

COMPUTER BASED EDUCATION AND KNOWLEDGE MANAGEMENT IN HIGHER EDUCATION: INDIAN CONTEXT

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Abstract

The ‘Sustainable Development Goals’ called SDGs, clearly associate development to sustainability and also recognises the contribution of higher education in meeting global sustainable development challenges and promoting sustainability. The present paper examines the concept of sustainability and discusses the role of higher education system in promoting environmental and social sustainability for a wholesome development of the country.

Sustainable development has become an important concept for a viable future of the world. India’s ever increasing population and the rapidly changing urban lifestyle, are posing critical environmental and social problems. Sustainable development at its core tries to balance different and frequently competing needs against an awareness of the environmental, social and economic limitations that a society faces. Sustainable development policies highlight the role of higher education in attaining its goals. All the stakeholders of higher education could play a vital function for promoting environment and social sustainability and help meet the needs of its existing members and also support the ability of future generations to keep the society healthy. *Key Words: Sustainable Development, Higher Education, Environmental Sustainability, Social Sustainability*

Introduction:

The objective was to integrate the principles and practices of sustainable development into all aspects of education and learning, and appointed UNESCO as the lead implementing agency. „Sustainability“ being the concept of paramount importance for survival and development of any country; proper understanding and application of the same could make all the difference. This is where the concept of „Education for Sustainable Development“ comes in picture. It could hold the key of empowering the individuals to assume responsibility to build a sustainable future. Education becomes the short cut to bring awareness about environment protection and social transformation among the students, researchers, teachers and communities at large.

sustainable development is a well-measured and well-known concept and yet not very easy to define being multifaceted initiative. In 1987, the Brundtland report from the World Commission on Environment and Development defined it as „meeting the needs of the present without compromising the ability of future generations to meet their own needs“. Even though this is the most quoted definition in the world, there has been continuous evolution in the ideas and practice of sustainable development world over. Since the beginning of 1990, the IAU (International Association of Universities) has been persuading universities indifferent parts of the

world to promote Sustainable Development in higher education. As a result in the 9th Round Table of IAU, on 19th November 1993, the IAU adopted a policy statement known as the Kyoto Declaration on Sustainable Development. In 2002, assuming leadership the United Nations declared, „2005 to 2014“ as the „Decade of Education for Sustainable Development“. **Objective**

This paper seeks to explore Importance of sustainable development in the modern times in relation to higher education in Indian Context and Management.

Kyoto Declaration: Bonding HE and SD

Kyoto Declaration was a statement of commitment on the part of HE (Higher Education)

institutions to share the global responsibility for building human centred and creative societies that promoted SD (Sustainable Development). It was a promise of the educators of the world to...

§ Advise new values and new ways of thinking

§ Start an era of human centred development

§ Design education and research to help people play new roles of promoting sustainability

§ Collaborate to forward ideas of sustainable future

§ Promote value education to create responsible citizens

§ Deliver economic, ecological, social and cultural benefits to all people.

The concrete objectives of Kyoto Declaration were:

I. To urge universities world-wide to seek, establish and disseminate a clearer understanding of Sustainable Development and encourage more appropriate sustainable development principles and practices at the local, national and global levels, in ways consistent with their missions.

II. To utilize resources of the university to encourage a better understanding on the part of Governments and the public at large of the inter-related physical, biological and social dangers facing the planet Earth, and to recognise the significant interdependence and international dimensions of sustainable development.

III. To emphasize the ethical obligation of the present generation to overcome those practices of resource utilisation and those widespread disparities which lie at the root of environmental non-sustainability.

IV. To enhance the capacity of the university to teach and undertake research and action in society in sustainable development principles, to increase environmental literacy, and to

enhance the understanding of environmental ethics within the university and with the public at large.

V. To cooperate with one another and with all segments of society in the pursuit of practical and policy measures to achieve sustainable development and thereby safeguard the interests of future generations.

VI. To encourage universities to review their own operations to reflect best sustainable development practices.

VII. To request the IAU Administrative Board to consider and implement the ways and means to give life to this Declaration in the mission of each of its members and through the common enterprise of the IAU

Kyoto Declaration recommended that each university, in its own action plan, should strive to:

1. Make an institutional commitment to the principle and practice of sustainable development within the academic milieu and to communicate that commitment to its students, its employees and to the public at large;
2. Promote sustainable consumption practices in its own operations;
3. Develop the capacities of its academic staff to teach environmental literacy;
4. Encourage among both staff and students an environmental perspective, whatever the field of study;
5. Utilise the intellectual resources of the university to build strong environmental education programs;
6. Encourage interdisciplinary and collaborative research programs related to sustainable development as part of the institution's central mission and to overcome traditional barriers between discipline's and departments;
7. Emphasize the ethical obligations of the immediate university community - current students, faculty and staff - to understand and defeat the forces that lead to environmental degradation, North-South disparities, and the inter-generational inequities; to work at ways that will help its academic community, and the graduates, friends and governments that support it, to accept these ethical obligations;
8. Promote interdisciplinary networks of environmental experts at the local, national and international level in order to disseminate knowledge and to collaborate on common environmental projects in both research and education;
9. Promote the mobility of staff and students as essential to the free trade of knowledge;

10. Forge partnerships with other sectors of society in transferring innovative and appropriate technologies that can benefit and enhance sustainable development practices

Even though the Kyoto Declaration is over two decades old, it is extremely comprehensive and vividly outlines all the basic issues concerning the role of universities in promoting sustainable development. The initial section recommends universities to ascertain and spread a clear understanding of sustainable development. The IAU also has continued to remain committed to sustainable development and takes special efforts to advance this cause.

