ESDA Master’s Programmes
Training Leaders for Sustainable Development in Africa

University of Nairobi
Kenyatta University
University of Ibadan
University of Ghana
Kwame Nkrumah University of Science and Technology
University for Development Studies
University of Zambia
University of Cape Town

Education for Sustainable Development in Africa

United Nations University
Institute for the Advanced Study of Sustainability
Education for Sustainable Development in Africa (ESDA) Programme

Message from the Rector of the United Nations University

From an aspiring Africa to an inspiring Africa.

Africa is undergoing a major transformation. Though extreme poverty and hunger remain in many regions, and the entire continent is threatened by climate change and natural disasters, increasing globalization pressures, and frequent crises of domestic governance, Africa has started to advance in its pursuit of sustainable development. The African Union’s Agenda 2063: The Africa We Want clearly spells out the aspirations and strategies that will drive its member states toward more inclusive, green, and resilient growth that will benefit all, ensuring that “no one is left behind” on the continent.

Since 2009, the United Nations University has supported African universities through our Education for Sustainable Development in Africa (ESDA) project. ESDA develops and implements field-oriented master’s degree programmes to train leaders for sustainable development in Africa. An international collaborative undertaking, the project supports future generations of Africans in the spirit of global partnership articulated by Sustainable Development Goal 17. It draws endorsement and support from many quarters, including the Government of Japan, the governments of several African countries, and the African Development Bank, for which we are extremely grateful. We hope that ESDA will serve as a leading example of sustainable development in Africa, which can inspire the global community.

David M. Malone
Rector, United Nations University

Message from the Chair of ESDA Consortium

Compete for excellence and collaborate for impact.

Welcome to ESDA – a community of like-minded individuals, groups and institutions with shared commitment to the promotion of innovation and capacity-building for sustainable development in Africa. I am Peter M. F. Mbithi, Vice Chancellor of the University of Nairobi. I have assumed ESDA Chair since August 2016, succeeding from the founding Chair, Prof. Stephen Simukanga, former Vice Chancellor of the University of Zambia. As a leader of African higher education I am keenly aware of both the enormity and criticality of sustainable development challenges Africa is facing today. As clearly articulated by African Union’s 2063 Agenda: The Africa We Want, we are all engaged in a major structural transformation of the continent through achievement of long-term and wide-spread growth which is at the same time ‘more inclusive’, ‘more green’ and ‘more resilient’. In practical terms, this means continued innovative efforts to solve pressing local and global challenges. Higher education sector should stand at the forefront of these efforts, transmitting the accumulated knowledge to the next generation through education, creating new knowledge through basic and applied research, and disseminating and utilizing developed knowledge through public and corporate service engagements. As individual universities we should compete to produce quality graduates in diverse fields of study to meet the expectations of the market and to excel in all these functions. Such competition for excellence is necessary but not sufficient. Universities must also collaborate as enterprising partners to have a greater impact on the society and to achieve public recognition for their role. The collaborative logic should be most compelling for capacity building in support of the next generation of professionals and leaders for Africa’s sustainable development. ESDA is an embodiment of this collaborative thinking for African universities.

Prof. Peter M.F. Mbithi
ESDA Consortium Chair
Vice Chancellor of the University of Nairobi
Overview of ESDA

— What is ESDA?

ESDA, Education for Sustainable Development in Africa, is an inter-university collaboration programme of graduate training and research among eight African partner universities for promoting sustainable development in Africa.

ESDA’s mission is to contribute to the promotion of Africa’s sustainable development through training of professionals who may serve as planners, organizers, instructors, researchers, field development agents and practitioners, as well as to organize supporting research and information sharing activities. In pursuing this mission, ESDA Partner universities are not only to collaborate among themselves to improve the quality of education and research activities in which they engage, but also to seek active interaction and close cooperation with government agencies, industries, local communities and civil society organizations.

The eight African partner universities of ESDA are collaboratively implementing: (1) three Master’s Programmes, (2) a joint research project of their Next Generation Researchers team, and (3) an exploratory project on the Africa Youth Entrepreneurship Initiative as mentioned in the table below.

