

HIGHER EDUCATION AS A TOOL TO IMPROVE QUALITY OF LIFE

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ABSTRACT

All of us talk little or more about quality. It can be quality education, quality products, quality food or quality life as a whole. Actually we search the quality of life in some or other form. We search quality in all the three bottom lines (society, economy & environment). Now, how can we get the quality which is a desire for everyone, merely in everything? This paper is trying to highlight Higher Education as a tool to achieve improved quality of life through Sustainable Development. The definition given by Brundtland Commission for Sustainable Development has rightly been used in this paper though we are aware of a group of authors raising questions about the validity of the definition itself. But, again the happenings right from poverty and inequality to climate change cannot be ignored and something has to be done. This paper emphasizes the role of higher education in a broader sense like solving conflicts that arises out of big table discussions such as G8. Integrating Sustainable Development into the school curricula would be beneficial to produce graduates with knowledge & skill to satisfy the purpose. The prevailing problems and challenges in using Higher Education as a tool to achieve sustainable development are discussed with some of the probable solutions.

Keywords: Higher Education, Sustainable Development & Quality of Life

INTRODUCTION

There is a bigger section of young people who have not yet been exposed to the Educational environment but, with the government support they are also entering into the main stream education system for a better life in most of the developing and poor nations.

Most of the leaders from developing nations can only visualize one side of the coin as Higher Education can change or improve quality of life of people. So, they are trying to equip their people with Higher Education to have a better life like many other developed nations have. Except a few, most of them have forgotten to see the consequences of the reckless growth of the industries and other sectors in developed nations. It is not time to argue that why developing nations would not grow or why developed nations have to be more responsible. It is about saving the Mother Earth, which is the only resource of life for billions. The only way we can change our thinking and acting towards the big problems is through transforming the Higher Education Curricula with an introduction of sustainable development into it. If more graduates with the required skill and responsibility together can be produced by developing nations, the nation can definitely get the same way of living life as that of the developed nation and probably in a better and responsible manner.

For Asia this is a crucial time to take decisions based on the surrounding circumstances. Recently China has declared that the growth model will be changed with a new definition i.e. sustainable growth (with generation of 8% renewable energy, planting trees to balance carbon foot print and so on). India's growth is more or less trying to accommodate Sustainable development (SD) into it. This implicates that there is a huge demand of Human capital with a specific skill of Sustainable Development in addition to their generic skills. So, SD must be made a generic subject in all disciplines of Higher Education. But unfortunately, the supply of natural capital is not at all satisfactory because of the reluctance and dilemma of institutes, government and other stakeholders in introducing SD into the Higher Education (HE) Curricula. So, there is an urge to transform HE parameters with quality assurance for a better future with job opportunities for the graduates so as for a sustainable future with improved quality of life.

DEFINING HIGHER EDUCATION

Education beyond the secondary level; especially: education provided by a college or university is defined as Higher Education (Higher Education, 2009). Mahatma Gandhi, one of the transcending leaders of the world mentioned that for healthy growth of a nation, education must correspond to the changing surroundings.

“Education for Sustainable Development (ESD) prepares people of all walks of life to plan for, cope with, and find solutions for issues that threaten the sustainability of our planet ... Understanding and addressing these global issues of sustainability that affect individual nations and communities are at the heart of ESD. These issues come from the three spheres of sustainable development— environment, society and economy.” (UNESCO, 2005)

“Education should empower the people of a country to meet the challenges of a knowledge based society of the 21st century. It should prepare them to contribute constructively - as enlightened citizens not only to nation building but also to the world. Education should contribute, in a broader sense, to the improvement of the quality of life.” – President of India, Mrs. Pratibha Devisingh Patil, New Delhi, 25th February, 2009.