The Sustainable Development Goals- SDG's:

SDGs are officially known as Transforming our world: the 2030 Agenda for Sustainable Development, are an intergovernmental set of aspiration Goals with 169 targets. The Goals are contained in paragraph 54 United Nations Resolution in 2015. (UN, 2015) They are also known as global goals build on the MDG's (Millennium Development Goals). However, SDGs go much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all people. They focus on peace, prosperity, and wellbeing, and to preserve our planet. (Clark, 2015) The Official Agenda for Sustainable Development adopted on 25 September 2015 has 92 paragraphs, with the main paragraph (51) outlining the 17 Sustainable Development Goals. This included the following goals:

- ❖ · Poverty - End poverty in all its forms everywhere
- ❖ · Food - End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- ❖ · Health - Ensure healthy lives and promote well-being for all at all ages
- ❖ · Education - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- ❖ · Women - Achieve gender equality and empower all women and girls
- ❖ · Water - Ensure availability and sustainable management of water and sanitation for all
- ❖ · Energy - Ensure access to affordable, reliable, sustainable and modern energy for all
- ❖ · Economy - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- ❖ · Infrastructure - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- ❖ · Inequality - Reduce inequality within and among countries
- ❖ · Habitation - Make cities and human settlements inclusive, safe, resilient and sustainable
- ❖ · Consumption - Ensure sustainable consumption and production patterns
- ❖ · Climate - Take urgent action to combat climate change and its impacts
- ❖ · Marine-ecosystems - Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- ❖ · Ecosystems - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- ❖ · Institutions - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- ❖ · Sustainability - Strengthen the means of implementation and revitalize the global partnership for sustainable development

As of August 2015, there were 169 proposed targets for these goals and 304 proposed indicators to show compliance." (SDG's, 2015)

Implementation and Action:

Basic Education

The contribution of mainstream education to promote awareness, attitudes, concerns and skills that will lead to sustainable development was realised by educators and policy makers. Fundamental education that develops functional literacy, inculcates livelihood skills, create understanding of the immediate environment and imbibe values of responsible citizenship automatically promotes sustainable living. This basic education must be available to every child of the nation as his fundamental right, even under circumstances of poverty, geographical remoteness and gender or cultural marginalisation. In year 2000- 01, former Prime Minister of India Shri. Atal Bihari Vajpeyi, with 86th Amendment of the Constitution of India, made primary education free and compulsory for children between the ages of 6 to 14 years as their fundamental right under the banner of „Sarva Shiksha Abhiyan“. (MHRD, 2015)

Environmental Education- „The Kothari commission (1964-66) suggested that basic education had to offer Environmental Education and relate it to the life needs and aspirations of the people and the nation. The report recommended that „the aims of teaching science should develop proper understanding of the facts, concepts, principles and processes in physical biological environment“. The United Nations Conference on Environment and Development held in Rio De Janeiro in 1992, and the World Summit on Sustainable Development at Johannesburg in 2002 have drawn the attention of the global community to discuss problems concerning environment and development.

Environmental education at Higher secondary level helps to encourage awareness of the environment, leading to informed concern for and active participation in resolving environmental problems." (Gopal & Anand, 2006) Recognising the importance of environmental education at all levels, the Supreme Court of India ruled that a course on Environment be made mandatory at the undergraduate level to sensitise the youth to environmental issues and concerns. As per the Supreme Court direction, the University Grants Commission introduced six months of compulsory environmental course in all the universities and colleges during the academic year 2004-05.(Late, 2011)

Open and Distance Education System- Green Campuses and Universities:

The distance education system has been started in the country with the establishment of Dr. B. R. Ambedkar Open University, Hyderabad in 1982. In the 14 ODL universities throughout the country the total enrollment of students was 16, 79, 398 during 2009-2010. Besides this, 21, 07, 012 students were also enrolled in various Distance Education Institutions (DEIs) in dual mode Universities in academic years 2009-2010. Various courses including Environmental Sciences have been started by these Universities which will ultimately be served with the concept of sustainability. IGNOU, New Delhi and some state open universities have started the Research Programme in various disciplines. (HRD Report, 2010-2011) The YCMOU (Yashwantrao Chavan Maharashtra Open University) has made „Environmental Education“ as a compulsory subject even for the PGRP (Post Graduate Research Programme) from academic year 2011-12.

