

Global Education, Research and Technology for Sustainable Development

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Abstract

The purpose of this research is geared towards understanding how key factors such as global education, research and technology, can influence sustainable development – which is, according to the Brundtland Report of 1987, “the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs”. The immense depletion of natural resources and high levels of pollution derived from human and climatic activities are a major concern in recent times. International organizations, states, nations and individuals have to put hands on deck to ensure a balanced society by seeking ways to sustain developmental efforts across the globe, through education, research and technology. The outgrowing female folk, according to world population statistics, is drawing our attention to investing in their advancement, prior to the need for massive global development. Hence, education of the woman should be focused upon as an enormous initiative towards achieving developmental sustainability. Amongst other standardized methods, a qualitative research was conducted using random sampling approach through questionnaires, to obtain data. Positive indicators of the aforementioned study carried out, demonstrates that a rapidly evolving worldwide economy can hardly disregard the concepts of global education, research and technology, when addressing issues of sustainable development. Sustainable development safeguards the immediate interests of the present, and guarantees a stable socio-cultural environment for future generations. Thus regulating and striking the balance between what is to be developed and what is to be sustained.

Keywords: *Global education, Research, Technology, Sustainable development.*

Introduction

The idea of sustainable development has become a talking point the world over. Major international organizations are putting in efforts towards seeking solutions to the challenges of achieving developmental sustainability.

While a modern concept of sustainable development is apprehended from the 1987 Brundtland Report – which portrays it as an ability to render development sustainable, to ensure that it meets the present generational needs without compromising that of the future, we can always get it rooted in pre-development ideas of sustainable environmental concerns.

As such, vital ingredients like global education, must be reexamined in the dawn of renewed human and social advancement. Nevertheless, research and technology, as accompanying factors to sustainability should be over-emphasized relative to emergence and societal growth.

In a bid to break the barriers that limit organizational efforts towards achieving developmental sustainability - such as socio-economic, financial, political, trade and institutional limitations, developing nations are encouraged to strike a balance for proper sustainability.

Hence, a few strategies like adapting the economy to environmental needs; implementing respectable policies amongst global institutions and evenly distributing resources with the best dialogue structures put in place, should amount to better achievement of developmental sustainability.

Methodology

1. Global education for sustainable development

Retrospections, back to early schools of thought, a few distinct ideas were basically seen in developmental issues: people, economy and society. We could perceive economies enhancing production for consumption, employment and wealth. But prior to an emerging growth scale, society has drifted over the years to human development, wherein values and goals like health, equity, opportunity and life expectancy, global education – being a most fundamental to all abovementioned.

With global education we reserve the ability to secure health and life expectancy through informed and trained professionals; we reserve the right to equity and opportunities through moralized justice systems; basic human needs like food, portable water, employment and social welfare, stand a chance of sustainability.

Global education even goes further to raising awareness for understanding global challenges in the likes of poverty, inequality caused by imbalanced resource distribution, environmental degradation, and violent conflicts leading to human rights issues. Through critical reflection, it also encourages active, responsive and responsible global peoples, with informed and sustainable actions. Illustrated here is a portrait of Global education for sustainable development.

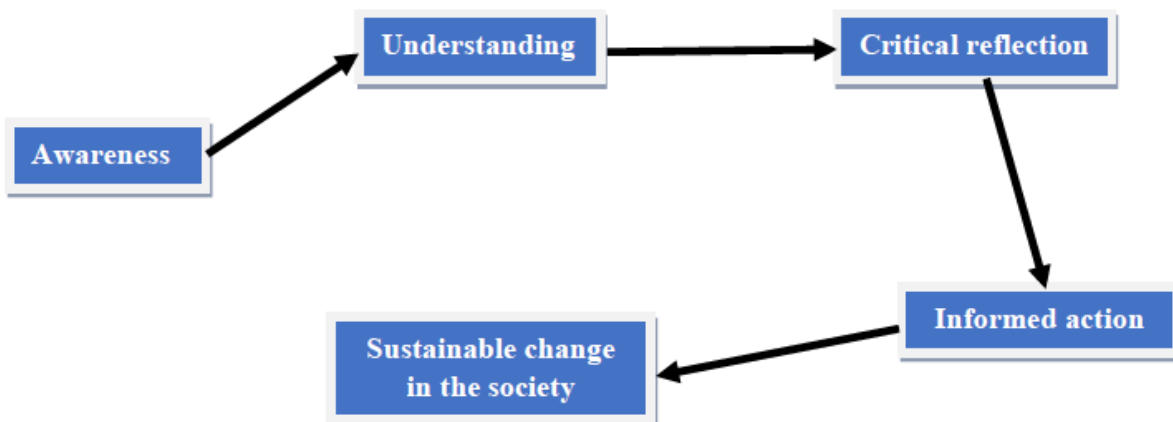


Fig 1

Global education emphasizes on participatory and experience-based learning towards empowering populations on values of: inclusion, empathy, solidarity and diversity amongst other things. Many developing nations have indulged in the process of raising awareness for problems, hence creating profound understanding of complexities, thereby encouraging critical reflection. This is a lobby for change of attitudes and behaviors that promote developmental sustainability.