<table>
<thead>
<tr>
<th>African Partner University</th>
<th>Master’s Programme</th>
<th>Next Generation Researchers</th>
<th>Africa Youth Entrepreneurship Initiative (under exploration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenyatta University</td>
<td>Sustainable Urban Development (SUD)</td>
<td>NGR Research Programme in support of Master’s Programmes</td>
<td>Africa Youth Entrepreneurship Society Platform for Young Entrepreneurs and Researchers</td>
</tr>
<tr>
<td>University of Nairobi</td>
<td>Sustainable Integrated Rural Development in Africa (SIRDA)</td>
<td>- Corruption, gender and governance</td>
<td>Agribusiness Incubation Network Development</td>
</tr>
<tr>
<td>University of Ghana</td>
<td></td>
<td>- Rural-urban linkage</td>
<td>Catalyzing Youth Entrepreneurs for Africa’s Sustainable Industrialization through ‘Africa’ MBA project based on University-Business Collaboration</td>
</tr>
<tr>
<td>Kwame Nkrumah University of Science and Technology</td>
<td></td>
<td>* Out-migration of youth and its impact on rural communities (in collaboration with NGR/Asia)</td>
<td></td>
</tr>
<tr>
<td>University for Development Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Ibadan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Cape Town</td>
<td>Mining and Mineral Resources (MMR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Zambia</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Participation by new universities)
— Development of ESDA

ESDA started as a project of UNU Institute for Sustainability and Peace (now UNU-IAS) in October 2008 with initial funding from the Japanese Government. UNU-ISP organized a team consisting of several African and other higher education institutions to develop and test a new capacity training scheme for Africa’s sustainable development. By 2011, three Masters-level programmes were established, forming a cornerstone for ESDA’s programme development. After various preparatory activities were carried out, the programme began its instructions in 2014, leading to the graduation of 14 students with Master’s degrees in sustainable development as the first cohort.

One important concern from the initial conception stage of ESDA was how to strengthen the research system of the African universities to backstop the graduate capacity building programmes. In 2012, Next Generation Researchers (NGR) Project was created with a team of young faculty under 40 years of age, nominated by the respective African partner universities for the purpose of conducting field-based research in support of the ESDA Master’s Programmes. One outgrowth of NGR work has been the new research concern for youth, employment and entrepreneurship, which has led to ESDA’s latest exploratory work on the Africa Youth Entrepreneurship Initiative.

Since its initiation in 2008 ESDA has received technical and financial support from many organizations, as shown in the table below.

— Distinguishing features of ESDA

The distinguishing characteristics of ESDA, which permeate through all its programme components and which separate it from other academic programmes for sustainability capacity building for Africa, may be summarized as follows:

1. Joint programme ownership by the 8 African partner universities;
2. Commitment to improvement of the existing graduate programmes through inter-university sharing of complementary strengths;
3. Common emphasis on field-oriented instruction, problem-solving inquiry and trans-boundary interaction with multiple stakeholders;
4. Assignment of a pivotal role to young faculty for integrating research, education and public service to bring about a greater societal impact of the universities;
5. Intentional use of Information & Communication Technology (ICT) for enhancing inter-university collaboration; and
6. Programme designed for any student, African or non-African, who is interested in contributing to Africa’s sustainable development.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme Development Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Initiation and Conceptualization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programme Development and Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting Conference Held in Tokyo – 3 Masters-Level Programmes Established</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Partner Universities and UNU Sign MOUs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESDA Master’s Programme Starts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa Youth Entrepreneurship Initiative Starts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Cohort, 14 Students Graduate from ESDA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table of Milestones

<table>
<thead>
<tr>
<th>Programme Development Phase</th>
<th>Programme Implementation Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Initiation and Conceptualization</td>
<td>Programme Development and Testing</td>
</tr>
</tbody>
</table>

MOU signing ceremony between UNU and partner African universities on 13 Oct 2011, from left: Prof. George Magoha, Vice-Chancellor, University of Nairobi; Prof. Olive Mugenda, Vice-Chancellor, Kenyatta University; Prof. Konrad Osterwalder, Former Rector, UNU; Prof. Ernest Aryeetey, Vice-Chancellor, University of Ghana; Prof. Stephen Simukanga, Vice-Chancellor, University of Zambia.