SUSTAINABLE DEVELOPMENT

In 1987, the World Commission on Environment and Development, presided by Gro Harlem Brundtland, used the expression “sustainable development” for the first time in its report, “Our Common Future”. “*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” is defined as Sustainable Development (Our Common Future, Report of the World Commission on Environment and Development, 1987). Started with Environment only development policy it now incorporates socioeconomic and cultural diversity as well (UNESCO and Sustainable Development, 2005).

Conceptual Vagueness:

There are two types of sustainability (namely strong and weak sustainability) identified based on the utilization of natural resources. Weak sustainability is based on manufactured capital to replace natural capital whereas strong sustainability is to preserve both forms of capital as there is a belief that nothing can replace natural capital. The areas that are debated till today are 1. Centralized decision making ignores the participation of the stakeholder who actually practice sustainability, 2. Both kind of sustainability not always conclude with disagreement rather sometimes they give identical conclusion which nullifies the base of substitutability between economy and the environment, 3. Global sustainability and sustainable development have attracted attention of the world but their implications for open systems (such as region and countries) have not dealt with systematically (Ayres et al., 1998).

ESTABLISHING LINK BETWEEN SD IN HIGHER EDUCATION CURRICULA AND QUALITY OF LIFE

Our Unsustainable Present

All of us are unaware of the truth due to the new market based systems with utilitarian views. Our present is quite volatile and unsustainable with high consumption, depleting natural capital, prevailing inequalities among countries, climate change & increase in natural disasters, human right violation, exploiting child labor, exploitation of women at work, population rise, globalization etc. Some of the examples of happenings across the world, which draws our attention and is matter of serious concern, are listed below;

Increase in Natural Disasters: There is a clear increase in natural disasters from 1987 till 2006 so as the number of affected people due to the increase. (Renner & Chafe, 2007)

Food Insecurity: According to report from food and agriculture organization of the United Nations (FAO/GIEWS, 2005), 39 countries are facing food emergencies across Africa, Asia, Latin America and Europe. The reason for the emergencies shown is mostly due to the frequent droughts and floods in those areas. The growth in crop production is due to use of more and more agricultural land and the growth in supply side of some of the grains is negligible as compared to the growth in population (WAOB, 2009).

The following Figure [1] is suggesting how higher education can change our unsustainable present into an improved quality of life.

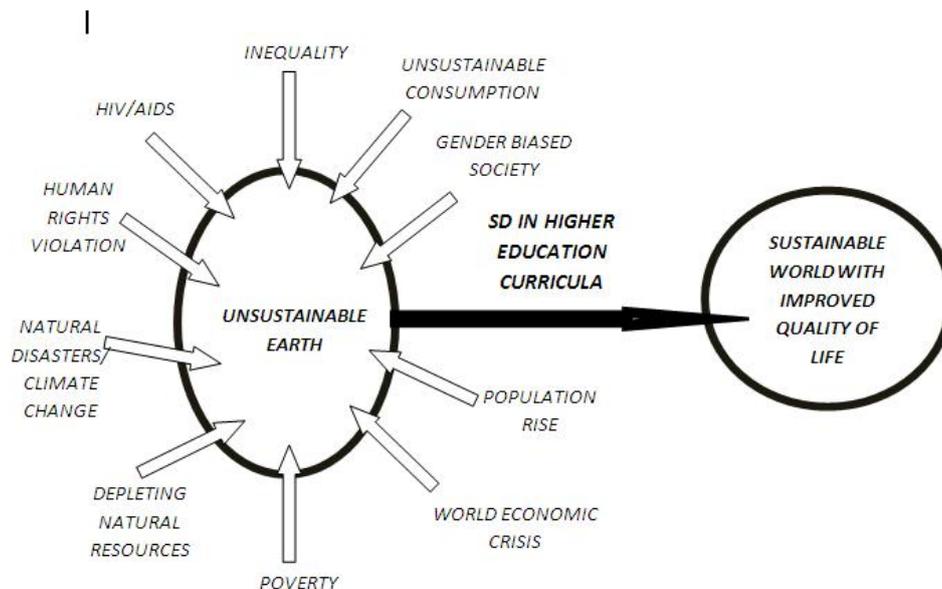


Figure 1: Sustaining Human Capital

Despite the conceptual vagueness and many definitions given by many authors for sustainable development we see potential opportunities to adopt the Definition given by Brundtland Commission which gained widespread recognition. The reason for this

