research continuity on relevant issues of sustainable development, which should mean that NGR will increasingly become important as an engine for Africa's knowledge creation for sustainable development (Mutisya & Nagao, 2014).

4. New perspectives on Asia-Africa higher education collaboration

The foregoing discussion showed that the Asia-Africa higher education collaboration evolved quite significantly in a relatively short space of time. The researchers who participated in it were very conscious of the cooperationist and collaborationist approaches taken by their predecessors from the Northern universities, especially their problematic aspects, and tried to adjust their approaches. Out of such efforts some new perspectives have emerged that should guide the next phase of the Asia-Africa partnership in support of African development. Three such perspectives are presented in this section – the first on inter-university collaboration within Africa as a pre-condition for constructive partnership with Asian universities, a second on Africa-Asia collaboration to tackle global sustainability concerns, and a third on exercise of convening power and authority as an important role and function of universities in the world increasingly managed by knowledge.

4.1. Inter-university collaboration within Africa: ESDA`s Community of Practice on Entrepreneurship

In the past few decades, Communities of Practice (CoP) have been credited for building platforms allowing co-creation of knowledge and co-innovation to solve societal problems (Lave and Wenger, 1991; Wenger *et al*, 2002). The concept of CoP was introduced as a way of thinking about knowledge management, reflection and learning with commercial organizations (Wenger, 1998; Wenger and Snyder, 2000). Wenger and Snyder`s emphasis was on cultivating appropriate opportunities and spaces for people to physically meet, and follow through the development of their increasingly shared agenda. More recently, the concept of communities of practice has been used to think about management, collaboration and learning beyond the corporate world for social and

community benefit (for example, see Hart and Wolff, 2006).

Within universities, CoPs are increasingly becoming valuable in finding and sharing the practices for teaching and research, as well as serving as engines for the development of social capital. In light of this, the ESDA program has initiated a CoP for young faculty teaching and researching entrepreneurship at selected 15 African business schools. ESDA`s CoP on Entrepreneurship seeks to build on the young faculties` competences and practices to build relationships which allow for co-creation of knowledge on entrepreneurship, co-innovation in support of African entrepreneurs and Africa`s sustainable development, and capacity development of the young faculty. In August 2018, 34 young faculty from 15 African business schools met at the Gordon Institute for Business Science (GIBS), University of Pretoria to discuss and develop a framework and strategy for the CoP on Entrepreneurship. The two-day workshop was designed to foster new relationships; develop a framework and strategy for the CoP; discuss the purpose and format for the community of practice; identify clusters and projects for future collaboration; and design high level plans with key faculty "drivers" from each business school. This workshop was followed up by two virtual meetings in November 2018 and January 2019. These discussions revealed a shared recognition of the diversity of contexts and approaches to entrepreneurship across the African continent. As result, the faculty members identified five key areas of collaboration which were consolidated into four clusters:

1/ Producing outputs with a focus on teaching cases on entrepreneurship
2/ Developing methodologies for entrepreneurship with a focus on incubation
3/ Capacity development of faculty
4/ Supporting entrepreneurship ecosystems with a focus on benchmarking, codes of ethics for African entrepreneurs, stakeholder terms of reference, knowledge sharing and finance

Whilst the 30 faculty members mostly work with their specific clusters led by faculty "drivers" based at each African business school, a virtual community system has been developed which allows the individuals to be embedded in a relational network to share on progress and learn from the different clusters. Through virtual interactions and annual face to face meetings within and across the 4 clusters, opinions on new approaches to teaching and research entrepreneurship in Africa are formed and shaped through "social influence". This interactive process amongst African faculty who perceive and approach teaching and researching of African entrepreneurship differently involves much more than simple information transmission. Instead, this process cultivates the co-creation of knowledge and innovations to African entrepreneurship. The ESDA CoP involving 15 African business schools reveals that the co-creation of knowledge and co-innovation for Africa`s sustainable development goes beyond individuals situated within organizations. Instead, this process involves faculty working across university boundaries with other individuals who share their practice or may influence their practice ultimately establishing "networks of practice" (Hustad and Teigland, 2005).

