

ROLE OF UNIVERSITIES IN ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS - A REVIEW OF LITERATURE

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Abstract

Sustainable Development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. This paper presents a review of the literature on role of universities in achievement of sustainable development goals. It specifically highlights how the Universities can contribute to achievement of the sustainable development goals. Finally the paper gives recommendations on what universities should do in order to effectively contribute to the achievement of sustainable development goals.

Key Words: Sustainable Development, Sustainable Development Goals,

INTRODUCTION

There have been many different although very closely related definitions of sustainable development since the term came in to existence several decades ago. However, the most commonly adopted definition is that found in the Brundtland Report. The Brundtland Report defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The online resource site, Wikipedia, defines Sustainable development as the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. The desired result of sustainable development is a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural system. Sustainable development, can therefore, be considered as development that meets the needs of the present without compromising the ability of future generations. It is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.

According to the United Nations Development Program (UNDP), sustainable development is about finding better ways of doing things, both for the future and the present. Sustainable development suggests that people and systems must strive to transform societies favorably socially, economically and ecologically now and for future generations (UNDP, 2015). Sustainable development involves every part of society, not just Government. According to the Sustainable Development Commission it is an approach to development that looks to balance different, and often competing, needs against an awareness of the environmental, social and economic limitations we face as a society. Sustainable development can best be pursued if population size and growth are in harmony with the changing productive potential of the ecosystem. This is because as argued by the UNDP, sustainable development focuses on key areas including poverty alleviation, democratic governance and peace building, climate change and disaster, risk, and economic inequality.

SUSTAINABLE DEVELOPMENT GOALS (SDGs)

The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. On September 25th 2015, world leaders agreed and adopted the 17 goals for a better World by 2030. These goals have the power to end poverty, fight inequality and stop climate change if successfully achieved. These goals will thus, help to **protect the planet** and **ensure prosperity for all**. The SDGs were developed by expanding the Millennium Development Goals (MDGs). Each goal has specific targets to be achieved over the next 10 years (by 2030). There are a total of 169 targets derived from the 17 SDGs to promote economic prosperity, social inclusion and environmental sustainability among all countries of the World. The goals and targets are universal, meaning that they apply to all countries around the world, not just poor countries. Reaching the goals requires action on all fronts – governments, businesses, civil society and people everywhere, all have a role to play. The SDGs aim to bring an end to extreme poverty, promote prosperity and well-being for all, protect the environment and address climate change and encourage good governance and peace and security.

Acquiring sustainable development needs cooperation among all sectors and institutions, and the involvement of all the concerned partners and individuals (Sabir, 2018). Many African countries including Angola, Ethiopia, South Africa, Uganda, Sierra Leone, Madagascar, Togo, Liberia, Cape Verde, Mauritania and Kenya are already taking steps to translate the ambitions articulated in the 2030 Agenda into tangible outcomes for their people; they are beginning with integrating the SDGs into their National Visions and strategic plans. For instance, through a highly consultative process involving Government Ministries, Departments, Agencies (MDAs); County Governments; Development Partners; Civil Society Organizations (CSOs); special groups including youth and persons with disabilities and the private sector, Kenya prepared its first report reviewing the implementation of the 2030 agenda for sustainable development. Each of the 17 SDGs was mapped with Vision 2030 Second Medium Term Plan (MTP) objectives to ensure the global development framework and its implementation is directly linked towards achieving both Vision 2030 and SDGs. To ensure wider consultation, umbrella bodies held consultations with their members and prepared reports that were the inputs into the country report. A conference on Blue Economy was also held in Nairobi also aimed at discussing issues related to some of the SDGs.

Guided by the goals, governments, businesses, civil society and the general public need to work together to build a better future for everyone. The SDGs are in three main levels:

i). Environmental Sustainability

At the environmental level, sustainability prevents nature from being used as an inexhaustible source of resources and ensures its protection and rational use. Aspects such as environmental conservation, investment in renewable energies, saving water, supporting sustainable mobility, and innovation in sustainable construction and architecture, contribute to achieving environmental sustainability on several fronts. According to the Sustainable Development Commission, living within our environmental limits is a principle of sustainable development which helps avoid climate change. The operational processes of a university might have significant environmental impacts on animal health and well-being, freshwater, air and soil quality, as well as the climate. The purchasing and employment practices of a university also affect the human rights, labour conditions and employment prospects of people – often in countries far away.

ii). Social Sustainability

Sustainable development is also about ensuring a strong, healthy and just society. According to the Sustainable Development Commission this means meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity. At the social level, sustainability can foster the development of people, communities and cultures to help achieve reasonable and fairly-distributed quality of life, healthcare and education across the globe. The fight for gender equality, especially in developing countries, is another aspect which in coming years will form the basis of social sustainability.

iii). Economic Sustainability

Economic sustainability focuses on equal economic growth that generates wealth for all, without harming the environment. Investment and an equal distribution of the economic resources will strengthen the other pillars of sustainability for a complete development.

