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Education for Sustainable Development Issues

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ABSTRACT

Sustainable Development (SD) seeks to meet the needs of the present without compromising those of future generations. SD [therefore] is a vision of development that encompasses respect for all life-human and non-human-and natural resources, as well as integrating concerns such as poverty reduction, gender equality, human rights, education for all, health, human security and intercultural dialogue. Education for Sustainable Development (ESD) aims to help people to develop the attitudes, skills, perspectives and knowledge to make informed decisions and act upon them for the benefit of themselves and others, now and in the future. The United Nations Decade for Education for Sustainable Development (UNDESD) 2005-2014 [in which UNESCO was designated as the leading agency in 2003] seeks to integrate the principles, values and practices of sustainable development into all aspects of education and learning, in order to address the social, economic, cultural and environmental issues we face in the 21st century.1

Keywords: *Sustainable development, Education, 21st Century, Environmental issues.*

Introduction

While many nations around the world have embraced the need for education to achieve sustainability, only limited progress has been made on any level. This lack of progress stems from many sources. In some cases, a lack of vision or awareness has impeded progress. In others, it is a lack of policy or funding. According to Charles Hopkins, who has spoken with people at many levels of involvement in education (i.e., ministers of education, university professors, K - 12 teachers, and students), twelve major issues stymied the advance of ESD during the 1990s and new millennium. By addressing these critical impediments in the planning stage, governments can prevent or reduce delays or derailment of ESD efforts and, ultimately, the attainment of sustainability. In addition to these generic issues, governments at all levels will need to address issues that are specific to local conditions (e.g., the quality of the relationship between the school governors and the teacher union). In reality, education related to sustainable development will be implemented in a wide range, in both depth and breadth. In some communities, ESD will be

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ignored; in others it will be barely addressed. In some, a new class dedicated to ESD will be created, and in others the entire curriculum will be reoriented to address sustainability. Communities must be aware of the limitations of educating *about* sustainable development. Teaching *about* sustainable development is like teaching the theory behind an abstract concept or teaching the principles of sustainability by rote memorization. ESD in its real and effective forms gives students the skills, perspectives, values, and knowledge to live sustainably in their communities. At the same time, true education is not indoctrination or inculcation.

Issue 1 - Increasing Awareness: ESD is Essential

The initial step in launching an ESD program is to develop awareness within the educational community and the public that reorienting education to achieve sustainability is essential. If government officials or school district administrators are unaware of the critical linkages between education and sustainable development, reorienting education to address sustainable development will not occur. When people realize that education can improve the likelihood of implementing national policies, regional land and resource management programs, and local programs, then education is in a position to be reoriented to help achieve sustainability. This awareness forms the essential first step in the reorienting process.

Issue 2 - Structuring and Placing ESD in the Curriculum

Each country faces a fundamental decision in addressing an ESD strategy. Each country must decide on a method of implementation and whether to create another "add on" subject, (e.g., Sustainable Development, Environmental Education, or Population Education) or to reorient entire education programs and practices to address sustainable development. Nations also need to clarify whether their educators are being asked to teach *about* sustainable development or to change the goals and methods of education to *achieve* sustainable development. The answer to this question will profoundly affect each nation's course of action.

Issue 3 - Linking to Existing Issues: Educational Reform and Economic Viability

The effectiveness of the world's educational systems is already critically debated in light of the changing needs of society. The current widespread acknowledgment of the need for educational reform may help advance ESD. If it can be linked to one or more priorities of educational reform, ESD could have a good chance for success. However, if promoters try to add another issue to an already over-burdened system, the chances of success are slim.

One current global concern that has the potential to drive educational reform in many countries is economic security. Around the world, ministries of education and commerce are asking: What changes will prepare a workforce that will make my country economically viable in the changing economy of the new millennium?

One educational effort that can boost the economic potential of entire nations is educating females. During the last decade, some national leaders have recognized that educating the entire workforce, both males and females, is important for economic viability. In addition, Lawrence Summer of the World Bank says, "Once all the benefits are recognized, investments in the

education of girls may well be the highest-return investment available in the developing world" (King and Hill, 1993, p vii). Accordingly, some nations are removing barriers to girls attending school and have campaigns to actively enrol girls in school.

Issue 4 - Facing the Complexity of Sustainable Development Concept

Sustainable development is a complex and evolving concept. Many scholars and practitioners have invested years in trying to define sustainable development and envisioning how to achieve it on national and local levels. Because sustainable development is hard to define and implement, it is also difficult to teach. Even more challenging is the task of totally reorienting an entire education system to achieve sustainability.

