

Green Responsibility: Integrating the Educators, Students and Institutes

Jagannath Mohanty
Institute of Management Technology, Nagpur

Perhaps the last two decades in the business world have been most tumultuous, eventful and controversial. For the first time in the Industrial history so many scandals and intolerant business behaviors have surfaced. Therefore, the need for the fundamental correction to the education ecosystem is echoing in the academic landscape across the world. Therefore, people all over the world have started doubting the very fundamentals of the education system particularly in the higher levels. At the same time they expect the academics to take the proactive role in mending the eroded business values and corporate responsibility. Today more than ever, the onus lies on the academic institutions to redraw the boundaries of business behaviors, and help create generations of workforce that would make businesses and governments more responsible and sustainable. A strong partnership involving the educators, students and institutes can make environment protection a culture; such alliance can also make environmental governance effective and sustainable. The paper aims at integrating the efforts of vital elements of the campus i.e. educators, students and the institute, which would make campuses the agents of change in sustainability and corporate responsibility. The paper envisions a model of synergy between educators, students and the institutes.

INTRODUCTION

A paper in Environmental studies and responsibility has little served the purpose of environmental sensitization and protection over the last couple of decades, since it was made mandatory in most centers of learning. The recent failures of the governments and businesses in protecting the world from recurring calamities and catastrophes has almost compelled the academics to rethink their processes and strategies of creating talent pools for future leadership positions. In wake of demand from various segments of the society, institutions of higher learning are grappling with challenges of keeping the curricula relevant and at the same time embedding green responsibility in it. Possibly the biggest challenge is to make the curricula appealing to the business which traditionally viewed business being very different from social and environmental responsibility. Traditional wisdom suggests divorce of business from statecraft and governance, and environmental protection and social sustainability being exclusive domain of the governments. Unfortunately even governments failed in delivering the results.

Environmental education for a longtime has been identified as a lifelong process of learning, action, and reflection. Its ultimate goal is to enable individuals and communities to work individually and collectively to manage the environment in a responsible manner (Bhandari & Abe 2002). Many organizations have adopted and used various definitions of environmental education. For example, the United Nations, in its Nineteenth Special Session of the General Assembly in 1997, described it as “education for a sustainable future.” The Commission on Education and Communication (CEC) of IUCN-

The World Conservation Union used the term “education for sustainable development” (Hesselink et al. 2000). The United Nations Educational, Scientific and Cultural Organization (UNESCO 1997) used the term “education for sustainability.” Other definitions used, such as in the Earth Charter Initiative, refer to it as “sustainability education,” “education for a sustainable future,” “education for the environment,” and “education for a sustainable society.” Since all entail a similar meaning, they have been interchangeably used in different contexts

With regard to its definition, environmental education is seen as “the process of recognizing values and clarifying concepts” (Palmer 1998); “a process of developing a concerned, aware, and informed population” (UNESCO-UNEP 1977); “a multi-disciplinary approach to learning”(Ministry for the Environment 1998); “a life-long learning process” (ASPBAE 1996); “an interactive learning process” (SPREP 1998); and “a process of gaining awareness of the environment, and acquiring and exchanging knowledge, values, skills, experiences, and determination”(IUCN 1998). IGES’s Environmental Education Project defined environmental education as “a holistic approach to the learning process, whereby individuals and the community acquire the knowledge, attitudes, skills, values, and motivation to improve the quality of the environment and attain an ecologically and socially sustainable future” (IGES 2002).

In order to integrate the concept of sustainable development into education, United Nations conferences have emphasized the use of the term and concept “education for sustainability.” The Tbilisi Conference, set out three goals: (1) to foster clear awareness of, and concern about, economic, social, political, and ecological interdependence in urban and rural areas; (2) to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment, and (3) to create new patterns of behaviors of individuals, groups, and society as a whole towards the environment (UNESCO and UNEP 1977).

