

The Education for Sustainable Development (ESD) Concept and the Sri Lankan University System: The Way Forward

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Abstract. - *Education for Sustainable Development (ESD) is a concept which presents a new vision for education for the achievement of development that includes economic growth, social development and environmental protection, with culture as an underlying element. The ESD concept has its source in Agenda 21, a non-binding document for voluntary action adopted by 178 governments at the conclusion of the United Nations (UN) Conference on Environment and Development held in Rio de Janeiro in 1992 and it has been reaffirmed in subsequent international conferences and documentation. Chapter 36 of Agenda 21 identified four major thrusts of ESD. The most relevant for the purposes of this research is included in the second thrust: the need for reorienting existing university education to include more principles, skills, perspectives and values related to social, economic and environmental sustainability.*

This research analyzes the ESD concept as applied and developed during the Decade of ESD, but goes beyond the theoretical foundations to suggest possibilities (including action plans) for the future directions that could be taken by the Sri Lankan university sector with regard to ESD. One of the main issues is to identify where Sri Lankan universities can improve in the area of opportunities for multi-disciplinary studies and research and develop co-operation between different specialized fields in our university system, in place of the traditional isolation of disciplines.

Keywords: Education for Sustainable Development, University Education, Multi-disciplinary, Strategies.

I. INTRODUCTION

“Education is held to be central to sustainability. Indeed, education and sustainability are inextricably linked, but the distinction between education as we know it and

education for sustainability is enigmatic for many.” (UNESCO IIS, 2005).

Education for Sustainable Development (ESD) is a concept which presents a new vision for education for the achievement of development that includes economic growth, social development and environmental protection, with culture as an underlying element (UNESCO, *About ESD*). The ESD concept has its source in *Agenda 21*, a non-binding document for voluntary action adopted by 178 governments at the conclusion of the United Nations (UN) Conference on Environment and Development held in Rio de Janeiro in 1992 (also referred to as the Rio Conference).

In 2002, the UN General Assembly Resolution 57/254 declared 2005-2014 as the UN Decade of Education for Sustainable Development (DESD), with UNESCO appointed to develop an International Implementation Scheme (IIS). At the Rio+20 Summit in 2012 (also known as the UN Conference on Sustainable Development), 180 world leaders, including the Sri Lankan President, reaffirmed their commitment to Agenda 21. Thus, Sri Lanka is one of the many countries in the world that has made a political commitment to ESD. The Sri Lanka National Action Plan on Education for Peace and Sustainable Development, formulated by the Education Ministry in collaboration with UNESCO, was launched on January 30th 2012 (See Sunday Observer). The issue now is to consider to what needs to be done to implement this commitment in a meaningful manner. ESD, with its emphasis on education, has relevance for the university community. But to what extent is there awareness of this concept, let alone implementation in our degree programmes, curricular, research and management practices? As there is always room for improvement; in what way can we improve the existing situation to bring it into better alignment with ESD?

This research analyzes the ESD concept as applied and developed during the Decade of ESD, but goes beyond the theoretical foundations to suggest possibilities for the future directions that could be taken by the Sri Lankan university sector with regard to ESD.

II. RESEARCH METHODOLOGY

This research is library-based. Key documents in the field of international environmental law (abovementioned) as well as significant expert studies, such as the 2005 UNESCO International Implementation Scheme (IIS) and the 2008 Report of the International Commission on Education for Sustainable Development Practice (ICESDP) convened by the Earth Institute at Columbia University will be analyzed. It is hoped that suggestions for best practices can be a first step to engage critical thinking on this topic and would result in more research from academics in other fields as well as be considered by the university and higher education administration.

III. EVALUATION

I Sustainable Development

The modern form of the 'sustainable development' concept has been traced back no further than the 1980 World Conservation Strategy drafted by the IUCN (Atapattu, 2006). However, it was after its inclusion in the 1987 Report of the World Commission on Environment and Development (WCED) and adoption by the 1992 Rio Conference and the Rio Declaration on Environment and Development, that this modern concept of sustainable development became entrenched in environmental and developmental consciousness. The broad definition for sustainable development given in the WCED Report, which was titled 'Our Common Future', is:

Development that meets the needs of the present generation without compromising the ability of the future generation to meet theirs.

