

Tbilisi to Ahmedabad

The Journey of

Environmental Education

Belgrade

A Sourcebook

Thessaloniki

Tbilisi

Jomtien

Dakar

Johannesburg

Stockholm

Rio

Durban

Moscow

Ahmedabad

Kartikeya V. Sarabhai
Mamata Pandya
Rajeswari Namagiri



4th International Conference on Environmental Education

ICEE

Centre for Environment Education, Ahmedabad, India

Tbilisi to Ahmedabad

The Journey of

Environmental Education

A Sourcebook

Kartikeya V. Sarabhai
Mamata Pandya
Rajeswari Namagiri

CEE

Centre for Environment Education



4th International Conference on Environmental Education

Design and Layout: Pankaj Gorana

Support Services: J. K. Nair

Production: D.M. Thumber

© 2007 Centre for Environment Education

ISBN 978-81-89587-25-3

CEE is an internationally acclaimed institution in the field of EE and ESD. It has considerable experience and expertise in addressing its primary mandate of improving public awareness and understanding of the environment with a view to promoting the conservation and sustainable use of nature and natural resources. Its programmes are facilitated through 40 regional, state and project offices across the country with its headquarters located at Ahmedabad and affiliates in Australia and Sri Lanka. Over the past twenty years, CEE has been working in the field of environmental education. It has developed innovative programmes, educational material, undertaken demonstration projects and built capacities in the field of environmental education. Recognizing the complexity and vastness of work in the field of ESD, CEE works in partnership with a range of organizations at the national, regional and international level. The strategy is to collaborate with others to build synergies, achieve a multiplier effect, enhance effectiveness and widen the range of programmes.

CEE is the nodal agency for implementation of DESD in India.

Contents

<i>Preface</i>	i
1. Origins	1
2. Foundation Stones	7
3. A Defining Milestone	27
4. The Tbilisi Effect	36
5. Agenda for Action	49
6. Milestones for the Millennium	74
7. A Dedicated Decade	99
8. Spreading the Word	113
<i>Bibliography</i>	131
<i>Index</i>	133

Preface

The United Nations Conference on the Human Environment held in Stockholm, Sweden, in 1972 brought environment into the global development agenda. When the United Nations invited all nations to express their interest in this Conference, there was considerable interest from the industrially advanced nations but developing nations, including India, largely remained silent. Reflecting on this in 1970, two years before the Conference, Dr. Vikram Sarabhai, India's delegate to the Scientific Advisory Committee of the United Nations, noted in a speech at Trombay, India, that “there was a widespread belief...that the problem of human environment was largely an affliction of the industrially developed societies, and that since India was still quite remote from this problem, (it) could tackle it in its own time...there were more pressing problems to be attended to immediately.”

However, India decided to reconsider and attended the Conference. In fact, at Stockholm, Mrs. Indira Gandhi, then Prime Minister of India, was the only head of Government in attendance other than that of the host country. She travelled to Stockholm to emphasize the close link between the deteriorating environment and poverty. She argued that one problem could not be solved without addressing the other. The seeds of sustainable development concept had been sown.

The declaration from the Stockholm Conference also recognized the need for “responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension.” The Conference recognized education in environmental matters as an essential way to achieve these objectives.

The formation of UNEP, the launch of the International Environmental Education Programme (IEEP), and the United Nations Workshop at Belgrade in 1975 developed the idea further that EE was an essential part of solving environmental problems. By 1977 the first Inter-governmental Conference on Environmental Education at Tbilisi, Georgia, defined EE and set guidelines for its development. The story from Tbilisi to Ahmedabad, where the 4th International Conference on Environmental Education is being held, is a fascinating journey of how EE has evolved over the 30 years.

For us in India, the journey has resulted in EE becoming a part of every school and college programme. A number of EE initiatives have been taken up by the central and state governments, nongovernmental organizations (NGOs), academic institutions and business community. But the challenge is greater. Despite increased awareness, the rate of deterioration of the environment, from loss of biodiversity to climate change, continues at unacceptable levels. The human footprint is far greater than the Earth can bear. As more and more countries adopt unsustainable models of development, the crisis deepens. The world needs to rethink and change its development paradigm. This scale of change cannot be made through policy alone, nor will technology or financial mechanisms be adequate. It is people—their behaviour, their attitudes, and their sense of responsibility—that are at the core of the solution to a more sustainable future.

Education in its broadest sense—imparting knowledge, skills, attitudes, values and civic participation—is critical. Recognizing this, United Nations declared the decade 2005 – 2014 as the Decade of Education for Sustainable Development (DESD). EE has raised consciousness, but Education for Sustainable Development (ESD) requires that other disciplines be drawn in and new partnerships formed. EE, at this moment in its journey, stands at the crossroads. It needs to champion ESD so that other disciplines too can play vital role in ESD. It needs to reach out to other stakeholders including the media, the business community, local groups and city governments. EE needs to scale up, and play the role required of it in a world in crisis.

This history of EE from Tbilisi to Ahmedabad can be an inspiration and guide as we progress together on this expansive journey towards education for sustainable development.

Kartikeya V. Sarabhai
Director
Centre for Environment Education

Origins

As we start to trace the journey of environmental education, and follow its development over the past three decades, the thought may strike...where did it all begin? As with any idea or concept, it is perhaps not possible to pin-point the exact date or place.

Environment and education, themselves two separate strands, have their own history and evolution. However, the close link between learner and the learning has been recognized and reflected since time immemorial in the thinking of philosophers from Socrates onwards who believed that learning is a life-long process.

As far back as the eighteenth and nineteenth centuries, thinkers, writers, and educationists like Rousseau, Goethe, Froebel, Dewey, Montessori, and Steiner wrote about the integral links between education and the environment.

Back in the 17th century, a scholar named John Amos Comenius (1592-1670) wrote *"Instruction must begin with actual inspection, not with verbal description of things..."*

In the 18th century, Jean Jacques Rousseau (1712-1778) gave the call to "Return to Nature" and propagated discovery of information and applying processes rather than memorizing of facts and learning by rote. This educational philosophy as described in his book *Emile*, maintains that education should include a focus on the environment, and argues that one of the main things a teacher has to do is facilitate opportunities for students to learn.

Friedrich Froebel (1782-1852), believed in developing the inborn moral, social and intellectual capacities of the child through nature study, gardening and play. He emphasized sympathy and oneness with nature.

Weaving the Strands

Thus the lineage of the concept and practice of linking environment and education goes back a long way. Part of the lineage can be traced back to outdoor education where the focus was primarily on 'where' education takes place, and part to experiential education which focuses primarily on the process involved.

Environmental education reflected the perspective of seeing the two strands as being mutually supportive, and moving towards a synergy between the two, while at the same time bringing in certain unique characteristics that distinguished the new term.

One of the 'founding fathers' of this synthesis is regarded to be Sir Patrick Geddes (1854-1933). Geddes was a Scottish botanist, urban planner, philosopher and designer. Colleagues at the University of Edinburgh referred to him as 'Professor of Things in General'. Geddes was perhaps the first academic to make the vital link between the quality of the environment and the

quality of education. He pioneered a number of innovative ideas and techniques including using of the outdoor environment and learning-by-doing which brought learners in direct contact with the environment. Geddes established an educational institution, The Outlook Tower, in 1899, meant for the study of environment. Geddes' educational philosophy was based on an interdisciplinary approach and education of the whole person. These remain till today some of the guiding principles of what we call Environmental Education.

The progressive education movement of the 1920s carried forward the idea of experiential education which was defined as a 'process through which a learner constructs knowledge, skills, and value from direct experience'. John Dewey, an American educationist wrote extensively on the importance of experience in the development of knowledge, intelligence and even community. He intended to broaden the focus of education, which he regarded as too "highly specialized, one-sided and narrow". He insisted that schools should reflect society and education should be a continuous reconstruction of lived experiences, with the student as the central focus of teaching. Dewey proposed to remake into curriculum, the school, its relations with the larger community, and all of its internal functions.

A similar approach was reflected in Mahatma Gandhi's conception of Basic Education. This was concerned with learning that was generated within everyday life. Mahatma Gandhi launched the Basic Education movement in India in 1937. Gandhi saw this not merely as an educational methodology, but as an instrument of a new social order. He perceived education as a life-long process which involved the harmony of the head, heart and hands. For him basic education was education through environment: natural, social and vocational and it was the skill of the teacher that could create these three environments.

Gandhi's Basic Education movement was perhaps the first serious attempt at relating education in schools to local environmental needs. The essential elements of Basic Education were: productive activity in education, correlation of curriculum with productive activity, and intimate contact between the school and the local community. It was also an education focussed on the individual but reliant on cooperation between individuals.

Towards Definitions

While different strands in different parts of the world reflected the concept and essence of what was to be termed environmental education, the formal definitions began to emerge in the mid 1900s. Some suggest that the term first appeared in 1947 in the book *Communitas* by Paul and Percival Goodman. The term was certainly used in Paris in 1948, at a meeting of the International Union for the Conservation of Nature and Natural Resources (IUCN).

Once the term was introduced and accepted, the challenge was to promote it as a legitimate concept. The first step towards this was to define its meaning and scope. The IUCN played an important role in this process. In the latter half of the 1960s, several meetings and conferences worked at drafting such definitions.

In September 1965, a meeting of IUCN Education Commission's North West Europe Committee called for 'environmental education in schools, in higher education, and in training for the land-linked professions'.

In 1968 UNESCO organized a Biosphere Conference in Paris. It was reported that this conference evidenced for the first time world awareness of EE.

The Paris conference went beyond acknowledgement of the term. It also addressed itself to the measures required to translate the concept into practice. Towards this, the conference called for the development of curriculum materials relating to studying the environment for all levels of education, the promotion of technical training, and the stimulation of global awareness of environmental problems. It also advocated the setting up of national co-ordinating bodies for environmental education around the globe.

In 1968, a Professor at the School of Natural Resources and Environment, University of Michigan, William Stapp, worked with his graduate students to develop what was perhaps the first formal definition of the term environmental education. *"EE is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to solve these problems, and motivated to work toward their solution".¹*

This definition was taken ahead at the 'International Working Meeting on Environmental Education in the School Curriculum' organized in 1970 by IUCN/UNESCO at Foresta Institute, Carson City, Nevada, USA. From this meeting emerged the 'Nevada' definition which is accepted as the classical definition of EE.

"Environmental education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture, and his biophysical surroundings. Environmental education also entails practice in decision-making and self-formulation of a code of behaviour about issues concerning environmental quality".

The definition was developed at the start of the decade of the seventies – a period when the environmental crisis was understood predominantly in terms of biophysical problems, and the key concern was the destruction of the natural resource base. EE was seen as playing a role in teaching individuals about the environment with the assumption that their actions and behaviour would support conservation of natural resources.

The definition was adopted subsequently by the National Association for Environmental Education in Britain, and gave impetus to the promotion of environmental awareness in the USA.

IUCN itself continued to promote this definition and set up meetings and workshops around the world to introduce the concept of EE and discuss its meaning and scope.

Thus, EE did not spring fully formed from anyone discipline but rather as a product of a co-evolutionary process within the science, public awareness of environmental issues, and educational ideas.

Sounding the Alarm

The 1960s were a period for providing shape and identity to the term environmental education. The decade was also one where significant developments took place which had impact on the environmental movement. These were reflected in the evolving thinking about environmental education.

The publication in 1962, of a book titled *Silent Spring* was a landmark. The author was Rachel Carson, an American marine biologist and natural history writer. In the late 1950s Carson turned her attention to studying how synthetic pesticides were affecting natural ecosystems and human health. The result was *Silent Spring*. It brought to the public attention the issues of DDT and related environmental concerns. The overriding theme was the powerful and often negative effect that humans can have on the natural world.

The publication of *Silent Spring* had an enormous impact. 'The book found a constituency broader than that enjoyed by any previous environmental issue. Never before had so diverse a body of people from bird watchers, to wildlife managers and public health professionals, to suburban home makers been joined together to deal with a [common] threat'²

The most direct outcome of the response was that it led to the reversal in the national pesticide policy of the US and subsequent national ban on DDT and other pesticides.

Silent Spring was translated in numerous languages and had a striking impact on the resurgence of environmentalism throughout USA and Europe. It also spurred the appearance of several other environmental classics between 1962 and 1972. Most of them were written by biologists, and all dealt with the potentially threatening relationship between humans and the natural environment.

All the publications, including *Silent Spring* evoked tremendous responses, and even academic debate – both for and against the premises that they presented. At the general level, these publications certainly contributed to bringing the issues to larger public attention.

Raymond Dasman's writings during the sixties also stressed the call for action. Dasman was a conservation biologist whose lifework was shaped by a passion for the natural world and desire to solve the environmental problems that threaten the planet. These were reflected in his writings *The Last Horizon* (1963), *The Destruction of California* (1965) and *Planet in Peril* (1971).

1968 saw the publication of Paul Ehrlich's book *The Population Bomb*. Ehrlich predicted that the world would experience famines sometime between 1970 and 1985 due to population outstripping resources.

The same year Science Magazine published Garrett Hardin's essay *The Tragedy of the Commons* which put forth the dismal prophecy of how human society would self destruct through aggressive competition over nature and natural resources.

In 1971, Barry Commoner's book *The Closing Circle* highlighted four laws of ecology:

1. “Everything is connected to everything else. There is one ecosphere for all living organisms and what affects one, affects all.
2. Everything must go somewhere. There is no 'waste' in nature and there is no 'away' to which things can be thrown.
3. Nature knows Best. Humankind has fashioned technology to improve upon nature but change in a natural system is 'likely to be detrimental to that system'.
4. There is no such thing as a free lunch. In nature both sides of the equation must balance. For every gain there is a cost, and all debts are eventually paid”.

In 1972, *Limits to Growth*, a study commissioned by the Club of Rome appeared in 30 languages.

Limits to Growth reported the study of long-term global trends in population, economics and environment. This Report of the Club of Rome, whose lead author was Donella Meadows predicted that economic growth could not continue indefinitely because of the limited availability of natural resources, particularly oil.

It highlighted the basic insight that we live and work in a finite global ecosystem with exhaustible resources and capacities. The reaction to the publication was one of concern.

In the same year the London-based ecology magazine *Ecologist* issued *A Blueprint for Survival*.

A Blueprint for Survival occupied the entire issue of the *Ecologist* Vol. 2, No. 1, in January 1972. Due to the great demand it was published in book form in September 1972.

The preface by the authors clearly reflected the growing concerns and issues before the world at large, and gave a call for action on the form of a “blueprint for survival”.



This document has been drawn up by a small team of people, all of whom, in different capacities, are professionally involved in the study of global environmental problems.

Four considerations have prompted us to do this:

“An examination of the relevant information available has impressed upon us the extreme gravity of the global situation today. For, if current trends are allowed to persist, the breakdown of society and the irreversible disruption of the life-support systems on this planet, possibly by the end of the century, certainly within the lifetimes of our children, are inevitable.

Governments, and ours is no exception, are either refusing to face the relevant facts, or are briefing their scientists in such a way that their seriousness is played down. Whatever the reasons, no corrective measures of any consequence are being undertaken.

This situation has already prompted the formation of the Club of Rome, a group of scientists and industrialists from many countries, which is currently trying to persuade governments, industrial leaders and trade unions throughout the world to face these facts and to take appropriate action while there is yet time. It must now give rise to a national movement to act at a national level, and if need be to assume political status and contest the next general election. It is hoped that such an example will be emulated in other countries, thereby giving rise to an international movement, complementing the invaluable work being done by the Club of Rome.

Such a movement cannot hope to succeed unless it has previously formulated a new philosophy of life, whose goals can be achieved without destroying the environment, and a precise and comprehensive programme for bringing about the sort of society in which it can be implemented”.

This we have tried to do, and our Blueprint for Survival heralds the formation of the Movement for Survival and, it is hoped, the dawn of a new age in which Man will learn to live with the rest of Nature rather than against it”.

Goldsmith, E., Allen, R., and others, Preface: A Blueprint for Survival *The Ecologist* Vol. 2 No. 1, January 1972
<<http://www.theecologist.info/page34.html>>

”

The publication was timely in that it preceded the world's first environment summit at Stockholm in 1972.

References

1. National Forum on Partnerships Supporting Education about the Environment (1996) Report: Education for Sustainability: An Agenda for Action, Washington, DC < www.gcric.org/edu/pcsd/chap1.html >
2. Guha, R. (2000) *Environmentalism: A Global History*, Oxford University Press, p 72.

Foundation Stones

The world had seen unprecedented scientific and technological advances after the Second World War. But a fall out of the rapid strides in development was the deterioration of the environment. This was reflected in the writing of several scientists and thinkers in the 1960s. However, at this time environment was not high on the agenda of national and international politics. The shortcomings of the UN system to deal with new developments were also becoming evident.

It was Sweden that proposed that a global action-oriented UN Conference be convened to increase awareness and to identify environmental problems that needed international cooperation.

In 1968, the United Nations General Assembly passed a resolution calling for a conference whose formal aim would be *"to provide a framework for comprehensive consideration within the UN of the problems of the human environment in order to focus the attention of governments and public opinion on the importance and urgency of this question"*.

The Government of Sweden offered to host the conference in June 1972.

United Nations Conference on the Human Environment

In June 1972 the United Nations Conference on the Human Environment was held at Stockholm, Sweden. The Stockholm Conference, as it is popularly known was the first big intergovernmental environmental conference. It was seen as a starting point for future cooperation of the international community.

Stockholm '72

The Stockholm Conference saw participation of representatives of 114 countries. The Soviet Bloc countries did not participate in the main event, but participated actively in the preparatory process. This was the first major international event in which the People's Republic of China participated as a new member of the United Nations. The Conference was chaired by Canadian industrialist Maurice Strong. Only two heads of State attended. Mr. Olaf Palme – the Prime Minister of Sweden, as host; and Mrs. Indira Gandhi, the then Prime Minister of India. Mrs. Gandhi in her speech emphasized the close link between poverty and the environment. This has been a key point of international deliberations in the three decades since Stockholm.

The Stockholm Conference put the issue of environment on the global agenda. It concluded with the promulgation of the Declaration of the United Nations Conference on the Human Environment, or what is known as the Stockholm Declaration.

It also promulgated a statement of 26 broad principles agreed to by participants as the way forward in the shared management of the global environment.

The Action Plan of the Conference comprised a list of 109 recommendations. The list is indicative of the range of issues discussed—from atmospheric pollution to technology transfer.



Declaration of the United Nations Conference on the Human Environment

The United Nations Conference on the Human Environment, having met at Stockholm from 5 to 16 June 1972, having considered the need for a common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment,

Proclaims that:

- 1. Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights the right to life itself.*
- 2. The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments.*
- 3. Man has constantly to sum up experience and go on discovering, inventing, creating and advancing. In our time, man's capability to transform his surroundings, if used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment. We see around us growing evidence of man-made harm in many regions of the earth: dangerous levels of pollution in water, air, earth and living beings; major and undesirable disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiencies, harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment.*
- 4. In the developing countries most of the environmental problems are caused by under-development. Millions continue to live far below the minimum levels required for a decent human existence, deprived of adequate food and clothing, shelter and education, health and sanitation. Therefore, the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. For the same purpose, the industrialized countries should make efforts to reduce the gap between themselves and the developing countries. In the industrialized countries, environmental problems are generally related to industrialization and technological development.*

5. *The natural growth of population continuously presents problems for the preservation of the environment, and adequate policies and measures should be adopted, as appropriate, to face these problems. Of all things in the world, people are the most precious. It is the people that propel social progress, create social wealth, develop science and technology and, through their hard work, continuously transform the human environment. Along with social progress and the advance of production, science and technology, the capability of man to improve the environment increases with each passing day.*
6. *A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are broad vistas for the enhancement of environmental quality and the creation of a good life. What is needed is an enthusiastic but calm state of mind and intense but orderly work. For the purpose of attaining freedom in the world of nature, man must use knowledge to build, in collaboration with nature, a better environment. To defend and improve the human environment for present and future generations has become an imperative goal for mankind-a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development.*
7. *To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future.*
8. *To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organizations in many fields, by their values and the sum of their actions, will shape the world environment of the future.*
Local and national governments will bear the greatest burden for large-scale environmental policy and action within their jurisdictions. International cooperation is also needed in order to raise resources to support the developing countries in carrying out their responsibilities in this field. A growing class of environmental problems, because they are regional or global in extent or because they affect the common international realm, will require extensive cooperation among nations and action by international organizations in the common interest.

The Conference calls upon Governments and peoples to exert common efforts for the preservation and improvement of the human environment, for the benefit of all the people and for their posterity.

*Report of the United Nations Conference on the Human Environment, Stockholm, June 1972
< <http://www.un-documents.net/unchedec.htm>>*

Stockholm Conference and Environmental Education

The key role of education in the mandate of creating awareness about the environment and its issues is highlighted in Recommendation 96, which explicitly lays down the steps to be taken in this aspect.

Recommendation 96

It is recommended that the Secretary-General, the organizations of the United Nations system, especially the United Nations Educational, Scientific and Cultural Organization, and the other international agencies concerned, should, after consultation and agreement, take the necessary steps to establish an international programme in environmental education, interdisciplinary in approach, in school and out of school, encompassing all levels of education and directed towards the general public, in particular the ordinary citizen living in rural and urban areas, youth and adult alike, with a view to educating him as to the simple steps he might take, within his means, to manage and control his environment. A programme of technical and financial cooperation and assistance will be needed to support this programme, taking into account the priorities agreed upon according to the resources available. This programme should include, among other things:

- (a) The preparation of an inventory of existing systems of education, which include environmental education;*
- (b) The exchange of information on such systems and, in particular, discrimination of the results of experiments in teaching;*
- (c) The training and retraining of professional workers in various disciplines at various levels (including teacher training);*
- (d) Consideration of the formation of Groups of experts in environment disciplines and activities, including those concerning the economic, sociological, tourist and other sectors, in order to facilitate the exchange of experience between countries which have similar environmental conditions and comparable levels of development-;*
- (e) The development and testing of new materials and methods for all types and levels of environmental education.*

Action Plan for the Human Environment, Educational, Informational, Social and Cultural Aspects of Environmental Issues, Report of the United Nations Conference on the Human Environment, Stockholm, June 1972 < <http://www.un-documents.net/aphe-b4.htm>>

Thus Environmental Education was recognized and its development was recommended by the world community as a measure for the understanding, protection and improvement of the environment and its quality.

Stockholm Conference: Outcomes

As a result of Stockholm, environment ministries and agencies were established in more than 100 countries, a key requirement for carrying forth the results of the Conference. It also marked a tremendous increase in non-governmental and intergovernmental organizations dedicated to environmental preservation.

As a mark of the United Nation's commitment to carry forward the Action Plan of the Conference, the United Nations Environment Programme (UNEP) was established in Nairobi, Kenya, to act as a catalytic instrument to promote the results of the Conference. This was the beginning of an institutional approach to common environmental problems.

The Conference was used as a model for a series of similar UN events, to try to come to grips with interlinked and related problems of a cross-sectoral nature such as population, the food crisis, urbanization, human rights, social development and gender. These have all contributed to what is now a comprehensive global development agenda including the Millennium Declaration Goals.¹

“In 1972, for the first time nations came to consider the state of planet Earth, habitually taken for granted, treated as an unchanging backdrop to the human drama. For the first time, we were integrating the scenery into the action of the play”.²

World Environment Day

The United Nations Conference on the Human Environment,

Recognizing that all States participating in the Conference have determined to work together for the preservation and enhancement of the human environment,

Further recognizing that the Governments and peoples of the world have the responsibility to safeguard the human environment for future generations,

Convinced that the Conference should serve to recall the renewal of the determination of the governments and peoples of the world to recognize their responsibility for the human environment and to undertake continuing efforts to preserve and enhance it,

Taking note of recommendation 97 adopted by the Conference,

Recommends that the General Assembly of the United Nations designate 5 June as World Environment Day and decide that on that day every year the United Nations system and the Governments of the world undertake world-wide activities reaffirming their concern for the preservation and enhancement of the human environment, with a view to deepening environmental awareness and to pursuing the determination expressed at the Conference.

