

Challenges towards Promotion of the Decade of Education for Sustainable Development

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Changing Role of Education in the Globalizing World

We are living in a time of profound change; in an increasingly interlinked world. The rapid development of improved systems of communication and transport has changed our world from a complex and sometimes chaotic blanket of territories and borders to a hierarchical system of nodes and channels. The frequency and volume of the exchange of goods and the mobility of people, money and ideas have created a situation in which no one can allow him or her to live in isolation. Our world is becoming ever more globalized and knowledge-based. Our society is getting more complex and heterogeneous, consisting of individuals characterized by intriguing sets of multiple identities. Together we are set on an unsustainable course, using so much of our planet's natural resources, that the future of younger generations is jeopardized.

These changes are for both the better and the worse. All that can be positive can also be negative. When international terrorism can strike from a great distance, this also means that good can be done over great distance. Together, we can make this choice to contribute to "a better life and a safer world for all also our grandchildren and their children." When we - ourselves - live in an affluent society we cannot ignore poverty; neither in our own affluent society, nor in poverty-stricken countries. We can no longer ignore the interlinkages between globalization-trade-poverty -development and environment. That is what sustainable development is all about: to understand the whole, complex reality and to act in adequate, informed ways. That is where education comes in: to learn to know, to do, to understand, to be (Commission Delors: Learning the Treasure from Within); also to be aware of our individual responsibilities to contribute, to make responsible choices, to respect other people, nature, diversity.

Quite some thought has been given over the last decade to the question of how to ensure that globalization will benefit all of humankind and help sustain the future. What has become clear in this process is that the line between the beneficiaries of globalization and those who are currently on the losing end is not easily drawn. Of course, "big" business - often headquartered in industrialized countries - that thrives on the globalization of trade and labour markets, is readily identified as occupying the driver's seat in the globalization process. At the other end, there are the farmers and labourers in developing countries who, due to a lack of access to education, information and technology and to the imbalances of international markets, are severely limited in their bargaining power for the prices of their labour and produce. But, is it all North versus South, industrialized versus developing countries? Certainly not. What about the developing country-based NGO that, through the Internet, has become able to link up with like-minded groups around the world and, by broadening its basis of information and building on the experiences of others, is in a much better position to further its cause than before? On the other hand, there are people in industrialized countries, sometimes out of work as rationalization has made their

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specific skills obsolete, to whom the global circles of communication and collaboration are the most remote of realities.

Without attempting to downplay the differences that continue to exist between the opportunities of developing and industrialized countries to participate in the global economy and information networks, one point becomes clear when contemplating the complex realities of globalization in its current form (we all know that globalization is not a new phenomenon): that is whether or not one can benefit from globalization much depends on the skills one possesses - skills to obtain and analyze information, to make independent judgments, and to communicate across social and cultural boundaries - rather than just being a function of location. And this is, obviously, where education comes in.

Education, understood broadly as an ongoing process including both formal and informal modes of teaching and learning, plays a crucial role in preparing people for their future in a highly connected, interlinked, globalized world. Higher education, in particular, occupies a central position in shaping the way in which future generations learn to cope with the complexities of globalization-trade-poverty-development and environment . Higher education prepares an important portion of the population for their entry into the labour market, including in most cases, the teachers that are responsible for education at the primary and secondary levels. Here, universities are called upon to teach not only the skills required to advance successfully in a globalized world, but also to nourish in their students, faculty and staff a positive attitude towards environmental issues and cultural diversity, to help them understand how a richness of both nature and cultures can benefit the peoples, and can contribute to a better life in a safer world for all. To instill in young people the desire to contribute to their society and its environment; in short to sustainability of their way of life and quality of living.