ROLE OF UNIVERSITIES IN SDGs

Historically, higher education institutions have been praised for their contribution to creating new knowledge, advancing the technology frontier, fostering economic development, and being agents of change in the local and regional communities (Vidican, 2009). According to the Government of Kenya (2016) the objectives of university education include; the advancement of knowledge through teaching, scholarly research and scientific investigation; promotion of learning in the student body and society generally; promotion of cultural and social life of society; and the support and contribution to the realization of national economic and social development; promotion of the highest standards in, and quality of, teaching and research; the education, training and retraining higher level professional, technical and management personnel; dissemination of the outcomes of the research conducted by the university to the general community; facilitation of life-long learning through provision of adult and continuing education; fostering of a capacity for independent critical thinking among its students; promotion of gender balance and equality of opportunity among students and employees; and promotion of equalization for persons with disabilities, minorities and other marginalized groups (Universities Act, 2012). Based on the above objectives, universities in their endeavor to achieve this goals are more appropriate places to take the lead by integrating the principles and practices of sustainable development into all aspects of education and learning.

The SDG 4, calls for “inclusive and equitable quality education and lifelong learning opportunities for all”. The recognition that education at all levels, can be a powerful tool in promoting sustainable development has led to the concept of 'education for sustainable development'. Many targets within this goal are directly relevant to universities, such as for all learners to “acquire the knowledge and skills needed to promote sustainable development”. For the goals to be reached, everyone needs to do their part: governments, the private sector, universities, civil society and individuals. The Kyoto Declaration on Sustainable Development by the International Association of Universities (IAU) urges universities to seek, establish and disseminate a clearer understanding of sustainable development. The *United Nations Educational, Scientific and Cultural Organization* (UNESCO) has the mandate to promote higher education in an increasingly knowledge-based society as a key factor for cultural, economic and social development, as an endogenous capacity-builder and as a promoter of human rights, sustainable development, democracy, peace and justice. According to, H.E. Peter Thompson, President of the UN General Assembly, access to quality education is a fundamental building block for sustaining peace and sustainable development. Universities have a unique and critical role in helping the world achieve the UN Sustainable Development Goals (SDGs) through their research, teaching, operations and community leadership. UNESCO working together with universities can play a very great role in achievement of SDGs and vision 2030.

Universities are uniquely positioned to assist with implementing the SDGs. They are essential for providing the knowledge, innovations and solutions to underpin implementation. They are also essential for creating current and future implementers, and for providing cross-sectorial leadership in local, national and global implementation. It is crucial that universities' role in achieving the SDGs is nationally recognized and that universities are involved in discussions about the SDGs. Kenya through the Kenya National Commission for UNESCO (*KNATCOM*) has already recognized this important role of Universities and has already done trainings/ workshops for University Vice Chancellors and a similar workshop for Deputy Vice Chancellors (Academics) of all Universities in Kenya. These workshops were aimed at sensitizing the University leaders about SDGs and allowing them to lead the process of integrating SDGs in higher education, hence participating fully in achievement of SDGs before 2030. It also helps to create some form of inclusion of the Universities through their top management in the process of achieving the SDGs.

For the SDGs to be successful at a global scale, Universities need to become champions of sustainable development and play a leading role in the implementation of the SDGs (Bhowmlk, Selim & Huk, 2018). Universities can lead research in technology and set up the agenda for future research, by providing a space where researchers, the private sector, and the government, can come together to explore technology and industry pathways (Vidican, 2009). SDGs should be integrated into sustainability strategies, research, teaching, pedagogy, and campus practices, and position higher education institutions as one of the key drivers for the implementation of agenda 2030. Research is the basis for understanding the key sustainable development challenges represented by SDGs and for providing the evidence-based solutions, technologies, pathways and innovations for addressing them. Universities, through their extensive research capabilities and activities, have a critical role in providing the necessary knowledge, evidence-based solutions and innovations to underpin and support achievement of SDGs (Bhowmlk, *et al.*, 2018).