4th plenary meeting 13 June 1972

The United Nations Environment Programme

One of the outputs of the Stockholm Conference was the recommendation to set up Institutional and Financial Arrangements for carrying out the Action Plan, and providing a continuing mechanism to facilitate international cooperation in the environmental field within the UN system.

This proposal led to a United Nations General Assembly Resolution to set up the United Nations Environment Programme (UNEP). The Secretariat was to be based in Nairobi, Kenya, making UNEP the first UN global organization to be headquartered in the developing world.

UNEP was created in 1972.

The ultimate goal of the UNEP was to stimulate action that would lead to sound environmental management; education and training were recognized as indispensable tools for reaching this goal.

“For such an ambitious job, there must be a new approach to education at all levels, including formal, non-formal arrangements. This in turn demands that educational systems be redirected so that the environmental dimension is included in all educational curricula, teaching materials and methodologies, thus building up a lifelong educational process which would provide the knowledge and the will to protect our environment and conserve our limited resources. The catalytic and co-ordinating role of UNEP finds practical application in this vital area of environmental education and related training”.

UNEP's approach to environmental education and training was based on two conceptually simple interpretations:

- a) Education – for establishing sensitivity to environmental problems, raising the level of awareness and generating commitment;*
- b) Training – for development and mastery of skills, for solving practical problems and for specialized action.*

These two “elements” belong to a continuous spectrum containing a broad middle band in which the two overlap.

UNEP's first Governing Council session called for assistance to all countries, especially developing ones, to deal with their environmental problems and to help mobilize additional financial resources. This was for the purpose of providing the required technical assistance, education, training and free flow of information and exchange of experience, so as to promote the full participation of developing countries in the national and international efforts for the preservation and enhancement of the environment.

The United Nations Environment Programme and its contribution to the Development of EE and Training, UNEP/ENVED 9, Paris, 18 August 1977.



Life is One and The World is One

It is sad that in country after country, progress should become synonymous with an assault on nature. We who are a part of nature and dependent on her for every need, speak constantly about “exploiting” nature...

We do not wish to impoverish the environment any further and yet we cannot for a moment forget the grim poverty of large numbers of people. Are not poverty and need the greatest polluters?...

The environment cannot be improved in conditions of poverty. Nor can poverty be eradicated without the use of science and technology.

We should have a more comprehensive approach to life, centered on man not as a statistic but an individual with many sides to his personality. The solution of these problems cannot be isolated phenomena of marginal importance but must be an integral part of the unfolding of the very process of development...

Life is one and the world is one, and all these questions are inter-linked. The population explosion, poverty, ignorance and disease, the pollution of our surroundings, the stockpiling of nuclear weapons and biological and chemical agents of destruction are all parts of a vicious circle. Each is important and urgent but dealing with them one by one would be wasted effort...

While each country must deal with that aspect of the problem which is most relevant to it, it is obvious that all countries must unite in an overall endeavour. There is no alternative to a co-operative approach on global scale to the entire spectrum of our problems...

Modern man must re-establish an unbroken link with nature and with life. He must again learn to invoke the energy of growing things to recognize, as did the ancients in India centuries ago, that one can take from the Earth and the atmosphere only so much as one puts back into them. In their hymn to Earth, the sages of the Atharva Veda chanted: I quote

*“What of thee I dig out, let that quickly grow over,
Let me not hit thy vitals, or thy heart”*

So can man himself be vital and of good heart and conscious of his responsibility.

Excerpts from the speech of Prime Minister Mrs. Indira Gandhi at Plenary of Stockholm Conference, 1972.



Only One Earth

As part of the preparatory processes for the Conference Barbara Ward (a London-based economist) and René Dubos (a New York microbiologist) were commissioned to prepare a document.

*Over 150 eminent individuals served as consultants in the process. The result was a book, *Only One Earth: The Care and Maintenance of Small Planet*.*

The last line of the introduction to the book read “As we enter the global phase of human evolution it becomes obvious that each man has two countries, his own and Planet Earth”.

“Only One Earth” became the motto of the Stockholm Conference.

IEEP'75

Launch of the International Environmental Education Programme

In response to Recommendation 96 of the United Nations Conference on the Human Environment, Stockholm, 1972, the United Nations Environment Programme (UNEP) launched the International Environmental Education Programme (IEEP) in January 1975.

This was designed to promote reflection and action, as well as international cooperation in the field of environmental education.

Its principal long-term objectives were: (i) facilitating the coordination, planning and programming of activities essential to the development of an international programme in environmental education; (ii) promoting the international exchange of ideas and information pertaining to environmental education; (iii) coordinating research to understand better the various phenomena involved in environmental teaching and learning; (iv) designing and evaluating new methods, curricula, materials and programmes (both in-school and out-of-school; youth and adult) in environmental education; (v) training and retraining personnel to adequately staff environmental education programmes; and (vi) providing advisory services to Member States in environmental education.

The action of the International EE Programme was conducted in three phases over a period of nine years from 1975 to 1983. These focused successively on: (1) the development of a general awareness of the necessity of environmental education (EE); (2) the development of concepts and methodological approaches in this field; (3) efforts for incorporating an environmental dimension into the educational process of UNESCO Member States.

The development of a general awareness has continued to be a principal concern of all IEEP activities throughout the years.

1975-1977: During the first phase the main action of the IEEP was devoted to the development of general awareness of the necessity of EE and the identification of EE needs and priorities of Member States.

Among the first phase actions of the IEEP contributing most to the development of a global EE awareness was the series of international and regional meetings which led to the Intergovernmental Conference on Environmental Education (Tbilisi, USSR, 1977).

The International Workshop of Belgrade (1975) was particularly important in the run-up to the Tbilisi Conference. Its recommendations and guidelines provided a preliminary frame of reference.

The regional meetings of experts which followed, organized in Africa, the Arab States, Asia, Europe and North America, as well as an international survey of environmental education needs and priorities of Member States, contributed the next step by reviewing the Belgrade Recommendations in the light of the needs and priorities of each of the different regions.

The Tbilisi Conference 1977 culminated the first phase of the IEEP, laying the basis for the development of EE at the international level as well as strategies for the advancement of EE at the national level and the promotion of international cooperation.

Connect

This international newsletter was launched in 1976 as the official organ of the UNESCO-UNEP IEEP. Its purpose was to serve as a clearing house for exchange and information on EE in general, promote the aims and activities of IEEP as well as serve as a network for institutions and individuals interested in EE. Connect, which initially appeared in five languages was distributed to about 12,000 individuals and institutions of the five world regions. It was actively involved in the promotion and development of environmental education and training.

1978-1980: The second phase of IEEP took ahead the outcomes and recommendations of the Tbilisi Conference. It was primarily devoted to the conceptual and methodological development of EE with the view to providing Member States with useful references for the incorporation of an environmental dimension into general educational practise.

In this regard, the IEEP initiated a series of studies and activities concerning different pedagogical aspects of EE, launched a series of pilot projects in different countries of various regions of the world and initiated a series of training workshops and seminars at the national, sub-regional and international levels.

1981-1983: During the third phase of the IEEP emphasis was placed on the development of content, methods and materials for EE practises and training activities. Experimental and pilot projects were intensified, with a view to facilitating Member States' efforts concerning practical incorporation of EE into school and out-of-school education. Three areas were addressed towards incorporation of EE into school education: the development of content, methods and materials for EE; the training of teachers, and the promotion of international cooperation with and among Member States and other bodies in the field of EE.

UNESCO-UNEP IEEP Environmental Education Series

This series of documents was initiated in the framework of the joint UNESCO-UNEP International Environmental Education Programme in the early 80s. In shortly over a decade, a total of 43 documents were produced in the series.

The main objective of this series was to provide EE specialists and students the world over with an understanding and knowledge of the advances that were being made in the new field of EE at all levels. Eminent specialists in EE were invited to author these documents. An extensive range of topics were covered and the publications were intended for a variety of needs from conceptual understanding, to serving as discussion guides for educators in different regions.

Almost all documents were originally developed in English; most were translated in French, Spanish and Arabic.

International Cooperation: The IEEP has significantly aided efforts of a number of countries concerning the incorporation of an environmental dimension into their educational systems. As a result of its various activities in the areas of information, research and experimentation, as well as training, and as an outcome of specific technical missions undertaken by the IEEP staff, a number of countries officially introduced EE into their educational plans, policies and reforms and developed complementary legislation or appropriate institutional arrangements. In many cases these countries established ministerial or interinstitutional committees with responsibility for the development of EE in various levels or modalities of the education system. (Among the countries concerned were: Australia, Colombia, Costa Rica, France, federal Republic of Germany, Guatemala, Indonesia, Upper Volta, Ukrainian SSR, USA, USSR, Venezuela, and others.)

Through its activities, the IEEP directly involved 133 countries from all regions of the world, more than 250,000 pupils in primary and secondary schools, about 10,000 teachers, educators and educational administrators, and contributed to environmentally sensitizing some 1,500,000 persons.³

The Visionary – William Stapp

The first Director of the International Environmental Education Programme (IEEP) at UNESCO was William Stapp. He was one of the organizers of the Tbilisi Conference where the field of environmental education was first defined.

Bill Stapp as he was popularly known, spent his career searching for root causes of environmental issues and helping students and adults find solutions to problems affecting their communities.

In the late 1950s and early 1960s he used to take elementary school children on field trips—teaching them about nature, the environment and how to get along with each other and the environment. He became professor at the School of Natural Resources and Environment at the University of Michigan, where he founded and chaired the Environmental Education Programme from 1970-1993. Stapp's special interest was international environmental education.

In 1968 Bill Stapp worked with graduate students at the University of Michigan to develop the first formal definition of the term EE. Stapp wrote: “EE is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution”.

In 1989 he founded the Global Rivers Environmental Education Network (GREEN) to bring diverse groups of people together to investigate and protect river water quality. GREEN spread to 135 countries and merged with Earth Force in 1999.

Bill Stapp passed away in May 2001.

An inspirational leader and visionary, Bill Stapp inspired and motivated thousands of young people across the world. His former students, who call themselves “Stapplings” continue to carry ahead his legacy and values in the field of EE.

International Workshop on Environmental Education

The idea of the international workshop was initiated by Professor Branimir Jankovic, Director of Centre for International Studies of the University of Belgrade. The workshop was planned collaboratively with UNESCO and UNEP.

The international workshop held in the capital of Yugoslavia from 13-22 October 1975 brought together 96 participants and observers from 60 countries. They considered the common problems of their shared planet, and their common goal was to frame a global framework of environmental education for all ages, in and out of formal school system.

The vision of mainstreaming EE into educational systems across the world was shared at the opening session by Mr. Leo Fernig, Assistant Director General for Education at UNESCO. Some key statement from his speech reflect this:

“

- *In reaching conclusions, the Workshop will draw up guidelines and recommend programmes of action.*
- *Most important to set out a theoretical basis of EE that relates it to development in modern sense.*
- *Guidelines ought to be directed to endogenous development avoiding prescription of any single strategy or course of action.*
- *Recommendations should be based on priority needs, be guided by economy—avoid duplication, seek most effective way of doing something at least human and material cost.*
- *EE should fit into the mainstream of educational reform, not appear extraneous—yeast, not icing sugar.*
- *We should bear in mind total systems of education, formal and non-formal, and seek the most effective points for introducing change.*
- *How can we best involve the teachers.*
- *How can we promote innovation.*

These last two, the grassroots questions, are no less important than the earlier policy questions.

”

The participants represented the five UNESCO regions—Africa, Arab States, Asia, Europe-North America and Latin America. They represented all levels of formal and non-formal education—primary, secondary and tertiary, youth and adults, as well as major international organizations concerned with environmental education, both government and non-government.

The principal aims of the Belgrade Workshop were: (1) to review and discuss the trends and emerging issues in environmental education and (2) to formulate, on this basis, guidelines and recommendations for furthering environmental education internationally. Activities of the ten-day workshop revolved around its working groups. A set of fifteen trend papers offered a starting point for the discussions.

Inputs

- 15 trend papers describing state of art in EE in various regions served as Working Documents
- Reports by 12 UN consultants of trips and meetings in 81 of UNESCO's member states in developing world
- Preliminary World Survey of EE needs and priorities based on 177 item questionnaire sent to 136 UNESCO member states. (82% response)

Debates at Belgrade

The Belgrade Workshop provided an opportunity for intense discussion that reflected the divergent perspectives, especially from the representatives of the developing world. Many of the assumptions dominating the position papers were questioned, revised and even replaced.

One of the issues for discussion was that it was felt that several of the papers had written about the curriculum and needs of EE without reference to the nature and special characteristics of the environmental situation itself. Rather than seeing EE purely in the educational context as a new subject or theme in the curriculum—it was felt that the characteristics of the environmental situation, rather than the educational one—should provide the framework and criteria for Environmental Education. This debate and concern marked the deliberations and are reflected in the Belgrade Charter that was seen as an example of such a framework.

Recommendations of the Belgrade Workshop

A primary objective of the Belgrade Workshop was to formulate a broad, coherent set of recommendations to be addressed to appropriate target groups for implementation and action.

The procedure chosen by the participants was first to identify and discuss in detail specific problem areas in all aspects of environmental education. Problem areas were highlighted by the participants on the basis of the trend papers, the world survey of needs and priorities, the consultants' missions and their own experiences. From a sharp statement of the problem, it was agreed, would emerge clear recommendations as to what must be done—and by whom, that is, the target groups for the recommendations.

This resulted in the compilation of a provisional document with 150 recommendations to address identified problem areas, and target groups. This was to be modified and endorsed by subsequent regional meetings.

Outcomes of the Belgrade Workshop

The workshop ended with the unanimous adoption of a statement of the framework and guiding principles for global environmental education. The statement came to be known as the Belgrade Charter. It included the definition, goal, objectives and guiding principles of EE.



The Belgrade Charter

A Global Framework for Environmental Education

Adopted unanimously at the close of the 10-day workshop at Belgrade was a statement, subject to modification by subsequent regional meetings, of the framework and guiding principles for global environmental education, which became known as the Belgrade Charter.

It follows:

Environmental Situation

Our generation has witnessed unprecedented economic growth and technological progress which, while bringing benefits to many people, have also caused severe social and environmental consequences. Inequality between the poor and the rich among nations and within nations is growing; and there is evidence of increasing deterioration of the physical environment in some forms on a world-wide scale. This condition, although primarily caused by a relatively small number of nations, affects all of humanity.

The recent United Nations Declaration for a New International Economic Order calls for a new concept of development – one which takes into account the satisfaction of the needs and wants of every citizen of the earth, of the pluralism of societies and of the balance and harmony between humanity and the environment. What is being called for is the eradication of the basic causes of poverty, hunger, illiteracy, pollution, exploitation and domination. The previous pattern of dealing with these crucial problems on a fragmentary basis is no longer workable.

It is absolutely vital that the world's citizens insist upon measures that will support the kind of economic growth which will not have harmful repercussions on people; that will not in any way diminish their environment and their living conditions. It is necessary to find ways to ensure that no nation should grow or develop at the expense of another nation and that the consumption of no individual should be increased at the expense of other individuals. The resources of the world should be developed in ways which will benefit all of humanity and provide the potential for raising the quality of life for everyone.

We need nothing short of a new global ethic – an ethic which espouses attitudes and behaviour for individuals and societies which are consonant with humanity's place within the biosphere; which recognizes and sensitively responds to the complex and ever-changing relationships between humanity and nature and between people. Significant changes must occur in all of the world's nations to assure the kind of rational development which will be guided by this new global ideal – changes which will be directed towards an equitable distribution of the world's resources and more fairly satisfy the needs of all peoples. This kind of development will also require the maximum reduction in harmful effects on the

environment, the utilization of waste materials for productive purposes, and the design of technologies which will enable such objectives to be achieved. Above all, it will demand the assurance of perpetual peace through coexistence and cooperation among nations with different social systems. Substantial resources for reallocation to meet human needs can be gained through restricting military budgets and reducing competition in the manufacture of arms. Disarmament should be the ultimate goal.

These new approaches to the development and improvement of the environment call for a reordering of national and regional priorities. Those policies aimed at maximizing economic output without regard to its consequences on society and on the resources available for improving the quality of life must be questioned. Before this changing of priorities can be achieved, millions of individuals will themselves need to adjust their own priorities and assume a personal and individualized global ethic – and reflect in all of their behaviour a commitment to the improvement of the quality of the environment and of life for the world's people.

The reform of educational processes and systems is central to the building of this new development ethic and world economic order. Governments and policy makers can order changes, and new development approaches can begin to improve the world's condition – but all of these are no more than short-term solutions, unless the youth of the world receives a new kind of education. This will require new and productive relationships between students and teachers, between schools and communities, and between the education system and society at large.

Recommendation 96 of the Stockholm Conference on the Human Environment called for the development of environmental education as one of the most critical elements of an all-out attack on the world's environmental crisis. This new environmental education must be broad based and strongly related to the basic principles outlined in the United Nations Declaration on the New International Economic Order.

It is within this context that the foundations must be laid for a world-wide environmental education programme that will make it possible to develop new knowledge and skills, values and attitudes, in a drive towards a better quality of environment and, indeed, towards a higher quality of life for present and future generations living within that environment.

Environmental Goal

The goal of environmental action is:

To improve all ecological relationships, including the relationship of humanity with nature and people with each other.

There are, thus, two preliminary objectives:

1. *For each nation, according to its culture, to clarify for itself the meaning of such basic concepts as “quality of life” and “human happiness” in the context of the total environment, with an extension of the clarification and appreciation to other cultures, beyond one's own national boundaries.*
2. *To identify which actions will ensure the preservation and improvement of humanity's potentials and develop social and individual well-being in harmony with the biophysical and man-made environment.*

Environmental Education Goal

The goal of environmental education is:

To develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.

Environmental Education Objectives

The objectives of environmental education are:

1. *Awareness: to help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems.*
2. *Knowledge: to help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critically responsible presence and role in it.*
3. *Attitude: to help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement.*
4. *Skills: to help individuals and social groups acquire the skills for solving environmental problems.*
5. *Evaluation ability: to help individuals and social groups evaluate environmental measures and education programmes in terms of ecological, political, economic, social, esthetic and educational factors.*
6. *Participation: to help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems to ensure appropriate action to solve those problems.*

Audiences

The principal audience of environmental education is the general public. Within this global frame, the major categories are:

1. *The formal education sector: including pre-school, primary, secondary and higher education students as well as teachers and environmental professionals in training and retraining;*
2. *The non-formal education sector: including youth and adults, individually or collectively from all segments of the population, such as the family, workers, managers and decision makers, in environmental as well as non-environmental fields.*

Guiding Principles of Environmental Education Programmes

The guiding principles of environmental education are:

1. *Environmental education should consider the environment in its totality – natural and man-made, ecological, political, economic, technological, social, legislative, cultural and esthetic.*
2. *Environmental education should be a continuous life-long process, both in-school and out-of-school.*
3. *Environmental education should be interdisciplinary in its approach.*
4. *Environmental education should emphasise active participation in preventing and solving environmental problems.*
5. *Environmental education should examine major environmental issues from a world point of view, while paying due regard to regional differences.*
6. *Environmental education should focus on current and future environmental situations.*
7. *Environmental education should examine all development and growth from an environmental perspective.*
8. *Environmental education should promote the value and necessity of local, national and international cooperation in the solution of environmental problems.*

The Belgrade Charter: Global Framework for Environmental Education, 1975 <http://portal.unesco.org/education/en/files/33037/10935069533The_Belgrade_Charter.pdf/The+Belgrade+Charter.pdf>



The close linkage between EE and Sustainable Development was touched upon in the Opening Statement by Dr. Mustapha Tolba, then Deputy Executive Director of the United Nations Environment Programme.

“Education is at the heart of the process of development; and environmental education alone can make sustainable development feasible. The development of the capacity for autonomous goal-setting and decision making, the reorientation of development policies to include environmental dimensions, the complementarities and linkages between resources, technologies, environment and development, and the close relationship between all this and the aspirations for the establishment of the New International Economic Order: these are the substantial criteria which will set the future pattern of educational systems in all countries, and which will establish environmental education as a principal instrument for achieving the new concepts of growth and progress”.

Follow-up to Belgrade

After Belgrade, the IEEP needed a strategy to take the Belgrade framework across the world, and to communicate the outcomes and way ahead to educators responsible for environmental education in national systems, local schools and small and large communities.

It was also necessary to give opportunity to each group of countries to react to the objectives of the international programme in relation to their own national and regional situations and contexts.

In order to facilitate this, a series of regional meetings were planned to be held in 1976. The IEEP prepared and published some background documents to feed into this process.

- EE Needs and Priorities: A World Survey
- International Directory of Institutions active in the field of EE
- International Directory of Individuals active in the field of EE
- Trends in EE (World Literature Survey) – International Bureau of Education
- Goals and Objectives of EE: methodologies of EE, learning environments, instructional materials, pre-school and primary level, secondary level, higher education—general stream, higher education—specialists, teacher training, youth (out-of-school), adults, evaluation, programmes and international cooperation.

These provided inputs for the Regional Meetings held between September 1976 and January 1977 in Brazzaville, Congo (African Region), Bangkok, Thailand (Asian Region), Kuwait, Kuwait (Arab States), Bogotá, Columbia (Latin America) and Helsinki, Finland (European Region including North America).

The focus of the meetings was reorientation of EE goals, characteristics, audiences, modes of implementation. The general objectives of all the regional meetings were to: (i) review environmental problems particular to a region and hence, aspects of environmental education appropriate for their solution; (ii) identify and discuss environmental education activities in the respective regions; (iii) review, in the light of regional needs and realities, the guidelines and recommendations of the Belgrade Workshop; (iv) discuss ways to further regional and sub-regional co-operation, including the exchange of ideas and information; and (v) suggest possible strategies for future action including preparations for the Intergovernmental Conference on Environmental Education.

The goals, objectives, guiding principles and characteristics of an education concerned with environment, as stated in the Belgrade Charter were more or less acceptable by all the regional meetings.

Some additions to the guiding principles were suggested. One was that focus on current and future environmental situations should also include “past”. Another was that EE should place high emphasis on first hand experience and “learning-by-doing”.

The European regional meeting contributed some key additions which were later reflected in the Tbilisi guidelines. These were:

Environmental education should utilize diverse learning environments in our communities and train teachers and leaders in ways of using them more effectively.

Environmental education should place high priority on pre-school education and the education of pre-primary school teachers and parents.

Environmental education should emphasize: environmental awareness; acquisition of environmental knowledge; value education and environmental ethics; development of problem-solving skills; community experiences;

participation decision-making; critical thinking; and the complexity of environmental issues. This means that greater attention will need to be directed towards the exchange of ideas, information, methods and techniques, materials and teachers (pre-service and in-service).

Environmental education should relate environmental awareness, knowledge, problem-solving and valuing at every age level, but with more of an emphasis on environmental awareness and sensitivity in the early years.

Environmental educators should consider the variety of teacher-learning methods when focusing on environmental education, such as: field trips; environmental monitoring, demonstrations, projects and experiments; independent study; small group discussions; interviews; investigative reporting; debates, environmental games and simulations; community information retrieval and analysis; values clarification; problem-solving activities; and the variety of audio-visual methods (slides, films, cassettes, tapes, video-tapes, etc.)

Environmental education should first focus on the learners' own community, but relating topics being discussed to national, regional and international issues and perspectives.

Environmental education should highlight both the possible root causes and symptoms of the environmental crises as well as possible solutions.⁴

To summarize, the Regional EE workshops reviewed the Belgrade Recommendations, discussed regional EE planning efforts, prepared regional EE recommendations, and recommended regional EE pilot projects. All these were an important preparation for the forthcoming intergovernmental conference and provided key inputs for the proceedings.