INITIATIVES IN ENVIRONMENT EDUCATION

Environmental education activities gained momentum in the 1980s (Fien and Heck 2000), including the collection, dissemination, and exchange of information, the publication of materials for use in curriculum development, teacher education, study-visits, demonstration projects, the development of a pool of experienced resource persons, and module development, etc. The impacts may be observed in the relatively high rate of adoption of environmental education in schools across the region. Other activities include the development of curriculum guidelines and new teaching materials, the revision of syllabi to infuse an environmental perspective, the adoption of entire school approaches to curriculum planning for environmental education, and the establishment of specialized environmental education centers (Bhandari and Abe 2000, 2001; Fien, Abe and Bhandari 2000; IGES 2002).

Sl. No.	Chronology of Important Environmental Education Events in Asia & Pacific.
1.	1985 - World Conference on Environmental Education in Japan.
2.	1989 - International Conference on Environmental Education in Goa, India.
3.	1993 - SASEANEE launched by the IUCN/CEC and the Center for Environmental Education, Ahmedabad, India.
4.	1993 - Global Forum 1993: Environmental Education for Sustainable Development, New Delhi, India.
5.	1993 - ASEAN Regional Conference on Environmental Education, Jakarta, Indonesia.
6.	1994 - ASPBAE organized Asian-Pacific Regional Environmental Education Workshop.
7.	1996 - ASPBAE developed an Asian-South Pacific Framework for Adult and Community Environmental Education.
8.	1996 - The Asia-Pacific Training Workshop on Environmental Education and Sustainable Development in Brisbane, Australia

9.	1998 - SPREP produced the Action Agenda for Environmental Education and Training in the Pacific Region.
10.	1999 - International Conference on Environmental Education in the Asia-Pacific, Yokohama, Japan
11.	1999 - Regional Workshop in Environmental Education in the Asia-Pacific, Salaya, Thailand.
12.	2000 - ASEAN developed Environmental Education Action Plan 2000-2005.
13.	2002 - IGES developed a Regional Strategy on Environmental Education in the Asia-Pacific.

Some countries have been quite active in environmental education. In Indonesia, for example, every state university has established a Center for Research of Human Resources and Environment (CRHRE) to promote teaching and training, research, and community services. In China, normal universities (dedicated solely to producing teachers) have established environmental education centers to provide training to master teachers (trainers of trainers), who in turn develop training materials and train facilitators, administrators, etc. Another interesting program in China, with millions of children participating, is the Hand in Hand Earth Village Project, where school students are involved in recycling materials; the proceeds from the sale of which are used to construct primary schools. Similarly, the Hope School Project and the Green School Project, also in China, are active in raising children's awareness and improving school environments. As part of co-curricular activities, these schools are using primary school students to develop practical systems of garbage collection in some cities.

In Korea, four universities have each established a department of environmental education to train teacher educators. In order to nurture values and attitudes in students towards conservation, the Korean Department of Environmental Education runs an honored school program to facilitate the sharing and distribution of exemplary teaching modules and good daily practices of environmental conservation. The honored schools emphasize environmental education both in and outside of school. Also, since 1985 the Korean Ministry of Environment, in collaboration with the regional board of education, has operated the "conservation model" school program. Every two years the ministry designates eight schools as environmental conservation model schools and supports them in running co-curricular activities both in the schools as well as outside.

In Japan, the Ministry of the Environment established a network of institutions (such as public halls, centers, local institutions, schools, NGO facilities, etc.) to run local environmental education programs for communities and leaders in selected environmental education model zones across the country. Another popular program, Junior Eco-club, has been set up for children by the Ministry of the Environment to increase their awareness and participation in environmental conservation. Recently, the government implemented a new scheme, called the Period of Integrated Studies, in which students are given interdisciplinary exposure to subjects such as international studies, environment, welfare, and health.

In India, the government introduced a comprehensive course, titled "Our Land, Our Life," in all schools and intermediate colleges in the state of Uttaranchal. Local communities were involved in the preparation of the course, which was designed to be holistic, locale-specific, and relevant to local conditions. In addition almost all educational institutes have courses in environment science at all levels.