Apart from this definition, there are no comprehensive definitions of sustainable development – it is usually used as an 'umbrella term' that covers many interconnected concepts (Atapattu, 2006). Included within the concept of sustainable development is *a call for change* in the way that development is carried out without

concern for long-term consequences. The WCED Report clearly believed that there was an urgent need for change stating that:

We are unanimous in our conviction that the security, well-being and very survival of the planet depend on such changes *now*. (WCED, 1987)

Embedded in the concept of sustainable development is a principle of 'inter-generational equity' – of fairness and taking into account the needs of the generations that follow, without leaving them a legacy of depleted resources and a polluted planet.

This concept of sustainable development is not something that had been unknown until recent times, as it is clear that many cultures and ancient civilizations had awareness of the concept of developing sustainably by not destroying in greed and haste the natural resources that are needed to sustain present and future generations. The best example is the speech on the 'web of life' attributed to the Native American Chief Seattle of the Duwamish, which is quoted today by children all around the world. In 1991 a spokesperson for the Six Nations of the Iroquois stated that:

When one speaks of generations the way the Indians speak of them, we must see that the next generations, those faces coming from the earth, have the same good that we have and can enjoy the same law that we do...So when you talk about the philosophy of sovereignty, you must talk about longevity and the future. This is the common sense that comes from the long experience of Indian Nations being in one place: if you do not work with the [natural] laws that surround you, you will not survive...The problem here is that we visit this retribution upon our children and our grandchildren (Lyons, 2000)

These indigenous philosophies nourished the concepts and principles declared at the Rio Conference. From our own Sri Lankan culture and history, there is much that can be used to nourish modern Sri Lankan education and make in more

aligned with ESD. Buddhist culture, practices and philosophy especially, has a lot to contribute in its understanding of rational action and the connection of human beings with the ecosystem (Mendis, 2008; 2014).

II Education for Sustainable Development (ESD)
The 40 Chapters of Agenda 21 of the Rio Conference were not written overnight. From 1987 (when the WCED Report was published) to 1992, the concept of sustainable development was discussed in committees that led ultimately to the Agenda 21 document. The ESD concept can be perceived throughout the 40 Chapters of Agenda 21, but it is in Chapter 36 is titled "Promoting Education, Public Awareness, and Training" that it was focused on most clearly. Chapter 36 of Agenda 21 identified four major *thrusts* of ESD:

1. Improving access to quality basic education.
2. Reorienting existing education programmes.
3. Developing public understanding and awareness.
4. Providing training.

ESD is a multi-disciplinary approach which calls upon educators and learners to become motivated to critically evaluate and develop new visions of a sustainable future. The most relevant for the purposes of this research is included in the second *thrust*: the need for reorienting existing *university education* to include more principles, skills, perspectives and values related to social, economic and environmental sustainability. This aspect was also reaffirmed in the Luneburg Declaration on Higher Education for Sustainable Development of 10 October 2001, which emphasized the indispensable role of higher education in informing and supporting all education to address the critical challenges of sustainable development. Furthermore, the Ubuntu Declaration on Education and Science and Technology for Sustainable Development, made just prior to the 2002 World Summit for Sustainable Development also supports and promotes ESD.

Ten years after Rio, the Decade for Education for Sustainable Development (DESD) was announced in December 2002 and set to last from 2005-2014. UNESCO was appointed to develop an

International Implementation Scheme (IIS) for the DESD, but many individuals, organizations, and networks also volunteered to work on the DESD. The success of this initiative will depend on the extent and dedication of the human resources brought together by governments and non-governmental organizations, and their partners in civil society and business.

The UNESCO IIS sets out a broad framework for how contributions can be made to the DESD and what nations have committed to achieve. Different nations, individually or in regional collaboration, agreed to create plans (including timetables for achievement) and strategic approaches based upon the framework provided by the IIS.

The basic vision of the DESD is a world where everyone has the opportunity to benefit from education and learn the values, behaviour and lifestyles required for a sustainable future and for positive societal transformation (UNESCO 2005).

The IIS has suggested a framework of seven strategies for stakeholders to use in the institutional frameworks and in networks with partners. These are:

1. Vision-building and advocacy;
2. Consultation and ownership;
3. Partnership and networks;
4. Capacity-building and training;
5. Research and innovation;
6. Use of Information and Communication Technologies (ICTs);
7. Monitoring and evaluation.