Preparation for Tbilisi

The first phase of the action undertaken by UNESCO in cooperation with UNEP under the IEEP culminated with the organization of the Intergovernmental Conference on Environmental Education at Tbilisi, Georgia in what was then USSR, in October 1977.

The Belgrade Workshop and subsequent regional meetings were part of the preparatory programme for this conference. Preparatory work also involved a number of consultations as well as preparation of reference materials.

The other preparations on the part of IEEP included

- Publishing products of regional workshops
- Regional meeting of experts in each region
- Invitation to all UN member nations
- Invitation to NGOs
- Distribution of official documents to all delegations in one of six languages
- Arrangement for interpreters and translators
- Preparation of provisional agenda
- Preparation and publication of input documents for the conference.

One of the key input documents was titled *Education and the Challenge of Environmental Problems*. Its purpose was to help the delegations of the Member States to prepare themselves for the Conference, to facilitate discussion, and to highlight certain problems on which the Conference might consider it useful to recommend action that could be taken at the national, regional and international levels for the promotion and development of EE.

The chapters of the working document broadly followed the main items of the provisional agenda of the conference.

Chapter I dealt with the major environmental problems in contemporary society and the relationship between these problems and socio-economic and cultural development.

Chapter II defined the role of education in facing the challenge of environmental problems and the objectives and characteristics of a type of education which can give effective help in trying to prevent these problems from arising and to solve them when they do arise.

Chapter III described the main trends in the activities thus far undertaken and the major problems and constraints which had been identified; surveyed current efforts at the national and international levels for the development of environmental education.

Chapter IV set out ideas and suggestions that could facilitate the shaping of strategies for the development of environmental education at the national level and provide the Conference with a basis on which to make recommendations.

Chapter V concerned the role, priorities and procedures for regional and international co-operation for the development of environmental education with a view to the formulation of recommendations that the Conference might consider as providing appropriate guidelines for action in this domain.

Based on the overview of current status, trends, and issues, each chapter ends with suggestions on relevant recommendations which could be made by the Conference.⁵

References

1. Engfeld, Lars-Göran, *The Road from Stockholm to Johannesburg Chronicle Essay*, United Nations Chronicle Online Edition, Volume XXXIX, Number 3 2002 <<http://www.un.org/pubs/2002/issues>>
2. Ramphal, Shridath: *Our Country, The Planet: Forging a Partnership for Survival*, Island Press, 1992.
3. *Activities of the UNESCO-UNEP International Environmental Education Programme (1975-1983)* <<http://unesdoc.unesco.org/images/0005/000597/059759eo.pdf>>
4. UNESCO/ENVED (1977), *UNESCO Regional Meetings of Experts on Environmental Education – a Synthetic Report*
5. UNESCO (1977), *Education and the challenge of Environmental Problems*. Paris <<http://unesdoc.unesco.org/images/0007/000732/073252e.pdf>>

A Defining Milestone

The Belgrade Workshop was attended largely by educationists who worked together to develop a blueprint and framework for EE. What was now crucial was that the Belgrade Recommendations be translated in to policy at national levels so that EE could be integrated in development strategies of different countries. For this, it was critical to bring policy makers on board. The plan to involve government representatives in EE policy and debate came to fruition at a milestone event was organized by UNESCO in cooperation with UNEP in Tbilisi, Georgia, USSR in October 1977.

The Intergovernmental Conference on Environmental Education

Tbilisi '77

Participation

265 delegates and 65 representatives and observers took part. They included delegates from 66 UNESCO Member States, representatives and observers from 8 organizations and programmes of the UN System, and 20 international NGOs.

Structure

- Opening ceremony
- Adopting Rules of Procedure and Agenda
- Setting up of Commission to examine one item (strategies for development of EE at national level)
- Plenary sessions for discussion of other agenda items
- Plenary presentation of draft final report and consideration of recommendations of plenary sessions
- Adoption of Report

Conference Agenda

The Conference had the following main points for discussion on the agenda:

- Major environmental problems in contemporary society
- Role of education in facing the challenges of environmental problems
- Current efforts at the national and international levels for the development of environmental education
- Strategies for the development of environmental education at the national level
- Regional and international co-operation for the development of environmental education
- Needs and modalities

One of the points on the agenda was Strategies for the Development of EE at the National Level. A separate Commission was set up during the conference to focus on this area. The report of the Commission listed some key characteristics of EE that emerged from the deliberations of the delegates. EE was seen as a single, continuous, lifelong, organic process, rather than a “subject” to be introduced at a specific grade or stage of formal education.



Some excerpts from the Report of the Commission reflect this perspective of the nature and scope of EE.

- *Environmental education is an integral part of the education process. It should be centred on practical problems and be of an interdisciplinary character. It should aim at building up a sense of values, contribute to public well-being and concern itself with the survival of the human species. Its force should reside mainly in the initiative of the learners and their involvement in action and it should be guided by both immediate and future subjects of concern.*
- *Environmental education is a lifelong process and should not remain confined within the formal system. The integration of environmental education with other forms of education, in particular with education concerning the working environment, for the pupil at school, the worker in the factory or in the fields, and for the consumer in his surroundings, and with education related to economic development, represents an urgent need. Its subject-matter should permeate every part of formal and non-formal programmes and constitute one and the same continuous, organic process in which none of the phases essential to integration must ever be overlooked.*
- *In formal education, at all levels, account should be taken of all the ingredients of the education process (programmes and curricula, books and textbooks, teaching aids and resources, methods, etc.) and interdisciplinarity gradually achieved. It is important thus to introduce into each subject the essential environmental dimension; to have curricula prepared by interdisciplinary teams; to study practical problems, that is, the reality surrounding pupils and teachers.*
- *Environmental education should not be just one more subject to add to existing programmes but should be incorporated into programmes intended for all learners, whatever their age.*
- *The central idea is to attain a practical education oriented towards a solution of the problems of the environment, or at least to make pupils better equipped for their solution by teaching them to participate in decision-making.*
- *It may be considered that the success of environmental education will not lie merely in bringing about a number of changes in the system and methods of education. This task requires the application of new concepts, new methods and new techniques as part of an overall effort stressing the social role of educational institutions. To this end, legislative measures may be taken providing the State with a legal framework in which to draw up an environmental education system for the entire community.*
- *Environmental education should not give rise to “competition” with the various subjects at present on the curriculum; it should represent a means of introducing a certain unity into the education process in the minds of pupils and enable them to manage the environment in which they live through the judicious use of resources.*
- *The training of qualified personnel was considered to be a priority activity. This holds good for both initial and in-service training, for the purpose of familiarizing teachers in formal education, organizers of non-formal*

activities for young people and adults, administrative personnel and educational planners and researchers with environment-linked subject-matter and educational and methodological guidelines.

- *The basic training of all environmental specialists will need to include study of the principles of environmental education, sociology and ecology which are necessary to enable the learners to foresee the consequences of their environmental work and not simply make down temporary expedients.*
- *Educational resources should be adapted to the mental and physical situation of the consumer/student the techniques used for the production of educational materials for environmental education should be fully in accord with environmental needs and requirements.*
- *Stress on the importance of environmental education, including in-service training, for particular professional groups whose activities and decisions have an impact on the environment. The vital need was also recognized to develop awareness of the environment and the necessary proficiency among decision-makers and those responsible for development planning, designers, engineers, administrators, industrial managers, architects and town-planners as well as those trained for the health, legal and economic professions.*
- *There was acknowledgement of the diversity of the elements which were required for an interdisciplinary perception of the environment and were involved in the skills that professional groups needed, emphasis being laid on the essential role of the social sciences and humanities in the education of the latter. Reference was made to the inclusion of cultural and historical factors within the context of this education.*
- *In conclusion, and in the light of the Commission's discussions, certain points appeared to call for special attention:
The need to integrate environmental education in its different forms (education of the public, of particular social and professional groups and of specialists, on specific aspects of the environment) into national policies, environmental management and development plans and educational reform as part of their objectives and as a suitable field for innovation. This implies that the various bodies responsible for educational management and planning at the national, regional and local levels should give environmental education the importance and attention that it warrants as one of the essential means of adapting education to the objectives and requirements of national development.*

*UNESCO (1978) Final Report: Intergovernmental Conference on Environmental Education
Organized by UNESCO in Co-operation with UNEP (Tbilisi, USSR, 14-26 October 1977), Paris
<<http://unesdoc.unesco.org/images/0003/000327/032763eo.pdf>>*

”

Conference Output

The intense deliberations of the participants on the basis of the working document, and the discussions of the Commission fed into the drafting of the Declaration of the Tbilisi Intergovernmental Conference on Environmental Education. The principles outlined at the Belgrade Workshop were formalized.

The Tbilisi Declaration had 41 Recommendations which covered three key areas:

- The Role, Objectives and Guiding Principles of EE
- Strategies for the development of EE at the National Level
- International and Regional Cooperation

The recommendations covered a wide range of topical areas which would address the education community, the general public, decision makers and resources managers.

Topical Areas

- Goals and objectives
- Guiding principles
- Target groups
- Consumption behaviour
- Teacher and leadership training
- Education of professionals
- Teaching aids and materials
- Roles of universities
- Exchange of information
- Cooperation with NGOs
- Regional cooperation
- Research and evaluation

The following excerpts from the Tbilisi Declaration describe the context and role of EE, as well as the goals, objectives and guiding principles.



Declaration of the Tbilisi Intergovernmental Conference on Environmental Education

The Intergovernmental Conference on Environmental Education, organized by UNESCO in co-operation with UNEP, convened in the City of Tbilisi reflecting the harmony and consensus achieved there, solemnly adopts the following Declaration.

In the last few decades, man has, through his power to transform his environment, wrought accelerated changes in the balance of nature. The result is frequent exposure of living species to dangers which may prove irreversible.

The Declaration of the United Nations Conference on Human Environment organized in Stockholm in 1972 proclaimed: "to defend and improve the environment for present and future generations has become an imperative goal for mankind". This undertaking urgently calls for new strategies, incorporated

into development, which particularly in the developing countries is a prerequisite for any such improvement. Solidarity and equity in the relations between nations should constitute the basis of a new international order, and bring together, as soon as possible, all available resources. Education utilizing the findings of science and technology should play a leading role in creating an awareness and a better understanding of environmental problems. It must foster positive patterns of conduct towards the environment and the nations' use of their resources.

Environmental education should be provided for all ages, at all levels and in both formal and non-formal education. The mass media have a great responsibility to make their immense resources available for this educational mission. Environmental specialists as well as those whose actions and decisions can have a marked effect on the environment, should be provided in the course of their training with the necessary knowledge and skills and be given a full sense of their responsibilities in this respect.

Environmental education, properly understood, should constitute a comprehensive lifelong education, one responsive to changes in a rapidly changing world. It should prepare the individual for life through an understanding of the major problems of the contemporary world, and the provision of skills and attributes needed to play a productive role towards improving life and protecting the environment with due regard given to ethical values. By adopting a holistic approach, rooted in a broad interdisciplinary base, it recreates an overall perspective which acknowledges the fact that natural environment and man-made environment are profoundly interdependent. It helps reveal the enduring continuity which links the acts of today to the consequences for tomorrow. It demonstrates the interdependencies among national communities and the need for solidarity among all mankind.

Recommendations

The Role, Objectives and Guiding Principles of Environmental Education

Recommendation No. 1

The Conference,

Considering the challenge that environmental problems present to contemporary society and having regard for the role that education can and must play in solving such problems,

Recommends the adoption of certain criteria which will help to guide efforts to develop environmental education at the national, regional and international levels.

- 1. Whereas it is a fact that biological and physical features constitute the natural basis of the human environment, its ethical, social, cultural and economic dimensions also play their part in determining the lines of approach and the instruments whereby people may understand and make better use of natural resources in satisfying their needs.*

2. *Environmental education is the result of the reorientation and dovetailing of different disciplines and educational experiences which facilitate an integrated perception of the problems of the environment, enabling more rational action, capable of meeting social needs, to be taken.*
3. *A basic aim of environmental education is to succeed in making individuals and communities understand the complex nature of the natural and the built environments resulting from the interaction of their biological, physical, social, economic and cultural aspects, and acquire the knowledge, values, attitudes, and practical skills to participate in a responsible and effective way in anticipating and solving environmental problems, and the management of the quality of the environment.*
4. *A further basic aim of environmental education is clearly to show the economic, political and ecological interdependence of the modern world, in which decisions and actions by the different countries can have international repercussions. Environment should, in this regard, help to develop a sense of responsibility and solidarity among countries and regions as the foundation for a new international order which will guarantee the conservation and improvement of the environment.*
5. *Special attention should be paid to understanding the complex relations between socio-economic development and the improvement of the environment.*
6. *For this purpose, environmental education should provide the necessary knowledge for interpretation of the complex phenomena that shape the environment, encourage those ethical, economic and aesthetic values which, constituting the basis of self-discipline, will further the development of conduct compatible with the preservation and improvement of the environment; it should also provide a wide range of practical skills required in the devising and application of effective solutions to environmental problems.*
7. *To carry out these tasks, environmental education should bring about a closer link between educational processes and real life, building its activities around the environmental problems that are faced by particular communities and focusing analysis on these by means of an interdisciplinary, comprehensive approach which will permit a proper understanding of environmental problems.*
8. *Environmental education should be regarded as a continuing process providing its recipients, through the constant renewal of its approach, content and methods, with knowledge that is always attuned to the changing conditions of the environment.*
9. *Environmental education should cater to all ages and socio-professional groups in the population. It should be addressed to (a) the general non-specialist public of young people and adults whose daily conduct has a decisive influence on the preservation and improvements of the environment; (b) to particular social groups whose professional activities affect the quality of the environment; and (c) to scientists and technicians whose specialized research and work 'will lay the foundations of knowledge on which education, training and efficient management of the environment should be based.*

10. *To achieve the effective development of environmental education, full advantage must be taken of all public and private facilities available to society for the education of the population; the formal education system, different forms of non-formal education, and the mass media.*
11. *To make an effective contribution towards improving the environment, educational action must be linked with legislation, policies, measures of control and the decisions that governments may adopt in relation to the human environment.*

Recommendation No. 2

The Conference,

Recognizing that environmental education should promote the strengthening of peace, the further relaxation of international tensions and mutual understanding among States and be a real instrument for international solidarity and for elimination of all forms of racial, political and economic discrimination,

Noting that the concept of "the environment" includes a complex of natural, built and social components in the life of humanity and that the social components constitute a set of cultural, moral, personal values and interrelations of people in the spheres of labour and leisure activities,

Taking note of document UNESCO/ENVED/4 "Education and the challenge of environmental problems", and in particular of the principles contained in Chapter II,

Having furthermore noted the Synthetic Report of the Regional Meeting of Experts on Environmental Education (ENVED/7, Chapter III, paragraphs 15-26), Pursuant to the working document UNESCO/ENVED/4, paragraph 67, in which the Conference is invited to formulate goals, objectives and guiding principles which environmental education should have in order to fulfil its functions most effectively,

Considering that it should be a right of every citizen to receive environmental education,

Endorses the following goals, objectives and guiding principles for environmental education:

1. The goals of environmental education are:

- (a) to foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;*
- (b) to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment;*

(c) *to create new patterns of behaviour of individuals, groups and society as a whole towards the environment;*

2. The categories of environmental education objectives:

Awareness: *to help social groups and individuals acquire an awareness of and sensitivity to the total environment and its allied problems.*

Knowledge: *to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.*

Attitudes: *to help social groups and individuals acquire a set of values and feelings of concern for the environment, and the motivation for actively participating in environmental improvement and protection.*

Skills: *to help social groups and individuals acquire the skills for identifying and solving environmental problems.*

Participation: *to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems.*

3. Some guiding principles for environmental education:

Environmental education should:

- *consider the environment in its totality - natural and built, technological and social (economic, political, technological, cultural-historical, moral, aesthetic);*
- *be a continuous lifelong process, beginning at the pre-school level and continuing through all formal and non-formal stages;*
- *be interdisciplinary in its approach, drawing on the specific content of each discipline in making possible a holistic and balanced perspective;*
- *examine major environmental issues from local, national, regional and international points of view so that students receive insights into environmental conditions in other geographical areas;*
- *focus on current and potential environmental situations, while taking into account the historical perspective;*
- *promote the value and necessity of local, national and international co-operation in the prevention and solution of environmental problems;*
- *explicitly consider environmental aspects in plans for development and growth;*
- *enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequences;*

- relate environmental sensitivity, knowledge, problem-solving skills and values clarification to every age, but with special emphasis on environmental sensitivity to the learner's own community in early years;
- help learners discover the symptoms and real causes of environmental problems;
- emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skills;
- utilize diverse learning environments and a broad array of educational approaches to teaching/learning about and from the environment with due stress on practical activities and first-hand experience.

UNESCO (1978) Final Report: Intergovernmental Conference on Environmental Education
Organized by UNESCO in Co-operation with UNEP (Tbilisi, USSR, 14-26 October 1977), Paris
<<http://unesdoc.unesco.org/images/0003/000327/032763eo.pdf>>



The Declaration and Recommendations of the Tbilisi Conference made it possible to define the nature, objectives and pedagogical principles of EE, and to establish broad guidelines for action in this field at the national and international levels.

I am particularly glad... to note that the Conference has endorsed the analysis and statement of the problem proposed by Unesco... You have concurred in the belief that education, assisted by the mass media, should arouse in all, whatever their age, in the context both of formal and of non-formal education, a broad awareness of environmental problems based on objective information; but also that it should help to shape the behaviour required of all by protection of the environment, together with the requisite knowledge and know-how to take part in action for this purpose. You have therefore recognized that environmental considerations and subject-matter should be introduced at all levels of the educational process and make up a dimension thereof. Environmental education should therefore permeate the various disciplines, and its inter-disciplinarity may be regarded as the necessary educational approach for reflecting and conveying the fundamental unity and the complexity of life.

...As an essential component of a global, lifelong, problem-solving education which prepares people for active participation, environmental education follows the guiding line which, in most countries, governs the movement of educational systems towards greater relevance, greater realism and better two-way contact with the physical and social environment in order to make man more closely involved in his surroundings.

Excerpts from Closing Address by Amadou-Mahtar M'Bow, Director-General of UNESCO at the Intergovernmental Conference on Environmental Education organized by UNESCO in co-operation with UNEP (Tbilisi, USSR, 14-26 October 1977), Paris.

The Tbilisi Effect

Following from Tbilisi, efforts were initiated both internationally and nationally to arrive at a more precise understanding of the content of EE and of the methods by which to promote its development. The IEEP commenced the second phase of its activities in this direction.

At the same time a number of conservation organizations were also involved in an intensive process towards developing a strategy for integrating conservation principles and objectives with social and economic development. The decade was marked by a significant progress from Tbilisi in broadening the scope and understanding of EE.

'78-'80

IEEP Initiatives

The decade following the Tbilisi Conference was marked by a wide range of initiatives across the world to understand, incorporate and apply the definition, objectives and guidelines for Environmental Education. The activities of UNESCO-UNEP's International Environmental Education Programme (IEEP) played an important role in facilitating this process.

The formulation of concepts and working out of methodological approaches in this field was the main task of the IEEP during the period 1978-1980.

This period marked the second phase of the programmes and activities of the IEEP. The contribution of IEEP mainly took the form of carrying out studies and organizing seminars, research and experimental projects, which made it possible to clarify the nature of environmental education as a dimension which needed to be incorporated into all disciplines and subjects in the educational process, and which should take account of the social aspects and the natural aspects of the human environment.

With regard to the work of devising educational content, methods and materials on the environment, IEEP carried out 15 research and experimental projects which led to the production of an integrated series of educational materials, including methodological guides, thematic modules and manuals for general education and for the initial training and retraining of teachers. These were initially published in Arabic, English, French and Spanish in the "Environmental Education Series".

80 pilot projects were also carried out by IEEP in several countries. These not only made it possible to mobilize national institutions concerned with environmental education, but also made it possible to train groups of educators at the national level and to prepare curricula and educational materials adapted to local conditions.

A series of international, regional and sub-regional training seminars were organized from 1979 onwards. These were designed to foster greater awareness of the Tbilisi outcomes among educational administrators, teacher educators and curriculum developers. The discussions focused on the formulation of national EE policies, methods of pre- and in-service teacher training, and guidelines for the preparation of educational materials.

In the decade that followed the Tbilisi Conference, a number of international, regional and sub-regional organizations made EE a major component of their programmes of action.

The IEEP initiatives also facilitated the incorporation of an environmental dimension into the educational processes of Member States.

In addition to IEEP's role as a catalyst in promoting environmental education at the national level, it also was a catalyst for a multiplier effect at the international level. From its very beginning, IEEP endeavoured to work in conjunction with agencies of the United Nations system and with other intergovernmental and nongovernmental organizations concerned with environmental education.

Details of the publications, training programmes and reports of the national, regional and international seminars organized under IEEP's programmes and activities are available in the report titled *Environmental Education: Selected Activities of UNESCO-UNEP International Environmental Education Programme 1975-1990*.¹

The World Conservation Strategy

The idea of Sustainable Development was first used in an international forum in the World Conservation Strategy 1980.

The Strategy published in March 1980 represented the work of 700 scientists and specialist advisers, and 450 government agencies and conservation organizations. The 70 page document was the result of more than two years of intensive preparation by IUCN. The process was supported by WWF, UNEP, UNESCO and FAO.

The key message of the Strategy was that conservation and development need each other. It recommended the integration of conservation principles and objectives with social and economic development. It argued for three priorities to be incorporated into all development programmes:

- the maintenance of essential ecological process,
- the sustainable use of natural resources, and
- the preservation of genetic diversity and conservation of wild species.

The strategy emphasized that EE and the participation of the public were critical support tools to achieve these objectives as they are indispensable to the achieving the changes in the behaviour of individuals and societies with regard to the biosphere.

Thus the World Conservation Strategy linked education to attitudes and behaviour:

“EE has the task of transforming the attitudes and behaviour of entire societies if a new conservation ethic embracing plants and animals as well as people is to become a reality”.

'80

IUCN stands for the International Union for the Conservation of Nature and Natural Resources. It is the world's largest and most important conservation network. It was founded in October 1948 as the International Union for the Protection of Nature (or IUPN) following an international conference in Fontainebleau, France. The organization changed its name to the International Union for Conservation of Nature and Natural Resources in 1956. In 1990 it was renamed World Conservation Union.

The Union's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The strategy document put forward the need to establish a new world economic order. Sustainable development based on conservation was suggested as the strategy to achieve it. The strategy defined development as the modification of the biosphere and the use of human, financial, living and non-living resources to satisfy the needs of mankind and to improve the quality of life.

The principles of sustainable development were thus established in the context of this world strategy. These principles, from then on, also influenced the course of environmental education.

A key aspect of the recommendations was the integration of conservation principles and objectives with social and economic development. It argued that Governments and development agencies must be made more aware that conservation is not just another word for 'nature study' and should not be dismissed as being of little political or economic relevance'.

The World Conservation Strategy generated considerable debate. One criticism was that it took a simplistic view of economy-environment relationship, focusing too much on the impacts of environmental degradation rather than the causes. Some felt that it was anti-development, while others felt it had an anti-poor bias.

The debate itself marked an important stage in the understanding of environmental issues, and in the decade that followed, contributed to the evolving concept of sustainability. It was the first time the term "Sustainable Development" was used in a key international forum.

The document and the debates led to important developments in the world's understanding of sustainability. A reformulation of the concept incorporated a wider vision of the relationships that exist among the economy, development and the environment, and led to the creation of a World Commission on Environment and Development to examine further the issues involved.²

World Commission on Environment and Development

'84-'87

The 1972 UN Conference on the Human Environment brought the industrialized and developing nations together to delineate the 'rights' of the human family to a healthy and productive environment. A string of other related meetings followed on the rights of the people to adequate food, to sound housing, to safe water, to access to means of choosing the size of their families.