In Tonga, the Ministry of Education has coordinated the Tree Project in primary schools for many years. In the earlier stages of the project, students were required to plant saplings for forestry purposes, but now the focus has shifted to planting rare and endangered plant species of cultural and traditional importance. This has made a tremendous positive impact on the survival of species on the verge of extinction.

LITERATURE REVIEW

Studies conducted by Blacksmith Institute show that 600 million people, mostly from developing countries, will die prematurely from exposure to industrial waste (Blacksmith Institute, 2009). Pollution

and drastic reduction of renewable material resources, far beyond the potential of their natural regeneration, have produced serious imbalances to the planetary ecosystem (EEA, 2006). Individual behavior pollutes to greater or less extent the environment, through daily activities or tourist consumption (Roberts, 2007). Environmental protection is a separate sector in the economy of human society, the concerns in this area covering any aspect of human activity (Klaver and others, 1999).

Compelling evidence indicates that anthropogenic climate change is subjecting the environment to untenable stress (Varotsos 2008). Rain forests are being denuded, Arctic ice is disappearing, glaciers and mountain snows are rapidly melting, coral reefs are bleaching, and, around the world, daily reports are made of an upsurge in the amount of extreme weather events, such as wildfires, heat waves, and tropical storms (Global warming 2007). Many theorists hold the view that sustainability should deal with a broad conception of justice that includes power relations, justice for indigenous people and gender equity (Verma 2004). Business educators need to raise awareness of alternative viewpoints so that practicable policies, which encompass the best of the various perspectives, can be devised by the business leaders of the future. The sustainable culture is impossible without understanding the concept of sustainable society development. Therefore interdisciplinary curriculum can provide students with a great opportunity to express themselves on the world issues (Bereiter 2003).

In the 21st century world, which still suffers from hunger, water shortage and wars, “education is not a luxury, is not even simply a right? It is a potential life-saving measure” (Bereiter 2003). Teachers are the driving force that can lead to real transformation in education by ensuring safe learning conditions, where people have the opportunity to experience a tolerant society in which declarations and concepts are illustrated in real actions. Such education is based on the awareness of the global nature of survival of the humankind and „the acquisition of internationally-oriented knowledge, attitudes and skills“ (Leinders, 2002:96)

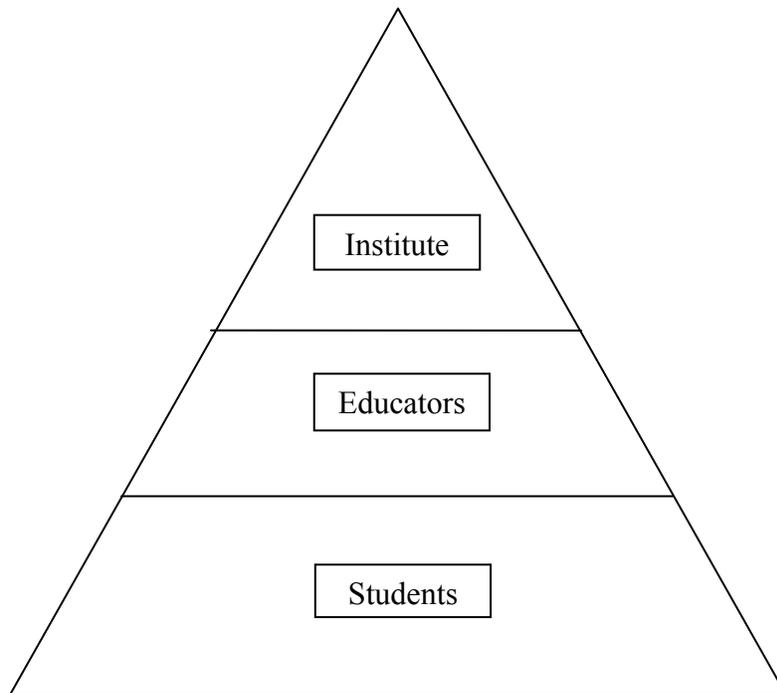
Sustainable society development education acknowledges that higher schools are essential to laying the foundation for the transformation of society and the elimination of oppression and injustice. The underlying goal of this education is to affect society”(Janssen & Osnas 2005)