Rather than being clear, simple, and unambiguous, the concepts involved in ESD are complex. Their complexity stems from the intricate and complicated interactions of natural and human systems. The challenge to educators is to derive messages that illustrate such complexity, without overwhelming or confusing the learner.

Issue 5 - Developing an ESD Program with Community Participation

Education for sustainable development remains an enigma to many governments and schools. Governments, ministries of education, school districts, and educators have expressed a willingness to adopt ESD programs; however, no successful working models currently exist. Without models to adapt and adopt, governments and schools must create a process to define what education for sustainability is with respect to the local context. Such a process is challenging. It calls for a public participation process in which all of the stakeholders in a community carefully examine what they want their children to know, do, and value when they leave the formal education system. This means that the community must try to predict the environmental, economic, and social conditions of the near and distant future.

ESD carries with it the inherent idea of implementing programs that are locally relevant and culturally appropriate. Just as any sustainable development program must take into consideration the local environmental, economic, and societal conditions, so too must ESD programs consider these same conditions. As a result, each region must create its own ESD program. It is impossible to create an international, or even in many cases a national, curriculum that would be relevant to all communities.

It should be apparent to ministries of education and school districts that developing locally relevant ESD curriculums will be facilitated by creating public participation processes that allow communities to shape the major ideas underpinning their own curriculums. Rather than spending time searching for curricular models to adapt, it would be better to invest time and resources in developing processes by which communities of different sizes and traditions can define their own ESD programs.

Issue 6 - Engaging Traditional Disciplines in a Transdisciplinary Framework

ESD by nature is holistic and interdisciplinary and depends on concepts and analytical tools from a variety of disciplines. As a result, ESD is difficult to teach in traditional school settings

where studies are divided and taught in a disciplinary framework. In countries where national curriculums describe in detail the content and sequence of study in each discipline, ESD will be challenging to implement. In other countries where content is described generally, ESD will be more easily implemented, although doing so will require creative teachers who are comfortable and skilled at teaching across disciplines.

Issue 7 - Sharing the Responsibility

Popular thinking promotes the myth that an informed society is solely the responsibility of the ministry of education. In reality, however, the ministries of environment, commerce, state, and health also have a stake in ESD, just as they have a stake in sustainable development. By combining expertise, resources, and funding from many ministries, the possibility of building a high-quality, successful education program increases.

Every sector of the government that is touched by sustainable development (i.e., every ministry and department) can play a role in ESD and the reorienting process. At the UN meeting of the Commission on Sustainable Development, ministries of the environment have taken the lead in stating that education, awareness, and training are essential tools in bringing about sustainable development. Ministries of the environment need to work with both formal and non-formal sectors of the education community to implement ESD. In addition, it is absolutely essential for teachers to be involved in the process of building consensus concerning ESD.

Issue 8 - Building Human Capacity

The successful implementation of a new educational trend will require responsible, accountable leadership and expertise in both systemic educational change and sustainable development. We must develop realistic strategies to quickly create knowledgeable and capable leadership. It is unrealistic to expect nations to retrain 59,000,000 teachers and thousands of administrators in either - or both - ESD and educational change. We must find ways, such as employing the strengths model, to use existing skills.

Two models of human resource development currently exist – in-service training and pre-service training. In the first, experienced professionals are provided with additional training. Then, they reshape existing programs by drawing on their new knowledge, previous expertise, understanding of national and local systems, and network of contacts. In pre-service training, concepts, principles, and methodologies are provided during initial training. The new professionals then step into their jobs with ESD as part of their expertise. Pre-service training is more cost effective than retraining educators and administrators later in their careers. For initial success in ESD, both in-service and pre-service training are necessary. Many resources currently exist in the educational and administrative labor pools. Talented educators, especially in the fields of environment, population, and development, already teach strands of ESD and could easily expand their focus to include other concepts of sustainable development. Fortunately, every educator in every discipline has some existing strength to contribute to ESD via the strengths model. In this approach, the synergistic strengths of combined educational disciplines can convey the knowledge, issues, skills, perceptions, and values associated with ESD. However, use of this strengths model

requires that someone be sufficiently well-versed in ESD to pull together the pieces and to form a complete picture of the role that individuals, communities, and nations must play in a sustainable world.

Issue 9 - Developing Financial and Material Resources

Perhaps one of the greatest expenses of implementing ESD will come with providing appropriate basic education. Basic goals, which were established at Jontiem and reaffirmed at Dakar, include educating more children and increasing the universal average minimum of schooling to six years. Meeting these goals will require hiring many more teachers. These new teachers must be trained, and current teachers must be retrained, to reorient their curriculums to address sustainability.

