

Higher Education and Sustainable Development

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Abstract

Education serves as a powerful tool for moving nations, communities and households towards a more sustainable future. Therefore the United Nation has declared 2005-2014 as the Decade of Education for Sustainable Development. For over 15 years now, institution of higher education have been rethinking their roles, among others, to find new ways to respond to the challenges of sustainability and prepare future generation to deal with sustainability issues in their carrier and lives. Higher educational institutions play a vital role not only in shaping the future by educating the professional for tomorrow but by creating a research base for sustainability efforts and by providing outreach and service to communities and nations. Simple educating citizens to higher level is not sufficient for creating sustainable society. The challenge is to raise the education levels without creating and evergrowing demand for resources and consumer goods and the accompanying production of pollutants. Sustainable development is generally thought to have three components : **Environment, Society & Economy**. These three areas are intermixed and not separate. For example a healthy, prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clear air for its citizens.

Introduction

“Education is the most powerful weapon you can use to change the world.

Education is essential to sustainable development. Citizens of the world need to learn their way to sustainability. Our current knowledge base does not contain the solutions to contemporary global environmental, societal and economic problems. Today’s education is crucial to the ability of present and future leaders and citizens to create solutions and find new paths to a better future.

Sustainable development seeks to meet the needs of the present without compromising those of future generations. To achieve sustainable development, fundamental changes in the way people think, and act are needed. Economic and technological solutions, political regulations and financial incentives are simply not enough. The crucial element for bringing out lasting change is education.

Education for sustainable development allows human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable futures. Unrestricted industrialization and rapid urbanization created serious social, economic and environmental problems threatening the very existence of mankind. Man has started the exploitation of the environment since he came into existence on this earth. For the satisfaction of his basic needs like food, shelter, clothing etc., he started to exploit the environment by cutting trees, destroying forests, constructing buildings, developing

technology etc. This exploitation reached its climax when the population increased drastically. The consequences of devastation can be seen in many places in the form of deforestation, different types of pollution, ozone depletion, greenhouse effect, various natural calamities etc. . In order to bring about awareness and to maintain the balance of the ecosystem, the developing countries had started to lay more emphasis on the concept of sustainable development.

Concept of Sustainable Development :

The concept of sustainable development was defined in 1987 by the Brundtland Commission as ‘ development that meets the needs of the present without compromising the ability of future generation to meet their own needs’. Sustainable development is generally thought to have three components : **Environment, Society & Economy**. These three areas are intermixed and not separate. For example a healthy, prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clear air for its citizens.

Sustainable Development may also be defined ‘as a vision of development that encompasses population, animal and plant species, ecosystems, natural resources- water, air, energy- and that integrates concerns such as fight against poverty, gender equality, human rights, education for all, human health security, inter cultural dialogue etc.’ Sustainable development helps to ensure social good, economic growth and environmental protection (not ravaging the resources).

Sustainable Development : Brief History

- In 1972, the UN Stockholm Conference on the Human Environment marked the first great international meeting on how human activities were harming the environment and putting human at risk.
- The 1980 World Conservation strategy prepared by the International Union for the conservation of Nature along with the UN Environment program and the World Wildlife Fund, promoted the idea of environmental protection in the self interest of human species.
- In 1987, the UN sponsored Brundtland Commission released ‘our common future’, a report that captured widespread concern about the environment and poverty in many parts of the world. The Brundtland report said that economic development cannot stop, but it must change course to fit within the planet’s ecological limits. This report make the term sustainable development popular.
- Attention on sustainability peaked at the 1992 UN conference on Environment and Development in Rio de Janerio.

The interest in sustainability that flourished during the period was spurred by a series of incidents and discoveries, including the leak of poisonous gas from a chemical plant at Bhopal, the hole in the Antarctic ozone layer etc.

Principles of Sustainable Development

The world commission on Environment and Development(1987) in its declaration on environment and development puts forward eighteen principles of Sustainability(Mc. Keown,2002: 8,9)