Hesselink et al. (2000) argued that education for sustainable development (ESD) is a stage in the evolution of environmental education and has a strong link with social, political, and development education. The original goal of environmental education included changing behavior, understanding, knowledge, awareness, and skills. Over time, it has gradually moved to include other aspects. Through this, environmental education reaches the stage of ESD, where equity in quality of life, human rights, and environmental quality has become the focal point.

THE GREEN CAMPUS PERSPECTIVE

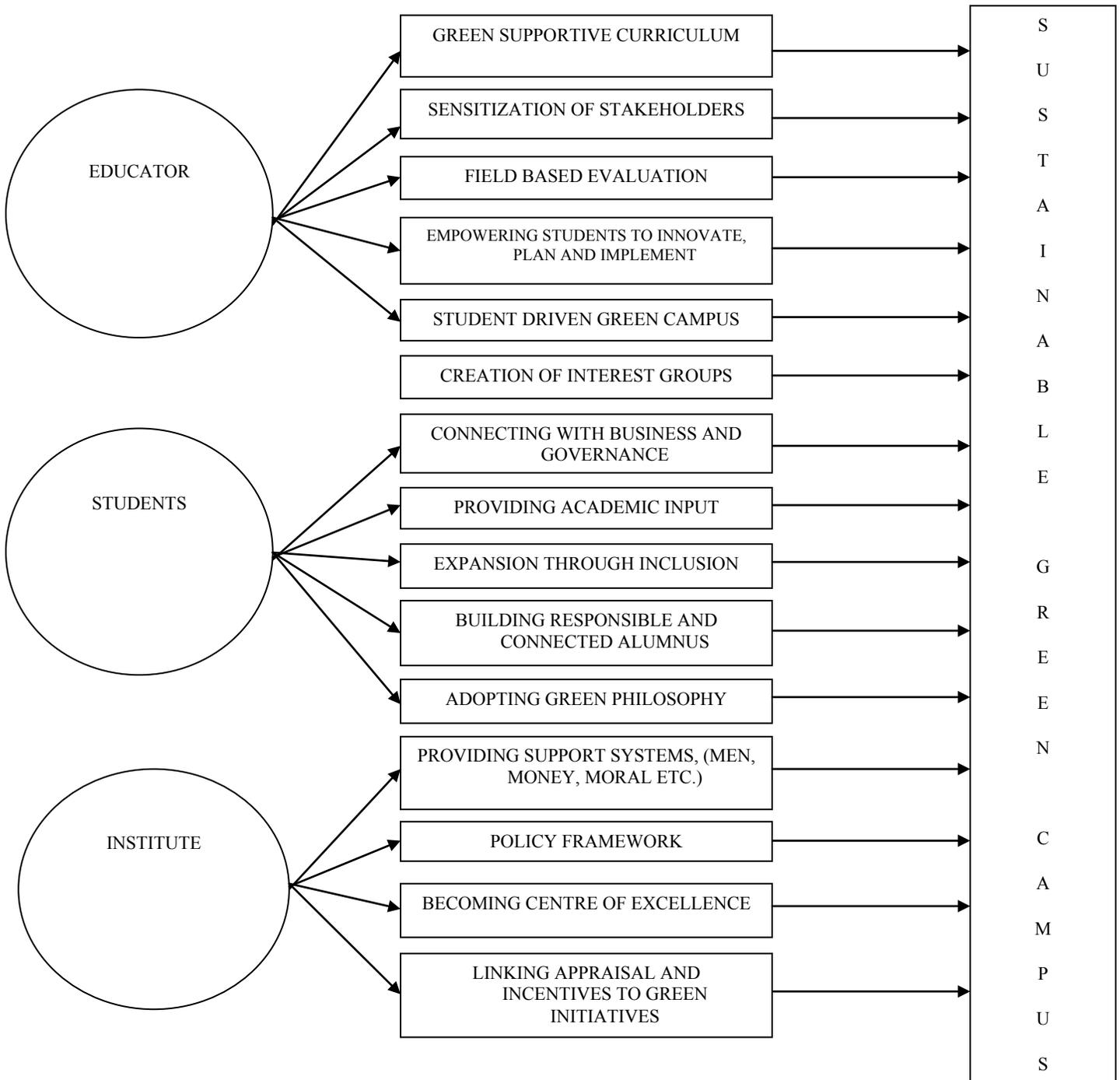
The proposed green campus is the integrated approach to unite the efforts of the major stakeholders within the institute. It takes into account the collective wisdom and effort of all stakeholders i.e. students, educators and the institute. The model integrates the share of contribution made by each of the majority stakeholders in making campuses as agents of change and education. The model envisages a gradual progression of a campus from a local change agent to a global player. The following figure envisages a pyramid of green responsibilities. It is assumed that the students form the bulk of any academic institute, therefore are also the crux of any change initiative and placed at the bottom of the pyramid, followed by the educators who are the enablers of change and finally the institute which has the ideological and resource allocator role.