The decade of the 1970s saw a spiral of ecological and economic decline in many parts of the world. There was also increasing debate on the issue of environment vs. development.

To address this major challenge to the world community the United Nations General Assembly set up a special independent commission in December 1983. Gro Harlem Brundtland, the then leader of Norway's Labour Party was invited to chair the Commission to provide a 'global agenda for change'. She formed the World Commission on Environment and Development (WCED).

The Commission's mandate gave it three objectives:

- to re-examine the critical environment and development issues and to formulate realistic proposals for dealing with them.
- to propose new forms of international cooperation on these issues that will influence policies and events in the direction of needed changes.
- to raise the levels of understanding and commitment to action of individuals, voluntary organizations, business, institutes and governments.

*The Commission had 21 members or commissioners. The composition included academics, senior civil servants and politicians, more than half of whom were from developing countries. The process included in-depth deliberations and public hearings on five continents. The WCED first met in October 1984, and published its report, 900 days later in April 1987. The 'Brundtland Report' was titled *Our Common Future*.*

Our Common Future

'87

The Brundtland Report attempted to highlight the close link between environment and development.

Environment and development are not separate challenges; they are inexorably linked. Development cannot subsist upon a deteriorating environmental resource base; the environment cannot be protected when growth leaves out of account the costs of environmental destruction. These problems cannot be treated separately by fragmented institutions and policies. They are linked in a complex system of cause and effect.³

It is in this document that occurs probably the best known and oft quoted 'definition' of Sustainable Development.

Sustainable Development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future.

'Environment' is where we all live; and 'development' is what we all do in attempting to improve our lot within that abode. The two are inseparable. Further, development issues must be seen as crucial by the political leaders who feel that their countries have reached a plateau towards which other nations must strive. Many of the development paths of the industrialized nations are clearly unsustainable. And the development decisions of these countries, because of their great economic and political power, will have a profound effect upon the ability of all peoples to sustain human progress for generations to come".⁴

The main message of the report was that those formulating policy were responsible for the impact the policy would have: 'The ability to choose policy paths that are sustainable requires that the ecological dimensions of policy be considered at the same time as the economic, trade, energy, agricultural, industrial, and other dimensions; on the same agendas; and in the same national and international institutions. That is the chief institutional challenge of the 1990s'.

The Report called for a global meeting on these issues, and that meeting was the Rio 'Earth Summit' in 1992. This was the first major UN meeting attended by business groups, the ones that eventually became the WBCSD (World Business Council for Sustainable Development).

Our Common Future: Sustainable Development and Education

Our Common Future highlights the critical role of education and communication in transition to SD. *"First and foremost our message is directed towards people, whose well-being is the ultimate goal of all environment and development policies. In particular, the Commission is addressing the young".⁵*

The Report of the World Commission on Environment and Development contains many direct and indirect references to education.



Human resource development demands knowledge and skills to help people improve their economic performance. Sustainable development requires changes in values and attitudes towards environment and development—indeed, towards society and work at home, on farms and in factories.... Education should also be geared towards making people more capable of dealing with problems of overcrowding and excessive population densities, and better able to improve what could be called 'social carrying capacities'.

Most people base their understandings of environmental processes and development on traditional beliefs or on information provided by a conventional education. Many thus remain ignorant about ways in which they could improve traditional production practices and better protect the natural resource base. Education should therefore provide comprehensive knowledge, encompassing and cutting across the social and natural sciences and the humanities, thus providing insights on the interaction between natural and human resources, between development and environment.⁶

“The transition to SD touches on core issues of our societies. It concerns basic values and moral codes for human behaviour, attitudes and consideration for fellow human beings and for nature itself. In order to reverse the present negative trends there is an urgent need for commitment and action at all levels of society. Today there is an increased awareness that solidarity and responsibility must be extended to encompass the interests of future generations...

Environmental Education should be included in and should run throughout the other disciplines of the formal education curriculum at all levels—to foster a sense of responsibility for the state of the environment and to teach students how to monitor, protect, and improve it. These objectives cannot be achieved without the involvement of students in the movement for a better environment, through such things as nature clubs and special interests groups. Adult education, on-the-job training, television, and other less formal methods must be used to reach out to as wide a group of individuals as possible, as environmental issues and knowledge systems now change radically in the space of a lifetime.⁷

The world's teachers will have a crucial role to play in bringing this message to them. Teachers play a very important role in the transition between generations, of the knowledge from one generation to the next. Consciousness raising is vital for change. Teachers can convey to children a sense of respect and responsibility for nature and for the global environment...

“But respect for the environment alone will not be enough to save our common future. A sense of solidarity with the world's underprivileged will be equally important. There is no way we can win the battle to save the global environment unless we deal squarely with the issue of world poverty. We must teach the next generation the necessity of caring for the poor and the dispossessed not only because it is normally right but because it is in our common interest to do so”⁸

”

International Congress on Environmental Education and Training

Moscow '87

In August 1987, the UNESCO-UNEP organized an international meeting to take stock of the progress since Tbilisi and to plan for the decade ahead.

300 specialists from 100 countries, and observers from international organizations attended this International Congress on Environmental Education and Training.

By the time of the Moscow conference, EE was positioned within the context of SD, and hence there was also a shift in the mission of EE.

The Congress acknowledged that while the last decade had reflected an increasing awareness of environmental problems, and also of the role to be played by education in understanding, preventing and solving environmental problems, this had not been sufficient to counteract the steady deterioration of the quality of the environment.

The 'Tbilisi Plus Ten' Moscow event re-endorsed the vital importance of environmental education. This was summed up in the opening address.

"In the long run, nothing significant will happen to reduce local and international threats to the environment unless widespread public awareness is aroused concerning the essential links between environmental quality and the continued satisfaction of human needs.

Human action depends upon motivation, which depends upon widespread understanding. This is why we feel it is so important that everyone becomes environmentally conscious through proper environmental education".⁹

"We know now that the key to these problems to a large extent lies in social, economic and cultural factors, which are at the root of these problems, and that we cannot therefore prevent or solve them by purely technological means; we know that we shall have to act primarily on the values, attitudes and behaviour of individuals and groups in respect of their environment".

"It is therefore by acting upon the systems of knowledge and values that we may hope to find adequate solutions to environmental problems. It is therefore incumbent upon education and training, as the fundamental means of integration and of social and cultural change, to envisage objectives and employ new methods capable of making individuals more aware, more responsible and functionally better prepared to cope with the challenges of preserving the quality of the environment and life, in the context of sustained development for all people.¹⁰

In the light of these challenges, the Congress devoted itself to evolving an international strategy for environmental education and training for the decade of the 1990s.

The Congress agreed to continue to consider the recommendations of the Tbilisi Conference on EE goals, objectives and guiding principles as the basic framework for EE at all levels, inside or outside the school system.

The Congress deliberated upon a strategy for the 1990s that would consolidate the main lines of approach charted by the Tbilisi Conference of 1977, and their adaptation to the new concerns.

It recommended that, in particular, an effort should be paid to promote:

- (i) the search for and implementation of effective models of environmental education, training and information;
- (ii) general awareness of the causes and effects of environmental problems;
- (iii) general acceptance of the need for an integrated approach to solving these problems;
- (iv) training, at various levels, of the personnel needed for the rational management of the environment in view of achieving sustainable development at community, national, regional and worldwide levels.

Congress Outputs

A document titled *International Strategy for Action in the Field of Environmental Education and Training for the 1990s* was the key output of the Moscow International Congress.

The document is in two parts. Part One seeks to highlight certain needs and priorities in respect to the development of environmental education and training as they emerge from the action taken in this field since the Intergovernmental Conference on Environmental Education (Tbilisi, USSR, 1977) and describe the main aspects of the action taken by UNESCO and UNEP since then.

Part Two outlines an international strategy for action in the field of environmental education and training for the 1990s. This second part contains three chapters, the first of which proposes a summary of the main environmental problems of the time, and sketches out the aims of an international strategy for action in this field. The second chapter presents an overview of the essential principles and characteristics of environmental education and training that were taken into account in framing the strategy. The third chapter, which is the main part of the document, indicates specific international action in this field.

Each section first recalls the guidelines for the strategy as they emerge from the recommendations of the Tbilisi Conference and changes that have occurred in the area considered over the past ten years; it then highlights objectives with a view to meeting needs for the development of environmental education and training in coming years; and lastly, it indicates a series of specific actions that might be of assistance in attaining these objectives.

Excerpts from *International Strategy for Action in the Field of Environmental Education and Training for the 1990s*

Guidelines, objectives and actions for an international strategy for the 1990s

A. Access to Information

Guideline for the strategy:

"The dissemination of specialized and general knowledge on the environment and the development of public awareness of the need for a correct approach to the problems of the environment are of... possibly crucial importance, both for further economic development and for rational use of the earth's resources for the good of ... humanity as a whole. The full use of the mass media for truly educational ends would help ... to ensure widespread awareness and understanding of these matters."

(Final Report, Tbilisi Conference, 1977, page 37)

Objective: *Strengthening of the international system for information and exchange of experience of the International Environmental Education Programme (IEEP).*

- Action 1: *Setting up a computerized service*
- Action 2: *Strengthening regional networks of institutions of excellence and documentation centres.*
- Action 3: *Publication of the newsletter Connect.*

B. Research and Experimentation

Guideline for the strategy:

"The institutional and educational changes required for the incorporation of environmental education into national education systems should be based not only on experience but also on research and evaluation aimed at improving educational policy decisions. The reinforcement of research and experimentation on the lines of emphasis, content, methods and instruments necessary for environmental education call to special attention. "

(Final Report, Tbilisi Conference, 1977, page 23, 38)

Objective: *Strengthening of research and experimentation on educational content and methods and strategies for the organization and transmission of messages concerning environmental education and training.*

- Action 1: *Research and experiments concerning educational content and methods.*
 - Action 2: *Research and experimentation concerning other complementary aspects of environmental education.*
 - Action 3: *Research concerning the pedagogical approach to the question of values.*
 - Action 4: *Research concerning new strategies for the transmission of messages to develop environmental awareness, education and training.*
 - Action 5: *Comparative evaluation research on the different components of the educational process.*
- C. Educational Programmes and Teaching Materials**

Guideline for the strategy:

"Environmental education should not be just one more subject to add to existing programmes, but should be incorporated into programmes intended for all learners, whatever their age... Its subject-matter should permeate every part of formal and non-formal programmes and constitute one and the same continuous, organic process... The central idea is to attain, by means of growing interdisciplinarity and of prior co-ordination of disciplines, a practical education oriented towards a solution of the problems of the environment, or at least to make pupils better equipped ...to participate in decision-making. "

(Final Report, Tbilisi Conference, 1977, page 20)

Objective: *Promotion of EE through the development of curricular and teaching materials for general education.*

- Action 1: Exchange of information on curriculum development.
- Action 2: Development of model (prototype) curricula.
- Action 3: Development of new teaching aids.
- Action 4: Promoting curriculum evaluation.

D. Training of Personnel

Guideline for the strategy:

"The training of qualified personnel is ...a priority activity. This holds good for both pre- and in-service training, for the purpose of familiarizing teachers in formal education and organizers of non-formal activities for young people and adults with environment-linked subject-matter and educational and methodological guidelines."

(Final Report, Tbilisi Conference, 1977, page 20)

Objective: Promotion of pre- and in-service training for qualified formal and non-formal environmental education personnel.

- Action 1: Promoting pre-service training.
- Action 2: Promoting In-service training.

E. Technical and Vocational Education

Guideline for the strategy:

"The integration of environmental education with other forms of education, in particular with education concerning the working environment... represents an urgent need. The curricula for these should include information about the environmental changes which result from the sort of work they will do. Vocational education so modified should promote increased awareness of the relationship between people and their social, physical and cultural environment, and foster a desire to improve the environment through influencing decision-making processes."

(Final Report, Tbilisi Conference, 1977, pages 19; 34)

Objective: Incorporation of an environmental dimension into technical and vocational education

- Action1: Development of programme and materials for education and training.
- Action 2: Training and developing the awareness of teachers.
- Action 3: A priority activity in the service sector.

F. Educating and Informing the Public.

Guideline for the strategy:

"There is a need for environmental education programmes which introduce awareness among the general public of its own environment... and for active participation of the general public in solving the environmental problems of contemporary society... The mass media play an important part in the

promotion of environmental education for they constitute ideal media for reaching the widest possible audience.

(Final Report, Tbilisi Conference, 1977, pages 21, 31)

Objective: *More effectively educating and informing the public about the environment through the use of the media and the new communication and information technologies.*

Action 1: *Producing media-related education programmes.*

Action 2: *Use of new communication media and activity teaching methods.*

Action 3: *Creation of a bank of audiovisual programmes.*

Action 4: *Development and use of exhibition and museums.*

Action 5: *Developing UNESCO-UNEP joint activities*

G. General University Education

Guideline for the strategy:

"Universities, as centres for research, teaching and training of qualified personnel for the nation, must be increasingly available to undertake research concerning environmental education and to train experts informal and non-formal education. The environmental education... is necessary for students in all fields, not only natural and technical sciences but also social sciences and arts, because the relationship between nature, technology and society mark and determine the development of a society."

(Final Report, Tbilisi Conference, 1977, page 33)

Objective: *More effective incorporation of the environmental dimension into general university education through the development of study programmes, teaching materials and training, and through the establishment of appropriate institutional machinery.*

Action 1: *Developing the awareness of academic authorities.*

Action 2: *Development of study programmes.*

Action 3: *In-service teacher training.*

Action 4: *Institutional intra-university cooperation.*

H. Specialist Training

Guideline for the strategy:

"Education focused on the solution of specific problems was seen to be of particular relevance to professionals for developing an understanding of the environment and acquiring those skills which would enable solution of problems that arose in management of the environment".

(Final Report, Tbilisi Conference, 1977, pages 20-21)

Objective: *Promoting specialized scientific and technical environmental training.*

- Action 1: *Initial training for environmental specialists.*
- Action 2: *Further training for professionals including decision-makers and administrators.*
- Action 3: *Training through research.*
- Action 4: *Development of suitable study programmes.*
- Action 5: *Use of natural parks, biosphere reserves and other protected areas.*
- Action 6: *Strengthening regional training capacity.*

I. International and Regional Co-operation

Guideline for the strategy:

"Both the developing and the industrialized countries should benefit from increased international cooperation in environmental education... This education should help to develop a sense of responsibility and solidarity among countries and regions as the foundation for a new international order which will guarantee the conservation and improvement of the environment. Environmental education can become one of the factors in improving mutual understanding and strengthening trust between nations, and can contribute to the development of friendly relations between States and to the maintenance of peace and international security."

(Final Report, Tbilisi Conference, 1977, pages 25; 39)

Objective: *Development of environmental education through coordinated international and regional cooperation.*

- Action 1: *Exchange of information.*
- Action 2: *Promotion of research and experimentation.*
- Action 3: *Promoting training.*
- Action 4: *Study programmes.*
- Action 5: *Information on legislation concerning environmental education, natural resources and environmental management.*
- Action 6: *Regional action within the framework of IEEP*
- Action 7: *Mobilization of technical and financial resources.*
- Action 8: *Inter-agency co-ordination and consultation at the international level.*
- Action 9: *World Decade for Environmental Education, 1990-2000*
- Action 10: *International Congress on EE and T for the beginning of the twenty-first century.*

UNESCO-UNEP (1988), International Strategy for Action in the Field of Environmental Education and Training for the 1990s, Paris.

The Report concluded by stating that it was desirable to designate 1990-2000 as "World Decade for EE".

The Congress recommended an International Congress on EE and Training for the beginning of the 21st century.

“In view of the fact that the worldwide development of EE and T is a lengthy process, and that educational, environmental and development problems are bound to change during the coming decade, it is envisaged to hold another international congress on EE and T in 1997 to take stock of the progress achieved and to draw up, in the light of needs, priorities and means, an EE and T plan of action for the first decade of the twenty-first century”.¹¹

References

1. UNESCO (1990) *Report: Environmental Education: Selected activities of UNESCOUNEP International Environmental Education Programme 1975-1990*, Paris <<http://unesdoc.unesco.org/images/0008/000874/087446eo.pdf>>
2. Palmer A. Joy (1998), *Environment Education in 21st Century: Theory, Practice, Progress and Promise*, RoutledgeFalmer.
3. WCED (1987) *Our Common Future*, Oxford: Oxford University Press, p. 37
4. *Ibid.*, Foreword
5. *Ibid.*, p. xiv
6. *Ibid.*, p. 111, 113
7. *Ibid.*, p. 118
8. Brundtland, G.H. in Foreword, Fe Benedict (ed.) (1991) *Environmental Education for Our Common Future: A Handbook for Teachers in Europe*, Norwegian University Press, Oslo, pp 4-5
9. UNESCO (1987) *Report: UNESCO-UNEP International Congress on Environmental Education and Training (USSR, August 17-21, 1987)*, Paris.
10. *Ibid.*
11. *Ibid.*

Agenda for Action

The *Bruntland Report* published in 1987 presented perhaps the first comprehensive survey of the planet's health. It painted a gloomy picture of the impact of human activity on the living environment. It also presented a major statement on a global agenda to reconcile environment with development. This also reinforced the core message of the *World Conservation Strategy*.

Close on the heels of this, the year 1988 was marked by a variety of environmental disasters in different parts of the world. Drought, floods, forest fires, polluted beaches dominated the headlines. Echoing the concerns, Time Magazine chose to honour Endangered Earth (instead of a man or woman) as Planet of the Year 1988. This underscored the emergence of global environmental consciousness.

The issue highlighted how the wondrous globe has endured for some 4.5 billion years, but its future was clouded by the reckless actions of human beings: overpopulation, pollution, waste of resources and wanton destruction of natural habitats.

"... Worldwide public opinion... sensed that this gyrating globe, this precious repository of all life that we know of, was in danger. No single individual, no event, no movement captured the imaginations or dominated headlines more than the clump of rock and soil and water and air that is our home".

Every individual on the planet must be made aware of its vulnerability and of the urgent need to preserve it. No attempt to protect the environment will be successful in the long run unless ordinary people are willing to adjust their lifestyles. Our wasteful, careless ways must become a thing of the past. We must recycle more, procreate less, turn off lights, use mass transit, do a thousand things differently in our everyday lives... Now more than ever, the world needs leaders who can inspire their fellow citizens with a fiery sense of mission, not a nationalistic or military campaign but a universal crusade to save the planet.

*Thomas A Sanction (lead article), Time
2 January 1989*

'89

World Conference on Education for All

As the world saw an increasing awareness about the environment and its issues and continuing debate on the mission and role of EE in this context, the beginning of the new decade was also marked by taking stock in the field of education itself.

In 1990, an important conference, titled the World Conference on Education for All (WCEFA), was convened in Jomtien, Thailand by the World Bank, UNESCO, UNICEF and UNDP. The conference brought together some 1500 people representing 155 governments, 33 intergovernmental bodies, and 125 non-governmental organisations (NGOs), institutes, and foundations.

Organised in response to the widespread concern over the deterioration of education systems during the 1980s, the Conference concluded with the unanimous adoption of the *World Declaration on Education for All* and endorsed a *Framework for Action to Meet Basic Learning Needs*. Through these two texts, the world community renewed its commitment to ensuring the rights of all people to education and knowledge.¹

Caring for the Earth

By the 1990s, the notion of Sustainable Development was well and truly on the environmental agenda.

In 1991 IUCN together with UNEP and WWF published a completely revised and updated version of the World Conservation Strategy. This was titled *Caring for the Earth: A Strategy for Sustainable Living*.

Caring for the Earth provided a timely contribution to international debate about EE, with its focus on translating ideas and principles of sustainable living into practical actions that would influence governments and individuals alike.

The document emphasized the importance of EE for Sustainable Development. It was founded on the conviction that people can alter their behaviour when they see that it will make things better, and can work together when they need to. It aimed at change because it believed that values, economies and societies different from most that prevail today were needed if we are to care for the Earth and build a better quality of life for all.

“The aim of *Caring for the Earth* is to help improve the condition of the world's people by defining two requirements. One is to secure a widespread and deeply held commitment to a new ethic, the ethic for sustainable living, and to translate its principles into practice. The other is to integrate conservation and development: conservation to keep out actions within the Earth's capacity, and development to enable people everywhere to enjoy long, healthy and fulfilling lives. It extends and emphasizes the message of the World Conservation Strategy”.²

Chapter 6 of *Caring for the Earth* focuses on 'Changing personal attitudes and practices'. It emphasizes not only the need for more widespread education, but also the necessity to change its content.

“Children and adults should be schooled in the knowledge and values that will allow them to live sustainably. This requires environmental education, linked to social education. The former may help people to understand the natural world and to live in harmony with it. The latter imparts an understanding of human behaviour and an appreciation of cultural diversity. To date this blend of environmental and social education has not been widely applied. It needs to be at all levels”.³

This chapter goes on to provide recommendations and suggested actions, and emphasises the importance of values in education.

“Environmental education deals with values. Many school systems regard this as dangerous ground, and many teachers (particularly in the natural sciences) are not trained to teach values. The 'whole school' approach, in which the school tries to behave consistently with what is taught, may also be dauntingly novel. Yet no lifestyle or educational system is value free. It is vital that schools teach the right skills for sustainable living. It is equally important that what the school does reinforces what it teaches... Development assistance agencies need to give more support to EE. It is the key to sustainability”.⁴

Caring for the Earth was prepared to re-state current thinking about conservation and development and to persuade people at all levels that they can do something, or help the cause something to be done, that will lead to a better care for the earth.

Caring for the Earth is intended to be used by those who shape policy and make decisions that affect the course of development and the condition of our environment. This is a much larger group than might at first appear. While it must include politicians, and executives in the public and private sectors at the national and international levels, it also includes leaders, business people and other citizens in communities and settlements everywhere. Caring for the Earth is everyone's business.⁵

The publication was a major event. 47,000 copies were printed in three languages and launched in 65 countries. The Rio Conference was held in six months after its publication.

The impact of *Caring for the Earth* was critical. Its ideas and approaches matched thinking in various meetings of the Prep Com leading to Rio, and its ideas fed very directly into statements about Sustainable Development agreed at UNCED in 1992.⁶

Manifesto for Action

Caring for the Earth (CFE) was different from other manifestos in that it inked principles and suggested action. It listed 132 actions and 113 specific and dated targets. CFE is divided into three main sections: principles and actions for sustainable living; additional actions in various natural resource sectors or areas of human endeavor; and supporting actions for implementing the strategies for sustainable living.

In the first section, CFE presents nine principles for sustainable living and a variety of means for acting on these principles at the international, national, community, organizational, and individual levels. For example, actions for the first principle—respect and care for the community of life—range from a call for governments to incorporate the principles of sustainable living into national legislation to urging parents to teach their children to act with respect for other people and species.

Five of CFE's principles are clear and coherent: respect and care for the community of life; improve the quality of human life; conserve the integrity and biological diversity of ecosystems; minimize depletion of non-renewable natural resources; and keep within Earth's carrying capacity. The remaining four—change personal attitudes; enable communities to care for their environments; provide national frameworks; and create a global alliance—are not principles but rather strategic directions aimed at the personal, community, national, and international levels.

CFE's strength lies in the actions suggested to support each principle. Many are presented as clear policy objectives, which are elaborated on through a discussion of specific actions. These objectives are often stated in terms that could be readily adopted or adapted by the appropriate level of organization. Notable examples are the objectives for developing an ethic for living sustainably (under the respect for life principle) and those for harvesting wild resources sustainably (under the principle for conserving the vitality and diversity of life).

CFE is significant because it evinces consideration for people and the way they use and care for Earth's ecosystems and natural resources. It provides an ethical framework for linking ecological imperatives with how societies work and ought to work. It argues implicitly for societies to re-establish a sense of community with each other and with nature. As such, CFE lays the ethical foundation for socially equitable, ecologically sustainable development. Such an approach to conservation and development is not only refreshing, it is essential if humans are to make progress toward maintaining the ecological basis for all life.