The good news is that many countries are spending a larger percentage of their gross national product (GNP) on education. Two-thirds of the 123 countries listed in the UNESCO World Education Report 2000 that reported public expenditures on education as a percentage of GNP in both 1990 and 1996, reported spending more in 1996 than in 1990. Although governments are prioritizing education in terms of funding, how much of this funding is going to reorient education to address sustainability? As we pointed out in the "Education: Promise and Paradox" section, simply providing more education does not reduce the threat high resource consumption poses to sustainability. One of the reasons why many experts perceive that little progress has been made regarding ESD since the Earth Summit in 1992 is that few financial resources have been dedicated to reorienting education to address sustainability. In fact, national and local governments have spent little on ESD beyond improving basic education. Yet, effective ESD will depend on funding at both national and local levels. At the national level, financial resources must fund curriculum, administration, and teacher education. At the local level, resources must finance curriculum development and accompanying materials, as well as teacher training.

Issue 10 - Developing Policy

To succeed, ESD must have an authoritative impetus from national or regional governments that will drive policy development. The omission of such an impetus proved to be the downfall of the 1970s global effort to infuse environmental education into the elementary and secondary curriculums. This same fate could befall the ESD effort. The reality of any educational reform is that success depends on both "top down" and "bottom up" efforts. Administrators at the top echelons of ministries are in a position to create the policies that will make reform occur. Together, administrators, teachers, and community leaders at the local level must interpret what the policy should "look like" locally.

Issue 11 - Developing a Creative, Innovative, and Risk-Taking Climate

In order to bring about the major changes required by ESD, we need to nurture a climate of safety. Policymakers, administrators, and teachers will need to make changes, experiment, and take risks to accomplish new educational and sustainability goals. They need to have the authority and support of the educational community to change the status quo. Teachers must feel that the

administration will support their efforts if parents or vested interest groups in the community question or criticize their initiatives. We need to develop and implement policy to ensure administrators and educators at all levels have the right to introduce new or controversial topics and pedagogical methods. Of course, an over-zealous few could abuse these rights; therefore, a system of checks and balances within professional guidelines and cultural context should also be in place.

Issue 12 - Promoting Sustainability in Popular Culture

Perhaps the most difficult obstacle to address in implementing ESD is that of popularity. While many countries agreed that ESD is important, the themes of sustainability are not prevalent in popular cultures or governmental policies. For example, one principle of sustainable development is that the rates of use of renewable resources should not exceed their rates of regeneration. Yet, many societies have developed or are developing a "disposable culture." Disposable beverage containers, food wrappers, plates, and eating utensils pass through our lives daily. We use them once and then discard them to be buried, burned, or dumped in the water. This disposable culture is using such resources as trees and fossil fuels more rapidly than they can be replaced.

Because principles of sustainable development are not currently woven into daily life and governmental policy, the emergence of ESD could become an important "bottom-up" driver of community-based sustainable development. ESD could shape and encourage behaviours and ethics that support an informed, knowledgeable citizenry that has the political will to achieve a sustainable future.

Barriers to Achieving Sustainable Development in developing countries.

Sustainable development has been widely promoted as a holistic concept which aims or targets to integrate social, economic and cultural policies to ensure high-quality growth. However, there are barriers combating the implementation of sustainable development in developing countries. These barriers are:

- Economic / financial barriers
- Social barriers
- Political barriers
- HIV and Injecting Drug use
- Poor monitoring and evaluation system
- Institutional barriers
- Cultural barriers
- Trade barriers
- Poverty and disease
- Climate change

Educational reform

The current widespread acknowledgment of the need for educational reform may help advance ESD. If it can be linked to one or more priorities of educational reform, ESD could have

a good chance for success. However, if promoters try to add another issue to an already over-burdened system, the chances of success are slim. One current global concern that has the potential to drive educational reform in many countries is economic security. Around the world, ministries of education and commerce are asking: What changes will prepare a workforce that will make our country economically viable in the changing economy of the new millennium? One educational effort that can boost the economic potential of entire nations is educating females. During the last decade, some national leaders have recognized that educating the entire workforce, both male and females, is important for economic viability.

Conclusion

When we examine successful national education campaigns, we find they often have simple messages. For example, messages that encourage us to vaccinate our children and boil our water, or discourage us from driving drunk and taking drugs, are simple concepts compared to the complex range of environmental, economic, and social issues that sustainable development encompasses. Success in ESD will take much longer and be more costly than single-message public-education campaigns, to successfully implement ESD, governments and school districts must plan ahead and develop strategies to address the 12 issues mentioned above. These issues should be addressed at every level, especially the national level, to ensure consistent implementation of ESD across the country. Purposeful deliberation and planning around these issues as well as issues particular to each region will increase the likelihood of successfully implementing ESD programs and reorienting curriculum to achieve sustainability.

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