FIGURE 1



THE CONCEPTUAL MODEL

FIGURE 2



Educator

- *Green supportive curriculum* – traditionally educators would compartmentalize the syllabi to isolate the subject from the rest by giving it a very distinct identity. This approach serves the academics and the society well until huge transgressions surfaced in governance and businesses. Therefore the need is to create generations within the campuses to roll out the green agenda for the society at large. It is proposed to have curriculums designed by the educators across disciplines to endorse the green responsibility and embed it into its basic curriculum be it law, sciences, business or liberal art education.
- *Sensitization of stakeholders* – an educator is the creator, nurturer and disseminator of knowledge and practice. Sensitization of stakeholders is the need of the hour on green responsibility and the onus is on the educator to ensure it reaches every nook and corner of the campus. The sensitization program can be either through the curriculum, training or field based practices.
- *Field based evaluation* – Conventionally most evaluation would be based on conditional reproduction of subject matter, with little scope for objective evaluation. So far there has been very little emphasis on grading behavioral transformations of a learner; hence there is insignificant effort from the learner to visibly demonstrate a changed behavior. It would be useful if educators can bring in field based evaluation systems to record contributions of a learner to towards the green campus.
- *Empowering students innovate, plan and implement* – for long academic innovation has been the exclusive domain of the educators and academic administrators. This has lead to the exclusion of very capable learner's community from contributing pragmatic and innovative dimensions to academic governance. Empowering students to actively participate, innovate and implement green campus initiatives would make green events pervasive and contagious.
- *Student driven green campus* – empowering the learner's community over a period of time will make such communities more responsible and accountable to green campus initiatives. It is proposed that a time should come when educators should remain just point of contacts and remote observers, leaving much of the green campus initiatives and activities to be conceived, designed, delivered and monitored by the learners, in other words moving from educator centered green campus to student driven green campus. The educator plays the most critical role in this transformation.

Student

- *Creation of interest groups* – having empowered the students will form interest groups to draw new green initiatives. Such groups would trigger a change as students start to believe they can influence and contribute campus governance, particularly green initiatives.
- *Connecting with business and governance* – perhaps the two most influential agencies in any society is the business and the government. So far the student's stake has been very little in both these entities. Education for long has been kept away from government and business to help it grow autonomously unhindered by the prevalent corruptions of these two powerful institutions. With most unholy transgressions surfacing out of transactions between these two powerful institutions, students can certainly play a constructive role as advisors and interventionists to mend the ways the businesses and governments have been long behaving. Learners can increase interaction as advocates of a new regime.

