



CONCEPT NOTE

DRIVING ENVIRONMENTAL PROTECTION THROUGH ECO-INNOVATION SYSTEMS TO BUILD HUMAN CAPITAL AND GREEN ECONOMY IN AFRICA

Introduction

In an era where global concerns about sustainability issues are at a peak as shown by the continental **Agenda 2063** and its sectoral strategies, **Science Technology and Innovation Strategy for Africa 2014 – 2024 (STISA 2024)** and others where AU Member States are different level of implementation and are crucial in achieving the aspirations. The UN **Sustainable Development Goals (SDGs)** provides a platform for country level commitments towards transforming our world but in different AU Member States, this has been driven with little interaction between the triple helix of academia, industry and government working together. Internationally however, the success of a sustainability framework has been dependent on cohesion and a strong working relationship between the public and the private sector.

As Africa witnesses an increase in private sector investment, technological development and industrialization across a wide range of sectors and with the drive towards sustainability, there is need for a national policy level consideration of sustainable industrialization models that ensures green economic growth under a new global agenda known as **eco-innovation for a green economy**. Eco-innovation, while aiming to power the sustainable creativity of the private sector, provides a basis for the **introduction of internationally relevant and now locally expedient emerging themes** like green manufacturing, green telecommunications, green procurement, green transportation, green construction, green finance, green and modular refinery etc. These forms the basis for a new discourse in the public-private sector alliance in Africa towards a green economy with a proven capacity to accelerate wealth creation by increasing growth, generating jobs, reducing poverty, and improving the overall well-being of the population. Accordingly number one aspiration of the Agenda 2063 is ‘prosperous Africa based on inclusive growth and sustainable development’ and the STISA 2024 priority area of ‘Live together and build the society’ greatly emphasis eco-innovation and the African Union Scientific, Technical and Research Commission AU-STRC produced the African Union Green Innovation Framework to guide the Member State on green and eco-innovation.

As we are presently in an era where the identification of long term ‘solutions’ to sustainable development and climate change challenges across the world, the African Union Scientific, Technical and Research Commission seems to have also identified the need for AU Member States to develop home-grown policies and initiatives to allow Africans themselves to provide solutions to their own special needs and challenges. The twin pillars of increasing human capital and building Africa’s green economy, come together in eco-innovation.

Eco-innovation is essential in making significant and demonstrable progress towards the goals of sustainable societies and economies, including sustainable development. It is the development of commercially successful products, services and technologies that:

- achieve more efficient/responsible uses of natural resources. e.g. management of water, soil for food production, and forestry.
- reduce impacts on the environment e.g. management of urban waste, air pollution in cities, and developing systems for improving the quality of rural and urban water supplies
- enhance societal, economic, and technological resilience to environmental pressures. e.g. engaging in work on community –led sustainable livelihood systems in vulnerable and fragile ecosystems such as drought-affected areas
- addresses the challenges linked to the UN Sustainable Development Goals

Experience shows that Universities are key drivers of effective eco-innovation for two reasons. First, they are ‘anchors’ in co-designing and supporting research-driven eco-innovation partnerships with the businesses which ultimately deliver “environmental solutions”. Second, they play the key role in delivering the high level (graduate/post-graduate) skills that are essential to drive forward eco-innovative policies, products and services. However, exploiting the power of universities to drive African eco-innovation will require significant capacity building to bridge the current, very significant gap between academia and industry in Africa.

In order to support the African Union’s strategic priorities of increasing human capital and building Africa’s green economy, eco-innovation can be adopted. We recognize the value of the Climate Innovation Centres (CIC) in Africa, but this proposition is different in that it has a specialised focus on (i) developing high-level skills and capacity building for eco-innovation within and between African universities; (ii) achieving this by strengthening collaboration between universities and research users, especially industry, notably SMEs, building on Lancaster University and University of Benin’s own experience and proven success through its Centre for Global Eco-innovation (UK and Nigeria) and iii) building networks both within the African continent, but also with other continents: in Europe, Asia and Latin America. We believe that in a globalised world significant synergies can emerge through heightened co-operation between eco-innovation centres worldwide. We believe Africa has an important role to play – and indeed faces at present a significant risk in being left behind the rest of the world are moving ahead.

Our proposition therefore is for strategic capacity-building via three interlinked mechanisms:

- a. **Institutional capacity-building** focussed on creative, responsive, innovative African institutions that will provide the foundation for a future sustainable Africa: strategic capacity building through the establishment of university systems that bridge the gaps between academia and research users, especially industry.
- b. **Building individuals Researchers and entrepreneurs** where their capacities are built in different sector of the eco-innovation to set up SMEs or others in the sector
- c. **Provides capacity for accessing international and global green funds** there readily available fund from Green Climate Fund to other where African can tap into because the level of the accessibility by AU Member State are low presently.

Eco-innovation has the capacity to deliver the tools needed for Green Growth and sustainable development. Considering innovations that will be commercially successful products, services and technologies that reduce the impacts of human activities on the environment, achieve more efficient/responsible uses of natural resources and enhance societal, economic, and technological resilience to environmental pressures. However, it must be clear that eco-innovation cannot be achieved without qualitative research, resource mobilization and appropriation which must be driven by government. Focus must be given to sustainable solution-oriented research models that bridges gaps between academia and industry. For resource mobilization, the government must establish policy framework and strategic partnerships that attracts international green finance and investments, establishes climate-smart innovation funds, an effective carbon credit trade environment, a state-led sustainability-oriented tax regime, an alignment of private sector corporate social responsibility expenditure to a sustainability agenda, a platform for technology/knowledge transfer and a host of other sustainable finance and resource mobilization schemes.

Against this backdrop, the AU-STRC in partnership with Igbinedion University and the University of Benin, Edo State, Nigeria; the Nigerian Environmental Society; the Obour Institute, Egypt and Lancaster University, UK will be organizing a series of capacity building workshop in different areas of eco-innovation as listed below and the in the series of the workshops will be on biogas production and waste management:

1. Waste Management and Bioenergy Challenges and Opportunities for Bioenergy through Waste Management
2. Clean energy in rural Africa
3. Pollution control and clean air

Objective

To build capacity of African institutions, scientists, and entrepreneurs to drive eco-innovation in the continent thereby creating sustainability in development in line with the UN Sustainable Development Goals (SDGs)

Expected outcome

- Trained scientists and innovators on the eco-innovation and sustainable development;
- Spawned entrepreneurial acumen of Africans on eco-innovation;
- Linking academia and industries on eco-innovation.
- Development of regional strategy(ies) for eco-innovation – perhaps include circular economy?

Workshop organizers

The workshop is organized by AU-STRC, Igbinedion University, the University of Benin, Edo State, Nigeria; the Nigerian Environmental Society; the Obour Institute, Egypt and Lancaster University, UK

Participants

The workshop aims at assembling participants representing various categories of stakeholders:

- **Scientists**
- **Entrepreneurs**
- **Policy markers**
- **Students**
- **Workers in green technologies**
- **Scientific and research institutions**