ESDA SIRDA students field practicum in Ibarapa East LGA of Oyo State, Nigeria.
ESDA Master’s Programmes
— SUSTAINABLE URBAN DEVELOPMENT PROGRAMME

Programme objective
The aim of this programme is to train and equip learners with knowledge, skills and attitudes necessary for effective and sustainable urban development. The problem-based learning approach of this programme is expected to improve students’ appreciation and understanding of the urban environment and empower them to better address the complex and interconnected urbanization challenges in Africa.

Institutions offering the Programme
Kenyatta University
University of Nairobi

Degree awarded
Master of Science (Sustainable Urban Development)

The Kibera slum is the biggest informal settlement in Kenya and has been widely researched, both locally and internationally. ESDA-SUD students specializing in water and sanitation are involved in practicum visits in this informal settlement with a view to realizing solutions to urban drainage problems.

Korokosho is one of the slums under the programme of slum upgrading. ESDA-SUD students are involved in field activities in this slum as seen in the picture.

Length of Study
Two Years

Programme Description
The programme is offered jointly by both Kenyatta University and University of Nairobi. Major themes are urban water and sanitation, urban energy and urban food security. Course work is offered in three semester blocks, and involves field work, classwork-theory, and assignments. The second year largely comprises an internship, seminar paper and project. At Kenyatta University, the programme is currently being undertaken on a full-time basis. At the University of Nairobi, the programme is offered on both a full time and part-time basis.

Structure of the curriculum
The two-year programme comprises core units to be taken in year one. Students must also choose an area of specialization − either urban water or sanitation; urban energy or urban food security − with each area of specialization having three units. Internship and seminar, and project will commenced in the second year.

Who should apply?
The programme is open to graduates in a wide range of disciplines – arts, social, life and natural sciences reflecting the diversity and complexity of urban issues. Applicants should hold a first class, or second class honours degree.

Comments from the Coordinator – ESDA-SUD, KU Chapter, Dr. John N. Muriuki
The course is set to revolutionize urban development in Kenya and the region as it will develop urban managers, leaders, and trainers who are keen in emphasizing sustainability ideals, with regard to urban development. It is in line with the Sustainable Development Goals.

Comments from the Coordinator – ESDA-SUD, UoN Chapter, Prof. Nzioka John Muthama
The programme is timely in that it is developing professionals with holistic and trans-disciplinary perspectives of sustainable development and the capacity to engage local and national governments on appropriate policies that support sustainability thinking for development. In addition, these graduates are equipped with much needed skills for technology-oriented research with a direct bearing on achieving the Sustainable Development Goals and Africa’s Agenda 2063.
Programme objective
The Sustainable Integrated Rural Development in Africa (SIRDA) Programme is a professional, interdisciplinary programme which seeks to impart in concerted practical ways knowledge and skills required for reducing poverty, enhancing opportunities, and improving the human living conditions in rural Africa. It is practice-oriented and underpinned by a philosophy of human capacity development. It was originally conceptualized as a two-year training-of-trainers Master’s Degree programme in four West African universities targeting actual or potential rural development practitioners.

Degrees awarded
Master’s in Sustainable Integrated Rural Development
MSc/MPhil in Sustainable Integrated Rural Development
PhD in Sustainable Rural Development (under consideration)

Institutions and length of study

<table>
<thead>
<tr>
<th>Institutions</th>
<th>1 year Masters</th>
<th>2 year Masters/ MPhil</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Geography and Resource Development University of Ghana (Ghana)</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Agricultural Extension Rural Development and Gender Studies, University for Development Studies (Ghana)</td>
<td>✔</td>
<td>To commence in the near future</td>
<td>To commence in the near future</td>
</tr>
<tr>
<td>Bureau of Integrated Rural Development &amp; Department of Agricultural Economics, Agribusiness and Extension, Kwame Nkrumah University of Science and Technology (Ghana)</td>
<td>✔ (MPhil)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre for Sustainable Development, University of Ibadan (Nigeria)</td>
<td>✔</td>
<td>(18 months duration)</td>
<td></td>
</tr>
</tbody>
</table>

Programme description
The SIRDA graduate degrees are structured to be uniquely innovative in their combination of several components of a unified rural development training strategy:

- Holistic perspective,
- Integrated multidisciplinary methodology,
- Endogenous approaches,
- Extensive participatory community-based field-oriented work, and
- Built-in capacity to generate employment for university graduates and rural youth.