- *Providing academic input* – not only the learners can provide inputs and add value to the business and the government, it can also add significant value to the curriculum and the existing practices. From insights gained from engagement with the business and government, they can help removing redundant knowledge and practices and help establish improved academic systems.
- *Expansion through inclusion* - by some estimate every nation has 5-7% learners in its population that includes university and pre university students. Making green campus activities and initiatives inclusive within the campus spanning all centres and its stakeholders and then reaching out to the learner's universe. An inclusive expansion would mean higher bargaining power for change and general acceptability as agents of change.
- *Building a responsible and connected alumnus* – an alumni perhaps is the most credible asset that an learning institution can have, most alumni members join government or the business in some role or the other, a strong alumni would mean influence from both within and outside. Importantly a sensitized alumni can exert more moral pressure to behave responsibly.

Institute

- *Adopting green philosophy* – The onus of making green campus a way of life is on the institute. The institute being the macro entity, policy and philosophy flows from there. If green campus is to ever become a reality, the institute has to link its existence to green campus movement. More than anything green campus should be accepted as a part of philosophy not just a practice.
- *Providing support systems (Men, Money, Moral etc.)* – making green campus a part of institutional philosophy would entail commitment of resources to initiatives pertinent to green campus. Such commitment would mean enhanced budgets, pledging more people and importantly moral courage and support for events and activities of the green campus.
- *Policy framework* – a strong policy framework is needed for realizing the green campus. A strong policy framework would legitimize the efforts and formalize processes for effective implementation of the green campus initiatives.
- *Becoming centre of excellence* - The very logical step for any centre of learning is to become a centre of excellence. Though a long term goal, but achievable if done seriously. A centre of excellence can partner several activities including consulting, mentoring other campuses, partnering with government and businesses in roll out of their program among others.
- *Linking appraisal and incentives to Green Initiatives* – to make campus stakeholders committed and accountable the green initiatives ought to be incentivized and appraisals linked to green innovation and participation. A strategic alignment of organizational vision, people and green commitment can make a green campus inclusive and sustainable.

CONCLUSION

The future green responsibility depends on the attitude of the coming generations. They will define the relations between the campus and the business, society and governance in a variety of roles be it as a citizen, a customer, business leader or a layperson. The young generations are may be expected be more open and responsive to the social and environmental issues, promising thus more responsible campuses. Education needs to keep up with current and anticipate future developments and align its curriculum to the best extent possible with the demands of business while at the same recognizing its objective to educate students in a culture of sustainability and environmental responsibility. Therefore, the process of

reframing the education goals towards sustainability and more green responsibility is a broader and more pervasive task. The centres of learning must create value through tangible actions and responses to global changes. In addition, it is also imperative that methods of pedagogy should be continuously monitored and revised to reflect changes in the environment and social expectations and importantly making it student driven.

DISCUSSION

Studies in environmental policies propose an integrated approach that contributes to a higher quality of life and social well being of citizens. Integrated approaches to environmental protection through embedding the efforts of the stakeholders within the campus can lead to better planning and significant results. In sustainable education orientation, environmental protection, green responsibility, and total involvement need to be balanced against global trends of free trade, excess consumerism, globalization, individual ownership etc. It is, therefore, essential that dissonant voices in the sustainability discourse are heard (the responsibility of the business educator) and heeded (the responsibility of the student who becomes a business practitioner). The following words of Professor William Scott at the University of Bath in 2002 during his inaugural lecture emphasized the imperative of education for sustainable development:

“For societies and freely co – operating individuals to be free to choose right actions in relations to sustainability issues, they themselves need to embody the frames of mind, and enjoy the conditions which foster such choice. Thus schools and universities need to exercise their social responsibility and explore with learners what sustainable development might be – by doing this in ways that make contingent and contextual sense, without prescription or proselytization”.