1. like many other authors (Pearce et al., 1989; Giddings et al., 2002) it means “ satisfy human needs today and tomorrow”. This can be interpreted as improving and preserving all forms of capitals (Natural, human, financial, cultural, human made) for today and tomorrow.
2. flexibility and space given for every individual to perceive and interpret the meaning of SD in their own ways, which make them follow the guidelines in their own best understood manner.
3. our unsustainable present forces us to think for a better tomorrow.

Impact of Higher Education on Quality of Life

Now the question is how to sustain Human capital to improve quality of life. To understand this let us first understand the meaning of Quality of life.

Quality is defined as the degree of excellence, Superiority in kind, a distinguishing attribute, a social status a character in a logical proposition of being affirmative or negative (Quality, 2009).

Life is defined as a principle or force that is considered to underlie the distinctive quality of animate beings, an organismic state characterized by capacity for metabolism, growth, reaction to stimuli, and reproduction (Life, 2009).

So Quality of life can be interpreted as a principle or a capacity to grow which can be distinguished from a social status (either affirmative or negative) as compared to other such things.

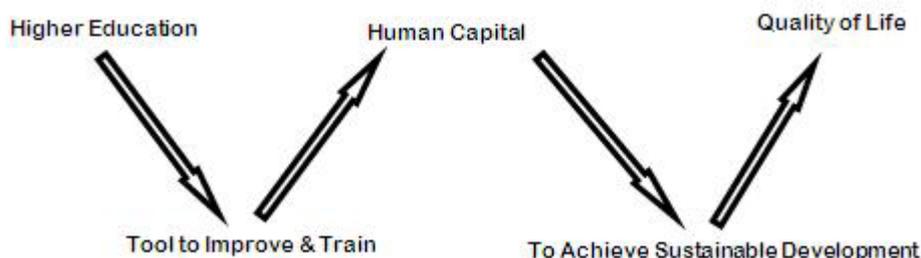


Figure 2

There are many attribute which contribute to change the quality of life of people from different regions, countries and places. We have chosen HE as one of the attributes which can build skilled, knowledgeable human capital which can be a vital link to bring in improved quality of life. As we have seen in the past and today, Higher Education has helped society getting Doctors, Engineers, Scientists, Geologist, Leaders who can utilize various forms of capital (stock) to give a better life for a certain section of people and we have also seen continuous reforms in Higher Education time to time [Figure 2].

“At postgraduate level, sustainability education is often embedded within single-discipline subjects, rather than being taught per se as a separate subject” (Leal Filho, 2002). Due to increasingly unavoidable imperatives for SD, there is a urge or need for graduates to develop literacy in sustainability (Thomas, 2004). To have a better and sustainable future universities have to transform the curricula on a global scale with an introduction of Sustainability and SD into it.

“Education is also central to improving quality of life. Education raises the economic status of families; it improves life conditions, lowers infant mortality, and improves the educational attainment of the next generation, thereby raising the next generation's chances for economic and social well-being. Improved education holds both individual and national implications” (McKeown, 2002).

CHALLENGES IN INTEGRATING SD IN HIGHER EDUCATION

Higher Education Institutions have long seen service to the community as part of their role, yet this function is often underdeveloped (OECD, 2007).

Conceptual vagueness of the term as discussed above under Sustainable Development is also one of the challenges. Many ways of interpreting the definition of Sustainable development have made it meaningless. There should be a clear guideline to follow and properly understand the meaning by all in all levels. So, it will be difficult for Higher Education in local levels to correctly understand and implement the meaning of SD. For this again we have to transform Higher Education Syllabi on a global scale to maintain quality assurance. And for this many parameters of Higher Education should be taken into account for properly fitting SD into it.