A Copernican Revolution- Position of Universities

Apart from the fact that increasingly global labour markets require universities to adjust the way in which they approach education, globalization affects universities in yet another way: the frames of reference for the quality and position of each university have broadened considerably; it is no longer just to their neighboring cities or countries that universities look for institutions with which to cooperate or to which to compare themselves. Rather, the global network the university belongs to will become increasingly important. It will contribute directly to the identity and awareness of the university and its international position. It is, indeed, possible that international networks may form the basis of the university of the future, or at least will help it function properly. In fact, it will not be long before the stronger universities will establish new branches abroad. We can already detect this in a number of cases, where, in particular, universities from the United States or the United Kingdom establish such branch universities in other countries. The university will become, under the influence of this process, bigger, stronger, more competitive. It will behave increasingly like an international business: with shrinking distances, larger institutions, competition, selection and hierarchization.

In spite of this, I believe, globalization will lead to greater unity in the long run. This unity will not, however, be the unity envisaged, for instance, by Napoleon two centuries ago, with the same laws and the same straight roads stretching right across Europe. It might be, and ought to be, a unity in diversity, based on the principle of subsidiarity. This applies, in particular, to universities. They have a tradition of diversity stretching back to their origins - in China, the Arab World, Europe. Universities will become increasingly interlinked and bound to one another, while also identifying themselves as distinct from each other. Each within their own region and country, their own tradition, with their specific sets of disciplines,

programmes and people. Here again, the key for the universities will be to have as the guiding principle in their processes of internationalization - the acceptance and appreciation of diversity.

A Copernican Revolution is taking place with regard to the position of universities in their own country and worldwide. In the interlinked, globalized world, the "Network Society" as defined by Manuel Castells, universities no longer can regard themselves only as a part of a national system, protected by national laws and regulations. In their strive to excellence, in a much more competitive world in which they must maintain constructive and supportive relations with all their stakeholders, universities must more and more take care of themselves individually. As a consequence, they must rethink their modes of governance, their financing, their internal structures and external relations. They must rely more and more on the considerable capabilities and creativity of their own people, not just to teach and do research, but also to run and develop the university as an organization; as an enterprise though, in general, not for profit; as a public good though managed in energetic, entrepreneurial ways. For this to happen, universities must mobilize talent from within. And they must network, develop relations with all kinds of institutions and show in their actions to take their social responsibilities seriously.

It is for this reason that the UNU with UNESCO and the Polytechnic University of Catalunya have started the "Global University Network for Innovation (GUNI)." We strongly believe that real innovation of universities must come from within. Such innovation will be created and supported by all people working and learning in the institutions for higher learning, rather than by top-down regulation, changes in the governance structure or financial regulations. We also believe that for universities to learn from each other by working together, it is important that the global network is based on regional networks, as the conditions under which universities must work are very different from country to country, from region to region. Only strong, responsible and responsive universities can fulfill properly their crucial role in developing education for sustainable development, in providing guidance and leadership in all education with regard to curriculum-development and teacher training, in introducing and disseminating "state-of-the-art" knowledge.

Mobilizing for Sustainable Development

Since the Earth Summit, sustainable development has been high on the political agenda. However, the role of education was not very well articulated. Neither was education defined as one of the major stakeholder groups. There were nine major stakeholder groups identified, under which trade unions, youth, science, business were included, but not education. In the World Conference on Higher Education in 1998, a thematic debate was organized (by the UNU at the request of UNESCO) on "Sustainable (human) development," which brought fourteen different organizations together.

During the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002, the Global Higher Education for Sustainability Partnership (GHESP) was launched as a Type II Partnership (IAU, ULSF, Copernicus Campus, UNESCO). The Global Virtual University on Environment Issues was presented by the Norwegian Government, Norwegian universities, UNEP- GRID Arendal and UNU. The Japanese as well as Swedish Governments chose education for sustainable development as a spear point for its contributions. The UNU Institute for Advanced Studies (UNU/IAS) took the lead in bringing together the Ubuntu Declaration Group for the signature of the Ubuntu Declaration. Based on the proposal of, among others, Japan, and Sweden, the United Nations General Assembly adopted a resolution on the Decade of Education for Sustainable Development (DESD), starting from January 2005 for 10 years. UNESCO was designated to be

the lead agency for the Decade.