REFERENCES

- Asian South Pacific Bureau of Adult Learning (ASPBAE), (1996). Evolving an Asian-South Pacific framework for adult and community environmental education. *Paper presented at the ASPBAE General Assembly*, 1–8 December 1996, at Darwin, Australia.
- Bereiter, C. (2003). *21st Century skills – challenge or fallacy?* In: E. de Corte et al. (Eds.), *Powerful learning environments: unraveling basic components and dimensions*. Elsevier Science, Oxford.
- Bhandari, Bishnu B. and Osamu Abe (2000). Environmental education in the Asia-Pacific region: Some problems and prospects. *International Review for Environmental Strategies (IRES)* (Summer 2000) 1 (1):57–78.
- Bishnu B. Bhandari* and Osamu Abe (2002), Environmental Education: From Idea to action in the Asia-Pacific, *International Review for Environmental Strategies*, Vol. 3, No. 1, pp. 165 – 176.
- Blacksmith Institute (2009) “Solving Pollution Problems”. *Annual Report – 2008*.
- Center for Environmental Education (CEE) and International Union for Conservation of Nature and Natural Resources (IUCN) (1998). The SASEANEE circular.
- EEA „Urban sprawl in Europe. The ignored challenge”, Copenhagen, 2006
- Fien John and Debbie Heck. (2000). Issue and challenges for education and sustainable development in the Asia-Pacific: Toward partnership in environmental education. *The Proceedings of the Regional Workshop on Environmental Education in the Asia-Pacific*, 17–18 December 1999, at Salaya, Thailand.

Fien, John, Osamu Abe, and Bishnu Bhandari (2000). Towards education for a sustainable future in Asia the Pacific. *Prospects*, Issue 113.

Global warming fast facts (2007). *National Geographic*. Retrieved 19 July 2010, from http://news.nationalgeographic.com/news/2004/12/1206_041206_global_warming.html

Hesselink, Frits, Peter Paul van Kempen, and Arjen Wals, eds. 2000. *ESDebate international debate on education for sustainable development*. Gland: IUCN Commission on Education and Communication (CEC). UNESCO and Government of Greece. 1997. *Educating for a sustainable future: A transdisciplinary vision for concerted action*. EPD-97/Conf.401/CLD.1.

Institute for Global Environmental Strategies (IGES). (2002). *Regional strategy on environmental education in the Asia-Pacific*. Hayama, Kanagawa, Japan: IGES.

IUCN- The World Conservation Union. (1998). *CEC strategy and work plan, 1997–1999*. IUCN- The World Conservation Union, Gland, Switzerland.

Janssen, M.A. and E.E. Osnas (2005). *Adaptive capacity of Social- Ecological Systems: Lessons from immune systems*. *Co Health 2*: 1–10.

Klaver, J., Francis, P., McNicholas, J., Popovici, M. (1999). *Pentru un mediu mai bun și o economie mai bună*, Centrul Regional de Protecția mediului, București Roberts, N. (2007). *Schimbări majore ale mediului*, Institutul European

Leinders J.J.M., (2002). Use of virtual communities for education in sustainable development, in: *Proceedings Conference Engineering Education in Sustainable Development*. Delft, 24–25 October 2002, pp.602–610.

Ministry for the Environment (1998). *Learning to care for our environment: A national strategy for environmental education*. Ministry for the Environment, New Zealand.

Newsletter of the South and Southeast Asia Network for Environmental Education (1998). *Economic and Social Commission 6* (1).

South Pacific Regional Environment Programme (SPREP), (1998). *Action strategy for environmental education and training in the Pacific region: 1999–2003*. Apia: SPREP.

UNESCO (1977). Final report. International Conference on Environmental Education, organized by UNESCO in co-operation with UNEP, 14–26 October 1977, at Tbilisi, USSR.

Varotsos C (2008). *Global climatology and ecodynamics: Anthropogenic driven change* Dordrecht: Springer

Verma V (2004). Engendering development: Limits of feminist theories and justice. *Economic and Political Weekly* 39(49): 5246-5252.