Goal 4 on the list of UN sustainable development goals is to ensure inclusive and quality education for all and promote lifelong learning. According to this goal, quality education is the foundation of improving people's lives and sustainable development. Globally, progress has been made to increase access to education at all levels for both males and females alike thus improving basic literacy skills tremendously.

Female education and sustainable development:

In the yester years, the place of the woman was attributed to the kitchen. Girl children stayed at home and learned how to carry out household chores while they waited for the men to get married to them and became housewives. Only male children were allowed to go to school. Education for the girl child was considered a waste of resources. This situation has over the years with more and more females enrolled in school to be educated. This change can be attributed large to the Beijing conference which sounded the importance of female emancipation which begins with education. Female education cannot only be

attained by sending them to the classroom to sit and learn though it is the best, it can also be attained by constituting teams and moving into the communities to educate/sensitize them on desired topics particularly the interior settings.

The contributions of female education to sustainable development are enormous and cannot be undermined. Women who go to school tend to marry late and have few children. Also, educating women on family planning, through sensitization campaigns; antenatal and post-natal lectures, incites awareness on the need of making appropriate deliveries as per their economic situation. Having few children reduces the population and in a way contributes to better living standards. It reduces pollution caused by over population and poverty/hunger decreases. Most educated women earn an income which they use to take care of their families and secure their health.

Empowering an educated woman in the agricultural sector by providing her with land, tools, seeds and modern/improved farming techniques necessary will help to increase the quantity of food in the world and reduce hunger and poverty considerable.

2. Developmental sustainability in the light of innovative research

Environmentalists and economists have come a long way in figuring out what is to be sustained and what is to be developed. Amongst which: nature (earth, biodiversity, ecosystems); subsistent livelihood (resources, environment); communities (cultures, groups, places) – that need to be sustained, people (life expectancy, education, equity); economy (wealth, productivity, consumption); society (institutions, social capital, states) – which need to be developed

Intrinsic factors surrounding the ideas of these scientists in quest for sustainability go and come around research and innovation activities. And like a square peg in a square hole, we cannot exclude such a gluing component in our constructive evolution – which aims at redefining and implementing a metamorphosing agenda to greening the economy and society as one block for a real sustainable development, like in the European Environmental Research and Innovation Policy.

Going by the idea of research, comprising innovative work done through chronological order to improve human and socio-cultural knowledge for enhanced methodology, economies have adopted this theory to expand and develop further instruments for a sustainable growth. This, in essence, involves extensive documentation, discovery and interpretation of operations for human and environmental advancement. Hence research approaches include rational knowledge and beliefs, varying considerably within populations and several forms of sciences such as social, technological, life, management and many others.

The need for innovative research is therefore unavoidably encrusted in the various strategies of achieving developmental sustainability.

3. Technology for sustainable development

Considering the host of problems and solutions linked to developmental sustainability in developing nations, technology has been promulgated as an essential spice for globalization. Its impact on infrastructural development and crafting of opportunities can only be over-emphasized.

With the advent of new technologies like information and communication, primary, secondary and tertiary production sectors are faced with compounding socio-cultural and political challenges that can be harnessed with the guidance of new breed professionals and policy makers for the proper integration with archaic methods. However, it is our approach to technology and its ramifications that matters. Bearing in mind that for every aspect of development, we often should expect prospects and setbacks

Literature review

A UNESCO article (2015), cites that for more than half a century the international community of nations has recognized education as a fundamental human right. It further acknowledges education as an indispensable means for people to realize their capabilities. It also reiterates that education is not only an end in itself but also a means of achieving broad global development agenda.

Paul, P.K. & Mehera, C. (2016). In a research conducted on 200 households, they came to the conclusion that education has a significant positive impact on sustainable development among households. This is to say that education will produce skilled labor force which will in turn earn better income and eliminate poverty. Higher wages and poverty reduction leads to improved living standards, which guarantees sustainable development.

A press release of ILO.org mentions that, with improved education outcomes, relevant skills and competencies and access to decent jobs, youths can help accelerate progress on sustainable development goals, foster a prosperous, sustainable and equitable socio economic environment for all and build peaceful and inclusive societies.

Beder, S. (2000), penned out that appropriate technology involves attempting to ensure that technologies are fitted to the context of their use, both biophysical context which takes account of health, climate, biodiversity and ecology, and the psychosocial context which includes social institutions, politics, culture, economics, ethics and the personal/spiritual needs of individuals. She further concludes that sustainable development relies on technological change to achieve its aims.

Schavan A. (2009). With current technologies and concepts, we will not succeed in overcoming the global challenges. Research and innovation are needed more than ever to identify new development approaches and to enable technological leaps. Therefore, investments in research and development are also investments in new technologies.

