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Education for sustainable development, an international perspective

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Background of the Study

The world is in a state of crisis. At the height of this crisis is a contradiction of extreme and increasing consumption, despite accelerating depletion of natural resources and species extinction. The truth has been visible for decades, yet behavioral transformations so urgently required to address the problems are not occurring fast enough. In a world where the economic-haves dictate more strongly than the economic-have-nots, it is easy for this overwhelming minority of the earth's population to underestimate the severity of the global situation based on their own level of comfortable living (Fien and Maclean, 2000; Keating, 1993). Over 80% of the world's six billion lives are lived in conditions of desolating discomfort – a discomfort exacerbated by the very access to comfort enjoyed by less than one-fifth of the global population. Disparity of wealth among inhabitants, ecological degradation, and overall social health and well being are considered externalities in this equation. Being forced to choose between economic well-being and ecological and social well-being is not only a false dichotomy, but it also negates the need to develop integrated strategies for problem solving. Bearing this in mind, it is imperative to build an approach to measuring well-being that fuses economic, ecological, and social criteria in an integrated and global manner. This is the first step in the move towards sustainability.

Sustainability

The most common definition of sustainability is “meeting the needs of the present generation without compromising the ability of future generations to meet their own needs” (UNESCO, 2000; Hyen, Lythgoe and Myers, 1997; McClaren, 1993). Though often criticized as being vague and overly broad, this definition provides a foundation upon which fulfilling the responsibility requires a holistic approach to understanding the world. This understanding must reflect the link among ecological, economic and social spheres – the three pillars of sustainability. Human activities on the environment (ecology), social relationships and norms (society) and resource distribution (economy) are fundamentally interconnected at a variety of scales and places. What occurs in one sphere affects what occurs in the other spheres. The normalization of over-consumption and unrestrained economic growth has negative impacts on all manner of global systems and contribute to many types of conflict. Using the sustainability approach as a lens by which to perceive the world offers a more complete understanding of such relationships, and is ultimately more responsive to the existing dynamic reality (McKenzie-Mohr, 1999). The three pillar approach to understanding sustainability is widely used internationally.

- **Sustainable ecological integrity** involves recognizing the planet as a closed system with finite resources, and requires living within the carrying capacity of ecosystems in such a manner that human activities, resource consumption and waste production do not undermine the ability of the planet to sustain the well-being of all life.
- **Sustainable economic prosperity** requires an approach that considers economic, ecological, and social criteria in economic decision-making, which moves beyond solely the allocation of wealth, to incorporate scale and distribution of wealth as well.
- **Sustainable social equity** requires a fair and equitable distribution of wealth that meets basic needs, which is respectful of human rights, and which includes broad and meaningful participation by individuals in decision-making in order to nurture community vitality.

Education for Sustainable Development

Education for Sustainable Development (ESD) is a dynamic concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating and enjoying a sustainable future. The overall aim of ESD is to empower citizens to act for positive environmental and social change, implying a participatory and action-oriented approach ESD integrates concepts and analytical tools from a variety of disciplines to help people better understand the world in which they live (Meadows, Meadows & Randers , 1992). Pursuing sustainable development through education requires educators and learners to reflect critically on their own communities; identify non-viable elements in their lives; and explore tensions among conflicting values and goals. ESD brings a new motivation to learning as pupils become empowered to develop and evaluate alternative visions of a sustainable future and to work to collectively fulfil these visions . The United Nations has declared the period from 2005 to 2014 the Decade of Education for Sustainable Development (ESD). UNESCO (2002) is spearheading the U.N. effort to implement ESD worldwide. The goal is “to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behavior that allow for a more sustainable and just society for all”.