According to Ms. Marie Paule Roudil, Director of UNESCO New York "Universities and higher education institutions can provide advice and guidance on strengthening national education systems, as well as aspects of capacity-building across different sectors. Universities should lead in the process of conducting combined research and appealing to other stakeholders in initiating practicable solutions (Sabir, 2018). They can provide expertise and strengthen the interface between research-findings and decision-making, using evidence-based data, as well as problem-based scientific research". In addition, universities are instrumental in creating new domains of knowledge that support the development of renewable energy technologies and address larger societal concerns regarding sustainability (Vidican, 2009). Universities also play a role in analyzing and assessing progress towards the goals and also act as knowledge brokers between sectors and stakeholders to enable greater dialogue between the general public, decision makers, and wider society.

SDGs cover all areas that Universities are engaged in teaching, community service and research e.g. energy, education, health, infrastructure, agriculture e.t.c and therefore the universities have a very critical role to play in the achievement of each of the SDGs through teaching and research. According to, H.E. Peter Thompson, higher education institutions have a role in supporting the implementation of Agenda 2030 by providing the data and research and analytical knowledge base required for targeted and effective policy-making.

Challenges to Sustainable Development

The SDG agenda faces social, economic as well as environmental challenges (Bhowmlk, Selim & Huk, 2018). Universities have a role to play in overcoming these challenges. Universities should play a role in interconnecting the social, economic, and environmental issues with education in order to achieve sustainable development. This is because of the holistic nature of sustainable development and also the fact that education is in its nature supposed to mold the learner holistically along many different fronts.

Lester and Piore (2004) summarize four main areas in which universities contribute to industrial transformation: (a) education and training; (b) adding to the stock of codified knowledge through publications in the technical literatures, patents, software and hardware prototypes; (c) increasing the local capacity for scientific and technological problem-solving; (d) providing space for open-ended conversations about industry development pathways and new technological and market opportunities. Universities are important contributors to innovation in sustainable development more broadly through contributing to fundamental research; combining existing knowledge; education and training; creating space for open exploration of ideas and community involvement (Vidican, 2009). To contribute to the SDGs through research, universities can; support the full spectrum of research approaches needed to address the SDGs, including interdisciplinary and trans-disciplinary research, support and incubate innovation for sustainable development solutions, actively support national and local implementation of the SDGs, advocate for national support and coordination of research on the SDGs, support capacity building for developing countries to undertake and use research on the SDGs, encourage and promote the SDGs as a topic of research within the university, encourage and

support researchers to engage in global research community efforts to support the SDGs (such as international assessments and syntheses of the current state of knowledge), help researchers to understand how their research currently relates and connects to various goals, map how the university's research and research strengths align with the SDGs and identify the key researchers as well as arrange innovating challenges to address the SDGs for researchers across the university and external stakeholders (Bhowmlk, *et al.*, 2018). Universities also underpin all the SDGs and trains the future leaders.

Achieving the SDGs requires the partnership of governments, private sector, civil society and citizens alike to make sure we leave a better planet for future generations (UNDP, 2015). Universities increasingly collaborate on sustainable development issues, engage with sustainability networks, and look for examples on how to integrate the different SDGs into curriculum, research, campus management, etc. One important role of universities in sustainable development is to empower students to learn about sustainability in an inter-disciplinary and learner-centred way. Universities have a role to prepare the future managers, doctors, engineers, and social scientists who have the responsibility of taking care of the society and getting rid of the hurdles in the way of sustainable socio-economic development (Sabir, 2018). At the end, the University graduates should be able to work on sustainability issues in their organisations and communities. Enabling the exchange of experiences in relation to different policy, technical, and institutional options is also a critical role for think tanks and academic institutions.

The 'SDSN Networks in Action,' describes the five roles universities can play in achieving the SDGs and the Paris Agreement as: helping to design SDG-based policies; encouraging SDG-oriented research and development; incubating new sustainable development businesses, such as hosting startup high-tech companies located near university research programmes; SDG-based training of future sustainable development leaders through cross-disciplinary and experiential learning; and fostering multi-stakeholder engagement.