These are:-

- ❖ People have the right to lead a healthy and productive life in harmony with nature.
- ❖ Development today must not undermine the development and environment needs of present and future generations.
- ❖ Nations have the right to exploit their own resources but without causing environmental damage beyond their borders.
- ❖ Nations shall develop international laws to provide compensation for damage that activities under their control cause to areas beyond their borders.
- ❖ Nation shall take precautionary measures to protect the environment.
- ❖ In order to achieve sustainable development, environmental protection shall constitute an integral part of development process and cannot be considered in isolation from it.
- ❖ Eradication poverty and reducing disparities in living standard in different parts of the world are essential to achieve sustainable development and meet the needs of majority of people.
- ❖ Nation shall cooperate conserve, protect and restore the balance of earth's ecosystem. The developed countries have greater responsibility in this regard.
- ❖ Nation should reduce and eliminate unsustainable pattern of production and consumption and promote appropriate demographic policies.
- ❖ Environmental issues can be best handled with the participation of all concerned citizens. Nation shall facilitate and encourage public awareness and participation by making environmental information widely available.
- ❖ Nation will enact effective environmental laws and develop national law regarding liability for the victims of pollution and other environmental damage.
- ❖ Nation should cooperate to promote an open international economic system that will lead to economic growth and sustainable development in all countries.
- ❖ Environmental policies should not be used as an unjustifiable means of restricting international trade.
- ❖ The pollutee should bear the cost of pollution.
- ❖ Nations should warn one another of natural disasters or harmful activities which may have trans boundary impact.
- ❖ Sustainable development requires better scientific knowledge and understanding of problems. Nations should share knowledge and innovative technologies to achieve the goal of sustainability.
- ❖ The full participation of women, youth and indigenous people is essential to achieve the goal of sustainability governments should recognize and support the identity, culture and interests of indigenous people.
- ❖ Warfare is inherently destructive of sustainable development and nations shall respect international laws protecting the environment in times of armed conflict and shall cooperate in their future establishment.

- ❖ Peace, development and environmental protection are independent and indivisible.

This gives a fair idea of philosophy of sustainable development. But new dimensions continued to emerge with passage of time. The United Nations General Assembly adopted the Millennium Declaration in 2000 (known as Millennium Developmental Goals (MDG)) as a way of underlining common priorities in development governments and international agencies would work towards. These priorities were then characterized as eight MDG's with a target date of 2015:

- ✚ Eradicate extreme poverty and hunger.
- ✚ Achieve universal primary education.
- ✚ Promote gender equality and empower women.
- ✚ Reduce child mortality.
- ✚ Improve maternal health.
- ✚ Combat HIV/AIDS, malaria and other diseases.
- ✚ Ensure environmental sustainability.
- ✚ Develop a global partnership for development.

The United Nations Conference on Sustainable Development on 20-22 June 2012, attended by the Heads of States and high level representatives reaffirmed their commitment to sustainable development and resolve to ensure the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations.

Higher education and sustainable development

In essence, sustainable development is the process and product of human endeavor involving man's intelligence, imagination, entrepreneurship, risk taking behavior, decision making power, planning and managerial skills, technological acumen, prudence in making financial investment, high productivity in all pursuits and a sense of moral accountability and courage to manage, to monitor and to evaluate all decisions as well as to own one's mistakes.

Such veritable conglomeration of capabilities can be built up only through education and training of highest quality imparted with dedication and passion by an enlightened faculty in a conducive environment. Education in the modern age of science, technology and compulsions of globalization should be holistic, transformative and elevating in its conception as well as thrust. Higher education of a cutting edge quality should be an article of faith for every institution of any faculty, be its liberal arts, professional education or vocational training.

The Kothari Commission (1964-69), NPE (1986) and the POA (1986,1992) that have made an epoch making impact on higher education in India after independence, have in a chorus, recommended that higher education should be an instrument of national development by producing productive citizens in consonance with the demands of age of knowledge of science, of technology and of globalization.

Strategies of Higher Education for Sustainable Development

Higher education institutions should play a crucial role in improving the environment preserving natural resources and making an economic and social impact. Graduates are entering a volatile world and higher education needs to respond to challenging, rapidly changing socio-economic and environmental conditions. Through their roles as educators and researchers, institutions can contribute to securing a safer and more sustainable future against recognized threats.

Vision and clarity of purpose

Before changes in structure and governance are proposed, those engaged in, and within, higher education need to define a vision and purpose for higher education which align with sustainable development. This vision building must occur at a localized level and be explicit of the inner values as well intangible guiding principles which define higher education institutions and their practice.

Effective Leadership

Leaders that are able to translate vision and clarity of purpose into a changing process are difficult to find. There is a need to identify and celebrate effective leadership as well as provide leadership development opportunities to current and future leaders engaged within the sector.

Knowledge Structures

Structures must be changed to allow for a more integrated approach to sustainable development. This will allow universities and colleges to address global challenges in a more holistic and realistic manner. The approach would cut across the traditional knowledge disciplines, theoretical and methodological mainstay and engage with communities of practice to facilitate the co-creation, co-design and co-production of knowledge.