CFE is also useful because its pragmatism makes sense. It establishes the responsibilities of the various elements of society in moving toward sustainable development and gives sound advice to international organizations, governments, and, most important, communities and individuals on how to go about this awesome effort. Its policy statements help lay the soft-law basis for international and national agreements and legislation that support sustainable development.⁷

Towards Rio

'89-'92

The Stockholm Conference in 1972 heralded the beginning of environmental awareness in the international community. It placed environment on the international agenda for the first time and set the stage for international actions over the course of the next 20 years. These twenty years also witnessed an alarming deterioration of the environment. These issues and the concerns over the health of the planet were the focus of the four year study commissioned by the UN General Assembly. The Report of the WCED Commission took the form of the publication, in 1987, titled *Our Common Future*. It was here that the theme of Sustainable Development was developed.

Following this, in 1989 the UN General Assembly decided to convene a conference to take stock of the global environment 20 years after Stockholm, in 1992. It was intended that such a conference would “elaborate strategies to halt and reverse the effects of environmental degradation by strengthening efforts to promote sustainable and environmentally sound development in all countries”

The Governing Council of UNEP felt that the name of the conference should convey a sense of the current broad concept of environment and its linkages with durable planetary management for the human race. Thus it was titled the United Nations Conference on Environment and Development. This title was an indicator of how the perspectives had changed since the Stockholm Conference that focused only on the human environment.

Brazil was to host the event at Rio de Janeiro in June 1992. The UNCED Preparatory Committee (PrepCom) was established as a Committee of the General Assembly. This was to meet five times before the 1992 Conference. Its role was crucial in the process of refining conference issues, in seeking consensus, and preparing the pre-negotiated documents which would be put up for approval by world leaders. The PrepCom ensured that every document that arrived at Rio had already achieved consensus, including Agenda 21 which was 85 per cent completed when UNCED began. Maurice Strong, who had been the Secretary General of the Stockholm conference, was appointed Secretary General of the UNCED.

After nearly three years of intense preparations the UNCED Conference was convened from 3 to 14 June 1992. Virtually every country in the World (178) was represented. 120 heads of State or government attended. More than 1000 non-governmental organizations (NGOs) also attended, as part of the formal sessions or part of a parallel NGO Conference—The 92 Global Forum.⁸

The United Nations Conference on Environment and Development (UNCED)

This unprecedented global event, also known as the Earth Summit or the Rio Conference brought together more heads of government than any previous meeting. The UNCED Conference focussed on the most critical issues facing the global community.

Towards its aim of proposing a development model especially engaged with the preservation of life of the planet, UNCED, produced important documents.

- The Rio Declaration (a statement of principles) defining the rights and responsibilities of nations as they pursue human development and well being.
- Agenda 21 (a global plan of action to address the critical issues of environment and development)
- A statement of Principles on Forests to guide the management conservation and sustainable development of all types of forests, which are essential to economic development and maintenance of all forms of life.
- Two global conventions were opened for signature. These were:
 - A Framework Convention on Climate Change aiming to stabilize greenhouse gases in the atmosphere at all levels that will not dangerously upset the global climate system
 - A Framework Convention on Biological Diversity which requires countries to adopt ways and means to conserve the variety of living species, and ensure that the benefits from using biological diversity are equitably shared.

One of the outcomes of the UNCED was the creation of the **United Nations Commission on Sustainable Development (CSD)**. It was established under the UN Economic and Social Council to oversee the implementation of Agenda 21.⁹

The Rio Declaration

The Declaration of Rio, called "Earth Charter" before the Conference, consists of a declaration of global principles to orient the question of environment and development. It includes the basic principles which should determine people's and nations' behaviour in economy and environment to make sure of "our common future".

This declaration was considered by the delegates the "best possible result of the complicated negotiation process". According to the delegates the Declaration of Rio pretends to have the same importance as the "Declaration of Human Rights", signed in 1948.

It contains 27 general principles with the objective to "establish a new and just global partnership through the creation of new cooperation levels between the States, important sectors of society and the people". It affirms that "to get sustainable development and a better quality of life for all peoples, the States have to reduce and eliminate unsustainable patterns of production and consumption and must promote adequate population policies".

All the 175 nations present approved and signed the Declaration of Rio, engaging themselves to respect its 27 items which represent the base for cleaning up the planet and constructing a model for sustainable development.¹⁰

Agenda 21: The Action Plan

Agenda 21 is a detailed blueprint for action into the twenty-first century, with a focus on integrating environment considerations in development, and also covering action at the national level, underlining national responsibility.

Composed of 40 chapters with more than 800 pages, Agenda 21 is a historic document representing the consensus reached by 179 States in Rio.

Agenda 21 explains that population, consumption and technology are the primary driving forces of environmental change. It lays out what needs to be done to reduce wasteful and inefficient consumption patterns in some parts of the world while encouraging increased but sustainable development in others. It offers policies and programmes to achieve a sustainable balance between consumption, population and the Earth's life-supporting capacity. It describes some of technologies and techniques that need to be developed to provide for human needs while carefully managing natural resources.

Agenda 21 provides options for combating degradation of the land, air and water, conserving forests and the diversity of species of life. It deals with poverty and excessive consumption, health and education, cities and farmers. There are roles for everyone: governments, business people, trade unions, scientists, teachers, indigenous people, women, youth and children. Agenda 21 does not shun business. It says that sustainable development is the way to reverse both poverty and environmental destruction.

We currently gauge the success of economic development mainly by the amount of money it produces. Accounting systems that measure the wealth of nations also need to count the full value of natural resources and the full cost of environmental degradation. The polluter should, in principle, bear the costs of pollution. To reduce the risk of causing damage, environmental assessment should be carried out before starting projects that carry the risk of adverse impacts. Governments should reduce or eliminate subsidies that are not consistent with sustainable development.

A major theme of Agenda 21 is the need to eradicate poverty by giving poor people more access to the resources they need to live sustainably. By adopting Agenda 21, industrialized countries recognized that they have a greater role in cleaning up the environment than poor nations, who produce relatively less pollution. The richer nations also promised more funding to help other nations develop in ways that have lower environmental impacts. Beyond funding, nations needed help in building the expertise—the capacity—to plan and carry out sustainable development decisions. This would require the transfer of information and skills.

Agenda 21 called on governments to adopt national strategies for sustainable development. These were to be developed with wide participation, including non-government organizations and the public. Agenda 21 put most of the responsibility for leading change on national governments, but said they need to work in a broad series of partnerships with international organizations, business, regional, state, provincial and local governments, non-governmental and citizens' groups.

According to Agenda 21, only a global partnership will ensure that all nations will have a safer and more prosperous future.

An attempt was made to cost the recommended measures, demonstrating the urgent need for additional financial resources to implement Agenda 21; the bulk would have to come from the domestic public and private sectors. At the same time, as part of the overall political agreement between industrialized and developing countries, the former reaffirmed their commitment to reach the accepted United Nations target of 0.7 per cent of gross national product for official development assistance (ODA). This did not include the United States, which had not made an original commitment in 1970.¹¹

Preamble to Agenda 21



Humanity stands at a defining moment in history. The world is confronted with worsening poverty, hunger, ill health, illiteracy, and the continuing deterioration of ecosystems on which we depend for our well-being. The disparities between rich and poor continue.

The only way to assure ourselves of a safer, more prosperous future is to deal with environment and development issues together in a balanced manner. We must fulfill basic human needs, improve living standards for all and better protect and manage ecosystems. No nation can secure its future alone; but together we can: in a global partnership for sustainable development.

Agenda 21, adopted at the 1992 Earth Summit in Rio de Janeiro, reflects a global consensus and political commitment at the highest level on development and environment cooperation. The agenda deals with both the pressing problems of today and the need to prepare for the challenges of the next century.

It recognizes that sustainable development is primarily the responsibility of governments, and this will require national strategies, plans and policies. The efforts of nations need to be linked by international cooperation through such organizations as the United Nations. The broadest public participation, and the active involvement of the non-governmental organizations and other groups should also be encouraged.

The objectives of Agenda 21 require substantial new financial assistance for developing countries. They need this additional support to cover the incremental costs of actions to deal with global environmental problems, and to accelerate sustainable development. Money is also needed to allow international bodies to implement the recommendations of Agenda 21.

Special attention should be given to nations whose economies are in transition, including eastern Europe and the former Soviet Union, where countries are transforming economies, sometimes in the midst of considerable social and political tension.

”

Agenda 21: Chapter 36 – Education, Training and Public Awareness

Chapter 36 of the action plan adopted by the Conference, Agenda 21, focuses on public education, awareness and training and confirms the role of education and the importance of positioning EE in the perspective of sustainable development. It reiterates and endorses the recommendations of the 1990 World Conference on Education for All in the section describing reorientation of education towards SD and establishes the importance as a preamble of environmental and developmental education and awareness. EE is viewed as an indispensable tool for sustainable development, in which environmental knowledge is related to knowledge in the areas of science, technology, management and law. The objective is formulated of establishing national of education programs for sustainable development by 1996.

“

Chapter 36: Education, Training and Public Awareness

Many people do not understand the close ties between human activities and the environment because they have inaccurate or insufficient information.

There is a need to increase people's sensitivity to, and involvement in, finding solutions for environment and development problems. Education can give people the environmental and ethical awareness, values and attitudes, skills and behaviour needed for sustainable development. To do this, education needs to explain not only the physical and biological environment, but the socio-economic environment and human development.

Basic education is the underpinning for environment and development education. All countries should strive for universal access to education, and achieve primary education for at least 80 per cent of all girls and boys, through formal schooling or non-formal education. Adult illiteracy should be cut to at least half the 1990 level, and literacy levels of women brought into line with those of men.

To improve sustainable development education, nations should seek to:

Make environment and development education available to people of all ages.

Work environment and development concepts, including those of population, into all educational programmes, with analyses of the causes of the major issues. There should be a special emphasis on training decision makers.

Involve schoolchildren in local and regional studies on environmental health, including safe drinking water, sanitation, food and the environmental and economic impacts of resource use.

The world needs a flexible and adaptable work force, equipped to meet growing environment and development problems, and changes during the transition to a sustainable society.

Countries should:

Set up training programmes for school and university graduates to help them achieve sustainable livelihoods.

Encourage all sectors of society, including industry, universities, governments, non-governmental organizations and community organizations, to train people in environmental management.

Provide locally trained and recruited environmental technicians to give local communities services they require, starting with primary environmental care.

Work with the media, theatre groups, entertainment and advertising industries, to promote a more active public debate on the environment.

Bring indigenous peoples' experience and understanding of sustainable development into education and training.

<http://www.iisd.org/rio+5/agenda/chp36.htm> (for complete text)

”

Heads of state of the 1992 Rio Summit emphasized that the reorientation of education and the enhancement of public information and awareness, as well as training, are indispensable means for achieving sustainable development. Thus, it was unanimously agreed that the concept of environmental education which was formulated in the 1970's is not broad enough to encompass the concept of sustainable development. As a result, they suggested the reorientation of existing education to address the issues of sustainability in Chapter 36 of Agenda 21.

The Global Forum

Parallel to the United Nations Conference on Environment and Development, the non-governmental organizations (NGOs) gathered for an international meeting. Every day an average of 25,000 people were present at Aterro do Flamengo (Rio de Janeiro beach) to participate in the approximately 350 events as part of the Global Forum. During the 15 days about 3000 environment organizations and groups from almost every part of the globe took part in the events. One of the key messages of the Global Forum was that education is of key importance.

The gathering produced a set of alternative treaties. One of these was the *Treaty on Environmental Education for Sustainable Societies and Global Responsibility*. This was the first NGO treaty to be launched at Rio.

This treaty outlines a view of education which differs from that set out in Chapter 36 of Agenda 21. The Treaty proposes the development of a holistic, systemic and interdisciplinary vision, a dialogue of knowledge and critical thought to encourage understanding, participation and the steering of contemporary reality towards changes for a better quality of life. The Treaty reaffirms the key role of education in determining values and social action underlines the importance of envisaging EE as a factor in social changes and as an ongoing learning process based on the respect of all forms of life.

It proposes to promote dialogue, co-operation, solidarity and sharing and to contribute to individual and collective change towards responsibility at all levels, for the construction of sustainable, equitable societies. The dominant socio-economic system based on consumption is identified as one of the fundamental causes of environmental degradation and of the deep social inequities which characterize the contemporary crisis situation.¹²

World Congress for Education and Communication on Environment and Development (ECO-ED)

Toronto '92

ECO-ED was held in October 1992, in Toronto, Canada, as a follow up to the recommendations of Agenda 21.

This was the first major international gathering after Rio to focus on Chapter 36 of Agenda 21 promoting education, public awareness and training. Over 4,000 delegates from 84 countries participated. Forty per cent of the delegates were from the South. Forty six per cent of the 740 speakers were women.

Eco-Ed was a multi-sectoral and multi-disciplinary conference that brought educators, trainers, communications professionals, students, NGOs and international agencies together with business and labour representatives, politicians, public officials, scientists and indigenous peoples.

The Congress adopted the principles of sustainable development as conceived from an economic standpoint.

The objectives of the conference were to highlight the critical role of education and public awareness in achieving sustainability; to consider the important contribution of environmental education; to provide elements for the further development of the work programme of the CSD; to mobilize action at international, national and local levels.

The work of the conference was conducted principally through an Issues Forum and an Innovative Practices Forum, which ran simultaneously.

The conference also made headway in clarifying the still emerging concept of education for sustainability. It was seen as an indispensable instrument for achieving a sustainable future, touching on and integrating the notions of population, poverty, environmental degradation, democracy, human rights and peace, development and interdependence.¹³

Two Guiding Documents

Caring for the Earth (CFE) and Agenda 21 were the two most prominent and comprehensive documents providing policy and programme guidance on Sustainable Development (SD) following the Rio Earth Summit. While they are complementary treatments of SD, there are similarities as well as differences between the two.

Both recognize that governments alone cannot achieve SD on their own.

- *Agenda 21 specifies, in separate chapters for each, the roles for the major groups of society outside government. But as a document written by governments, under the auspices of the United Nations, it puts most of the burden for action on governments and on intergovernmental organizations. CFE spreads the responsibility to all sectors and levels of society, reflecting the nature of IUCN, whose governing structure is an equal partnership of governments and nongovernmental organizations.*
- *CFE addresses more squarely than Agenda 21 certain politically sensitive issues. For example, it provides specific targets for population stabilization and for reductions in energy consumption. It also sets policy objectives for energy conservation and wise management of energy resources, a subject that is key in moving toward sustainable forms of development but was difficult to address adequately at the Earth Summit for political reasons. In fact, throughout CFE, quantitative targets are proposed, dates are set for their attainment, and responsible groups are identified.*
- *Agenda 21's structure is based on key issues, such as combating desertification, protecting the atmosphere, and managing toxic wastes. Among the crosscutting issues it addresses are fighting poverty, establishing institutional arrangements, transferring technology, and building capacity. The chapters on these topics are useful, and in some cases go well beyond CFE in scope and detail. On the other hand, CFE's approach to sustainable development is more integrated: It sets out the principles for sustainable development early on in its discussion and then elaborates policies and actions to attain them.*
- *CFE is essentially a policy document, while Agenda 21 is a program document. CFE provides clear policy objectives that can be readily adopted or adapted by governments or other sectors of society. It is strategic and integrated in its treatment of sustainable development and delineates the responsibilities of all sectors of society. Agenda 21 provides more detailed program guidance for addressing key environmental and developmental problems facing nations and the globe. It comprehensively covers the major actions necessary for governments, in particular, to integrate environmental concerns more thoroughly into development in certain sectors.¹⁴*

Implementing Chapter 36

Following the Rio Conference UNESCO was given the role as Task Manager for Chapter 36 of Agenda 21.

As a cross-sectoral chapter of Agenda 21, Chapter 36 continued to enjoy unanimous support from governments, major groups and the educational community of both developed and developing countries. There was no dispute that education was indispensable for SD and for increasing the capacity of people to address environment and development issues. Education was seen as the cornerstone of SD in all its dimensions.

Each of the action plans of the major UN Conferences held after UNCED include education as a critical component. The three conventions (on biodiversity, climate change and desertification) also placed due importance on the role of education and public awareness.

Regional meetings and agreements at intergovernmental or expert level gave impetus to national policies and strategies that reiterated the importance of, and recommended action concerning, education for SD.

A number of UN Conferences focussing on different sectors such as population (Cairo 1994), Social Development (Copenhagen 1995), Women (Beijing 1995), Human Settlements (Istanbul 1996) highlighted the link between education and each of the sectors.

The report of the International Conference on Population and Development, Cairo, 1994 reiterated that SD as a means of ensuring the welfare of humanity requires that the interrelationships between population, resources, environment and development be fully recognized.

With the growing awareness that population, the environment and development are issues so inextricably linked that none of them can be contemplated in isolation, UNESCO decided to incorporate EE into a broader based programme replacing the IEEP. This was the Interdisciplinary Project of Cooperation on Environment, Population, Education and Information for Human Development (EDP).

The CSD at its fourth session took the decision to initiate a special programme on Chapter 36. This served to:

- (a) Raise visibility on a subject that, while recognized as essential by all, is often overlooked for lack of controversy or funding;
- (b) Demonstrate that Governments understand that education is a fundamental priority and one needing special impetus in the United Nations Conference on Environment and Development follow-up;
- (c) Clarify the strategic priorities for action in the vast scope of the chapter; Galvanize the key actors within a common framework for priority action.

Learning: The Treasure Within

The report of the International Commission on Education for the 21st Century, chaired by Jacques Delors, and submitted to UNESCO in 1996 provides clarification of the definition of EE's educational niche. The work of the Commission incorporated education for sustainable development and provided the broad context for the implementation of Chapter 36.

*In reviewing the issues and challenges facing modern societies, the Delors Report titled *Learning: The Treasure Within* stresses the importance of education as the necessary utopia which must guide us and bring the world to converge towards mutual understanding, the development of a sense of responsibility and solidarity, to learn to live together for a better world, with respect for spiritual and cultural differences. This utopia must inspire the evolution of societies in a situation that is characterized on the one hand by remarkable technological and scientific advances, and on the other hand, by disenchantment with the harmful effects of misdevelopment.*

The report underscores the key role of education in the continuous development of the individual and societies to progress toward the ideals of peace, freedom and social justice. The basic question is learning to know, learning to do, learning to live together, learning to be.

The Delors Report contemplates societies as educational societies and education appears as a social experience in which all the players in society participate from a perspective of responsibility. With regard to the phenomena of globalization, the report underlines the challenge of education in developing feelings of identity and belonging, in understanding complexity and interdependence. It also reasserts the value of the ethical and cultural dimensions of education. The concept of individual and collective responsibility appears as one of the key aspects in a context where educational and social choices (the two being closely interrelated) are called for. The concept of development articulated in the Delors Report is based on responsible participation by all members of society and refers to an integral human development which goes beyond economic growth. It also underscores the importance of alternative endogenous development.¹⁵

Reorienting EE for Sustainable Development

While education was being firmly accepted as an enabling tool for SD in all sectors, the EE community was addressing the challenge of reorienting the general framework of EE towards SD. An interregional workshop at Athens in 1995 focussed primarily on the strategies required to lead the various social players—the politicians, business, government and non-governmental organizations on the path of education for SD.

The statements emanating from this workshop restated the ECO-ED terms and presented EE in the service of sustainable development in a perspective of

viability, in order to optimize human capital and better natural capital by mitigating the impacts of human activity on the environment.

In its subsequent publication, *Education for Sustainable Development: A Priority for the World Community*, UNESCO confirm this reorientation. In this document, the then new UN Commission for Sustainable Development focused on the thrust of Chapter 36 of Agenda 21 to enlist the International Environmental Education Program (IEEP) officially in the service of sustainable development. However, a number of different views and criticisms emerged during the various regional meetings organized by UNESCO (in preparation for the Thessaloniki Conference) with regard to this new orientation.

Rio+5: A Review

The Commission on Sustainable Development, at its fifth session (7-25 April 1997) presented a report reviewing the progress made in the implementation of Chapter 36 of Agenda 21. The report took stock of the changes at international, regional and national levels towards reorienting EE in the context of SD, and also pointed out areas that needed strengthening.

The report also stated that UNESCO was working towards the organization of an international meeting on education for sustainable development. This was possibly to be held in Greece, in 1997, to mark 20 years after the landmark Tbilisi Conference which set the basic guidelines for the development of EE. The meeting in Greece was expected to be an important step in building consensus on the concept and key messages of education for SD.

'97



Some Excerpts from the Rio+5 Report

Promising Changes:

Since the United Nations Conference on Environment and Development, there has been a significant evolution - both conceptual and operational - with regard to education, public awareness and training, which are increasingly being called "education for sustainable development".

Experience since Rio has reinforced the conviction that sustainable development cannot be achieved without public understanding, support and action. Education is understood, more than ever, as necessary to support advances in nearly all sectors, including production, technology, population, advancement of women, management of human settlements, health, peace and security. The view that chapter 36 is relevant to the implementation of all other chapters of Agenda 21 is thus even stronger today than it was in 1992.

Education is seen no longer as an end in itself, but as a means to:

- (a) Effect the changes in values, behaviour and lifestyles that are needed to achieve sustainable development, and ultimately democracy, human security and peace;*

- (b) Disseminate the knowledge, know-how and skills that are needed to bring about sustainable production and consumption patterns and to improve the management of natural resources, agriculture, energy and industrial production;
- (c) Ensure an informed public that is prepared to support changes towards sustainability emerging from different sectors.

The implications of this new vision of education for formal education systems are major, and coincide with a broad rethinking within many countries of formal education systems that are no longer considered adequate to meeting the needs of society and the workplace. Traditionally, education has been designed largely to pass on existing knowledge, skills and values. Today, education is being redesigned in terms of how to prepare people for life: for job security; for the demands of a rapidly changing society; for technological changes that now directly or indirectly affect every part of life; and, ultimately, for the quest for happiness, well-being and quality of life. Education is being redefined as a lifelong process that needs to be not merely readjusted but restructured and reformed according to new requirements. One of the requirements for the future is that of sustainability, an overarching concept that has broad implications for curricula at all levels of education.

Unfulfilled Expectations:

Education for sustainable development is still an emerging concept that requires further clarification and consensus. Of particular concern to many is its relationship to the concept of environmental education which emerged after the United Nations Conference on the Human Environment in 1972 and focused primarily on the environment and its protection. Environmental education is now seen as an important part of education for sustainable development but not as its equivalent.

The challenge is to integrate the concepts of human development, social development and economic development with environmental protection in a holistic, interdisciplinary conceptual framework. The task is therefore far broader and deeper than the “conversion” of environmental education towards sustainable development advocated in chapter 36, and will necessarily involve all the disciplines and, for formal education, virtually all parts of the school curricula.

Formal education systems will best be able to contribute towards sustainable development through restructuring and reform, coupled with pre- and in-service teacher training. The time required for such change needs to be taken into account, however, together with the budget restrictions prevalent in most countries.

The political will needed to successfully reorient education, public awareness and training towards sustainable development is still lacking. Although there has been greater understanding of the fundamental importance of education since the United Nations Conference on Environment and Development, this

*recognition has not been translated into the necessary financial investments. Putting money into education needs to be understood in a long-term perspective, as an investment in providing, over time, the essential underpinning of public support and therefore public action without which the world cannot achieve sustainability. If the necessary financing is not forthcoming, chapter 36 risks becoming the forgotten priority of the United Nations Conference on Environment and Development.*¹⁶

”

Thessaloniki '72

The International Conference on Environment and Society: Education and Public Awareness for Sustainability

This conference was held from 8 to 12 December 1997 in Thessaloniki, Greece, the cultural Capital of Europe for 1997. The Thessaloniki Conference was held at an important juncture, five years after UNCED and the Toronto ECO-ED Conference, and twenty years after the Tbilisi Conference on Environmental Education.

Organized by UNESCO and the Government of Greece, the conference brought together nearly 1200 experts from 84 countries.