In addition to co-creation of knowledge and co-innovation, mostly through joint research and producing research outputs and sharing on approaches to incubation, the CoP will also be

helpful in transforming teaching and learning of entrepreneurship. Curriculum transformation - both in terms of content and mode of delivery - is fundamental to higher education`s ability to train workplace-ready graduates. The CoP cluster on faculty development specifically focuses on providing capacity training mostly to faculty without practical teaching experience, lack of real-life experience of owning an enterprise or being a corporate manager, lack of "andragogy" skills, and limited knowledge of the entrepreneurial discipline. Whilst specific business schools or universities might provide training on teaching and curriculum design, Oreszczyn *et al* (2010) argued that new opportunities for learning and fresh insights often occur at the boundaries of organizations (universities/business schools in this case), either through "communities of practice" or "networks of practice". The ESDA Secretariat with the support of the African business school Deans has performed the role of "broker" to remove impediments to collaboration between business schools which are often competing against each other and allow for the faculty to connect across the business school boundaries. To allow these cross-boundary collaboration spanning knowledge exchange and sharing of resources between the business schools, the ESDA Secretariat continually provides progress reports to the Deans.

Given the different geographical locations of the faculty across Africa, the group has blended the idea of a CoP which meets once or twice a year at an agreed location and a "Network of Practices" with a virtual structure which meets online quite often (either on Skype or Zoom). These internet-based technologies provide a convenient single platform for the young faculty to continually interact, co-create knowledge on African entrepreneurship and co-innovate. The convening of meeting once or twice a year allows for the building of social ties whilst the continuous virtual communication provides a co-located hub that serves as a knowledge generation node for the larger network of faculty.

4.2. Africa-Asia collaboration for global sustainability partnership

In coming decades, co-design of sustainability actions will be one of the main drivers for strengthening global partnership including Africa-Asia partnership. Sustainability actions are not limited to developing technical solutions to each sustainability challenge but they include design, prototyping, and inception of social design that facilitate alternative ways of doing and learning things.

The emphasis on co-design of sustainability actions is well presented by the United Nation's Agenda 2030, also known as Sustainable Development Goals (SDGs). The SDGs scheme sets a premise that sustainability challenges such as climate change, inequality, and rapid urbanization are global sustainability concerns. Essentially, the SDGs scheme is a call for collective actions for sustainability transformation that is set beyond the divide of developed and developing countries. One notable change of SDGs scheme from its previous scheme, the Millennium Development Goals (MDGs), is this equal positionality of developed and developing countries in the pursuit of global sustainability. Along with this positionality change, other dimensions such as theoretical, practical, and pedogeological approaches also need to be upgraded.

The first and the second phase of Africa-Asia partnership, as described in previous section,

accommodated knowledge transfer by international cooperation scheme and knowledge exchange by shared process scheme. The authors argue the emergence of sustainability scheme would possibly trigger a qualitative change of partnership that can be best described as the phase of co-design of sustainability actions. This change is led by two main features of sustainability challenges, which are (i) complexity and (ii) normativity of sustainability challenges.

Sustainability challenges are considered as complex as they are interrelated to one another and proposing a solution to one particular sustainability challenge may cause another set of sustainability challenges (Jerneck et al., 2011; Lazarus, 2009). Holistic approaches are required not only to analyse sustainability challenges but also to design comprehensive actions for sustainability (Kudo & Mino, 2019). However, it remains as a challenge to ensure "holisticness" of developed actions. The second feature, normativity, is that sustainability challenges include normative discussions. This becomes particularly evident when discussing the contents of sustainable development; in other words, what to be included (or what not to be included) in the concept of sustainable development. What to sustain is a normative question and answers to this question reflect what we value collectively (Jarzebski & Kudo, 2016; Tainter, 2003). Answers to what to sustain and priorities in the answers differ among different societies and also different periods of time. For instance, sustainable development was first coined as a concept that emphasized the balance between environmental conservation and economic development (WCED, 1987). However today, sustainability includes wider ideas especially those related to societal well-being such as gender balance, decent work, and peace. In the same manner, it is likely to have some additional ideas when discussing post-2030 SDGs scheme. This process reflects what are relevant issues for those living in the world at that time [13)] . Any initiatives for sustainability transformation should incorporate a mechanism to continually inquire what topics have been the mainstream in sustainability discourse and what have been less pronounced and why they are treated so.

One way to facilitate co-design for sustainability actions is to internalize a collective learning process within a project. This step corresponds to co-creation of knowledge before developing concrete actions. As a new method to organize such learning, "translocal learning" approach is proposed. Translocal learning is a type of collective learning that takes place when knowledge, experience, and ideas from multiple localities are shared among the participants who represent different localities (Kudo, Allasiw, Matsuyama, & Hansen, 2019). In this approach, locality is multi-dimensional concept that can be explained as the totality of cultural, political, and socioeconomic characteristics of a particular geographical area. Translocal learning can be implemented by joint-fieldwork on a common issue.