The emphasis on practical training through application of appropriate development theories will:

a) Generate positive synergies between theory and practice
b) Enhance the capacity of graduates and rural communities for self-employment and engagement in the public sector.

The programme is comprised of core courses focused on solidifying theoretical and methodological foundations, and elective courses categorized into environmental, economic / livelihood, and social, which are practice-oriented. The courses and programmes are interdisciplinary with faculty members drawn from the humanities and social sciences, agricultural science, and other relevant academic units of the implementing universities. The teaching involves collaboration with external and industry experts.

Structure of curriculum
The structure of the programme and number of courses offer depends on the level of study. However, overall, the courses encapsulate theoretical and methodological perspectives on:

- Theories and Policies of Development with special reference to rural Africa,
- Community-Resident Practical Training in Integrated Participatory Rural Development, and
- Practice oriented learning through internship

The elective courses are of a more practical nature, which are categorized into:

- Environmental, such as Waste Management
- Economic / Livelihood, such as Alternative Income Generating Activities
- Social, such as Gender and Rural Development.

Pedagogy involves: a student-centred approach, conventional face-to-face classroom methods, modular presentations, laboratory work, field demonstrations, group discussions, attachment, and the use of digital platforms and other forms of new media. Performance assessment methods include term papers, seminar presentations, and an end-of-semester examination. External examiners are used to evaluate the students and faculty members to ensure quality.

Since the launch of the programme in 2014, the demand for admission from prospective students has been phenomenal. The SIRDA degree programme is distinguished by its interdisciplinary character, which brings together faculty from the Humanities and Natural Sciences to develop a critically needed skill-set for sustainable rural development. The internships and extensive periods of problem-based field practical placement aimed at finding solutions to poverty alleviation and creating opportunities for employment makes the SIRDA degree programme most relevant to the development challenges of our time. By making the finding of solutions to rural livelihoods challenges the focus, the programme has come to stay as the degree to have as a rural sector entrepreneur or a development worker.

Comments from Associate Professor Amin Alhassan (UDS, Tamale, Ghana)

Since the launch of the programme in 2014, the demand for admission from prospective students has been phenomenal. The SIRDA degree programme is distinguished by its interdisciplinary character, which brings together faculty from the Humanities and Natural Sciences to develop a critically needed skill-set for sustainable rural development. The internships and extensive periods of problem-based field practical placement aimed at finding solutions to poverty alleviation and creating opportunities for employment makes the SIRDA degree programme most relevant to the development challenges of our time. By making the finding of solutions to rural livelihoods challenges the focus, the programme has come to stay as the degree to have as a rural sector entrepreneur or a development worker.

Comments from Associate Professor Amin Alhassan (UDS, Tamale, Ghana)
Programme objective
The programme aims to educate and train future managers and leaders to have a high-level understanding of, and sensitivity to, the critical factors of sustainable development in the context of mining and minerals processing in Africa; and to be able to develop knowledge at an advanced level in and around the African mining industry, through research.

Institutions offering the programme
University of Cape Town (UCT)
University of Zambia (UNZA)

Degrees awarded
Master of Philosophy specialising in sustainable mineral resource development (UCT)
Master of Philosophy in Sustainable Mineral Resource Development (UNZA)

At UCT, students pursuing a Master of Science in Engineering can also take some of the programme courses as electives.

Establishment of programme
January 2014

Length of study:
Two Years

Programme description
The programme is a joint offering of the University of Cape Town and the University of Zambia. Course work is offered in the form of intensive blocks of contact time followed by self-study culminating in written assignments. The first year of study can be done on a part-time basis. Experiences from the first three years of the programme implementation indicate that it is easier for full-time students to complete the dissertation component in a timely manner.