At the WSSD, the following eleven world's foremost educational and scientific organizations signed the Ubuntu Declaration, which brought together for the first time, science, technology and education for sustainable development. The Declaration strives to ensure that through ministry policies and practices, as well as the research and publication of researchers in all relevant sciences and technologies, all the educators and learners from primary through higher education as well as the media, are aware of the imperatives of sustainable development. Through the focused work of this network of networks it is anticipated that more people worldwide will be informed on the basis of the best knowledge and insights created in all sciences and technology and will practice, in their work and life habits, the values and principles of sustainability.

- African Academy of Science (AAS);
- Copernicus-Campus;
- Global Higher Education for Sustainability Partnership (GHESP);
- International Association of Universities (IAU);
- International Council for Science (ICSU);
- Science Council of Asia (SCA);
- Third World Academy of Sciences (TWAS);
- United Nations Educational, Scientific and Cultural Organization (UNESCO);
- United Nations University (UNU);
- University Leaders for a Sustainable Future (ULSF) and,
- World Federation of Engineering Organizations (WFEO)

Major Problems to be Tackled

Lasting solutions for sustainable development depend on the effective integration of science (in the broadest sense!) and technology. Education is critical in galvanizing the approach to such integrated solutions for sustainable development. Higher education particularly could and should play an indispensable role in informing and supporting all levels of educators to address the critical challenges of sustainable development.

The signatories of the Ubuntu Declaration consider that there remain significant needs for:

- (i) Closer communication between scientific and technological communities and educational communities to integrate the latest scientific and technological information and knowledge into education curricula and ensure appropriate education for sustainable development.
- (ii) Closer linkage between primary, secondary education and higher education, so that the concept of sustainable development is integrated into all levels of education as appropriate.
- (iii) Bridging the knowledge gaps between the nations of the world through a fundamental strengthening of education for sustainability worldwide.

They committed to work jointly towards:

- strengthening the role of educators in the CSD process as one of the major stakeholders;
- promoting communication and collaboration among scientific, technological and educational organizations;
- facilitating the review and revision process of educational programmes and curricula at all levels of education for integrating the latest scientific and technological knowledge for sustainable development into educational programmes and curricula,
- developing mechanisms to continuously inform teachers and update programmes;
- promoting efforts to attract young people to the teacher profession;
- emphasizing the importance of ethical issues in education for building a sustainable and peaceful global society in the 21st century;
- promoting knowledge transfers in innovative ways to speed up the process of bridging gaps and inequalities in knowledge; and
- working towards a new global learning space on education and sustainability that promotes cooperation and exchange between education at all levels and among all sectors of society.

Key Issues for the Success of the DESD

Education for Sustainable Development does mean what it says: it is not just environmental education nor even sustainable development education, but "education for sustainable development (EfSD)." It is not a topic that can be taught in a few weeks just at a certain age, but should rather be given attention in all sectors and at all levels in relation to relevant, already existing subjects in an integrated manner. In this way EfSD gives orientation and meaning to "education for all (EFA)." EFA and EfSD are two sides of the same medal. To develop the curricula and courseware needed - and regularly update these - and to inform teacher training and re-training in effective ways we need an inclusive and flexible process, mobilizing all who have something to contribute in primary, secondary and tertiary (including higher) education. Specific attention will be given to online learning and contributions of the media. The Johannesburg Plan of Implementation gives guidance with regard to the issues to focus on in particular, such as: water, energy, health, agriculture and biodiversity (WEHAB) and of course the Millennium Development Goals. The Earth Charter, too, gives important perspectives and concepts to build upon while constructing curricula and training teachers. The GHESP-toolkit will provide, increasingly, good teaching materials to introduce concepts, to sharpen insight and overall improve knowledge.

