

Internationalization of Higher Education and Environmental Sustainability: An Analytical Overview.

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Abstract

This article engages with the question, whether there is a link between 'Environmental Sustainability' and 'Internationalization of Higher Education'. We try to find an answer to this question with the help of the concept of Instrumentalism (Jonas Stier, 2004). We first consider through literature, the currently prevalent perspectives on 'Environmental Sustainability', what it is and why is it required for our race to survive. How 'Internationalization of Higher Education' is understood and what motivates countries and universities to promote it. After that, we provide a succinct analysis of how "Environmental Sustainability" is viewed in relation to "Internationalization of Higher Education." We contend that 'Internationalization of Higher Education' promotes 'Environmental Sustainability'

INTRODUCTION

Last two centuries we have become increasingly aware of the importance of sustaining the environment and by extension sustaining our way of living. What Covid19 pandemic has taught us is that global problems can be of such epic proportions that the entire humanity can come to a standstill. Environmental catastrophes happening around the globe have forced the countries and other independent bodies to take drastic measures and ensure that everyone understands the urgency of the situation and act in the present in order to preserve the future for the generations to come. Taking cognizance of this state of emergency United Nations long back had announced that the decade 2005 to 2014 will be called Decade of Education for Sustainable Development. If this urgency of the situation has to reach to masses on a global scale, universities will have a large role to play in spreading the awareness of Environmental Sustainability as they go about the internationalization of higher education. This will also help universities become more competitive as they will attract students who are environmentally conscious.

Method

The literature on "Environmental Sustainability" (ES) and "Internationalization of Higher Education" (IoHE) was analyzed by the authors in order to establish a connection between the two and demonstrate how favorably one influences the other. Both constructs were studied to understand how these variables were presented in the literature, the core values, the underlying rationale and the educational objectives. The literature was selected by using initial search words as: 'Internationalization of Higher Education', 'Sustainability', 'Education for Sustainable Development' and 'Environmental Sustainability'. Additional keywords were included to account for the literature which may have been covered in other allied fields.

We also wanted to identify potential conflicts between Environmental Sustainability and Internationalization of Higher Education. The concept of **Instrumentalism (Jonas Stier, 2004)** has served as a guide for this analysis. What it says is that it contributes to policymakers in improving the level of transparency and integration within the national education system, which also facilitates mobility and integration of university degrees, grading programs etc. According to instrumentalists, higher education is a way to increase profits, guarantee the economic development and sustainable environmental development and transfer of ideas to governments, international companies, stakeholders or supranational governments. In addition, higher education is needed to meet the needs of the capitalists and the world at large. In this regard, universities that promote internationalization are more likely to promote their country's competitiveness in the field of international education.

The effort in this paper is to go through the exhaustive literature available and show that 'Internationalization of Higher Education' promotes 'Environmental Sustainability'.

Environmental Sustainability

The construct 'Environmental sustainability' came into the popular culture when Brundtland Commission defined it as "development that meets current needs without compromising the ability of future generations to meet their needs" (WCED, 1987)

When the idea of the triple bottom line (TBL) was later developed, things began to move more quickly. Before being termed "environmental sustainability," the environmental component of sustainable development was first referred to as "environmental sustainability," then as "environmentally sustainable development." (Moldan, 2012).

It is generally believed that the definition which is largely accepted was given by Goodland in 1995. He described as a framework for "growth limits" as a development concept which is directed at enhancing the well-being of humanity by preserving the natural resources. In other words, Environment Sustainability means preserving nature and its resources, conserving the global environment to supporting well-being and health of all concerned, now and in the foreseeable future. Although ES is needed by the people and arises out of public concern, ES itself seeks to improve human well-being and social sustainability (SS) by protecting the resources which are utilised for human needs. At the same time, it has to be ensured that human waste sinks are not skipped and that injury to humans is prevented. Mankind must learn to live within the limits of nature and ecology, both as a supplier of resources ("resources") and as a "sink" of waste (Serageldin 1993) Biodiversity loss is one of the major threats to ES, including global extinction of species, as well as habitat loss, leading to the degradation of biodiversity. The major causes of the loss of biodiversity are influenced by the strong growth of the population, the increase in drug use as people strive for a more comfortable life, and the decline in resource efficiency. For example, deforestation eliminates shade, temperature and humidity control, animal habitat, and the nutrients they provide in the ecosystem. (Cardinale, B. J. et. Al 2012)

