

Higher Education for Green Economy and Sustainability (HEDGES)

CONCEPT –Futures of Higher Education

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Overview/Introduction

The concept of green economy in our today's society is gaining popularity slowly, though not clear to many people in different sectors. The problem is, the world is deteriorating at an alarming rate that we need to transition to green growth practices. The adoption of the Paris Agreement on Climate Change (COP21), and the 2030 Agenda for Sustainable Development provides major international momentum to advance the inclusive green economy concept and its focus on integrating environmental and social considerations in economic planning and policy making. The principles of an inclusive green economy have been reiterated through the sustainable Development Goals, such as SDG 4, 12,13 and 17.

Enhancing and implementing Green Economy initiatives should be driven by research at National higher learning institutions. The HEDGES program gears towards unlocking Green Economy potential to serve as a fulcrum reference hosting hub- Universities to serve as the engine of transformational sustainability toward delivering the sustainable development goals: "Living labs" for sustainability.

Even with Green Economy concepts in academia, still the impact of green economy networks is limited and not well defined in existing curricula. Futuristic higher education initiatives should be embedded on participatory global green economy networks such as the green learning networks that enshrine the 2050 agenda - decarbonizing higher education in a quest to a global ambition to zero emission. Therefore, it is of essence to leverage these global targets to fulfil the realization of global agenda 2030 (SDGs).

ESD is recognized as a key enabler of all SDGs and achieves its purpose by transforming society. The ESD for 2030 roadmap outlines actions in five priority action areas on policy, learning environments, building capacities of educators, youth and local level action, even after implementation for more than a decade. ESD's key role for the successful achievement of the 17 SDGs and the great individual and societal transformation is required to address the urgent sustainability challenges. Building capacities of educators and trainers to integrate ESD into faculty training in HEIs to enhance capacity in teaching sustainability issues, conducting and supervising solution-

oriented interdisciplinary research, and informing policy-making on ESD and sustainable development is of essence.

Challenges identified through the ongoing HEDGES baseline survey

From an ongoing UNESCO Chair-Kenyatta University, on Higher Education Development for a Green Economy & Sustainability (HEDGES) baseline survey (February 2021), the concept of Green Economy in Higher Learning Institutions has not been well understood and practiced. To go green, we need a clean, environmentally sustainable economy that promotes health, prosperity, and well-being. It relies on sustainable growth, which implies that our economies are growing in ways that profit, not sacrifice, social justice, equality and the environment. The ultimate goal of greener economies is to achieve sustainable growth.

Students observed that curriculum has not been developed to provide room for green technologies and green skills for green jobs. The concept of green economy is not much familiar to them. Furthermore, the curriculum is theoretical and not competency based to enable the transition towards green economy practices. They expressed their desire for the curriculum in the higher learning institutions to produce graduates with green specialization.

Some lecturers on the other side stated that they are familiar with the concept of green economy, including circular economy, but they lack the enabling environment to apply the green skills and abilities. The challenge that the lecturers face is the inadequate resources and training on the green economy skills and practices needed to enable the transition towards green curriculum for green jobs and employability.

On consulting the industry on whether Higher education responds to their green and sustainability needs. They stated that the response is limited. They recommended a need for a dynamic competency-based curriculum jointly developed by academia and industry for employability and transition to a greener economy. This would develop green human resource, green skills and green behavioral development needed to transition to sustainable futures.

There should be tools to screen for potential green enterprises with effective mechanisms in promoting a circular economy. Therefore, futuristic higher education should equip personnel and prepare the current generation with relevant skills. It is also important to establish bloc chains that promote industrial symbiosis initiatives. To have this achieved, it should be multi - sectoral and integrated. Though the main challenge here is inadequate resources and awareness.

Green economy constraints

There are countless problems facing the green economy. The greatest obstacles remain finance and technology. When there is a global financial crisis, national economic policies and international policies do not sail through successfully. The effective transition of the Green Economy concept into national policies creates challenges as well as opportunities, of which scaling up learning and skills development is one important area. Topics such as valuing natural capital, ecosystem services, advancing resource efficiency, or green economy modelling and assessments, are often unfamiliar to decision-makers in the public and private sector. Yet, awareness, knowledge and skills related to these topics are a key determinant for green economy policy analysis, reform and implementation at Higher Education Institutions (HEI).

What should be done to remove the constraints?

A green economy requires the reorienting of public policies supported by improved information systems for tracking and communicating Higher Education progress for sustainable futures.

- Rethink and revise curriculum to mainstream green economy knowledge, enterprise and innovations in higher education.
- Strengthen collaboration partnerships within the business community and professional organizations to promote Education for green growth and Sustainable Development.
- Enhance education on green technology, circular economy, industrial symbiosis, sustainable production consumption to address the environmental, economic and social concerns.
- Public investment in sustainable infrastructure e.g., green buildings to improve on energy efficiency, and natural capital to restore, maintain and enhance natural capital.
- Instil interdisciplinary knowledge (both pragmatic and empiric) to help learners understand the multi sectoral and connections and the needs for a greener economy.
- Integrate Climate Change Education into teaching and learning and in all areas of higher education.
- Integrate skills development for green jobs and employment and support sustainable livelihoods.

Higher Education for green economy and SDGS

The main essential mechanisms for promoting the transformation into an Equitable Green Economy, while executing on the Sustainable Development Targets, are modeling methods and accurate indicators and measurements driven by academia and research. The creation of these will allow easy tracking and evaluation of their progress

towards national and international development goals, to predict the potential impacts of policies and, thereafter, to direct and advise Green Economy policymaking.

Higher institutions should champion “Green Economy Modeling” as a valuable technique that:

1. defines a partnership between policy goals and related fiscal, environmental and social dimensions;
2. casts the impacts of policy initiatives in advance;
3. evaluates the consequences of current policies and;
4. classifies synergies and cross-sectoral impacts within policy choices.

Anticipated Outcomes - Based on ongoing HEDGES baseline survey

National and local level green economy learning should:

- Help to progressively develop national policies and goals for a transition towards green economy and sustainable futures.
- Draw from, and be inspired by, relevant regional global policies and agreements.
- Be based on needs analysis taking into account past, present and planned education and training initiatives, the capacities of education and training institutions. These will shape and determine futuristic and sustainability learning.
- Identify desired green economy competencies among all targeted audiences including most vulnerable and traditionally excluded groups, such as out-of-school, women, unemployed youth and persons with disabilities, indigenous communities in accordance with the broader objective to ‘leave no one behind’.
- Be made meaningful to national and local realities so that an inclusive green economy can be understood, valued and implemented.

Other outcomes include;

- Training and learning for a green economy (Green Apprenticeship, internship and practicum) research and community outreach for sustainable societies.
- Collaboration, Partnership and Networking on green innovations
- Funding and development of green incubation hubs -establishing living labs to support action learning and problem solving.
- Greening Curriculum
- Capacity building on green growth and sustainability skills.