According to Sabir (2008) the role of higher education can be mostly categorized in three groups. First, higher education has a role in helping students to gain awareness of the world in which they live in. It also helps them to understand how the various processes interact and come closer to each other. The second reason can be viewed that the higher education is supposed to help the society at large to become familiar with the various challenges of continuous development processes. It also helps them get abreast of the various social and economic aspects of human life. Universities play a vital role in finding solutions through academic researches and experiences. These on campus practices in many cases can be transformed to the heart of the society and be used there and thirdly central reason to make universities a suitable option for taking the leadership in sustainable development is that each university is a combination of a number of different centers and organizations in which any of these centers or organizations can add a significant amount of knowledge and practices to the sectors of the society they are in touch with. Universities have a vital role to play in addressing the current critical global challenges and achieving the Sustainable Development Goals. Universities have a responsibility through their teaching to equip the next generation of leaders, innovators and thinkers to understand the global challenges facing the world and the role they can play in rising to meet these challenges. Through their research and training of research leaders, universities should be at the forefront of finding sustainable social, economic, environmental and technical solutions to global problems. Finally through their own operations universities can also pioneer innovation and can set an example to other sectors and businesses. One important role of universities in sustainable development is to investigate research questions of high societal relevance. In this way, they generate insights to address socio-economic and environmental challenges that affect many people and animals.

The 2016 IAU Global Survey on Higher Education and Research for Sustainable Development (HESD) results show that universities increasingly collaborate on sustainable development issues, engage with sustainable development networks and look for examples on how higher education institutions integrate the different SDGs into the curriculum, research, campus management, etc. According to [Mohamedbhai \(2015\)](#) the Global Action Program (GAP) of UNESCO identifies five priority action areas to achieve SDGs:

- i. mainstreaming education for sustainable development in both education and sustainable development policies;
- ii. transforming learning and training institutions by integrating sustainable development principles in daily activities;
- iii. building capacities in educators and trainers;
- iv. empowering and mobilizing youth; and
- v. Accelerating the implementation of sustainable solutions at local and community levels.

An important role of universities in sustainable development is to assess and then reduce the environmental and social footprints of their buildings, procurement practices and laboratories. In conclusion, the role of universities in

sustainable development is to provide new insights to urgent societal challenges, to educate global citizens for sustainable development, and to reduce the environmental and social footprints of operations.

Progress towards Achievement of SDGs

According to Mohamedbhai (2015) the UNESCO report on progress made, higher education institutions have stepped up their efforts to support sustainable development, have made significant efforts to address sustainability in campus operations (commonly referred to as campus greening), have introduced new programmes and courses related to education for sustainable development, and are extending the value and impact of their teaching and research to their respective communities. There has also been the creation of networks of institutions in all the world regions in order to build capacity, share experiences and expand the influence of education for sustainable development.

The report titled, 'Getting Started with the SDGs in Universities: A Guide for Universities, Higher Education Institutions and the Academic Sector,' acknowledges that governments alone cannot implement the SDGs and recognizes that collaboration with the private sector, civil society, universities and educational institutions will be required. The report explains that education and research are explicitly recognized in a number of the SDGs and their targets, with universities able to directly address these targets. The report further underscores universities' broader contribution to the SDGs, noting universities can support the implementation of every SDG, through learning and teaching, research, organizational governance, culture and operations and external leadership. Universities also have a role as hubs of innovation to support and host businesses – such as high-tech companies – that provide technologies and services for sustainable development. Universities are major employers, consumers, investors and real estate holders. As large enterprises, they have significant impacts on social, economic and environmental wellbeing both on their campuses and in surrounding communities. By aligning university governance and operations with the aims of the SDGs, universities can make a significant contribution to their achievement. They can also send a clear message about what they and their communities value.

Benefits of A Sustainable Development Approach

Savings: Adoption of SDGs enables people individually and collectively to adopt a saving culture in utilization of available resources. This will be guided by the desire to ensure that future generations have access to the same resources.

Health and Transport: Walking and cycling for short distances is environmentally friendly, healthy and cheap to use as opposed to driving which is expensive and harmful to the environment due to emission of gases. In areas with heavy traffic walking or cycling is also quick and convenient. Money will be saved in form of transport cost, fuel cost, money paid to fitness places such as gyms among others.

What universities should do

In order to effectively contribute to the achievement of the SDG agenda, the Universities should create awareness of SDGs among the local communities, build capacity, identify priorities and gaps and then mainstream the SDGs in key policies and strategies. Universities should also link programs and strategic plans to SDGs within their niche. They should develop curriculum which are integrating SDGs; bridge the gap between knowledge producers and practitioners; exploit university expertise in policy development; encourage and support research and development in SDGs. University lecturers are opinion leaders, role models and mentors in the community, they should therefore play a leading role in achievement of the SDG agenda.

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