Objectives

The study has four main variables which are global education, research, technology and sustainable development. The first three are independent variables while the last is the dependent variable. The objectives of this study include;

- i) Understanding what sustainable development is.
- ii) Finding out if there is a relationship between global education, research, technology and sustainable development.
- iii) To know if this relationship works.
- iv) Lastly to find out if there are other factors that impact sustainable development.

Research methodology

Scope of study: Given the fact that sustainable development is the cry of many high profile organizations and countries, this study look at how beneficial research, education and technology are in achieving sustainable development. Persons who are literate have been considered for this study.

Sample Design: The research is designed to be as simple as possible. With a sample size of 30 people to make the study less cumbersome, drawn randomly from the literate population and without any preference to a particular gender, data was collected by use of a questionnaire to establish the link on the above mentioned topic. A copy of the questionnaire has been annexed at the end of this study. Apart from issuing questionnaires, other source of obtaining information used in the article was from already existing, extensive literature on the topic put down by scholars and researchers. To the best of my understanding of types of research, the research type used in this study is descriptive research which explains how the factors contribute to the attainment of sustainable development and also explores the possibility of them not being favorably disposed. Without complicating the study in any way and not also being biased, simple statistical methods will be used to analyze the data obtained and results will be interpreted in percentages. The questionnaires were served by me to obtain data for the study.

Results

A total of 30 questionnaires has been administered and interpreted according to the questions.

All 100% participants have heard about sustainable development and their definition points to the definitions point to the fact that we have to focus on the wellbeing of both the present and future generations.

100% of them are in support of the fact that education is fundamental to sustainable development stating that they learn about it and the ways of achieving it through education. Another dimension of global education is female education which a whopping 96.7% of participants are of the opinion that it has a positive effect on sustainable development while 3.3% are neither for nor against. Those who are for say that educating a woman is educating a whole nation morally, politically, socially and otherwise.

100% participants agree that research has an impact on sustainable development. While 96.7% of this population thinks it is a positive, 3.3% say it is either positive or negative depending on how it is used. Research acts as a gate way to finding better ways of gaining insight and better techniques to achieve sustainable development. A systematic study is undertaken to understand the problem and then propose solutions to handle the problem.

100% attempted a definition of technology. Of this percentage, 96.7% are for the fact that there is a link because technology enhances the achievement of sustainable development. 3.3% are neutral.

Participants were asked to rank education, research and technology in order of most influential in achieving sustainable development and to give reasons for their opinion. 6.7% think all are of equal importance. 6.7% say research first, technology next and education on how to use the technology. 16.7% of the population holds that people should first be educated about sustainable development, the techniques of attaining it should follow and lastly, continues research should be conducted due to changes in natural forces. The final set of people carried the day with 63.2% for the fact that people should be educated to create awareness about the subject matter, research conducted and technology implemented to tackle the problem.

Apart from education, research and technology, participants think several other factors influence or impact sustainable development. These factors include availability of resources (financial and human), government policy, people's attitude, political climate to name a few.

Discussion

Embarking on writing this article has been a first time and wonderful experience for me. As much as possible, I tried to stay true to the procedure of conducting research and for it to be free of bias.

However, the exercise has not been void of challenges. A small sample size of 30 was finally chosen due to unwillingness of some people to participate in the exercise.

There was also the problem of cost. Insufficient funds made it difficult to engage people to assist me carry out the research and also to move to several places to administer questionnaires.

Time constraint was another factor. Working, running a home and studying is not a bed of roses. Time has to be shared among these activities on daily basis. I had to make use of the limited to complete this assignment. I do however appreciate the opportunity.

Conclusion

Education, research and technology propel sustainable development, without these, sustainable development will hardly be achieved.

Education creates awareness about a situation. Through education, people obtain knowledge on how to handle a situation. Governments along with other stakeholders are encouraged to promote education by providing schools to their citizens, organize seminars, workshops, trainings and even outreach programs in the suburbs.

Adequate funding should be made available to research and development departments to support their research activities. Different institutions, organizations and bodies should be motivated to create research departments and embark on research activities that are sustainable to development.

Technology is constantly evolving. It should embraced by everyone. New techniques should be invented to handle this problem.

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Reference

- [1].Beder, S. 2000. "The role of technology in sustainable development, University of Wollongong Research Online
- [2].Paul, P.K. & Mehera, C. 2016, "Impact of Education on Sustainable Development", American journal of educational research
- [3].Schavan A. 2009, Research for sustainable development. Federal ministry of education and research, Bonn, Berlin
- [4].https://en.wikipedia.org/wiki/Sustainable_Development_Goals#The_17_goals
- [5].https://www.fona.de/mediathek/pdf/bmbf_fona3_2016_englisch_barrierefrei.pdf
- [6].<https://www.nap.edu>
- [7].<http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1049&context=artspapers>
- [8].<http://glen-europe.org/global-education/what-is-global-education/>