The Conference was undertaken as an intersessional activity contributing to the work of the UN Commission on Sustainable Development (CSD) on chapter 36 of Agenda 21 ("education, public awareness, and training"), for which UNESCO was Task Manager. It was designed to implementation of the work programme of the CSD on chapter 36 initiated in 1996 at its fourth session.

The conference took place against the backdrop of the new vision of the role of education and public awareness in achieving sustainability which had emerged during the last few years. Education was no longer seen as an objective in and of itself but as a means to bring about changes in behaviour and lifestyles, to disseminate knowledge and develop skills, and to prepare the public to support changes towards sustainability emanating from other sectors of society.

The objectives of the Conference were to:

- highlight the critical role of education and public awareness in achieving sustainability;
- consider the important contribution of environmental education;
- provide elements for the further development of the work programme of the CSD;
- mobilize action at international, national and local levels.

UNESCO prepared a document titled *Educating for a Sustainable Future: A Transdisciplinary Vision for Concerted Action*. This document served as the main background paper for the Conference, intended to provide a stimulus to discussion rather than as a document for discussion per se.

The conference proceedings were carried out through two Forums: Issues Forum and Innovative Practices Forum.

Issues Forum

This segment of the Conference was devoted to the treatment of six issues which had been selected to reflect the priorities laid down by the CSD in its decision in 1996 to initiate a special work programme on chapter 36.

Issue 1: Educating for a sustainable future: international consensus as an impetus for action

- Interdisciplinarity is required to deal with education in the perspective of sustainability.
- An intersectoral approach is needed in order to implicate all sectors of society in the educational enterprise, which, seen from the perspective of sustainable development, yields benefits for the whole of society.
- Cooperation at the national level is of particular relevance to bringing about the changes required in education.
- Diverse efforts and expertise need to be coordinated and integrated in order to move forward together efficiently and effectively. There is a role for each actor, and each needs to recognize the validity and place of the others.
- The conclusions of the major international conferences concerned with sustainable development organized by the UN (the major UN conferences of the 1990s) and with environmental education by UNESCO (Tbilisi, Moscow in 1977 and 1987) remain valid for action in the future.

Issue 2: Reorienting formal education towards sustainability

- There is a need to reorient education towards sustainability. Adjustments or additions to existing educational systems will not be sufficient.
- Curricula need to be reappraised, as well as teaching modalities and methods of assessment. All three of these areas need to be modified as they are mutually supportive.
- There is need to work together - in contrast to the isolation of different disciplines in the past - in order to bring together the different elements inherent in the notion of education for sustainable development. Actors from the different streams need to help and complement one another.
- There is need for a holistic approach in curriculum planning and design. This is particularly important in order to integrate social and cultural aspects and in particular values and ethics.
- Education for sustainability should permeate the entire curriculum.
- Greater efforts are required to prepare teachers and teacher trainers.
- Non-formal education is as important as formal education.
- There needs to be greater commitment to the post-primary level of schooling.

Issue 3: Public awareness and understanding

- There is a real danger of environmental education and education for sustainability being perceived as a threat by the profit-seeking sector.
- There is a need to capture the widespread attention of the general public. The concept of sustainable development is not widely known or appreciated. Communication about sustainable development needs to be understandable to a general audience, and closely related to the local needs and interests of various groups in society.
- Where public awareness currently centers on economic development, a

holistic approach needs to be introduced in order to highlight the many other dimensions related to economic considerations. This point was reiterated by nearly all speakers.

- It is vital to stress the relationships between sustainability and the notions of partnership, poverty alleviation, and achieving greater equity in society including with regard to women, youth, and other groups.

Issue 4: Shifting to sustainable lifestyles: changing production and consumption patterns

- Many see the problems associated with sustainability as being due to the behaviour of others rather than themselves. People need to realize how individual behaviour contributes to both the creation of problems and their solution.
- An enormous challenge to governments is to utilize taxation and regulatory action to encourage change. It is vital that governments increasingly take action to support sustainable lifestyles.
- Communication strategies are critical.
- We need to "educate the heart as well as the head". The issues we are addressing are related as much to ethics and social justice as they are to scientific knowledge-based considerations. We should move towards the progressive internalization of new principles into our educational culture.

Issue 5: Investing in education; contributing to a sustainable future

- Governments and international, regional and national financial institutions, as well as the productive sectors should be encouraged to mobilize additional resources and increase investments in education and public awareness.
- An independent fund for education for sustainability needs to be considered. This fund would encourage contributions from the public at large, from business, and from governments. It would give high visibility to these issues.

Issue 6: Ethics, culture and equity in achieving sustainability

- The knowledge of indigenous populations and its enormous potential need to be recognized. Numerous examples of harmonious equilibrium of human and natural systems are provided by such people.
- The role of youth, particularly at the local level, needs to be recognized, and their contribution and participation facilitated.
- Children should be considered not only as recipients of education but also as actors. A two-way link between teachers and students needs to be created. Children should be given the opportunity to learn through concrete projects.
- Ethics, culture and equity are inseparable in any context. They may have different meanings in different societies, which need to be carefully considered in the educational process.
- There are certain dangers in some of the information made available to the public today. The question arises as to whether 'processed' information is ethical.
- Cultural and environmental protection needed to be linked.

Innovative Practices Forum

The emphasis on examples and sharing of experience had been stressed by the Commission on Sustainable Development in its decision to launch a work programme on chapter 36. The sharing of experiences and the exchange of views among those facing similar challenges were seen by the CSD as an important means to promote more effective and widespread action towards sustainability, which inevitably requires innovative ways of thinking and acting.

The Innovative Practices Forum which ran in parallel with the Issues Forum was an attempt to give high visibility and importance within the Conference to the review of examples of what was being done in different countries and in different aspects of education and public awareness related to sustainability. In all, 17 innovative practices were presented. They included examples related to primary and secondary education, higher education, teacher training, training of specialists, computer-assisted learning, public awareness campaigns, media projects, and public action initiatives.

A number of general points were raised during the ensuing discussions, including the following:

- Funding for education for sustainable development is a problem as funds in general are in short supply, and generally accorded only on completion of an activity rather than at its inception.
- It is an error to think that certain environmental solutions necessarily entail trade-offs or sacrifices.
- The infusion process has proved far more successful in informal than in formal educational settings.
- Education for sustainability should include environmental education.
- Projects need to be addressed to specific target groups.
- The examples presented demonstrate that the integrated approach described in the literature can be put into practice.

Workshops

Numerous workshops were held on a variety of topics within the following general areas:

- Networking/community and local action
- Ethics/concepts/principles
- Natural science, conservation and marine education
- Environmental education research and country overviews
- Tourism/teacher training/adult education.

At the conclusion of the Conference, participants adopted by consensus a declaration.

Outcomes

Thessaloniki Conference was seen as helping participants understand each other better, and understand the different conditions prevailing in countries and regions. The Conference was considered instrumental in strengthening the resolve of the participants to move forward with greater force, not only in their own actions but also in prompting others to become involved.

The Conference also made headway in clarifying the still emerging concept of education for sustainability, in response to the call by the CSD to UNESCO to take leadership in developing a common conceptual vision which would serve as a framework for concerted action. The complexity of the concept was apparent during the Conference, as well as the need to allow for diverse groups to come together despite the difficulties posed by traditional disciplinary and organizational barriers that had isolated these groups hitherto. Education for sustainability was seen as an indispensable instrument for achieving a sustainable future, touching on and integrating the notions of population, poverty, environmental degradation, democracy, human rights and peace, development and interdependence.

It was recognized that many lessons could be learned from the experience of environmental education in developing the broader notion of education for sustainability. In its brief twenty-five year history, environmental education had steadily striven towards goals and outcomes similar and comparable to those inherent in the concept of sustainability. For some, the term “environmental education” was virtually synonymous with the term “education for sustainability”. Others preferred other terminology better suited to their own local needs.

The Thessaloniki Conference affirmed the idea of EFS to achieve sustainability, one of the principal pillars being environmental education, in making individuals and the community understand the interrelated whole of environment. The conference reiterated, “it is clear that the roots of education for sustainable development are firmly planted in environmental education. While environmental education is not the only discipline with a strong role to play in the reorienting process, it is an important ally”

Declaration Of Thessaloniki

- 
1. *We, the participants from governmental, intergovernmental, non-governmental organizations (NGOs) and the civil society at large from 83 countries present at the International Conference on Environment and Society: Education and Public Awareness for Sustainability, organized in Thessaloniki by UNESCO and the Government of Greece, from 8 to 12 December 1997, unanimously adopt the following Declaration.*

We take note that:

2. *The recommendations and action plans of the Belgrade Conference on Environmental Education (1975), the Tbilisi Intergovernmental Conference on Environmental Education (1977), the Moscow Conference on*

- Environmental Education and Training (1987), and the Toronto World Congress for Education and Communication on Environment and Development (1992) are still valid and not fully explored.*
- 3. Insufficient progress has been made five years after the Earth Summit in Rio as it has been recognized by the international community.*
 - 4. The Thessaloniki Conference has benefited from the numerous international, regional and national meetings held during 1997 in India, Thailand, Canada, Mexico, Cuba, Brazil, Greece and the Mediterranean region inter alia.*
 - 5. The vision of education and public awareness has been further developed, enriched and reinforced by the major UN Conferences: on Environment and Development (Rio, 1992); Human Rights (Vienna, 1993); Population and Development (Cairo, 1994); Social Development (Copenhagen, 1995); Women (Beijing, 1995) and Human Settlements (Istanbul, 1996), as well as the nineteenth special session of the United Nations General Assembly (1997). The action plans of these conferences, as well as the special work programme of the UN Commission on Sustainable Development adopted in 1996, are to be implemented by national governments, civil society (including non-governmental organizations, youth, enterprises and the educational community), the United Nations system and other international organizations.*

We reaffirm that:

- 6. In order to achieve Sustainability, an enormous co-ordination and integration of efforts is required in a number of crucial sectors and rapid and radical change of behaviours and lifestyles, including changing consumption and production patterns. For this, appropriate education and public awareness should be recognised as one of the pillars of Sustainability together with legislation, economy and technology.*
- 7. Poverty makes the delivery of education and other social services more difficult and leads to population growth and environmental degradation. Poverty reduction is thus an essential goal and indispensable condition for sustainability.*
- 8. A collective learning process, partnerships, equal participation and continuous dialogue are required among governments, local authorities, academia, enterprises, consumers, NGOs, media and other actors in order to raise awareness, search for alternatives and change behaviours and lifestyles, including consumption and production patterns, towards sustainability.*
- 9. Education is an indispensable means to give to all women and men in the world the capacity to own their own lives, to exercise personal choice and responsibility, to learn throughout life without frontiers, be they geographical, political, cultural, religious, linguistic or gender.*
- 10. The reorientation of education as a whole towards sustainability involves all levels of formal, non-formal and informal education in all countries. The*

concept of sustainability encompasses not only environment but also poverty, population, health, food security, democracy, human rights and peace. Sustainability is, in the final analysis, a moral and ethical imperative in which cultural diversity and traditional knowledge need to be respected.

- 11. Environmental education, as developed within the framework of the Tbilisi recommendations and as it has evolved since then, addressing the entire range of global issues included in Agenda 21 and the major UN Conferences, has also been dealt with as education for sustainability. This allows that it may also be referred to as education for environment and sustainability.*
- 12. All subject areas, including the humanities and the social sciences, need to address issues related to environment and sustainable development. Addressing sustainability requires a holistic, interdisciplinary approach which brings together the different disciplines and institutions while retaining their distinct identities.*
- 13. While the basic content and action framework for environment and sustainability is largely in place, the translation of these parameters into action for education will need to take into account particular local, regional or national contexts. The reorientation of education as a whole called for in chapter 36 of Agenda 21 must involve not only the educational community, but also governments, financial institutions, and all other actors.*

We recommend that:

- 14. Governments and leaders around the world honour the commitments already made during the series of United Nations conferences, and give to education the necessary means to fulfil its role in achieving a sustainable future.*
- 15. Action plans for formal education for environment and sustainability with concrete targets and strategies for non-formal and informal education should be elaborated at national and local levels. Education should be an integral part of local Agenda 21 initiatives.*
- 16. National councils for sustainable development and other relevant bodies give education, public awareness and training a central role for action including better coordination among the relevant national ministries and other entities, including major groups.*
- 17. Governments and international, regional and national financial institutions, as well as the productive sector, be encouraged to mobilize additional resources and increase investments in education and public awareness. The establishment of special funds for education for sustainable development should be considered as a specific way to increase support and visibility.*
- 18. All actors reinvest a portion of the savings from the greening process into strengthening of environmental education, information, public awareness and training programmes.*
- 19. The scientific community play an active role in ensuring that the content of education and public awareness programmes is based on accurate, up-to-date information.*
- 20. The media be sensitized and invited to mobilize its know-how and*

distribution channels to diffuse the key messages, while helping to translate the complexity of the issues into meaningful and understandable information to the public. The full potential of new information systems should be used properly for this purpose.

- 21. Schools be encouraged and supported to adjust their curricula to meet the needs for a sustainable future.*
- 22. Non-governmental organizations be given adequate institutional and financial support in order to further mobilize people on issues of environment and sustainability, within communities and at national, regional and international levels.*
- 23. All actors - governments, major groups, the education community, the United Nations system and other international organizations, the international financial institutions, inter alia - contribute to the implementation of chapter 36 of Agenda 21, and in particular to the work programme on education, public awareness and training of the UN Commission on Sustainable Development.*
- 24. Special emphasis should be given to the strengthening and eventual reorientation of teacher training programmes and identification and sharing of innovative practices. Support should be given to research in interdisciplinary teaching methodologies and in assessing the impact of relevant educational programmes.*
- 25. The United Nations system, including UNESCO and UNEP, in cooperation with international NGOs, major groups and all other actors, continue to give priority to education, public awareness and training for sustainability, in particular at national and local level.*
- 26. A Thessaloniki International Award under the auspices of UNESCO be established to be given every second year for exemplary educational projects for environment and sustainability.*
- 27. An international conference be held in 2007, after ten years, in order to assess the implementation and the progress of the suggested educational process.*

We thank

- 28. The Government of Greece for having joined with UNESCO to organize the International Conference in Thessaloniki.*

We request

- 29. The Government of Greece to transmit the outcome of this Conference to the Commission on Sustainable Development at the Sixth Session in April 1998.*

UNESCO-EPD-97KONF.40/CLD.2, 12 December 1997, International Conference Environment and Society: Education and Public Awareness for Sustainability (Thessaloniki, 5-12 December 1997)
<http://www.whprp.org/ncseconference/2003conference/thessaloniki_declaration.pdf>



References

1. Jomtien - World Conference on Education for All (WCEFA)
<<http://www.nachhaltigkeit.at/monthly/2004-02/pdf/jomtien.pdf>>
2. IUCN/UNEP/WWF, (1991) *Caring for the Earth. A Strategy for Sustainable Living*, Gland, Switzerland, p.3
3. *Ibid.*, p.53
4. *Ibid.*, p.55
5. *Ibid.*, Foreword
6. Adams, W. M. (1998), *Green Development: Environment and Sustainability in the Third World*, Routledge, London.
7. <http://coombs.anu.edu.au/~vern/caring/caring.html>
8. Halpern, S. (1992) *United Nations Conference on Environment and Development: Process and documentation*, Academic Council for the United Nations System (ACUNS), Providence
<<http://www.ciesin.columbia.edu/docs/008-585/unced-intro>>
9. <http://www.un.org/esa/sustdev/csd/review.htm>
10. Gadotti, Moacir (1995), *RIO-92, AGENDA 21 AND ENVIRONMENTAL EDUCATION*, ICEAS'S Seventh World Conference Ambassador, Jomtien, Thailand 31 July - 4 August.
11. Engfeldt, Lars-Göran, *The Road from Stockholm to Johannesburg, Chronicle Essay*, *United Nations Chronicle Online Edition*, Volume XXXIX, Number 3 2002
<http://www.un.org/Pubs/chronicle/2002/issue3/0302p14_essay.html>
12. *The NGO Alternative Treaties (1993)*, *From the Global Forum at Rio de Janeiro*, June 1-15, 1992 <<http://habitat.igc.org/treaties>>
13. *World Congress for Education and Communication on Environment and Development (ECO-ED)*, 1992, Canada
<http://portal.unesco.org/education/en/ev.php-URL_ID=37611&URL_DO=DO_TOPIC&URL_SECTION=201.html>
14. Greene, George, *Caring for the earth. (Reports on the 1992 Earth Summit)*, (1994) *Environment*, Heldref Publications
<<http://www.encyclopedia.com/doc/1G1-15767322.html>>
15. Jacques Delors et al., (1996), *UNESCO, Learning: The Treasure Within, Report to UNESCO of the International Commission on Education for the Twenty-first Century*
<http://www.unesco.org/delors/delors_e.pdf>
16. UN Economic and Social Council (1997), *Report of the Secretary-General: Overall progress achieved since the United Nations Conference on Environment and Development, Addendum: Promoting education, public awareness and training.*
<<http://www.un.org/esa/documents/ecosoc/cn17/1997/ecn171997-2add26.htm>>

Milestones for the Millennium

In 1970 IUCN wrote the first international definition of environmental education with members of its international network of experts in the Commission on Education, as it was then called. 30 years later, the IUCN Commission on Education and Communication published the results of another seminal discussion, which considered the relationship between environmental education and education for sustainable development.

This discussion came about because Agenda 21, chapter 36 recommended that education be reoriented to include environment and development education. As part of its work plan on chapter 36, the Commission on Sustainable Development was seeking to clarify the concepts of education for sustainable development.¹ It was at the Pan European Expert Meeting on Sustainable Development and Environmental Education held in Soesterberg, the Netherlands, 27–29 January, 1999 that the stimulus arose to further discuss the concept of education for sustainable development (ESD). The idea was launched to organize a follow-up discussion on ESD with the use of information, communication technology (ICT). The idea caught on. As it was planning a next phase of its Program focused on 'learning for sustainability', the Dutch Interdepartmental Steering Group for Environmental Education supported further discussion of the issue.

2000

ESDebate

It was decided to initiate an internet-based debate on ESD. The discussion was given an identity as “ESDebate”. Selected participants were invited to join. Of the 70 invited participants, 50 participants from 25 countries registered for the debate. The discussions in the five rounds were moderated. Most of them participated in three or more rounds. Between 22 and 37 participants took part per round. The majority of participants had an academic and or environmental education background. ESDebate was not able to attract participation from experts involved in sustainable development nor the corporate and public sector.

There were mixed reactions to the concepts, process and outcomes of the ESDebate. The lessons from the initiative opened up the potential for drawing upon global knowledge and mobilizing large sectors of society for discussion on sustainability issues.

Based on the ESDebate the IUCN/CEC argued that education for sustainable development (ESD) was a stage in the evolution of environmental education and had a strong link with social, political and development education. The report of the Debate indicated that the focal point of environmental education was shifting towards ESD. The original meaning of environmental education included changes in behaviors, attitudes, knowledge, awareness, skills and participation. Over time, it gradually moved to include other aspects such as ecological, political, emotional and ethical diversity. Through this, environmental education progresses towards ESD where equity, justice, democracy, quality of life, human rights and environmental quality are achieved.²

The Earth Charter

In 1994, Maurice Strong (Chairman of the Earth Summit) and Mikhail Gorbachev, working through organizations they each founded (Earth Council and Green Cross International respectively), initiated the process towards a civil society initiative to evolve a charter, with the help of the Government of the Netherlands. The initial drafting and consultation process drew on hundreds of international documents.

The process was completed in March 2000 and launched as The *Earth Charter* in a special ceremony at The Peace Palace in The Hague, Netherlands, on 29 June 2000.

“The *Earth Charter* is a declaration of fundamental principles for building a just, sustainable, and peaceful global society for the 21st century. Created by the largest global consultation process ever associated with an international declaration, endorsed by thousands of organizations representing millions of people, the *Earth Charter* seeks to inspire a sense of global interdependence and shared responsibility for the well-being of the human family and the living world. The Charter is an expression of hope and a call to global partnership at this critical time in history.”³

The *Earth Charter* sets forth a concise formulation of the meaning of sustainable living and development. The Charter has been formally endorsed by thousands of organizations representing millions of people, including the UNESCO Conference of Member States, the World Conservation Union of IUCN, national government ministries, national and international associations of universities, and hundreds of cities and towns in dozens of countries. It has also been endorsed by tens of thousands of individuals, and publicly supported by numerous heads of state. It is an important ethical framework for SD, and a valuable teaching tool.



The Earth Charter: A Civil Society Call for Sustainability

Preamble

We stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.

General Principles

The Earth Charter urges environmental responsibility, peaceful coexistence, respect for life, democracy, and justice. It is organized into 16 general headings, each covering a general principle, as follows:

1. *Respect Earth and life in all its diversity.*
2. *Care for the community of life with understanding, compassion and love.*
3. *Build democratic societies that are just, participatory, sustainable and peaceful.*
4. *Secure Earth's bounty and beauty for present and future generations.*
5. *Protect and restore the integrity of Earth's ecological systems, with special concern for biological diversity and the natural processes that sustain life.*
6. *Prevent harm as the best method of environmental protection and, when knowledge is limited, apply a precautionary approach.*
7. *Adopt patterns of production, consumption and reproduction that safeguard Earth's regenerative capacities, human rights and community well being.*
8. *Advance the study of ecological sustainability and promote the open exchange and wide application of the knowledge acquired.*
9. *Eradicate poverty as an ethical, social and environmental imperative.*
10. *Ensure that economic activities and institutions at all levels promote human development in an equitable and sustainable manner.*
11. *Affirm gender equality and equity as prerequisites to sustainable development and ensure universal access to education, health care and economic opportunity.*
12. *Uphold the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health and spiritual well-being, with special attention to the rights of indigenous peoples and minorities.*
13. *Strengthen democratic institutions at all levels, and provide transparency and accountability in governance, inclusive participation in decision-making, and access to justice.*
14. *Integrate into formal education and lifelong learning the knowledge, values and skills needed for a sustainable way of life.*
15. *Treat all living beings with respect and consideration.*
16. *Promote a culture of tolerance, non-violence and peace.*

www.earthcharter.org



General Principle 14 of the Charter refers specifically to education for sustainability. In order to integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life, it emphasizes the need to:

- Provide all, especially children and youth, with educational opportunities that empower them to contribute actively to sustainable development.
- Promote the contribution of the arts and humanities as well as the sciences in sustainability education.
- Enhance the role of the mass media in raising awareness of ecological and social challenges.
- Recognize the importance of moral and spiritual education for sustainable living.

The *Earth Charter* is being adopted and used by educators around the world in a diversity of educational settings—schools, institutions of higher education, community and professional development. High school and university educators are finding the *Earth Charter* a useful resource to incorporate into courses dealing with themes such as ethics, environment, social justice, sustainable development, globalization, and international relations.

World Education Forum

Dakar'00

In 1990 the *World Conference for Education for All*, at Jomtien had pledged to strive toward primary education for every child and a massive reduction in adult illiteracy by the year 2000. As part of the mechanisms for the implementation of this objective, a Consultative Forum on Education for All was initiated. Part of its mandate was to periodically review the progress, and also a ten-year appraisal. The latter took the form of the World Education Forum which was held at Dakar from April 26-28, 2000.

The World Education Forum brought together some 1,100 participants from 164 countries, two heads of state (of Nigeria and Senegal), some 100 ministers of education, and several ministers of departments of international development. United Nations Secretary-General Kofi Annan and six other heads of UN agencies and the World Bank also attended the Forum, along with teachers and education policy-makers, over 100 NGOs, business leaders, donors, academics and grassroots education workers and journalists.

Although the participants in the Forum came from diverse backgrounds, they shared a common vision. They dreamed of a world in which everyone, child and adult alike, would command the basic literacy and numeracy skills needed to function as a citizen, worker, family member and fulfilled individual in the emerging global society. The purpose of the three-day gathering was to agree on a strategy to turn this vision of Education For All (EFA) into a reality.