Structure of curriculum
The two-year programme comprises core and elective courses with a total value of 60 credits, and a research dissertation with a value of 120 credits. The four core courses are delivered in blocks of approximately 10 days each within the first year of study, and include:
- Sustainable Development, convened by the Sustainability Institute, University of Stellenbosch
- Strategic Social Engagement Practice, convened by the Graduate School of Business, University of Cape Town
- Environmental Stewardship in Mining and Minerals Beneficiation, convened by the School of Mines, University of Zambia
- Research Methodology and Communication, convened by the Department of Chemical Engineering, University of Cape Town

The 120-credit research dissertation is convened by the student’s home university and is jointly supervised by academics from at least two different research disciplines and/or groupings.

Who should apply?
The programme is ideal for graduates from across a spectrum of disciplines (e.g. geologists, engineers, health & safety specialists, social scientists, economists, environmental managers or lawyers), who have an interest in pursuing or advancing their careers in the field of mining and minerals beneficiation. Applicants should hold a four year bachelor or honours degree from a recognized institution.

Applications are invited from suitably qualified persons to study for a trans-disciplinary and inter-institutional (University of Zambia, University of Cape Town) Master of Mineral Science in Sustainable Mineral Resources Development Degree programme, offered through the Department of Metallurgy and Mineral Processing in the School of Mines at the University of Zambia. The goals of this programme are to provide professionals with an understanding of issues of sustainability and sustainable development in the context of the extraction and processing of mineral resources in Africa, to enhance interdisciplinary and systemic approaches to environmental protection and socio-economic development in the context of geo-extractive industries in Africa.
Next Generation Researchers Project

The Next Generation Researchers (NGR) project is one of the notable outcomes of the ESDA programme. The NGR was born out of the need to develop the research capacity of young faculty members in the eight ESDA universities. It was envisaged that NGR would play an important role in generating research outputs that would enrich the ESDA masters programmes by providing research informed instructional material and supporting ESDA masters fieldwork. Thus, at the initiative of the ESDA Secretariat, eight young faculty members from the consortium converged in Lusaka in 2012 to establish NGR and to develop a framework for working together beyond geographical and disciplinary constraints.

ESDA Membership and Coordination
The NGR begun with a membership of eight young faculty members from the ESDA partner Universities. From the eight founding members, the NGR Team has expanded to include country teams of between 3-5 members in each of the eight universities. Further, an NGR-Asia team is being formed for knowledge exchange between young African and Asian researchers.

Aims of the NGR
The network is bound together by shared interest on the theme of sustainable development in Africa. In this regard, the goal of NGR is to develop and implement joint research in sustainable development to complement the ESDA masters programmes in all the ESDA eight universities. In addition, NGR provides a platform for knowledge sharing in the theme of sustainable development, not only among young researchers from the eight African universities, but also with other young faculty members in Asia.

The NGR Approach
The NGR project approaches its research programmes through inter-university collaboration within the ESDA consortium and partner universities in Asia such as the University of Tokyo. NGR research brings together knowledge and skills from various disciplines to provide a nuanced understanding of sustainability issues in Africa and generate policy relevant outcomes for sustainable development. Like all ESDA programmes, a notable feature of the NGR research approach is its field based problem solving approach to research which allows NGR to provide technical advice to communities and institutions involved in sustainable development in Africa.

Research sub-themes
NGR’s work on sustainable development focuses on four sub-themes. These are:
- Gender and Resource Governance
- Youth Unemployment and Sustainability
- Aging and Rural Development
- Rural-Urban Linkages and Sustainable Development

NGR Future Plans
As part of its future plans, the NGR is exploring the development of new research projects in collaboration with its Asian counterparts. One promising project is being developed by NGR Asia in aging and sustainability. In addition, the NGR is exploring the possibility of developing a think tank in sustainable development in Africa that will play a role in generating new sustainable development ideas and advising African governments and other institutions in sustainable development.

ESDA Membership and Coordination
The NGR begun with a membership of eight young faculty members from the ESDA partner Universities. From the eight founding members, the NGR Team has expanded to include country teams of between 3-5 members in each of the eight universities. Further, an NGR-Asia team is being formed for knowledge exchange between young African and Asian researchers.

