

## **Environmental Education in an Emerging Economy: Issues and Imperatives**

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### **Abstract**

The economic growth in major emerging economies has led to transformation in the lifestyles. It has resulted in dramatic increase in mindless consumption, thus having major consequences for sustainability. As the emerging economies are in full throttle for unsustainable consumption and such patterns are evident, it is necessary that education play a proactive role for fostering environmental responsible behavior in these economies. This article puts forth challenges and agenda as to how education in emerging economies can incorporate environmental values in the curriculum so as to shape the pro environmental behavior.

### **Introduction**

Emerging markets like China, India, and Brazil have established themselves as the drivers of world economic growth, by proving remarkable resilience from the current global recession. The economic growth has major sustainability consequences. Economic growth and development requires the use of natural resources. Increasing population makes increasing demand on such resources thereby leading to the degradation of the environment (Roy and Tisdell, 1999). McKinsey & Company's report (2007) shows that if India continues on its current high growth path for next two decades, the income levels will almost triple and the country will climb from its present position as the 12th largest consumer market today to the world's fifth largest consumer market by 2025. This could result in mindless consumption which is a potent threat to sustainability. The attempts for sustainability like implementing new technology and stricter environmental controls in production often have been outweighed by unsustainable consumption patterns (Schaller, Kuhndt and Pratt, 2009). The concept of sustainability is tightly knitted with the culture of the traditional societies, but with rising affluence, materialistic tendencies and technology societies tend to drift to culture that is antithesis to sustainability (Nkamnebe, 2011). Education, no longer a national concern, is a transnational affair which provides both challenges and potential for global issues, such as education for sustainability (Duhn, 2012). Environmental education is imperative to change the mindset of prevailing market-oriented society of consumerism to that of becoming 'thoughtful citizens' (Singh, 2011). This paper calls for reversing the unsustainable consumption to pro environmental consumption. It identifies environmental education as one of the important cultural pioneers for fostering the pro environmental behavior and highlights the agenda for incorporation in environmental education.

### **Emerging Economies and Environmental Education**

The emerging economies have a combined Gross Domestic Product (GDP) of over US\$ 7 trillion and represent a major future growth market and their share of world GDP could rise to US\$ 130

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trillion in 2050(WBCSD, 2009). Economic development requires the use of natural resources. As emerging economies like India, China, Brazil, and Russia rapidly industrialize; they will strain the planet for material and energy burden (Unruh, 2008).China, India, Brazil, and Russia are collectively already responsible for 30% of global CO<sub>2</sub> emissions (SustainAbility, 2007). The emerging markets account for over 40% of the world's population. Increasing population makes increasing demand on such resources thereby leading to the degradation of the environment.

The MNCs attracted to these emerging economies will be exporting western-style consumption patterns to emerging countries, which could prove disastrous to the environment (KPMG, 2008). These markets exposed to new products and services, will generate huge amounts of solid waste. The developing and emerging economies are usually bereft of sound infrastructure and policies for solid waste management and recycling. The mindless consumption could result in developing countries disgorging huge amounts of unrecyclable waste, which could serve to exacerbate environmental threats. Extant literature shows that 30-40 percent of environmental degradation has been brought by the consumption activities (Nkamnebe, 2011).This seriously calls for instilling environment consciousness among the citizens and fostering pro environmental behavior and consumption.

Environmental responsible behaviour is necessitates readical change in the way the various constituents of the society think and behave. Environment consciousness should be inculcated as a part of cultural value systems and ethos of the Indian society in the same way as other values are taught and learnt, like respecting and obeying elders. As cultural values are formed early in life (Hofstede, 2001), so environment consciousness should be incorporated in the psyche of children at home and school right from early years of life. Cultural pioneers like education, religion, government, media and business play an important role in shaping individual attitude and behavior. As major part of the early life that shapes values and beliefs is spent in learning process both at the school and family, it is imperative that the state of environmental education in emerging economies is looked into achieve the desired sustainability objectives. The inculcation of eco-friendly values would ensure environmental responsible citizenship.

### **Issues in Environmental Education**

Environmental education in India as a discipline has been adopted as an appendage of science subject and lacks the curriculum to transform the behavior in daily lives. Moreover environmental education is textbook oriented where focus is generating answers for examinations rather than sensitizing about environmental issues. Theresearch has shown that students who tend to experience difficulty in understanding tend to memorize the notes for written examinations but no real learning, thinking, or critical engagement with the material takes place (Singh, 2011). The concern is thatperforming well in the tests becomes the focus of teaching. This is shown to result in children acquiring test-taking skills, rather than the desired environmental values (Singh, 2011).

The environment education is classroom based where students are not connected to nature. Further the extant literature shows that the connectedness to nature is more effective in early years of life (Ernst and Themier, 2011) but environment studies as a subject is introduced in higher classes.