The main purpose of the World Education Forum was to assess progress toward EFA since Jomtien, to analyse where and why the goal had remained elusive, and to renew commitments to turn this vision into a reality. For three days the participants presented data, debated strategies and listened to speakers ranging from students in developing countries to heads of state. In his keynote address, United Nations Secretary-General Kofi Annan announced a major new United Nations initiative to demonstrably narrow the gender gap in primary and secondary education by 2005. Leaders of several major donor organizations and delegates from several large donor countries also announced important new programmes.

At the final plenary session on April 28, Forum delegates adopted the *Dakar Framework for Action, Education for All: Meeting Our Collective Commitments*.

The Framework reaffirms the goal of EFA as laid out by Jomtien and other international conferences, commits participants to working toward specific educational goals by 2015 or earlier and affirms that 'no countries seriously committed to education for all will be thwarted in their achievement of this goal by a lack of resources.' It also calls for the developing or strengthening of national action plans and the reinforcing of national, regional and international mechanisms, built on existing national, regional and international structures, to co-ordinate global efforts and to accelerate progress towards EFA.⁴

“Education is a fundamental human right. It is the key to sustainable development and peace and stability within and among countries, and thus an indispensable means for effective participation in the societies and economies of the twenty-first century, which are affected by rapid globalization. Achieving EFA goals should be postponed no longer. The basic learning needs of all can and must be met as a matter of urgency.”

Point 6, The Dakar Framework for Action, Education for All: Meeting Our Collective Commitments, Dakar, Senegal, 26-28 April 2000.

EFA 2000 Assessment

The EFA 2000 Assessment was a key input to the World Education Forum, providing a comprehensive picture, solid facts, collected and analyzed at country level and subsequently synthesized by region.

The EFA 2000 Assessment was the most in-depth evaluation of basic education till date. Conducted in more than 180 countries, the Assessment took stock of the current status of basic education in each country and evaluated the progress that had been achieved during the 1990s since the World Conference on Education for All (Jomtien, Thailand, March 1990). Its goal? To generate vital information on all types of programmes, activities and services that aim to meet the basic learning needs of children, youth and adults. At the country level, it enabled governments and their partners to consider a comprehensive picture of their progress towards EFA goals and identify effective strategies for progress. At the international level, it provided the basis for dialogue and cooperation for years to come.

The EFA 2000 Assessment drew mainly on national assessment reports on how they were meeting the basic learning needs of their people. The worldwide review included also a dozen thematic studies on educational issues of global concern and some twenty country case studies on literacy and educational attainment of young people and adults. The thematic studies described best educational practices, as well as successful and unsuccessful experiments in policy implementation. Each study was sponsored by a development agency or a major NGO. Case studies were carried out by interested countries.

The Assessment showed that progress has been achieved, proving that Education for All was a realistic and achievable goal. But it also frankly acknowledged that progress had been uneven and far too slow. At the start of a new millennium, the EFA 2000 Assessment showed the following:

- *Of the more than 800 million children under six years of age, fewer than a third benefit from any form of early childhood education.*
- *Some 113 million children, 60 per cent of whom are girls, have no access to primary schooling.*
- *At least 880 million adults are illiterate, of whom the majority are women.⁵*

Millenium Development Goals

'00

As the 1900s drew to a close and the new century was about to dawn it was time to both look back and look ahead. In 1999 world leaders realized that none of their aims to reduce poverty and better the standard of living had been met. Realizing the gravity of the situation, world leaders from 189 countries worked to create a new set of aims for 2015.

In September 2000, the meeting of the U.N. General Assembly concluded on an historic note, with the adoption of the Millennium Declaration. The Declaration comprises eight areas:

(1) Value and Principles (2) Peace, Security and Disarmament (3) Development and Poverty Eradication (4) Environment (5) Human Rights Democracy and Good Governance (6) Protecting the Vulnerable (7) Special Needs of Africa and (8) Strengthening the UN Dakar Summit.

This Declaration collectively committed their governments to work to free the world of extreme poverty. Towards that end, it endorsed a set of International Millenium Development Goals (MDGs) for 2015.

Many of the MDGs grew out of the agreements and resolutions of world conferences organized by the United Nations in the 1990s. The MDGs focus the efforts of the world community on achieving significant, measurable improvements in people's lives. They establish yardsticks for measuring results, not just for developing countries but for rich countries that help to fund development programs and for the multilateral institutions that help countries implement them.

The eight MDGs adopted by 189 countries in the year 2000, form a blueprint to meet the needs of the world's poorest. The first seven goals are mutually reinforcing and are directed at reducing poverty in all its forms. The last goal—global partnership for development—is about the means to achieve the first seven.

MDG Targets and Indicators

Goals and targets	Indicators
Goal 1 Eradicate extreme poverty and hunger	
Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day	• Proportion of population below • Poverty gap ratio (incidence x depth of poverty) • Share of poorest quintile in national consumption
Halve, between 1990 and 2015, the proportion of people who suffer from hunger	• Prevalence of underweight in children (under five years of age) • Proportion of population below minimum level of dietary energy consumption
Goal 2 Achieve universal primary education	
Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	• Net enrollment ratio in primary education • Proportion of pupils starting grade 1 who reach grade 5 • Literacy rate of 15 to 24-year-olds

Goals and targets	Indicators
Goal 3 Promote gender equality and empower women	
Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015	- Ratio of girls to boys in primary, secondary, and tertiary education - Ratio of literate females to males among 15 to 24 year-olds - Share of women in wage employment in the non-agricultural sector - Proportion of seats held by women in national parliament
Goal 4 Reduce child mortality	
Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	- Under-five mortality rate - Infant mortality rate - Proportion of one-year-old children immunized against measles
Goal 5 Improve maternal health	
Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	- Maternal mortality ratio - Proportion of births attended by skilled health personnel
Goal 6 Combat HIV/AIDS, malaria, and other diseases	
Have halted by 2015 and begun to reverse the spread of HIV/AIDS	- HIV prevalence among 15 to 24 year-old pregnant women - Contraceptive prevalence rate - Number of children orphaned by HIV/AIDS - Prevalence and death rates associated with malaria - Proportion of population in malaria-risk areas using effective malaria - Prevention and treatment measures - Prevalence and death rates associated with tuberculosis - Proportion of TB cases detected and cured under DOTS
Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	
Goal 7 Ensure environmental sustainability	
Integrate the principles of sustainable development into country policies and program and reverse the loss of environmental resources	- Change in land area covered by forest - Land area protected to maintain biological diversity - GDP per unit of energy use - Carbon dioxide emissions (per capita) - Proportion of population with sustainable access to an improved water source - Proportion of population with access to improved sanitation - Proportion of population with access to secure tenure [Urban/rural disaggregation of several of the above indicators may be relevant for monitoring improvement in the lives of slum dwellers]
Halve, by 2015, the proportion of people without sustainable access to safe drinking water	
Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers	
Goal 8 Develop a global partnership for development	
Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction—both nationally and internationally)	Some of the indicators listed below will be monitored separately for the least developed countries, Africa, landlocked countries, and small island developing states.

Towards Rio+10

Despite ongoing efforts since the Stockholm Conference in 1972 to protect the environment and natural resources, the United Nations General Assembly (UNGA) expressed concern about continuing deterioration.

The concern was also reflected in the document Global Environmental Outlook (GEO-2000) released by UNEP in 1999, which gave an ominous warning of the future that lay ahead for the global community. The Report took stock of the situation:

"The world water cycle seems unlikely to be able to cope with demands in the coming decades, land degradation has negated many advances made by increased agricultural productivity, air pollution is at crisis point in many major cities and global warming now seems inevitable... Tropical forests and marine fisheries have been over-exploited while numerous plant and animal species and extensive stretches of coral reefs will be lost forever... The continued poverty of the majority of the planet's inhabitants and excessive consumption by the minority are the two major causes of environmental degradation. The present course is unsustainable and postponing action is no longer an option".

In December 2000, the United Nations General Assembly passed a resolution to organize the ten-year review of progress achieved in the implementation of the outcome of the United Nations Conference on Environment and Development or the Rio Conference that was held in 1992. The review was scheduled for 2002.

It was planned to convene a summit to reinvigorate the global commitment to sustainable development. This was to be called the *World Summit on Sustainable Development*. South Africa offered to host the event.

The Resolution confirmed that the Summit *"should focus on the identification of accomplishments and areas where further efforts are needed to implement Agenda 21 and other outcomes of the United Nations Conference on Environment and Development and should focus on action-oriented decisions in areas where further efforts are needed to implement Agenda 21; address, within the framework of Agenda 21, new challenges and opportunities, and result in renewed political commitment and support for sustainable development, consistent, inter alia, with the principle of common but differentiated responsibilities"*. (A/RES/55/199)

Besides being a symbolic event it was felt that the Rio+10 meeting would provide the global community with an opportunity to critically assess the importance of international environmental political agreements and their benefits, success or impacts – positive and negative – at a national, provincial and local levels.

The Challenge

The challenge for 2002 Ten-Year review was to ensure that the development agenda was placed squarely at the centre of debate, with a serious focus on poverty and the related issues. The challenge to better integrate the environment and development dimensions was important not just for the sake of promoting a more accurate conception of sustainable development. It was also essential to restore legitimacy to the international process in the eyes of the South. The immediate question for governments, the private sector and civil society as a whole was whether this would be another environment conference wrapped up in development paper or whether it would also address the other issues of sustainable development, poverty in all its dimensions, a lack of livelihoods, limited access to health care and debilitating debt.⁶

The World Summit on Sustainable Development

The World Summit on Sustainable Development (WSSD) met from 26 August to 4 September 2002, at the Sandton Convention Centre in Johannesburg, South Africa. The conference theme was *People, Planet and Prosperity*. The WSSD's goal, according to UN General Assembly [(UNGA) Resolution 55/199] was to hold a ten-year review of the 1992 UN Conference on Environment and Development (UNCED) at the Summit level to reinvigorate global commitment to sustainable development.

The WSSD gathered 21,340 participants from 191 governments, intergovernmental and non-governmental organizations, the private sector, civil society, academia and the scientific community.

The Process

WSSD involved seven thematic Partnership Plenaries, statements by non-State entities, addresses by Heads of State and Government and other senior officials, four high-level Round Tables on the theme "Making It Happen," and a multi-stakeholder event.

From 26-29 August, Partnership Plenaries were convened to address the "WEHAB" issues (Water and sanitation, Energy, Health and environment, Agriculture, and Biodiversity and ecosystem management), cross-sectoral issues and regional implementation.

Four Round Tables took place from 2-4 September under the theme "Making It Happen," ensuring fulfillment of Agenda 21, the Rio conventions, the UN Millennium Summit and the WSSD commitments.

During the Round Tables, Heads of State and Government, other officials and representatives of major groups shared perspectives on sustainable development priorities, described domestic programmes, and announced or recommended new international initiatives.

The closing Plenary met on the afternoon of 4 September for a multi-stakeholder event, the adoption of the *Plan of Implementation* and the *Johannesburg Declaration on Sustainable Development*, and the official closure of the WSSD.

The World Summit was actually a huge happening of countless events, pre-conferences and workshops in and around Johannesburg, South Africa. The three main hubs of activity were the official UN summit, where delegations and governments met to deliberate on the political declaration, the plan of implementation and the partnership agreements; the Global Peoples Forum and other events such as the Peoples Earth Summit, where Civil Society gathered to exchange ideas, develop common perspectives and positions and make their concerns heard all over the world; and the Ubuntu Village, where governments and businesses exposed best practice examples in a colourful exhibition on sustainable development and held workshops and conferences.⁷

WSSD Outcomes

The Summit adopted two key Resolutions:

Resolution 1: Political Declaration which was called Johannesburg Declaration on Sustainable Development;

Resolution 2: Plan of Implementation of the WSSD or the Johannesburg Plan of Implementation (JPOI).



Johannesburg Declaration on Sustainable Development

From our origins to the future

- 1. We, the representatives of the peoples of the world, assembled at the World Summit on Sustainable Development in Johannesburg, South Africa, from 2 to 4 September 2002, reaffirm our commitment to sustainable development.*
- 2. We commit ourselves to building a humane, equitable and caring global society, cognizant of the need for human dignity for all.*
- 3. At the beginning of this Summit, the children of the world spoke to us in a simple yet clear voice that the future belongs to them, and accordingly challenged all of us to ensure that through our actions they will inherit a world free of the indignity and indecency occasioned by poverty, environmental degradation and patterns of unsustainable development.*
- 4. As part of our response to these children, who represent our collective future, all of us, coming from every corner of the world, informed by different life experiences, are united and moved by a deeply felt sense that we urgently need to create a new and brighter world of hope.*
- 5. Accordingly, we assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development—economic development, social development and environmental protection—at the local, national, regional and global levels.*

6. *From this continent, the cradle of humanity, we declare, through the Plan of Implementation of the World Summit on Sustainable Development and the present Declaration, our responsibility to one another, to the greater community of life and to our children.*
7. *Recognizing that humankind is at a crossroads, we have united in a common resolve to make a determined effort to respond positively to the need to produce a practical and visible plan to bring about poverty eradication and human development.*

From Stockholm to Rio de Janeiro to Johannesburg

8. *Thirty years ago, in Stockholm, we agreed on the urgent need to respond to the problem of environmental deterioration. Ten years ago, at the United Nations Conference on Environment and Development, held in Rio de Janeiro, we agreed that the protection of the environment and social and economic development are fundamental to sustainable development, based on the Rio Principles. To achieve such development, we adopted the global programme entitled Agenda 21 and the Rio Declaration on Environment and Development, to which we reaffirm our commitment. The Rio Conference was a significant milestone that set a new agenda for sustainable development.*
9. *Between Rio and Johannesburg, the world's nations have met in several major conferences under the auspices of the United Nations, including the International Conference on Financing for Development, as well as the Doha Ministerial Conference. These conferences defined for the world a comprehensive vision for the future of humanity.*
10. *At the Johannesburg Summit, we have achieved much in bringing together a rich tapestry of peoples and views in a constructive search for a common path towards a world that respects and implements the vision of sustainable development. The Johannesburg Summit has also confirmed that significant progress has been made towards achieving a global consensus and partnership among all the people of our planet.*

The challenges we face

11. *We recognize that poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development are overarching objectives of and essential requirements for sustainable development.*
12. *The deep fault line that divides human society between the rich and the poor and the ever-increasing gap between the developed and developing worlds pose a major threat to global prosperity, security and stability.*

13. *The global environment continues to suffer. Loss of biodiversity continues, fish stocks continue to be depleted, desertification claims more and more fertile land, the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating, and developing countries more vulnerable, and air, water and marine pollution continue to rob millions of a decent life.*
14. *Globalization has added a new dimension to these challenges. The rapid integration of markets, mobility of capital and significant increases in investment flows around the world have opened new challenges and opportunities for the pursuit of sustainable development. But the benefits and costs of globalization are unevenly distributed, with developing countries facing special difficulties in meeting this challenge.*
15. *We risk the entrenchment of these global disparities and unless we act in a manner that fundamentally changes their lives, the poor of the world may lose confidence in their representatives and the democratic systems to which we remain committed, seeing their representatives as nothing more than sounding brass or tinkling cymbals.*

Our commitment to sustainable development

16. *We are determined to ensure that our rich diversity, which is our collective strength, will be used for constructive partnership for change and for the achievement of the common goal of sustainable development.*
17. *Recognizing the importance of building human solidarity, we urge the promotion of dialogue and cooperation among the world's civilizations and peoples, irrespective of race, disabilities, religion, language, culture or tradition.*
18. *We welcome the focus of the Johannesburg Summit on the indivisibility of human dignity and are resolved, through decisions on targets, timetables and partnerships, to speedily increase access to such basic requirements as clean water, sanitation, adequate shelter, energy, health care, food security and the protection of biodiversity. At the same time, we will work together to help one another gain access to financial resources, benefit from the opening of markets, ensure capacity-building, use modern technology to bring about development and make sure that there is technology transfer, human resource development, education and training to banish underdevelopment forever.*

19. *We reaffirm our pledge to place particular focus on, and give priority attention to, the fight against the worldwide conditions that pose severe threats to the sustainable development of our people, which include: chronic hunger; malnutrition; foreign occupation; armed conflict; illicit drug problems; organized crime; corruption; natural disasters; illicit arms trafficking; trafficking in persons; terrorism; intolerance and incitement to racial, ethnic, religious and other hatreds; xenophobia; and endemic, communicable and chronic diseases, in particular HIV/AIDS, malaria and tuberculosis.*
20. *We are committed to ensuring that women's empowerment, emancipation and gender equality are integrated in all the activities encompassed within Agenda 21, the Millennium Development Goals and the Plan of Implementation of the Summit.*
21. *We recognize the reality that global society has the means and is endowed with the resources to address the challenges of poverty eradication and sustainable development confronting all humanity. Together, we will take extra steps to ensure that these available resources are used to the benefit of humanity.*
22. *In this regard, to contribute to the achievement of our development goals and targets, we urge developed countries that have not done so to make concrete efforts reach the internationally agreed levels of official development assistance.*
23. *We welcome and support the emergence of stronger regional groupings and alliances, such as the New Partnership for Africa's Development, to promote regional cooperation, improved international cooperation and sustainable development.*
24. *We shall continue to pay special attention to the developmental needs of small island developing States and the least developed countries.*
25. *We reaffirm the vital role of the indigenous peoples in sustainable development.*
26. *We recognize that sustainable development requires a long-term perspective and broad-based participation in policy formulation, decision-making and implementation at all levels. As social partners, we will continue to work for stable partnerships with all major groups, respecting the independent, important roles of each of them.*
27. *We agree that in pursuit of its legitimate activities the private sector, including both large and small companies, has a duty to contribute to the evolution of equitable and sustainable communities and societies.*

28. *We also agree to provide assistance to increase income-generating employment opportunities, taking into account the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization.*
29. *We agree that there is a need for private sector corporations to enforce corporate accountability, which should take place within a transparent and stable regulatory environment.*
30. *We undertake to strengthen and improve governance at all levels for the effective implementation of Agenda 21, the Millennium development goals and the Plan of Implementation of the Summit.*

Multilateralism is the future

31. *To achieve our goals of sustainable development, we need more effective, democratic and accountable international and multilateral institutions.*
32. *We reaffirm our commitment to the principles and purposes of the Charter of the United Nations and international law, as well as to the strengthening of multilateralism. We support the leadership role of the United Nations as the most universal and representative organization in the world, which is best placed to promote sustainable development.*
33. *We further commit ourselves to monitor progress at regular intervals towards the achievement of our sustainable development goals and objectives.*

Making it happen!

34. *We are in agreement that this must be an inclusive process, involving all the major groups and Governments that participated in the historic Johannesburg Summit.*
35. *We commit ourselves to act together, united by a common determination to save our planet, promote human development and achieve universal prosperity and peace.*
36. *We commit ourselves to the Plan of Implementation of the World Summit on Sustainable Development and to expediting the achievement of the time-bound, socio-economic and environmental targets contained therein.*
37. *From the African continent, the cradle of humankind, we solemnly pledge to the peoples of the world and the generations that will surely inherit this Earth that we are determined to ensure that our collective hope for sustainable development is realized.*

WSSD Political Declaration,
<http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm>

”

Plan of Implementation of the World Summit on Sustainable Development

The *Plan of Implementation* is designed as a framework for action to implement the commitments originally agreed at UNCED and includes eleven chapters: an introduction; poverty eradication; consumption and production; the natural resource base; health; small island developing States (SIDS); Africa; other regional initiatives; means of implementation; and institutional framework.



Some Excerpts

Introduction

1. *The United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, provided the fundamental principles and the programme of action for achieving sustainable development. We strongly reaffirm our commitment to the Rio principles, the full implementation of Agenda 21 and the Programme for the Further Implementation of Agenda 21. We also commit ourselves to achieving the internationally agreed development goals, including those contained in the United Nations Millennium Declarations and in the outcomes of the major United Nations conferences and international agreements since 1992.*
2. *The present plan of implementation will further build on the achievements made since the United Nations Conference on Environment and Development and expedite the realization of the remaining goals. To this end, we commit ourselves to undertaking concrete actions and measures at all levels and to enhancing international cooperation, taking into account the Rio principles, including, inter alia, the principle of common but differentiated responsibilities as set out in principle 7 of the Rio Declaration on Environment and Development. These efforts will also promote the integration of the three components of sustainable development—economic development, social development and environmental protection—as interdependent and mutually reinforcing pillars. Poverty eradication, changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development are overarching objectives of, and essential requirements for, sustainable development.*
3. *We recognize that the implementation of the outcomes of the Summit should benefit all, particularly women, youth, children and vulnerable groups. Furthermore, the implementation should involve all relevant actors through partnerships, especially between Governments of the North and South, on the one hand, and between Governments and major groups, on the other, to achieve the widely shared goals of sustainable development. As reflected in the Monterrey Consensus, such partnerships are key to pursuing sustainable development in a globalizing world.*
4. *Good governance within each country and at the international level is essential for sustainable development. At the domestic level, sound environmental, social and economic policies, democratic institutions responsive to the needs of the people, the rule of law, anti-corruption measures, gender equality and an enabling environment for investment are*

the basis for sustainable development. As a result of globalization, external factors have become critical in determining the success or failure of developing countries in their national efforts. The gap between developed and developing countries points to the continued need for a dynamic and enabling international economic environment supportive of international cooperation, particularly in the areas of finance, technology transfer, debt and trade and full and effective participation of developing countries in global decision-making, if the momentum for global progress towards sustainable development is to be maintained and increased.

- 5. Peace, security, stability and respect for human rights and fundamental freedoms, including the right to development, as well as respect for cultural diversity, are essential for achieving sustainable development and ensuring that sustainable development benefits all.*
- 6. We acknowledge the importance of ethics for sustainable development and, therefore, emphasize the need to consider ethics in the implementation of Agenda 21.*

Education and Awareness

Section X, of the Johannesburg Plan of Implementation (JPOI) adopted by WSSD reaffirmed both the Millennium Declaration goal of achieving universal primary education by 2015 and the goal of the Dakar Framework for Action on Education for All to eliminate gender disparity in primary and secondary education by 2005 and at all levels of education by 2015. The JPOI addressed the need to integrate sustainable development into formal education at all levels, as well as through informal and non-formal education opportunities

Education is critical for promoting sustainable development. It is therefore essential to mobilize necessary resources, including financial resources at all levels, by bilateral and multilateral donors, including the World Bank and the regional development banks, by civil society and by foundations, to complement the efforts by national governments to pursue the following goals and actions:

- (a) Meet the Millennium Development Goal of achieving universal primary education, ensuring that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling;*
- (b) Provide all children, particularly those living in rural areas and those living in poverty, especially girls, with the access and opportunity to complete a full course of primary education.*

*Plan of Implementation of the World Summit on Sustainable Development,
<http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf>*

”

Beyond the "Official"

Besides the official negotiations and documents, the participation, the agenda and processes at WSSD were indicators of the developments since Rio, especially the evolution of the SD agenda. The most obvious was the greater integration of "the three pillars of sustainable development." Social and economic needs were as much on the agenda in Johannesburg as the environment, which was the predominant theme in Rio.

This improved integration was apparent in nearly every discussion, including the calls for increased synergy among the Rio conventions and the attention to concurrent UN processes on financing and social development issues (Monterrey, the Millennium Development Goals and the other world conferences).

From the non-State perspective, the participation of women, youth, NGOs, parliamentarians, unions, local authorities, scientists and other stakeholders was greater in the meeting halls than it was in Rio, where many key groups were almost exclusively involved outside the negotiation sessions. Combined with the activities of these groups outside the convention halls, the various alternative venues around Johannesburg showed a range of innovative and non-negotiated visions of sustainable development. Another group whose participation had significantly increased was business. The private sector's understanding of the need for sustainable development, the conference organizers' recognition of business and industry's key role in it, and the business community's involvement in and funding of numerous partnerships were new and largely welcome developments.