Aims of the NGR
The network is bound together by shared interest on the theme of sustainable development in Africa. In this regard, the goal of NGR is to develop and implement joint research in sustainable development to complement the ESDA masters programmes in all the ESDA eight universities. In addition, NGR provides a platform for knowledge sharing in the theme of sustainable development, not only among young researchers from the eight African universities, but also with other young faculty members in Asia.

The NGR Approach
The NGR project approaches its research programmes through inter-university collaboration within the ESDA consortium and partner universities in Asia such as the University of Tokyo. NGR research brings together knowledge and skills from various disciplines to provide a nuanced understanding of sustainability issues in Africa and generate policy relevant outcomes for sustainable development. Like all ESDA programmes, a notable feature of the NGR research approach is its field based problem solving approach to research which allows NGR to provide technical advice to communities and institutions involved in sustainable development in Africa.

Research sub-themes
NGR’s work on sustainable development focuses on four sub-themes. These are:
- Gender and Resource Governance
- Youth Unemployment and Sustainability
- Aging and Rural Development
- Rural-Urban Linkages and Sustainable Development

NGR Future Plans
As part of its future plans, the NGR is exploring the development of new research projects in collaboration with its Asian counterparts. One promising project is being developed by NGR Asia in aging and sustainability. In addition, the NGR is exploring the possibility of developing a think tank in sustainable development in Africa that will play a role in generating new sustainable development ideas and advising African governments and other institutions in sustainable development.
Africa’s biggest challenge in its pursuit of SDGs and beyond is how to bring about ‘sustainable industrialization’ so as to enable inclusive and green growth, and, above all, employment creation for its increasing population. This would call for strengthening of existing industries and considerable investment for the creation of new industries and improved operation of supporting sectors, such as infrastructure. The most critical and urgent need for this new departure is the establishment of a mechanism for generating a stream of entrepreneurial talents to carry on this long-term development process.

UNU-IAS, the University of Nairobi and the University of Tokyo GPSS-GLI jointly organized, with the support of the African Development Bank, an Africa Youth Entrepreneurship workshop on the theme of “African Youth Entrepreneurship Development for Sustainable Industrialization” in August 2016 in Nairobi, Kenya. This workshop brought together 30 young African entrepreneurs and 25 young African researchers. During the three-day workshop, the participants heard key note speeches and lectures by resource persons and held group discussions on key areas of youth entrepreneurship for sustainable industrialization in Africa. At the end of the workshop, the participants agreed to three recommendations to pursue further collaboration between young entrepreneurs and researchers.

Africa Youth Entrepreneurship Initiative

Three recommendations proposed by young researchers and entrepreneurs

1. Establish a web-based platform to promote a collaborative network of young African entrepreneurs and researchers to share streams of entrepreneurial innovations and experiences in support of entrepreneurship development;

2. Establish a network of university-based business incubation centers to promote across Africa to enable young entrepreneurs and researchers to collaborate in joint entrepreneurial innovations; and

3. Develop and test entrepreneurial training courses and programmes to be jointly hosted by African higher education institutions, which will be effective in attracting and generating streams of business innovators and industrial leaders who can contribute to the promotion of high growth and sustainable industrialization in Africa (‘African’ MBA). Efforts in this direction should be based on the network of the young entrepreneurs and researchers.

Field visit to young entrepreneur’s dump site where her employees collect reusable plastic bags for her recycle business.

Entrepreneurs and researchers with AfDB president Akinwumi Adesina during TICAD6 Youth Entrepreneurship Forum.
**Future Vision for ESDA**

The ESDA Programme has entered its 5th year since the initiation of the three ESDA Master’s Programmes in 2013. Though not yet at their full intended enrollment capacity, the ESDA partner universities are operating their master’s programmes and have started turning out graduates. Quite clearly ESDA has gone past a programme establishment phase to enter a programme upgrading phase, and there is now a definite need to elaborate a clearer vision for its future.