Some specific recommendations were made at the International Conference on A Sustainable Future, 24-26 October 2003 in Tokyo, organized by the Global Environmental Action (GEA) as the key issues for the success of the DESD. They include, among others,

- (i) One of the most important key issues for the success of the DESD is to develop an enabling environment mobilizing as many stakeholders as possible towards partnership for education for SD.
- (ii) It is important to develop a new global learning space on education and sustainability that promotes cooperation and exchange between education at all levels and among all sectors of society. It is especially important to promote locally-based activities, taking account of social, cultural and environmental diversities.

- (iii) There is a need to strengthen communication and collaboration among scientific, technological and educational organizations and facilitate the processes for integrating the latest scientific and technological knowledge for SD into educational programmes and curricula.
- (iv) Higher education could and should play an important role in promoting education for SD to integrate the concept of SD into all levels of education as appropriate. It should be recognized that, among others, higher education would play a key role for basic and secondary education through teacher training and retraining.
- (v) It may be clearly emphasized that education for SD is important not only for developing countries but also in developed countries. Some topics such as sustainable production and consumption and lifestyles are more relevant to developed countries.
- (vi) It should be clearly recognized that the governments are invited to integrate education for SD into their national education strategies and action plans at all appropriate levels by 2005 by UNGA Resolution.

UNU's Activities to Promote the DESD

To promote the DESD the United Nations University is considering a two-step approach, namely:

- (i) To improve quality of education by integrating state-of-the-art knowledge in all types of science and technology on sustainability into educational curricula and practices in all levels and all sectors; and
- (ii) To sufficiently raise awareness of public at large and policy and decision makers in particular so that the state-of-the-art knowledge on sustainability will be duly reflected in the national development planning and processes.

The following activities, among others, will be undertaken during the coming two, three years:

- Development and implementation of the International Implementation Scheme for the DESD;
- Awareness raising among public and policy makers in particular;
- Promotion of regional centers of excellence on education for sustainable development both in Japan and in the world;
- Support to and active participation in GHESP Toolkit project;
- Promotion of distant on-line learning through ICT (Global Virtual University, the Asia Pacific Initiative etc.).

Regional Centers of Excellence

The process of the Decade must be inclusive and flexible, the framework challenging and enabling, not limiting and harnessing. The challenge that might mobilize many and serve to give focus to their contributions might be the following:

" to create jointly a global learning space for sustainability, based on regional centers/clusters of excellence..."

Regions are seen here - as in common language - as parts of countries like Tohoku or Catalunya. The regional centers/clusters of excellence on education for sustainable development (RCEs) should include institutions of primary, secondary and tertiary education, research institutions, the media, (science) museums, non-formal education, zoos/parks, etc. As it is important to mobilize many, initially, prizes could be awarded for innovative, joint projects of two or more institutions from

different sectors. The RCEs might be identified in a comparable way as the monuments on UNESCO's cultural heritage list. This would have the advantage that local/regional conditions can be fully taken into account. The DESD would in this way have as a visible output, a global network of such RCEs. In the process, it would be possible to mobilize many, learn from their creative ideas, build on diversity and promote international cooperation in education for sustainable development. The RCEs together and their mutual relations would form the global learning space for sustainable development; the major outcome of the DESD. The Earth Charter would provide the philosophy and guidelines for their work. The GHESP-toolkit could serve as a good-practice portal from which all partners can use good learning material and customize these according to their local/regional conditions.

There have been significant experiences in Japan to integrate sustainability components, particularly environmental aspects into educational programmes and community-based activities. For instance, the City of Sendai is famous for its environmentally friendly activities. And the City of Kesennuma has been implementing excellent environmental education at elementary school level. Some of such attempts may be considered as RCE activities or may be considered so if modified as appropriate. (Sendai and its surrounding areas may be a good candidate for RCE activities.) We would like to work together and support such activities to promote RCEs in Japan to share their experiences as good practices with other parts of the world.