Some of the barriers mentioned by Thomas (2004) are 1. a lack of a culture of value or priority given to greening and sustainability 2. a lack of organizational and resource support for staff 3. -a lack of training for academic staff

“Unfortunately, the most educated nations leave the deepest ecological footprints, meaning they have the highest per-capita rates of consumption. This consumption drives resource extraction and manufacturing around the world. The figures from the United Nations Educational, Scientific and Cultural Organization (UNESCO) Statistical Yearbook and World Education Report, for example, show that in the United States more than 80 percent of the population has some post-secondary education, and about 25 percent of the population has a four-year degree from a university. Statistics also show that per-capita energy use and waste generation in the United States are nearly the highest in the world. In the case of the United States, more education has not led to sustainability.” (McKeown, 2002)

Some of other challenges are conflict in interests of the stake holders, lack of political will, lobbying against SD in HE, growth in the developing countries which is helpful in eradicating poverty for the time being,. Even though some have included SD in HE but not rightly satisfying the purpose and changing according to their own needs.

STEPS TAKEN TO MEET THE CHALLENGES

Some of the international organizations like UNESCO, IPCC, OECD, FAO and UNEP are working towards including and promoting Sustainable Development to be included in Higher Education Curricula. Some of the Authors and academicians are also working towards this such as Buchan, Spellerberg & Blum (2007) who proposed a structure of a new Master's level Subject entitled “Aspects of Sustainability: an international perspective” and suggested that it is highly appropriate for a multidisciplinary, multinational student group.

“Objectives of ESD International Implementation Scheme are to:

- facilitate networking, linkages, exchange and interaction among stakeholders in ESD;
- foster an increased quality of teaching and learning in education for sustainable development;

help countries make progress towards and attain the millennium development goals through ESD efforts; provide countries with new opportunities to incorporate ESD into education reform efforts.” (UNESCO 2005)

One of our recommendations is to globalize the Tuning Model developed for European Higher Education System. In this model, quality in higher education was emphasized and seen as a fundamental element for trust and relevance in terms of employability and citizenship and of preparation of graduates for crucial issues to be able to participate, work and live in a unsustainable and changing society. The project specifies five steps in developing curricula for higher education. They are,

1. Identification of social needs
2. Definition of Academic & Professional Profiles and Translation into desired learning outcomes
3. Translation into Curricula
4. Translation into Educational Units and Activities to Achieve Defined Learning outcomes
5. Assessment and Quality Assurance (González & Wagenaar, 2003).

While planning, designing and implementing the HE for sustainable development one should include all the stakeholders.

CONCLUSION

Here is a small story from Panchatantra Tales, an Indian small stories book based on human conduct and political science written in Sanskrit around 200 BC (predicted) by Vishnu Sharma. This story of “The Lion that Sprang to Life” will make it easy for us to understand the challenges that lie in integrating SD into HE and the probable solutions to meet the challenges.

“There were four friends living in a city. Three of them were very learned and the fourth one is not so good in sciences and other higher education. One day they thought what the value of such higher education is if they cannot get money to live happily. They have started their journey in search of good job and in their way 3 of the 4 learned men tried to test their knowledge of making a dead thing alive. They found out skeleton of a Lion and tried to make it alive. The fourth man said before you give the lion like skeleton life, I better climb on a tree to save my life from the lion and he did so. All the three learned friends laughed at him and made the lion alive. The lion killed all three of them after it was blessed with the life. The fourth man was saved.” (The Lion That Sprang to Life n.d.)

The moral of the story is it does not matter how much learned you are if you do not have common sense. Higher Education can produce talented, skilled human capital like doctors, engineers, educators and many more to exploit and use the resources heavily to produce goods and job opportunity for an improved quality of life. But, we are already facing the consequences of depleting natural resources, health degradation, food scarcity, climate change and many other problems of this kind. If we can show common sense in introducing Sustainable Development into the Higher Education Curricula to have quality human capital to invest in, we can really meet the challenges for having a sustainable future for all.