It has to be remembered that we have built our tribes on the basis of biodiversity and almost all the activities which are required for the sustenance of human race lead to the loss of biodiversity. This will continue as long as we inhibit this planet. There is no doubt that we are the beneficiary of the biodiversity and we have used it to our advantage for our food, shelter, medicines etc. It has been a very core part of our existence, the water we drink or the food that nourishes us or the materials that we use for our daily existence the source of all of that is biodiversity. So it is in our best interest that we make efforts in the direction of maintaining biodiversity. (Díaz, S., et al. 2006)

Deforestation is a challenge of ES and though it was a major challenge for the developed countries, in the recent past it has become a growing concern for the developing countries as well. Some studies claim that many countries, especially the developing countries where the population growth is at its peak are on the verge of losing all their forests and as a result they are likely to be reduced to deserts. (Gomez-Pompa, Vasques, and Guevara 1972; Daniel and Kulasingan 1974; Eckholm 1975; Barney 1980)

With the kind of population growth, the world has seen, specially the subtropical continents like Asia and Africa, humans are occupying more and more land which was a habitat for other animals and had huge forests. Industrialisation across the world has pushed the need for urbanisation and forests have paid the price for the human greed.

Another challenge facing a large part of the world is desertification. UN CCD 1995 defines it as "land degradation in arid, semi-arid, and dry-sub-humid areas resulting from various factors including climate variation and human activities". French botany scientist Aubreville in 1949 had coined the term Desertification in order to describe the degradation of land. Soil degradation or desertification is found more in dry-lands in the form of soil erosion, groundwater reserves getting depleted, permanent changes in the vegetation, internal soil changes etc. Now it is an accepted fact the desertification occurs more due to the human activities than due to the force of nature.

Ocean acidification is one more threat to ES. Simply put it means the continuing lessening of the pH value of the oceans. It occurs because oceans absorb an excess amount of carbon dioxide (CO₂) from the earth's atmosphere, which is put into the atmosphere by humans because of the burning of petroleum products in large quantities. This whole thing results in a chain of chemical reactions within the seawater which is bad of the ocean and the species living under water within the ocean. When CO₂ gets dissolved into seawater it forms a deadly acid known as carbonic acid (H₂CO₃). Multiple studies show that between the period of 1751 to 1996 the pH value of the oceans of the earth is believed to have been decreased from 8.25 to 8.14 approximately. This change represents an additional 30% H⁺ ion concentration in the oceans around the world. (Hönisch, B. et al 2012)

Fossil Fuel: For the most part of human existence on the planet, for energy we depended mostly on animal muscle, human muscle and the burning of crops or wood. Somewhere in the mid of 18th century we chanced upon something that would revolutionize the world in more ways than one: we discovered fossil fuel. It became the driver of most of the economic, social and technological development that followed. Life expectancy increased, the world became increasingly smaller due to fast and cheaper transportation as a result this exchange of ideas became more convenient which lead to many scientific discoveries. We humans changed from a bunch of warring animals ruled by monarchies to democratic folks with stable governments in most countries around the world. But this also had several negative consequences, because of several scientific discoveries in medical science, number of deaths due to diseases decreased. Due to democracy, wars became less frequent which also resulted in less deaths. A combined effect of these two things was population explosion.

This enormous population was consuming an excessive amount of fossil fuels and emitting too much CO₂, which is the primary contributor to both local and global air pollution and the annual death toll of millions of people. (Wuebbles, D. J., & Jain, A. K. 2001).

Numerous problems pose a very serious threat to the ES, including the greenhouse effect, water, air, and soil pollution, loss of plant and animal species, and the depletion of natural resources. Most of these problems are due to the behaviours of humans which are not aligned with nature (Wu et al., 2020; Hopkins, 2020; Xu et al., 2020). Academicians and researchers who are studying this phenomenon suggest that most of these counterproductive human behaviours can be corrected so as to maintain ES for the long term (Steg & Vlek, 2009).

These problems can be tackled in a variety of ways such as the following.

Green tech: short for green technology is a term coined in the recent past which means that we use the technology and scientific inventions to reduce or minimise the negative effects of human interactions on the environment. Green tech is prevalent in many areas including but not limited to energy, material sci., hydrology, research etc. Recent inventions such as electric vehicles, LED lights, solar powered instruments are an example which not only conserve energy but they also prevent the usage of fossil fuel and hence contribute in a big way in greening the planet and as such can be a big tool to maintain ES.