Since 2017, Graduate Program in Sustainability Science (GPSS) at The University of Tokyo has been hosting one translocal learning project focusing on the topic of migration and rural entrepreneurship. The main project members are researchers from University of the Free State (South Africa), University of Cape Town (South Africa), Universiti Sains Malaysia (Malaysia), Chulaloncorn University (Thailand), Akita International University (Japan), and The University of Tokyo (Japan).

Translocal learning stresses the importance of building common experience and sharing

perspectives brought from each participant through joint-fieldwork. The participants in a translocal learning project obtain new perspectives mainly through group reflection sessions. For example, researchers from Nigeria and South Africa gained perspectives of "rural areas with advanced information and communication technologies (ICTs)" though a joint-fieldwork held in Gojome town, Akita Prefecture, Japan, in 2018. In their localities, rural areas are associated with poor infrastructure, less access to water and energy, and poor access to internet. This assumption made them think that rural areas are subject of developmental intervention from outside. However, meeting with creative entrepreneurs and community leaders, some of them are in-migrants from metropolises such as Tokyo and Osaka, they realized knowledge-based and vision-driven businesses are possible in rural areas with the quality that is as competitive as the ones based in major cities. Through such experience, translocal learning help participants to be self-aware and re-examine the conceptions and assumptions they hold because of the specificities of their localities. Moreover, such learning in translocal learning project is mutual as the host members are also being questioned by the participants from different localities about their conceptions and assumptions.

As one concrete outcome of translocal learning project, a team of researchers who come from diverse academic, cultural, and case study backgrounds was formed. In this team, we have been successful to learn about the set topic, migration and entrepreneurship, with equal positionality and elements about normativity of sustainable development by integrating perspectives from the participants' localities. This discussion helped us to co-envision possible actions we can take to contribute the ongoing sustainable development initiatives in the joint-fieldwork site. Along with this process, the participants were trained in epistemological agility and openness to other worldviews. The project suggests that training these competencies are as critical initial step for co-design of sustainability actions.

4.3. Boosting the convening power of African universities to enhance their role in sustainable development

Socio-economic transformation in Africa has continuously become a central focus in the continent's development agenda. Over the years, the region has grown rapidly with rising population and economic growth. However, the continent continues to face monumental challenges of improving social welfare of its people. The current global development paradigm has shifted to knowledge-based economy informed by scientific research, evidence and data to solve socio-economic challenges and to promote industrial competitiveness and sustainable development (Nagao, Mutisya and Kudo, 2018). Navigating the challenges would require extensive search for relevant knowledge, innovative creation of new knowledge for societal transformation, in addition to coping with continental and global competition.

With changing development demands and challenges, African universities are today getting recognized as avenues of practical knowledge and skills. According to Mutisya & Nagao (2014), unlike in advanced countries where university education has and still is the center for current and future innovations, Africa's higher education sector has for decades lacked focus on development. The decline in real value of university budgets, increase in undergraduates' intakes, increase in

academic staff turnover, and research facilities deterioration has put university education in the region under severe pressure leading to decline in admissions and completion of higher education (Eshiwani, 1999; Teffera & Altbach, 2003; Samoff & Carrol 2004; Assie-Lumumba, 2006). In addition, with poor university research and innovation support to development, Africa risks lagging behind the rest of the world in all important aspects of human living such as the economy, technology, and quality of life.

To address these challenges, African universities' leadership and management need to reposition themselves. Like many other institutions, they possess accessible but often underutilized power – the convening power. To enhance the role of universities, there is a need to boost this power through strong social networks at all levels. Bolstering this power could be done through partnerships across leading universities to ensure effective leadership and promote collaboration, resource mobilization, and research development among others (Okalany & Ekwamu, 2016). Such partnerships will facilitate collaboration between universities, break down silos, and foster a community of practice.

Convening of universities to tackle complex challenges will help deal with global challenges and position to work at the nexus of local and global issues as core part of their value proposition. This provides immense opportunities and ideas whose implementation is by bringing people together and providing a safe space for exploration and innovation. There is a need to come up with a plan on how and when universities exercise convening power to spark collective action on continental issues. Given the scale and interconnectedness of global challenges; increased complexity of the development ecosystem, the universities' role as a catalyst for collective action for sustainable development should be sustained. Bringing university top leadership together across the continent, will produce a common strategic direction in education and research. Harnessing this convening power will enhance university's role in socio-economic transformation.