**Consolidation and Sharing of ESDA Achievements and Lessons**

ESDA started, and still remains, as a collaborative engagement of eight African partner universities with secretariat support from UNU-IAS. Much has been achieved and many lessons learned over the years through this engagement, which are now being consolidated for their internal sharing as well as for external dissemination. One concrete way in which such sharing is being promoted is the initiation of the ESDA publication series designed to publish the research outputs generated from the ESDA sustainability workshops and the research conducted by the NGR team on rural-urban linkage issues. Since many academic programmes and courses have been created by universities on sustainable development against the backdrop of SDGs (i.e., 2030 Agenda), such a publication series could provide a useful documentary function.

Another form of sharing may be effected through presentation of ESDA’s graduate capacity development experience through seminars and workshops. The ESDA Secretariat has, in fact, been invited to numerous symposiums, seminars and workshops for making such presentations, covering varied concerns ranging from curriculum development, accreditation process, programmes administration, funding strategy, and performance monitoring and evaluation. The ESDA partner universities, singularly or collectively, may offer similar information and technical support to African universities interested in initiating a corresponding programme.

**Opening and Expanding ESDA Research and Education Network**

As ESDA Programme has now become more widely known in different parts of Africa, the ESDA Secretariat sometimes finds itself confronted with questions about ‘openness’ of ESDA membership and the possibility of widening entry. There may be two different ways to approach these questions. One way is to consider openness at the level of thematic groups. Facilities such as credit transfer agreement may be used for ESDA partner universities in a thematic group to provide students or universities from ‘outside’ to learn in or from the ESDA Master’s Programmes. Participation in the field work component of the programme, or even joint organization of it, may be another way for ‘other’ universities to participate in ESDA activities through ‘friendly’ partnerships. Beyond that, full participation in the existing Master’s Programme would above all hinge on funding possibilities, because the transaction cost to enable it would be huge.

Perhaps a more practical or a more easily practicable approach would be to open ESDA’s research network, and research projects, to other universities. The sustainability workshop series mentioned earlier would provide an opportunity for faculty and students of those universities to participate actively not only in the seminars but also in the subsequent publication programme. Opening and expanding access to participation in the NGR research network by young faculty and graduate students of other universities would be easily implementable. There is already a pair of Japanese and South African university conducting joint research within the framework of NGR’s rural-urban linkage project, which may be replicated with other ‘non-ESDA’ universities in Africa and Asia.

**A New Engagement: Capacity Building for Africa’s Sustainable Industrialization**

Africa’s biggest challenge in its pursuit of the SDGs and beyond is how to bring about sustainable industrialization, which is not only a political imperative agreed upon by the African Union in its Agenda 2063. The Africa We Want, but also an economic necessity to absorb a rapidly expanding labor force with decent employment and sustainable livelihood. ESDA is going to make a major new research and education engagement for capacity building in support of Africa’s sustainable industrialization. ESDA’s new African Youth Entrepreneurship Initiative encompasses (i) establishment of a platform for promoting information exchange and collaboration between young African entrepreneurs and researchers, (ii) promotion of university-based agri-business incubation system, and (iii) development of a graduate level entrepreneurial capacity development programme in support of Africa’s sustainable industrialization (‘African’ MBA).

There are already around 30 young entrepreneurs and around 25 young researchers from about 15 African universities, including from some francophone countries, who are taking part in the platform. A project to establish a system of agri-business incubation system are also underway at the initiative of some ESDA partner universities.

Unlike the first two ‘project-type’ engagements, the third, the development of a graduate-level entrepreneurial capacity development programme, involves possible widening of the overall scope of the ESDA Programme as well as the composition of partner university membership. It is, in effect, a proposition to add a fourth ESDA-Master’s Programme through collaborative work by graduate schools of business to develop an ‘Africa-appropriate’ programme for more inclusive, more green and more resilient growth on the basis of their respective business and entrepreneurship education and training experiences. The developmental work will involve a much larger number of countries and universities than the present ESDA as well as a much larger scope for research and education activities, expanding to shape new relationships between academia and the business sector.

**ESDA as a Role Model for Higher Education Engagement in Sustainable Development**

With the addition of the African MBA Programme, ESDA would have a comprehensive capacity-building programme covering key strategic areas for Africa’s sustainable development, encompassing rural, urban, mining and industrial development. Its integration of education, research and social implementation and close collaboration with multi-stakeholders will make it a role model for higher education engagement in sustainable development.