Internationalization Of Higher Education

Many believe that the internationalisation of higher education is an attempt by a certain nation to advance its economic interests or to promote its culture and ethnicity. But it is also a way in which countries respond to globalization. Through IoHE, countries are often trying to promote its unique history and indigenous cultures. Unique identity and promotion of culture are therefore a key feature of IoHE. Knight (1993) defines IoHE as “the process of integrating the international sector into teaching, research, and institutional work”, another researcher (Van der Wende, 1997) went on to describe it as “any systematic, ongoing effort aimed at making higher education more responsive to the needs and challenges associated with social trade, economics and labour markets”. Therefore, we can say that IoHE is a means of achieving economic growth and social change by enabling integration of international standards and an open and responsive environment within the country.

There are 4 different ways to describe and study the internationalization of higher education.

1. Through activities – we study IoHE by means of the development of curriculum which is flexible and of international standards, students exchange, faculty exchange, assistance provided (technical or otherwise) etc.
2. Through competency – it puts the emphasis on inculcating certain competencies such as the right knowledge, skills, behaviours and values in staff and students.
3. Through ethos – it puts emphasis on developing a climate that is supportive of indigenous cultural ideas, international programs which build ethos.
4. Through process – it puts emphasis on inclusion of international sector and different indigenous cultures into research and teaching by instituting various processes and procedures.

According to Aigner et al. (1992), there are three key reasons why a nation would choose to internationalise its higher education system. 1. Security is a problem for the nation in question; 2. They want to highlight their culture to the outside world; 3. They want to remain relevant and competitive economically.

Scott, (1992) talks about seven important aspects in international education. Warner (1992) tried to investigate different prerequisites which drive the international education strategy of various universities.

The suggested strategy is to integrate the international component into the objective, function, and delivery of post-secondary education in order to raise the standard of instruction and research for all students and staff and to promote active involvement in society. (De Wit et al., 2015).

As per Edelstein and Johnston (1993), IoHE will enhance and ensure international economic competitiveness.

According to Thondhlana et al. (2021), international advances in higher education continue to accumulate momentum as evidenced by increased awareness of the need not only for strategic use but also in a contextual sense.

Internationalization of Higher Education leading to Environmental Sustainability

Some researchers have tried to study sustainability in relation with Internationalization of education. Efforts have been made from higher education to address the planet's enormous environmental challenges. Perhaps the most audacious initiative to date was the Higher Education Sustainability Initiative (HESI), a global network founded in 2012. The network, which is overseen by the UN Department of Economic and Social Affairs, aims to bring together universities committed to the protection of the environment. The objective is to assist the development of green campuses and environmental sustainability initiatives, promote research and information sharing, and take part in global networks.

As a result, universities are using strategies to improve their environmental performance. According to the Times Higher Education University Impact Rankings, which examines the top 100 universities for climate change, the best universities have begun to take steps to reduce emissions and environmental pollution, including overall curriculum sustainability, energy efficiency, and participation (Miranda, L. F. et al., 2021)

Higher education is evolving with the time. Higher education institutions (HEIs) are being pressed more and more to pinpoint and present the ways in which they are improving the world. The importance of student experiences, global connections, and cross-border teaching, learning, and staffing practises has always been emphasised in impact assessments (Ravenscroft et al., 2017).

Through international or cultural education, research, service, and involvement, the Internationalization for Higher Education of Society seeks to "help the larger community, at home or abroad." (Brandenburg et al., 2019)

Most university initiatives in environmental education, according to (Christie et al. 2015), concentrate more on administration and performance than teaching and learning. This might be the case because, in many instances, financial incentives or regulatory pressures have affected the campus's inherent stability.

If it is approached gradually and goes beyond formal education, environmental education can play a crucial role in sustainable development. It also transforms into a lifetime process that goes beyond simply understanding environmental sustainability issues. The largest difficulty in environmental sustainability education is to go beyond the confines of traditional learning and to have an impact on everyone's knowledge of the environment, not just students. One successful strategy for assisting students in keeping current with the realities of a changing world is to let them conduct research on current sustainability challenges and global issues (Dmochowski et al., 2016).

CONCLUSION

This article has focused on the ways that HEIs, through research, partnerships, mobility, and institutional efforts, help to improve the environmental sustainability from the perspective of internationalisation.

Although the paper regards internalisation of higher education and environmental sustainability as connected concepts. Research on how these two ideas interact is still in its early stages. The World Economic Forum emphasised in 2016 that the current financial and economic climate cannot support business as usual and that nature and societal well-being must be at the centre of all our activities. Many think that incorporating sustainability into academic practises and programmes will be essential to higher education's success (Kolb et al., 2017).

To redirect international education toward sustainable development, sustainable development principles must be incorporated into courses, departments, activities, mobility programmes, institutional methods, and reward structures (UNESCO, 2014).

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