### **Imperatives for Environmental Education**

The examination system of assessment should give way to oral assessment and interaction. Singh (2011) posits that oral assessment, because of its interactive nature, encourages learners to think critically and to engage with the problem, and to understand the content. It involves students in constructing the situation and in articulating support for the reasoning behind a solution. During the oral assessments, they were able to learn from each other and from the assessor. It is also hoped that such thinkers would in turn educate and mobilize their communities against market-oriented consumerism and cultivate appreciation and thoughtfulness in their communities to work toward challenging the ecological problems they face.

Some aspects of environmental education programmes like outdoor residential held courses, out-of-school visits to local zoos and public gardens encompassing preparatory and follow-up work can be helpful in terms of effecting positive changes in students' environmental knowledge, attitudes or behaviours (Rickinson, 2001). Children should be connected to nature and the frequency of interaction should be increased to hasten connectedness to nature (Ernest and Themier, 2011). As cultural values are formed early in life (Hofstede, 2001), so environment consciousness should be incorporated in the psyche of children at home and school right from early years of life. Extant research shows that early connectedness resulted in formation of emotional concern for animals as students are actively searching for more information about animals and their attitudes toward animals are still forming, this age provides excellent opportunities for fostering an appreciation for the natural world (Ernest and Themier, 2011). The restricted opportunities to engage in free play in their neighbourhood streets and parks. The more the opportunities children play in neighborhoods and natural parks it enhance the environmental teaching (Malone, 2007). As people act responsibly towards their immediate environment, so the sense of place fosters pro-environmental behavior, and related emotions, attitudes, and behavioral intentions, which is an important goal of environmental education (Kudryavtsev, 2012). Kudryavtsev (2012) argues that place attachment can be developed through both (1) direct experiences with places, especially long-term, frequent, and positive experiences and (2) learning about places from indirect sources rather than direct contact. Samuelsson and Kaga (2010) posit that instead of 3Rs of reading, writing and arithmetic, early childhood can follow the 7Rs:

- Reduce - reduction in consumption of food, materials, and resources, which may involve working with parents on the problem of children's exposure to advertisements promoting endless consumption.
- Reuse - showing children that materials can be used many times for different purposes in preschool and at home
- Recycle - encouraging children to bring recycle materials to school and integrating them into range of productive activities.
- Respect - for nature and natural processes
- Reflect - a habit and skill everybody will benefit from in working for sustainability.
- Repair - taking care of broken toys and other objects and repairing them.
- Responsibility - trusting children to care of something and doing something they can feel proud about.

Communities can play a valuable role as a learning approach that can be adopted and applied in formal environmental education processes within such tertiary institutions, while environmental

education awareness within these institutions and the students' communities could be enhanced through the communities of practice approach. Encouraging dialog among learners will hopefully broaden learners' perspectives and perceptions while enabling them to think critically about environmental issues (Singh, 2011).

Online social communities are increasingly important information and communication tools for young people and for the environmental movement (Robelia et. al, 2011). Networks may provide the motivation for young adults to increase environmental behaviors by increasing their knowledge of environmental issues and of the specific actions they can take to reduce greenhouse gas emissions. (Robelia et. al, 2011) examine an application within Facebook.com – that allowed users to post climate change news stories from other websites and comment on those stories. The study revealed that users of the social networking application reported above average knowledge of climate change science and that self-reported environmental behaviors increased during young people's involvement with the *Facebook* application. Focus groups indicated that peer role modeling through interaction on the site motivated pro-environmental behaviors, that is, behavior that seeks to minimize the negative impact of one's actions on the natural and built world. Participation in a community of like-minded users spurred many participants to learn more about climate change and do more to limit its impact. Situating their learning within their communities of discourse make students feel 'empowered' as they engaged with and were involved in live interaction with members of their communities in their projects (Singh, 2011).

Indian culture has strong religious roots and is a way of Indian life, which has evolved over many centuries (Venkatesh 1995). Religious activism on behalf of the environment is now common and in some cases is becoming widespread, organized and institutionalized (Gardner, 2010). Fusco et al. (2012) point out that religion plays an independent role with regard to adoption of environmentally responsible behaviour. In Punjab Baba Balbir Singh Seechewal, a spiritual head is ardent crusader of environmental issues and has started the practice of distributing plant saplings in religious discourses.

## **Conclusions**

Environment responsible citizenship is necessary for the survival of humanity. Achieving this goal necessitates radical change in the way the various constituents of the society think and behave. The onus of fostering environmental responsible citizenship lies with the cultural pioneers like education, which have profound effect on the shaping the cultural values of the society. This article gives a clarion call for redirecting environmental education programs towards this direction. It is envisaged that this article will usher in thought process for sustainable consumption and help in fostering environment responsible citizenship

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