This second *thrust* in Agenda 21, which includes reorienting *university education*, also links with the first of the seven strategies suggested by the UNESCO IIS for *institutional frameworks*, that of *vision-building*: to "envison what it means to live within environmental limits...and work sustainably" (UNESCO 2005).

Thus, it is clear that ESD and by implication, creation of a more sustainable future is not merely about 'more education' or an add-on of another component to curricula by integrating the sustainable development concept into existing

higher education structures. It requires a deeper response, which transforms higher education and leads it forward through a vision of a more sustainable future. This may sound unrealistically idealistic -so what can it mean in practice? The IIS states that it is an issue of 'content and relevance':

Questioning, rethinking, and revising education from pre-school through university to include more principles, knowledge, skills, perspectives and values related to sustainability in each of the three realms – environment, society, and economy – is important to our current and future societies. This should be done in a holistic and interdisciplinary context, engaging society at large, but carried out by individual nations in a locally relevant and culturally appropriate manner (UNESCO 2005).

Transforming education so that it can effectively deal with the complex issues that affect sustainability is the challenge of ESD. It is not merely education reform, but education that links with reform of values and/or re-discovery of values of sustainability, depending on how a system approaches it. Formulating the values of ESD for each nation or community, so that it is relevant and culturally appropriate, is one of the tasks of educators.⁶In Sri Lanka, we must link these global frameworks with local and indigenous knowledge and values in order for it to be effective in our country and our education system. It should not be a thoughtless copy-paste of international or foreign ideas, but an adaptation that is best suited for our circumstances, taking into account culture and both socio-political and economic realities.

The IIS identifies a number of essential characteristics of ESD that can be adapted to different cultural settings:

ESD should deal with all three realms of sustainability – environment, society and economy

ESD should be education that promotes life-long learning; engages formal, non-formal and informal education;

ESD should build civil capacity for community-based decision-making, social tolerance, environmental stewardship, adaptable workforce and quality of life;

ESD is interdisciplinary and all disciplines can contribute to ESD;

ESD uses a variety of pedagogical techniques that promote participatory learning and higher-order thinking skills (adapted from UNESCO 2005).

As the last point extracted from the IIS highlights, *improving and developing pedagogical (teaching) techniques and skills, with emphasis on participatory learning and promoting of higher-order thinking skills is a vital part of ESD*. A sound theoretical basis in teaching and learning methodologies (such as is being carried out by Staff Development Centers currently) can assist university teachers and administrators to promote creative approaches to problems of unsustainability and avoid ineffective rote-learning that would repeat the errors that have brought the planet to the current grave environmental crisis. The ability of teachers and students to engage in critical thinking and make linkages with areas outside their immediate specialty can then be done with more ease.

IV. PRACTICAL ACTION FOR ESD

Sustainable development must be part of every discipline, but it is unlikely that the traditional structures of education and higher education will be radically changed. How then can natural sciences and medicine, humanities and social sciences, management, business studies, engineering, architecture and fine arts all develop a holistic ESD approach? It is submitted that the practical action that is needed for the abovementioned vision of ESD to become reality, needs specialists who are willing to make the effort to understand the interactions between different fields of knowledge and who can use it effectively for teaching and researching within a holistic ESD paradigm.

The 2008 Report of the International Commission on Education for Sustainable Development Practice (ICESDP) convened by the Earth Institute at Columbia University supports the need for higher education that develops

...strong *management skills* as well as practical knowledge across a range of disciplines including the *social, natural and health sciences* (ICESDP, 2008).

The Earth Institute requested the ICESDP to develop a Masters in sustainable development practice with a curriculum designed to create a highly trained generalist development practitioner

...who understands the complex interactions among fields and is able to coordinate and implement effectively among the insights offered by subject-specific specialists (ICESDP, 2008).

It can be questioned whether what ESD requires is *yet another* highly trained individual to understand and co-ordinate the linkages between fields *or on the contrary*, subject-specialists who can *nevertheless* see the complexities and linkages that are inherent in their own fields? As the poet T.S. Eliot once said, 'where is the wisdom we have lost in knowledge'? A question to ask ourselves in Sri Lankan higher education is whether our graduates are encouraged to develop multi-disciplinary skills and knowledge in our programmes and curricula and make linkages between their own field and other fields of knowledge. Some institutions may be developing such skills in their students, but others may be lagging behind. Sharing of best practices regarding multi-disciplinary learning within the Sri Lankan university system itself is unfortunately too rare and something that needs to be encouraged.