MAJOR THRUSTS OF ESD

Chapter 36 of Agenda 21 identified four major thrusts of ESD:

- 1. The promotion and improvement of basic education:** Access to basic education remains a problem for many – especially girl children and illiterate adults. Simply increasing basic literacy and numeracy, as currently taught, will not significantly advance sustainable societies. Instead, basic education must focus on imparting knowledge, skills, perspectives, and values that encourage and support citizens to lead sustainable lives.
- 2. Reorienting existing education at all levels to address sustainable development:** Rethinking and revising education from nursery school through university to include more principles, skills, perspectives and values related to sustainability in each of the three realms – social, environmental, and economic – is important to our current and future societies.
- 3. Developing public understanding and awareness of sustainability:** Making progress toward more sustainable societies requires a population that is aware of the goals of sustainable societies and has the knowledge and skills to contribute toward those objectives. Informed voting citizenry and knowledgeable consumers can help communities and governments enact sustainability measures and move toward more sustainable societies.
- 4. Training:** All sectors of the workforce can contribute to local, regional and national sustainability. The development of specialized training programmes to ensure that all Sectors of the workforce have the knowledge and skills necessary to perform their work in a sustainable manner has been identified as a critical component to ESD.

Why education for sustainable development?

If we could turn the population of the earth into a small community of 100 people, keeping the same proportions we have today, it would be something like this:

* 61	Asians,	12	Europeans,	14	Americans,	13	Africans	1	Australian
* 50					women,	50			men

* 33 Christian, 18 muslims, 16 hindus, 6 bouddhists, 11 pratice other religions, and 16 are non-religious

- * 6 people own 59% of the entire wealth of the community
- * 17 females and 8 males live in abject poverty.
- * 70 % of the work of the village would be done by women but they would only be paid 10 % of the village's revenue
- * 70 are illiterate, only 1 person has a university degree
- * Of the 23 children aged 5-14 years, 6 are working, 3 of them working full-time and receiving no education

And this miniature earth is marked by:

deforestation, half of the world's forests are destroyed
 difficult access to safe drinking water
 and many indigenous languages threatened with extinction

This perspective – the miniature earth – reveals the needs for change and for education to face the challenges of our century, and meet the objectives of sustainability.

862 million illiterates of whom two thirds are women (2000)

104 million out-of-school children of whom 57% are girls (2000)

Out of 128 countries with available data, only 52 will meet the 2005 objective of gender equality in primary schools

54 countries out of 128, 40% will not meet gender equality objective by 2015.

1,2 billion people live with less than 1 dollar per day, 70% of them are women

The average income of the 20 richest countries in the world is 37 times higher than that of the 20 poorest countries

Life expectancy in developing countries is 50 years whereas it is 77 years in developed countries

More than 1 billion people lack access to safe drinking water

More than 2 billion people lack adequate sanitation

92% of all HIV/AIDS cases are in developing countries

Every year, 3 million people die from AIDS and 5 million become infected by HIV/AIDS (2004)

80% of people in developing countries rely on medicines based on plants

Irrigation of arable land represents 70% of all worldwide freshwater withdrawals

Protected areas cover only 10% of land areas and 1% of marine areas

Half of the 6000 indigenous languages in the world are threatened with extinction

HISTORICAL BACKGROUND of ESD

1987-2002: Emergence then definition of the concept of sustainable development during many world summits

1992: Rio Earth World Summit

UNESCO received the responsibility for implementing the Agenda 21's Chapter 35, Science for sustainable development, and Chapter 36, Promoting education, public awareness and training.

December 2002: resolution 57/254 of the General Assembly of the United Nations

proclaims the UN Decade of Education for Sustainable Development, 2005-2014

designates UNESCO as the lead agency for the promotion of the Decade

ESD enables us to learn:

About sustainable development: introduces content and knowledge about sustainable development issues.

For sustainable development: emphasizes learning for change. Understanding that current practices are not sustainable and need changing.

As sustainable development: leads the change process as a result, the class-room, students, teachers, administration, school, community, professional organizations etc become contributors to sustainable development.