5. Conclusion

Higher education collaboration between Africa and Asia has a relatively short history, but has evolved considerably both in its scope and innovative nature. The broadly based partnership building started with the cooperationist approach accompanying educational cooperation through ODA as was the case for the preceding partnership with the North. However, owing perhaps to the absence of colonial and historical bondage, the issue of participation and ownership for the recipient African side has not surfaced in any significant way. The positive experience with the modified cooperationist approach has encouraged both African and Asian sides to jointly engage in research collaboration in equal terms. In the area of educational development research, the pioneering networking initiative by Hiroshima University CICE has produced considerable impact on the outcome as well as process of the collaborative research. Furthermore, the research network established through this initiative was instrumental in starting a collaborative undertaking in the area of sustainable development.

The generally positive experience of Africa-Asia higher education collaboration so far has also pointed up new challenges. One such concern is the need to strengthen inter-university collaboration within Africa as a condition for realizing more productive international academic partnership. A

second concern is the challenge for the Africa-Asia research partnership to tackle global issues and make research contribution at the world level developing new research methodologies along the way. A third challenge is for the partnership to explore the new frontier for the role of universities going beyond the usual functional conception of research, education and public service, and consider a new role using its convening power as principal creator, user and distributor of knowledge in the knowledge society. This paper concludes by exploring practical approaches for these new perspectives.

Notes

1) The discussion in this section dwells mainly on the activities of Hiroshima University's Center for the Study of International Cooperation in Education (CICE) which spearheaded the higher education cooperation with Africa in the education field. One of the authors of this paper was a staff member of CICE for part of the period covered in this section. The information and data quoted about CICE are based on the notes kept by this member and CICE website (https://home.hiroshima-u.ac.jp/cice/?page_id=968).
2) In the case of M&S secondary teacher retraining project in South Africa, the initial request from the South African Government came to JICA in 1996, but it took until 1999 to prepare the final project document and initiate the technical assistance.
3) Establishment of CICE was followed by that of a similar center at the University of Tsukuba, named Center for Research on International Cooperation in Educational Development (CRICED) in 2002, to work mainly on curriculum issues and cooperation to Asian countries.
4) CICE invited researchers in the partner institutions to join the center as associate researchers and to contribute papers to its academic journal, *Journal of International Cooperation in Education*, which it started publishing bi-annually since 1998.
5) The concentrated attention of CICE research on Africa was evidenced by the fact that the figures quoted represented 44 % of the total number of JSPS-funded research projects (16 projects) and 56% of the total number of invited foreign Visiting Professors (25 Visiting Professors) during the period.
6) For a detailed account of the MSSI project, please see Nagao (2007).
7) The agreement reached was that UP would join the project as a project partner along with MDE and JICA and not as a consultant. JICA covered the travel costs of UP staff but did not pay any fees for their engagement. CICE also concluded an MOU with UP's Joint Centre for Mathematics, Science and Technology Education (JCMSTE) for this engagement and additional joint research activities.
8) Some of the visiting Mpumalanga M & S teachers termed lesson study as 'Peer Teacher Learning' (PTL) and published a series of PTL guidebooks upon return to South Africa.
9) 'Collaboration toward greater autonomy in educational development' was the principal theme of JEF, and it was maintained for the first 13 years until 2016, when it was changed to 'JEF for SDGs'.
10) CICE initiated the A-A Dialogue project in 2004 as a joint research undertaking by several African and Asian universities with the cooperation of UNESCO, United Nations University and JICA, focusing on policy research to support basic education and sharing of research experiences. This joint experience of 3-year duration served as a preparatory step for a major scaled-up collaboration initiative which started in 2009 and is still continuing today after several phases. For a brief account of the project's chronological development, please refer to CICE website

at https://home.hiroshima-u.ac.jp/cice/?page_id=3511.

11) According to CICE, in the most recent phase of 2015-2018, Hiroshima University received a MEXT ODA grant for UNESCO activities and a UNU Grant for Global Sustainability, and "researchers of the participating universities have won various research grants" (https://home.hiroshima-u.ac.jp/cice/?page_id=4409).

12) The research network established through the A-A Dialogue project has produced significant Africa-Asia joint research outside its project framework as well, such as the Kobe University team's Africa-Asia joint research on comparative analysis on universal primary education policy and practice in Sub-Saharan Africa (Ogawa and Nishimura (Eds), 2015).

13) For example, four main topics may be considered as independent goals in a post-2030 SDGs scheme, as follows: (i) aging and falling fertility, (ii) intergenerational knowledge transfer especially around traditional knowledge about local environment, (iii) rural sustainability in contrast to the current zonal focus on cities, (iv) theoretical ties among the set goals that go beyond the current Goal 17 about partnership.

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