The Ubuntu Declaration specifically calls on educators to review programmes and curricula of universities to create learning modules which "bring skills, knowledge, reflections, ethics and values together in a balanced way" and to use *problem-based learning*, "both as a pedagogical approach and as a research function". There has been discussion about improving the skills-set of Sri Lankan university graduates, but this must go beyond the limited focus on IT and English skills, to a system that promotes critical thinking and problem-solving skills that are *not limited to* a single specialization. A good university education should - *while developing* a specific skill-set linked to a specialized form of knowledge – *also develop*

the ability of the graduate to apply higher-order thinking skills to see the linkages with other areas of knowledge and design well-balanced general solutions.

Another problem with the compartmentalized higher education structure, which is an additional problem in developing countries, is that our institutions at times are ineffective, not only in exchanging ESD experiences and identifying good practices elsewhere, but also in identifying local sustainable development challenges and taking the next step of integrating local knowledge and skills into ESD that we learn/teach or research. We need to make our learning/teaching and research aligned with the sustainable development needs at the local level while keeping in mind the global consequences and global efforts as well.

Where can Sri Lankan universities improve in the area of opportunities for multi-disciplinary studies, as well as in multi-disciplinary research for SD? At the very least, plans should be formulated that include components of other disciplines into curricular with ESD in mind or to sign-post the points where linkages to other disciplines would add value to the specialization. But that is a piecemeal approach. The better approach would be that an overall degree programme should be placed, as far as possible, in the larger context of its role in ESD, and the learning objectives and assessment should be made with that in mind. Even if not in the initial levels, where sound grasp of theoretical concepts and models is focused on, assessment must *at some level* promote the identification and solving of real-world development problems. This work should be harnessed to the research done by the institution and the social contribution of the academic community.

Of course a *national implementation plan* would be helpful, to prioritize an integrated approach to ESD in education and development policy across Ministries and sectors. But a more direct set of actions for the university system would be the promotion of *research and development for ESD* and the building of cooperative networks of human resources within the public university system in Sri Lanka, as well as linkages with relevant external ESD stakeholders and sources of skills and information. This would make the task of ESD much smoother, and not dependent on the

efforts of individual administrators or academics to build networks.

As a final comment it must be said that, in the modern context, old notions of 'quality' in higher education are no longer sufficient. The UNESCO IIS, gathering evidence of the changed approach to 'quality' in education summarizes them into a number of essential characteristics. This includes:

[Education which] upholds and conveys the ideals of a sustainable world – a world that is just, equitable, and peaceable, in which individuals care for the environment to contribute to intergenerational equity;

- takes into consideration the social, economic, and environmental contexts of a particular place and shapes the curriculum or programme to reflect these unique conditions. Quality education is locally relevant and culturally appropriate;
- is informed by the past (e.g. indigenous and traditional knowledge), is relevant to the present, and prepares individuals for the future;
- builds knowledge, life skills, perspectives, attitudes and values;
- provides the tools to transform current societies to more sustainable societies (UNESCO 2005).

Is our education of 'good quality'? Can our students identify key concepts and describe the ecological, economic, political and social systems in Sri Lanka, the region or the world? Can they identify an unsustainable system and could they redesign this system to a more sustainable one? It is suggested that the Sri Lankan university system, and ourselves, as individuals in the academic community, should critically evaluate our own programmes, modules and our work context to assess the extent to which we acknowledge and implement the concept of 'Education for Sustainable Development'.

V. CONCLUSIONS

Sri Lanka is heading towards developmental horizons far beyond what was dreamed of a few

years ago. Planning and implementing Education for Sustainable Development (ESD) strategies successfully would mean that the most suitable professionals could be trained within our education system to face the challenges of maintaining sustainable development well into the future. The Sri Lankan university system as well as Faculties, Departments and individual academics need to take ESD into account in planning, teaching and research. This is an area that requires further co-operation between different specialized fields in our university system, in place of the traditional isolation of disciplines.

ABBREVIATIONS

ESD - Education for Sustainable Development
UN - United Nations
UNESCO –United Nations Education, Scientific and Cultural Organization
DESD - UN Decade of Education for Sustainable Development
IIS - International Implementation Scheme
IUCN - International Union for the Conservation of Nature and Natural Resources
WCED - World Commission on Environment and Development

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