Intercultural Understanding

Higher education must promote intercultural understanding and cross-cultural dialogue critical to the attainment of sustainable development. It must be inclusive of indigenous knowledge, wisdom and values, lifestyle and attitude as well as the development of mutual respect and the promotion of multilateral engagements and agreements beyond higher education.

Professional Competences

Universities and colleges must promote less carbon intensive, less consumerist, healthier lifestyles across campuses and through external partnerships. This need to be supported by training and education of staff and stakeholders as well as the embedding of professional competences in sustainable development with in the curriculum.

Reorienting Exiting Education

Reorienting education to sustainability requires us to work increasingly at the interface of disciplines in order to address the complex problems of today's world. What people will need to know in five, ten, twenty or fifty years cannot be reliably predicted. It is predictable, however, that such developments will not fit neatly into the disciplinary boundaries that have been in place for more than a century. Hence, understanding and solving complex problems is likely to require intensified co-operation among scientific fields as well as between the pure and mathematical sciences and the social sciences, the arts and the humanities. Reorienting education to sustainable development will, in short, require important, even dramatic changes, in the way we think of knowledge.

Student-Centred Learning

Resource-based teaching, enquiry and discovery learning, values clarification and analysis, problem-based learning, simulation games and role play, and learning through community problem solving are student-centred approaches to learning that need to be encouraged. Such approaches encourage authentic or 'deep learning' rather than the 'shallow learning' of rote recall and memorization for examinations. Authentic learning relates to everyday issues and future concerns. It proceeds at the place at which individuals learn well rather than by imposed schedules and standards. Authentic education engages the 'whole person'- body, mind and spirit- in the learning process and creates enthusiasm, insight and reflection as well as compassion, energy and a commitment to working individually and with others to build a sustainable future.

Futures Education

As education for sustainable development is education for a future, it is important that education programmes seek to develop skills for understanding and anticipating change and for facing the future with courage and hope. This would involve learning how to learn, how to analyse and solve complex problems, how to think creatively and critically about the future, how to anticipate and make our own histories.

Education for Gender Equality

Women have always been-and remain – the deciding influence on the quality of life and well- being of their families and communities. They are the primary care- givers and the managers of natural resources, including food, shelter and consumption of goods, in most cultures. In addition, women also have jobs and careers. However, the general failure to provide equal opportunities for women to pursue education and economic self-sufficiency has meant that a disproportionate number of women are poor and marginalized. These social barriers- exclusion, low status and poverty- are also barriers to a sustainable future. These facts make the higher education of girls and women a priority for sustainable development.

Population education

Population education is aimed at enabling learners to better understand the nature, causes and effects of population dynamics and the manner in which they effect- and, in turn, are

effected by- the actions of individuals, families, communities and nations. Successful population education programmes share a number of common characteristics. They appear to be well adapted to their socio-economic conditions and institutional structures; they provide coherent, easy to understand and convincing message; they make use of well- trained teachers; and they enjoy the unequivocal support of the education system and its leaders.

Health Education

A child's ability to attain her or his full potential is directly related to the synergistic effect of good health, good nutrition and appropriate education. Good health and good education are not only ends in themselves, but also means which provide individuals with the chance to lead productive and satisfying lives. A healthy population and safe environments are important pre- conditions for a sustainable future. HIV/AIDS is a major concern for teachers and education systems.

Education for citizenship and democratic societies

A key aspect of citizenship education within the context of sustainable development is international understanding. This helps bring an understanding of the links between local and global issues. It also means that young people can be given opportunities to examine their own cultural values and beliefs, to appreciate the similarities between peoples everywhere, to understand the global contexts of their lives, and to develop skills that will enable them to combat prejudice and discrimination. In these ways, students can use their knowledge, skills and commitments to plan an active role in the global community.

Education for Sustainable Consumption

Higher education programmes need to integrate sustainable consumption issues so that young people can determine an appropriate balance between their rights as consumers and their responsibilities as citizens

Conclusion :

Thus sustainable development addresses the Brundtland report which said "Economic development cannot stop but it" must change course to fit with in the planet's ecological limits. Sustainable development can be made a total way of life, not by passing laws but by bringing about change in the attitude & value system of people. This can be done only by education not by legislation. All the rules and laws are easily violated and tarnished.

The present education system needs a paradigm shift from unsustainability to sustainability both in its practice and outcome. It is high time to think about the concept of sustainable development. In order to prevent a future disaster of the nature, to protect our earth, we should join hands to attain the goals of sustainable development. For this purpose higher education has to take the lead in stimulating and guiding the sustainable use of natural resources. We need reorientation in our thinking, planning and execution in order to ensure our development to be 'interdependent and mutually reinforcing pillars of sustainable development as economic development, social development and environmental protection.

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