CORE ISSUES OF ESD

Environmental Issues:

Conservation of natural resources, Addressing climate change, Transformation of rural societies and environments, Sustainable urbanization and Disaster prevention and mitigation

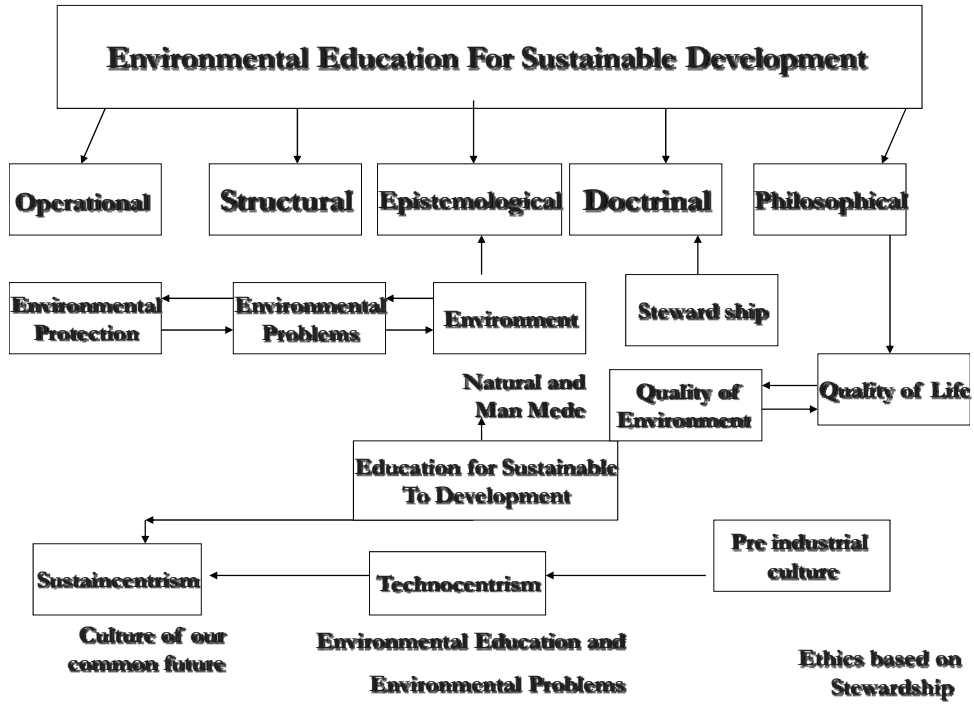
Economic Issues

Poverty reduction, Greater corporate responsibility and accountability and A "benign" market economy

Socio-Cultural Issues

Fulfilment of human rights, Promotion of peace and human security, Gender equality, Good health (e.g., HIV/AIDS prevention), Good governance, Reinforcement of intercultural and international understanding and Preservation of cultural diversity
 Education For Sustainable Development – Linking to Environmental Education is presented by (Sabarini, 2009) as in figure (1).

Figure 1 : Education For Sustainable Development – Linking to Environmental Education (Sabarini , 2009)



The Three Pillars of Environmental Education (Sabarini , 2009) :

Formal , non formal and in formal research says that 80% of leaning is the outcome of informal education

The Arab forum for environment and development “ Report about Arab Public Opinion and The Environment Conference Report of 18 countries survey , June 2006,showed that : Weak awareness programmers is the main cause for environmental deterioration , the 2nd cause is the non adherence to environmental legislation

Prominent Environmental Educators assert that : All education is EE .& no education is complete until one acquires the main concepts of nature. Sabarini (2009) described the meaning and scope of Environment or the

Homosphere is described in a typology of conceptions as in figure

Figure 2 : Environment : meaning and scope Environment or the Homosphere is described in a typology of conceptions

Environment...	Type of relationship	Principal characteristics
As nature	To be appreciated, respected , preserved	The original, "pure" environment; nature-as-a-uterus
As a resource	To be managed	Our collective biophysical, sustaining quality of life
As a problem	To be solved	the biophysical environment supporter of life, threatened by pollution, deterioration
As a place to live	To know and learn about, to plan for , to take care of	Our daily living environment with its sociocultural ,technological and historical components
As the biosphere	In which we all live together , in to the future	The spaceship earth , object of planetary consciousness, a world of interdependence between beings and things
As a community project	In which to get involved	A shared living milieu; the focus of socially critical analysis; a political concern for the community

(2)

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