We conclude with an example and a success story as follows:

Mexico’s mandatory social service for higher education students provides an interesting model for countries seeking to mobilise higher education towards social goals (OECD, 2007).

If all of us will be aware of what is going to happen if we do not think of SD as soon as possible, then there will not be any conflict in big table discussions like G8, G20 or Doha Trade talks. There will not be any difference of opinions among Developed and developing nations.

REFERENCES

- Ayres, R.U., Van den Bergh Jeroen C.J.M. and Gowdy John M. (1998), Viewpoint: Weak versus Strong Sustainability.
- Buchan, G.D., Spellerberg, I. F. and Blum, W. E.H. (2007), “Education for sustainability Developing a postgraduate-level subject with an international perspective”, *International Journal of Sustainability in Higher Education*, Vol.8 (1) 4-14.
- FAO/GIEWS (2005), Food crops and Shortages Retrieved: 13 February 2009, from <http://www.fao.org/docrep/008/J6398e/j6398e02.htm#t2>.
- Gonzalez, J. & Wagenaar, R. (2003). Quality and European Programme Design in Higher Education. *European Journal of Education*, Vol 38(3).
- Giddings, B., Hopwood B. and O’Brien G., (2002). Environment, Economy and Society :Fitting Them Together into Sustainable Development. *Sustainable Development* (10).
- Higher Education. (2009). In Merriam-Webster Online Dictionary. Retrieved September 23, 2009, from <http://www.merriam-webster.com/dictionary/Higher Education>.
- Leal Filho, W. (2002), “Teaching sustainability: some current and future perspectives”, in Leal Filho, W. (Ed.), *Teaching Sustainability at Universities. Towards Curriculum Greening*, Chapter 1, Peter Lang GmbH, Frankfurt.
- Life (2009), In Merriam-Webster Online Dictionary. Retrieved September 23, 2009, from <http://www.merriam-webster.com/dictionary/Life>.
- OECD. (2007) Policy Brief: Higher Education and Regions. <http://www.oecd.org/dataoecd/60/51/39311062.pdf> (accessed on 20-09-2009)
- Pearce, D., Markandya, A., Barbier, E. (1989). *Blueprint for a Green Economy*. Earthscan: London.
- Quality (2009). In Merriam-Webster Online Dictionary. Retrieved September 23, 2009, from <http://www.merriam-webster.com/dictionary/Quality>.
- Rosalyn McKeown, (2002). ESD Toolkit Version 2.0. Introduction. <http://www.esdtoolkit.org/discussion/default.htm>
- Renner, M., & Chafe, Z. (2007). *Beyond Disasters. Creating opportunities for peace*. Worldwatch Institute: Washington, DC.
- Thomas, I. (2004). Sustainability in Tertiary Curricula: What is Stopping it Happening, *International Journal of Sustainability in Higher Education*.
- The Lion That Sprang to Life n.d. <http://panchatantra.org/the-lion-that-sprang-to-life.html>

UNESCO (2005), Draft International Implementation Scheme (IIS) for the United Nations, Decade of Education for Sustainable Development (2005–2014), UNESCO, Geneva, viewed 25 September 2009, (<http://unesdoc.unesco.org/images/0014/001403/140372e.pdf>).

UNESCO and Sustainable Development (2005): Sustainable Development: From Awareness to Practice, Pg.2. Printed at UNESCO and Printed in France. <http://unesdoc.unesco.org/images/0013/001393/139369e.pdf> viewed 25 September 2009.

WAOB (2009), World Agriculture Supply & Demand Estimates, WASDE-466.

World Commission on Environment and Development. (1987): Our Common Future. Oxford University Press.

BIOGRAPHICAL NOTES



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