Indian higher education system is the 3rd largest in the world. According to AISHE (All India Survey on Higher Education) 2013, carried out by Ministry of Human Resource Development there are 601 Universities, 21158 colleges and 6702 private institutions of higher education in India giving technical, medical, engineering and other commercial degrees and diplomas. Education being the backbone of a country plays a key role in preparing sustainable societies and assumes the responsibility to create the leadership for sustainable development.

The concept of Green Campuses and Universities can be achieved by reducing the environment foot print, by promoting programmes on waste management and minimization by propagating 3R"s- reduce, reuse and recycle. Responding to the Nation"s call by the honourable Prime Minister, Mr. Narendra Modi followed by the communication of the same by Madam Smriti Irani, Minister of Human Resource Development, Government of India, many colleges and universities have taken „Cleanliness Oath“ and initiative in creating a garbage free, paperless campuses and universities. A first year student at University of Delhi, Shaheed Bhagat Singh College Himadrih Suwan has launched an initiative named “Mission- E-Safai”: Clean India, Glow India (An Initiative by the Students of University of Delhi)(A mission to unite entire 757 Universities of India) to endorse & thoroughly implement PM"s vision of Swachh Bharat Abhiyaan. The mission seeks to achieve the goal of Clean India in next five years so that the 150th birth anniversary of Bapu can be celebrated as an accomplishment of this duty.“ (University of Delhi, 2014) Such initiatives are a decisive step towards „sustainable Development“.

Innovations in Research:

Research in higher education is expected to improve the quality as well as the process of education to lead a country towards the path of progress and prosperity. Research tries to find answers to the questions posed before human beings in various situations.

Therefore, to advance the research culture in higher education system it is necessary to encourage hard core scientific research, development of analytical thinking and promoting application based research areas by way of funding such researches. The YCMOU (Yashwantrao Chavan Maharashtra Open University) has introduced a

new approach in research, where the main thrust is on communicating the research findings to the people in the society, the end users. This unique approach of their PGRP (Post Graduate Research Programme) enables them to undertake socially significant research and share its benefits with the beneficiaries directly. Empowering and Mobilising Youth: Youth are the main stakeholders and major resource groups in a developing country like India. If they take up important roles in shouldering responsibilities, transforming the other stakeholders and acting as a catalyst for bringing about change; no goal seems impossible. Youth as future leaders have immense potential to mobilize the masses and become a linkage between two generations. Well-informed and motivated youth can make all the difference. 1. Mission- E-Safai: A first year student at University of Delhi, Shaheed Bhagat Singh College Himadri Suwan has launched an initiative named „Mission- E-Safai: Clean India“, Glow India, (An Initiative by the Students of University of Delhi) A mission to unite entire 757 Universities of India to endorse and thoroughly implement PM's vision of Swachh Bharat Abhiyaan. The mission seeks to achieve the goal of Clean India in next five years so that the 150th birth anniversary of Bapu can be celebrated as an accomplishment of this duty." (University of Delhi, 2014)

Leadership:

In 2018, „The Energy and Resources Institute“ (TERI) India announced the launch of Leadership - a youth programme on leadership and business sustainability in Delhi. A first of its kind initiative designed for undergraduate and post-graduate students from recognised universities and institutions of higher learning, Leadership has been launched in Pune and Delhi. The programme aims to be a springboard for future youth leaders who will craft tomorrow's India. Aiming to impact more than 30,000 students, the programme offers opportunities to young people to gain first-hand experience of cutting edge sustainable practices by industry leaders and learn about the triple bottom line - people, planet, profit - through its interventions like LEADearth Fellowship and Future Leaders Cafe. 3. CLEAN-India: „CLEAN-India“ is a nationwide initiative on environmental assessment, awareness, action and advocacy. This programme mobilises students and young professionals to prevent environmental degradation and improve all major towns and cities of India; through a network of 300 educational institutions, 60,000 students, 800 teachers and 28 NGO partners in 78 towns of the country. The programme plans to provide adequate training and knowledge to explore and address various issues like WASH, waste management, energy conservation, climate change and sustainable livelihoods. CLEAN-India has a vision of expanding it both, geographically and thematically. Such initiatives are decisive steps towards sustainable Development in the country.

Conclusion:

So far as the higher education system in India and abroad is concerned, in the last decade, the HE institutions have intensified their efforts to support sustainable development. Significant efforts were made by the stakeholders of HE from policy makers to students, to support the cause of sustainable development. Higher Education could create a sense of responsibility in young adults to address sustainability by introducing

sustainability in Institutional operations, by maintaining green campuses, by offering educational programmes and courses to spread awareness of sustainable development, by introducing creative programmes to involve youth in becoming „change agents“, and by extending the value and impact of educational research to the local communities. Higher Education is the backbone of any knowledge society. In India HE has taken great strides to support, spread and practice „Sustainable Development“ to encourage wholesome development of the country.

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