The UNU is also planning to undertake a few demonstration projects on RCEs in the Asia-Pacific region as the first step to promote RCEs and their networking at the global level. RCE's around the world, cooperating together, learning from each other, would together create the Global Learning Space for Sustainability (EfSD), which would be essential outcome of the DESD.

Thank you.

UBUNTU DECLARATION

On Education and Science and Technology for Sustainable Development

In an effort to make integrated solutions work for sustainable development and to mobilize the education sector to contribute to sustainable development;

We, the education and scientific organizations of the world,

United Nations University United Nations Educational, Scientific and Cultural Organization African Academy of Science International Council for Science International Association of Universities Copernicus-Campus Global Higher Education for Sustainability Partnership Science Council of Asia Third World Academy of Sciences University Leaders for a Sustainable Future, and World Federation of Engineering Organizations,

Call for an initiative to strengthen science and technology education for sustainable development.

Cognizant that integrated solutions for sustainable development depend on the continued and effective application of science and technology, and that education is critical in galvanizing the approach to the challenges of sustainable development.

Endorsing the Earth Charter as the inspiring, fundamental and balanced set of principles and guidelines for building a just, sustainable and peaceful global society in the 21st century, which should permeate all levels and sectors of education.

Noting that science is all science - natural, social and human.

Recognizing the necessity to bridge the knowledge gap between the nations of the world through a fundamental redress of the distribution of education for sustainability.

Acknowledging that the ultimate goal of education in all its forms is to impart knowledge, skills and values to empower people to bring about changes.

Concerned that education has not been utilized as a vehicle for attaining sustainable development.

Reaffirming the indispensable role of education in achieving sustainable development, and the important role education plays in the mobilization of science and technology for sustainability as contained in Chapter 36 of Agenda 21.

Recalling the Luneburg Declaration on Higher Education for Sustainable Development of 10 October 2001, and its emphasis on the indispensable role of higher education informing and supporting all education in addressing the critical challenges of sustainable development.

And recognizing that the Scientific and Technological community, as represented by the International Council for Science, Third World Academy of Sciences, and World Federation of Engineering Organizations in the WSSD process has called for a new social contract between science and technology and society for sustainable development.

Determined to work towards the goals contained in the Millennium Declaration, Monterrey Consensus and the Doha Development Declaration.

Call on Governments of the World Summit for Sustainable Development and the Post-Summit agenda to:

Designate educators as the tenth stakeholder group in the WSSD process.

Call on educators, Government and all relevant stakeholders to:

Review the programmes and curricula of schools and universities, in order to better address the challenges and opportunities of sustainable development, with a focus on:

- o Plans at the local, regional and national country levels;
- o Creating learning modules which bring skills, knowledge, reflections, ethics and values together in a balanced way;
- o Problem-based education at primary and secondary levels in order to develop integrated and non-instrumental approaches to problem solving at an early stage in the education cycle;
- o Problem-based scientific research in tertiary education, both as a pedagogical approach and as a research function;

Promote efforts to attract young people to the teacher profession both to meet the Millennium Development goals of universal access to primary education as well as to further strengthen primary, secondary and tertiary education. In developed countries the major challenge in the coming years will be to offset the high outflows of experienced teachers reaching retirement age or taking up other challenges.

Develop mechanisms to continuously inform teachers and update programmes on major progress in scientific and technological knowledge relevant for sustainable development.

Promote knowledge transfers in innovative ways in order to speed up the process of bridging gaps and inequalities in knowledge. This is the shared responsibility of teachers, schools, research and education institutions and governments.

To achieve these challenges and objectives, we are resolved to work towards a new global learning space on education and sustainability that promotes cooperation and exchange between institutions at all levels and in all sectors of education around the world. This space must be developed on the basis of international networks of institutions and the creation of regional centers of excellence, which bring together universities, polytechnics, and institutions of secondary education and primary schools. We invite all other responsible stakeholders to join us in this endeavour.