The fact that the Summit was held in Africa was also significant. It afforded the opportunity to highlight the particularly severe social, economic and environmental problems on the continent, including the current and future impact of HIV/AIDS, desertification, food security and other critical problems.⁸

UN Literacy Decade

The United Nations General Assembly adopted unanimously in a resolution of December 2001 to declare 2003-2012 as The United Nations Literacy Decade.

Recognising that the promotion of literacy is in the interest of all, as part of efforts towards peace, respect and exchange in a globalising world, and also that large numbers of adults as well as children still do not have the opportunity to read and write. The United Nations Literacy Decade (2003-2012) aims to extend the use of literacy to those who do not currently have access to it. Over 861 million adults are in that position, and over 113 million children are not in school and therefore not gaining access to literacy either. The Decade will focus on the needs of adults with the goal that people everywhere should be able to use literacy to communicate within their own community, in the wider society and beyond. Literacy efforts have so far failed to reach the poorest and most marginalised groups of people—the Decade will particularly address such populations, under the banner of *Literacy for all: voice for all, learning for all*.

'03-'12

The Literacy Decade is also part of broader international work in education and development. The Education for All (EFA) goal of increasing literacy rates by 50% by 2015 provides the overall target for the Decade, and the Millennium Development Goals (MDG) set the Decade in the context of poverty reduction. Literacy promotion is at the heart of both EFA and MDG goals.

Decade of Education for Sustainable Development: The Genesis

On 11 December 2002 Japan time (New York time: 10 December), the draft resolution on the "United Nations Decade of Education for Sustainable Development (DESD)," proposed by Japan, was adopted at the Second Committee of the ongoing 57th Session of the United Nations General Assembly.

As a result of Japan's efforts to call for other countries to participate in this draft resolution, it was co-sponsored by approximately 40 countries and was adopted by consensus with wide support from both developing and developed countries. This draft resolution was adopted as a General Assembly resolution in the course of December 2002.

Taking into account the proposal of Japanese nongovernmental organizations (NGOs), the Government of Japan proposed to include the "United Nations Decade of Education for Sustainable Development" in the Plan of Implementation, which was adopted at the World Summit on Sustainable Development (WSSD) held from 26 August to 4 September 2002 in Johannesburg.

'02

“

UN Resolution on DESD 2005-2015

Fifty-seventh session

Second Committee

Agenda item 87 (a)

Environment and sustainable development: implementation of Agenda 21 and the Programme for the Further Implementation of Agenda 21

United Nations Decade of Education for Sustainable Development

The General Assembly,

- *Recalling Chapter 36 of Agenda 21, on promoting education, public awareness and training, adopted at the United Nations Conference on Environment and Development, held in Rio de Janeiro, Brazil in 1992,*
- *Reaffirming the internationally agreed development goal of achieving universal primary education, in particular that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling,*
- *Appreciating the contribution made by the Commission on Sustainable Development to the issue of education for sustainable development since the United Nations Conference on Environment and Development,*

- *Welcoming the fact that the Plan of Implementation adopted by the World Summit on Sustainable Development confirmed the importance of education for sustainable development and recommended that the General Assembly consider adopting a decade of education for sustainable development starting in 2005,*

Emphasizing that education is an indispensable element for achieving sustainable development,

1. *Decides to proclaim the ten-year period beginning on 1 January 2005 the United Nations Decade of Education for Sustainable Development;*
2. *Designates the United Nations Educational, Scientific and Cultural Organization as the lead agency for the promotion of the Decade of Education for Sustainable Development and request it to develop a draft international implementation scheme, clarifying its relationship with the existing educational processes, in particular the Dakar Framework for Action adopted at the World Education Forum and the United Nations Literacy Decade, in consultation with the United Nations and other relevant international organizations, Governments, non-governmental organizations and other stakeholders, with a view to providing recommendations for Governments on how to promote and improve the integration of education for sustainable development in their respective educational strategies and action plans at the appropriate level;*
3. *Invites Governments to consider the inclusion of measures to implement the United Nations Decade of Education for Sustainable Development in their respective educational strategies and action plans by 2005, taking into account the international implementation scheme to be prepared by the United Nations Educational, Scientific and Cultural Organization;*
4. *Decides to include in the provisional agenda of its fifty-eighth session the item entitled "United Nations Decade of Education for Sustainable Development."*

<http://www.mofa.go.jp/policy/culture/education0212-2.html>

”

Learning to Change Our World: The Göteborg Consultation on Education for Sustainable Development

The implementation plan from the WSSD reemphasized that education is vital for SD and that SD should be integrated into education systems at all levels as a key agent for change.

It was the WSSD in 2003 that the Swedish Prime Minister Göran Persson announced his intention to hold an international consultation in Sweden for SD. Following two years of preparatory activities, the consultation was held at Göteborg from 4-7 May 2004.

Reflect-Rethink-Reform

This was the motto under which the Göteborg Consultation met. The deliberations included 350 participants from more than 70 countries, representing a diversity of geography, cultures and professions. They represented all modes and levels of education from pre-school learning to Universities, adult education and vocational education, governmental, intergovernmental and non-governmental organizations engaged in training or learning for SD.

This was an unofficial event involving intense dialogue and sharing of views and experiences. It did not result in a declaration or set of recommendations. However the consultation addressed several issues with reference to education for SD, starting with the fact that there was lack of clarity about the concept of SD itself, and exploring desirable reforms and prescriptions towards making education for SD a live, integrated component at all levels of policy and implementation.

The consultation concluded with the acceptance that in the coming decade decisive changes needed to be made in education systems from pre-school to University level, in order to achieve learning for SD in all societies around the world.



Synthesis of the Göteborg Deliberations

5.1.1 Conceptual predicament

It is striking that there is no consensus on what learning for sustainable development is:

- *It is difficult to distinguish "learning for sustainable development" and "sustainable development". The "how" and "what" of learning are inseparable aspects.*
- *There is a lack of understanding of learning for sustainable development at all levels; among politicians, business leaders, educational leaders, university staff—among people in general, young and old, experts and laymen alike. Sustainable development is a political concept which lacks a precise definition.*
- *The concept of sustainable development has not resolved the relative weights of environmental, economic and social factors, where different stakeholders are likely to put the emphasis on different dimensions*

5.1.2 Pragmatic escape

Notwithstanding conceptual ambiguities, a broad international coalition is emerging and work continues on a pragmatic basis:

- *Sustainable development, accordingly, is not a crystal clear concept. This need not necessarily be a major problem. There is a sense of direction. A discussion about the contents is part of the process. It is more about process than a definite goal. Learning for sustainable development should not aim at immediate understanding of sustainable development, since such understanding does not exist, but rather at starting a process in search of understanding. This may be achieved by highlighting and examining the contradictions that exist and demonstrating that different types of behaviour, decisions, ways of life in one limited area affect many other areas, perhaps all. In addition, showing interdependence between the local and the global level.*
- *Experience and the activity of the participants demonstrate that there are numerous ways of working towards the goal of learning for sustainable development.*

5.1.3 Obstacles

A number of obstacles standing in the way of learning for sustainable development were raised, such as:

- *The organisation of knowledge into disciplines or scientific areas maintained and guarded by schools and universities constitutes a significant and serious obstacle to understanding sustainable development. Universities are in charge of certain key professional education (e.g. medical doctors, engineers) which produces students who essentially move within one scientific paradigm. Sustainable development is a genuinely cross-disciplinary concept, while the education system is mono-disciplinary.*
- *Other obstacles are lack of leadership, lack of economic resources, attitudes, culture, institutions, and short-term thinking among decision-makers, while learning for sustainable development is long-term.*

5.1.4 Educational reform

For obvious reasons, one focal point of the suggestions made was educational reform:

- *The education system must be reformed. The structure must become more cross-disciplinary. Teachers from different disciplines must learn to cooperate better.*
- *Teachers must be trained in education for sustainable development.*
- *Learning for sustainable development must not shy away from contradictions and complexity.*
- *Decision-makers, teachers and students must cooperate in bringing about change.*
- *Follow-up systems should be developed.*
- *Politicians must also be educated in sustainable development.*
- *Education for sustainable development must be integrated into curricula, not as a new subject but as new perspective and quality in all education.*

- *Participants illustrated positive phenomena such as cross-disciplinary courses, multi-stakeholder projects and creative reflective thinking in the classroom, all of which should be made good use of.*
- *Important approaches are networks between decision-makers and practitioners with diverse interests, joint projects. Good examples should be highlighted and followed.*
- *Informal learning should be encouraged. The concept of lifelong learning is crucial.*
- *The Education for All process and the Education for Sustainable Development process supplement and should mutually reinforce each other.*
- *Universities must use their traditional freedom of education and research in order to give a forceful impetus to achieving learning for sustainable development in all parts of the world.*

5.1.5 Policy prescription

Other suggestions were more broadly conceived or policy oriented:

- *There is need for a more elaborate vision of sustainable development.*
- *Learning for sustainable development can contribute to preventing war, to eradicating poverty and disease, to achieving justice and equality. It is vital that politicians demonstrate that they are trying to attain this. Politicians must take responsibility for closing the gap between words and action.*
- *It is necessary to identify problems and rank obstacles in order to achieve sustainable development.*
- *Politicians have a great responsibility. Politicians must ensure that fora for cooperation between different stakeholders are available. Politicians at all levels must assure the preconditions for learning for sustainable development through legislative support, adequate economic resources and follow-up of decisions taken.*
- *UNESCO must take the United Nations Decade of Education for Sustainable Development seriously, for example by creating a support system for learning for sustainable development, theme days, a website, regional conferences. Reference curricula should be elaborated.*
- *A social contract involving cooperation between government, business and the education sector may be a precondition for achieving learning for sustainable development.*
- *Governments should develop national strategies for education for sustainable development, stimulate testing grounds, encourage front-runners that may set a good example and inspire others to follow suit in various sectors.*

Learning to Change Our World, Report of International Consultation on Education for Sustainable Development, Göteborg, Sweden, 4-7 May 2004.



Four Initiatives Working Together for Education

Since 2000, four initiatives have been launched by governments of the world, together with the agencies of the United Nations. All of these focus on education in one way or another. These are:

- The Millennium Development Goals (MDGs) with a target date of 2015
- Education for All (EFA) with a target date of 2015
- The United Nation's Literacy Decade (UNLD) from 2003-2012
- The United Nations Decade of Education for Sustainable Development (DESD) from 2005-2014

Each of the initiatives was set up for a specific purpose.

- The MDGs provide a set of clear development goals that we can measure, and education is a significant input and indicator;
- EFA focuses on ways of ensuring that everyone has an opportunity to have a quality basic education;
- UNLD concentrates on promoting literacy as a key tool for all kinds of learning;
- DESD promotes a set of basic values, processes and behaviours which should be part of learning in all circumstances.

Although they are different in significant respects, the four initiatives share common values and ideas, as well as goals and target dates.

The aspects common to all four initiatives are:

- a concern to improve the quality of life: all of them aim to reduce poverty and to improve health;
- the promotion of human rights: all of them see education as a right, and they aim to increase the equality of women and men, as well as advance the human rights of all, particularly minorities and other marginalised communities;
- a commitment to education: all believe education is a key to development, as a way of enabling people to fulfil their potential and take increasing control over decisions that affect them. The MDGs and DESD focus on broader purposes beyond education, whereas the purposes of EFA and UNLD are about making sure that basic education, and literacy within that, is available to all;
- primary education: all four recognise that primary education plays an important foundational role in development.
- the participation of everyone in education and development: all of the initiatives call not only for governments to play their role, but also nongovernmental organisations, civil society, the private sector, communities and individuals.

In addition, some of the initiatives share the following aspects:

- a focus on the quality of education: EFA and DESD place emphasis on the quality of learning, both what students learn and how they learn it;
- non-formal learning: EFA, DESD and UNLD emphasise the non-formal learning that goes on outside the school system, as well as school itself. The MDGs only talk about schooling.
- literacy: UNLD and EFA both place a focus on literacy as a key part of learning and education; UNLD reinforces EFA and DESD because literacy is essential for meeting the other goals.

There are also significant differences:

- The eight goals and eighteen targets of the Millennium Development Goals provide a framework for international development cooperation. Both developing and industrialised countries have committed themselves to the MDGs, and the focus is on tackling poverty in its many aspects. Provision of primary education, and gender equality in education are the two areas where the MDGs overlap with the EFA agenda. Other aspects of education, such as literacy, quality, or non-formal education, are not an explicit part of the MDGs.
- The six EFA goals are concerned with extending basic education to every child and adult—it should be available to both females and males, to learners of all ages, offering relevant learning and life skills and striving to increase quality. Basic education should have a positive impact on the quality of life and on poverty, but the goals do not specify the underlying purposes of education.
- The UNLD situates itself within the EFA movement, where literacy is a thread running through all the six goals and a condition for their attainment. Literacy is a key instrument of learning and must be part of all forms and stages of education. In some respects, the UNLD goes beyond education, by demonstrating strategic links to other aspects of life—learning and using literacy has an impact on mother and child health, on fertility rates, on income levels, as well as increasing self-confidence, initiative, participatory citizenship and cultural self-esteem.
- What sets DESD apart from EFA and UNLD is that EFA and UNLD, by virtue of their mission to ensure the right to education for all, address the needs of all learners—in particular those who are excluded from quality basic education—whereas DESD addresses the relevance and necessity of education for sustainable development for all, whether they are within or outside of planned learning activities. All people have to live in a sustainable manner keeping the global situation in mind. In many ways those who are in privileged positions in societies where consumerism dominates have the most to learn and put into practice about sustainable development.⁹

References

1. Hesselink, F., van Kempen, P.P., Wals, A., editors (2000), *ESDebate International debate on education for sustainable development*, IUCN, Gland, Switzerland and Cambridge.
2. *Ibid.*
3. <http://www.earthcharter.org/>
4. UNESCO (2000), *Report: The Dakar Framework for Action, Education for All: Meeting our Collective Commitments*
<<http://unesdoc.unesco.org/images/0012/001211/121147e.pdf>>
5. EFA 2000 Assessment
<http://portal.unesco.org/education/en/ev.php-URL_ID=17457&URL_DO=DO_TOPIC&URL_SECTION=201.html>
6. South Africa NGO caucus on WSSD (2001) *Towards the WSSD, Johannesburg, South Africa, 2002: A discussion paper*, Heinrich Boell Foundation.
7. <http://www.worldsummit2002.org/index.htm>
8. *Earth Negotiations Bulletin* (2002) Vol. 22 No. 51 SUMMARY OF THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT: 26 AUGUST – 4 SEPTEMBER 2002
< <http://www.iisd.ca/vol22/enb2251e.html> >
9. UNESCO (2005) *Links between the Global Initiatives in Education, Education for Sustainable Development in Action*
<<http://unesdoc.unesco.org/images/0014/001408/140848m.pdf>>

A Dedicated Decade

On December 20, 2002, the UN General Assembly adopted, by consensus, a resolution establishing a United Nations Decade of Education for Sustainable Development (DESD). The resolution designated the 10-year period from 2005-2014 as the DESD, and proclaimed UNESCO as the lead agency to promote the Decade.

The *United Nations Decade of Education for Sustainable Development* aims to promote education as a basis for a more sustainable human society and to integrate sustainable development into educational systems at all levels. The Decade is an opportunity to remind everyone—children, youth, adults—that the agenda of sustainable development is, in fact, an agenda for all of us. It is about the way we live our lives, the way we respect the lives of others—far and near, present and future—and our attitudes to the world around us.

In response to the UN Resolution proclaiming the Decade of ESD, UNESCO's first task was to draw up a blueprint to take the Decade ahead through a variety of activities and programmes.

An International Implementation Scheme (IIS) for the DESD was prepared through consultation with other United Nations Agencies, international organizations, governments, NGOs, universities, individuals and the private sector. It was presented at the 59th Session of the United Nations General Assembly (New York, September-October 2004). It was on the agenda of the UNESCO Executive Board in April 2005, which made some recommendations. The draft was further discussed and approved at the UNESCO Executive Board session in September 2005. UNESCO has also started preparing an outline for a UNESCO Action Plan for its own contribution for the DESD.

The Executive Summary of the document provides an overview of IIS scheme.

The Decade of Education for Sustainable Development (DESD) is a far-reaching and complex undertaking. Its conceptual basis, socio-economic implications, and environmental and cultural connections make it an enterprise, which potentially touches on every aspect of life. 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. This translates into five objectives, to:

1. Give an enhanced profile to the central role of education and learning in the common pursuit of sustainable development;
2. Facilitate links and networking, exchange and interaction among stakeholders in ESD;
3. Provide a space and opportunity for refining and promoting the vision of, and transition to sustainable development – through all forms of learning and public awareness;
4. Foster increased quality of teaching and learning in education for sustainable development;
5. Develop strategies at every level to strengthen capacity in ESD.

The concept of sustainable development continues to evolve. In pursuing education for sustainable development, therefore, there must be some clarity in what sustainable development means and what it is aiming at. This plan presents three key areas of sustainable development – society, environment and economy with culture as an underlying dimension.

- Society: an understanding of social institutions and their role in change and development, as well as the democratic and participatory systems which give opportunity for the expression of opinion, the selection of governments, the forging of consensus and the resolution of differences.*
- Environment: an awareness of the resources and fragility of the physical environment and the affects on it of human activity and decisions, with a commitment to factoring environmental concerns into social and economic policy development.*
- Economy: a sensitivity to the limits and potential of economic growth and their impact on society and on the environment, with a commitment to assess personal and societal levels of consumption out of concern for the environment and for social justice.*

The values, diversity, knowledge, languages and worldviews associated with culture predetermine the way issues of education for sustainable development are dealt with in specific national contexts. In this sense, culture is just not a collection of particular manifestations (song, dance, dress,...), but a way of being, relating, behaving, believing and acting which people live out in their lives and which is in a constant process of change and exchange with other cultures.

ESD is fundamentally about values, with respect at the centre: respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit. Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect. Along with a sense of justice, responsibility, exploration and dialogue, ESD aims to move us to adopting behaviours and practices which enable all to live a full life without being deprived of basics.

ESD mirrors the concern for education of high quality, demonstrating characteristics: such as:

- Interdisciplinary and holistic: learning for sustainable development embedded in the whole curriculum, not as a separate subject;*
- Values-driven: sharing the values and principles underpinning sustainable development;*
- Critical thinking and problem solving: leading to confidence in addressing the dilemmas and challenges of sustainable development;*
- Multi-method: word, art, drama, debate, experience,...different pedagogies which model the processes;*
- Participatory decision-making: learners participate in decisions on how they are to learn;*
- Locally relevant: addressing local as well as global issues, and using the language(s) which learners most commonly use.*

ESD will be shaped by a range of perspectives from all fields of human development and including all the acute challenges, which the world faces. ESD cannot afford to ignore their implications for a more just and more sustainable process of change. The plan notes the important perspectives provided by: human rights, peace and human security, gender equality, cultural diversity and intercultural understanding, health, HIV/AIDS, governance, natural resources, climate change, rural transformation, sustainable urbanisation, disaster prevention and mitigation, poverty reduction, corporate responsibility and accountability, market economy.

ESD is for everyone, at whatever stage of life they find themselves. It takes place therefore within a perspective of lifelong learning, engaging all possible spaces of learning, formal, non-formal and informal, from early childhood to adult life. ESD calls for a re-orientation of educational approaches – curriculum and content, pedagogy and examinations. Spaces for learning include non-formal learning, community-based organisations and local civil society, the workplace, formal education, technical and vocational training, teacher training, higher education educational inspectorates, policy-making bodies ...and beyond.

It is true to say that everyone is a stakeholder in education for sustainable development. All of us will feel the impact of its relative success or failure, and all of us affect the impact of ESD by our behaviour which may be supportive or undermining. Complementary roles and responsibilities devolve to a number of bodies and groups at different levels: local (sub-national), national, regional and international. At each level, stakeholders may be part of government (or intergovernmental at regional and international levels), civil society and non-governmental organisations, or in the private sector. The media and advertising agencies will support broad public awareness. In addition, indigenous peoples have a particular role, having an intimate knowledge of the sustained use of their environments, and being particularly vulnerable to unsustainable development.

Seven interlinked strategies are proposed for the Decade: advocacy and vision building; consultation and ownership; partnership and networks; capacity building and training; research and innovation; information and communication technologies; monitoring and evaluation. Together they form a coherent approach to the incremental increase over the Decade of the promotion and implementation of ESD. They will ensure that change in public attitudes and educational approaches keep pace with the evolving challenges of sustainable development.

DESD implementation will depend on the strength of stakeholder commitment and cooperation at local (sub-national), national, regional and international levels. Networks and alliances will be the crucial element, forging a common agenda in relevant forums. A small but dynamic and high-quality ESD Hub at national level will bring energy to promotion and implementation, receiving input regularly from a multi-stakeholder ESD Consultative Group. At the regional and international levels, an ESD Caucus and DESD Inter-Agency Coordination Committee respectively will push the ESD agenda forward through focused

meetings and events responding to particular concerns. A high-profile international group of ESD Champions, well known and committed personalities, will serve to spearhead the movement.

The outcomes of the DESD will be seen in the lives of thousands of communities and millions of individuals as new attitudes and values inspire decisions and actions making sustainable development a more attainable ideal. For the DESD process as such, eleven expected outcomes are derived from the DESD objectives and relate to changes in public awareness, in the education system and in the integration of ESD into all development planning. These outcomes form the basis for indicators used in monitoring and evaluation; however, stakeholder groups at each level will decide specific indicators and the kinds of data needed to verify them. Qualitative indicators must figure equally with quantitative indicators to capture the multiple connections and societal depth of ESD and its impact.

In assessing the need for resources, full account must be taken of existing programmes and available personnel. The need for additional resources should be driven by the need to facilitate action and interaction around specific ESD challenges and issues. The proposed timeline shows DESD forums, events and activities over the first five years, emphasising the necessary linkages between, on the one hand, local national regional international levels, and, on the other hand, DESD and other initiatives such as the Commission for Sustainable Development (CSD) and Education for All (EFA). Key events towards the end of the Decade are also indicated.

UNESCO (2005), Executive Summary, UN Decade of Education for Sustainable Development 2005-2014 International Implementation Scheme DRAFT
<http://www.gdrc.org/sustdev/un-desd/implementation-scheme.pdf>

”

Ahmedabad '05

Education for a Sustainable Future

The proclamation of the Decade of Education for Sustainable Development was a call for a process to re-orient educational policies, programmes and practices so that education plays its part in building the capacities of all members of society to work together to build a sustainable future. Thus, the focus of DESD activities was to be advocacy, communication and networking—directed at facilitating all educators to include sustainable development concerns and goals in their own programmes.

Success during this decade would require commitment from, and partnerships between, UN agencies, governments, scientific communities, teachers, NGOs, local communities and the media, for a common, sustainable future. Consultative processes were outlined at international, regional, national, local and community levels, as crucial inputs to add value and provide a broad ownership to the whole decade.

The first international event marking the beginning of the UN Decade of Education for Sustainable Development was Education for a Sustainable Future (ESF), an international conference organized by the Centre for Environment Education (CEE) and held in Ahmedabad, Gujarat, India, during 18-20 January 2005.

ESF logo was a kite. The Conference was held during the festive week of Uttarayan, the kite festival, in Ahmedabad. The kite is symbolic of harmony that springs from the hearts and minds of people during the festival, while at the same time being a competition of skill and talent. Myriad kites head for the sky, melding into a vibrant celebration of diversity and freedom of ideas.

The Conference was an opportunity to draw upon this timeless tradition of Gujarat, to soar together with shared values and a vision of a sustainable future, across land and oceans.

The ESF Conference brought together over 900 learners, practitioners, academics and activists from nearly 50 countries. The three-day event discussed the role of the Decade in re-orienting the vision of development, and the roles of educators and communicators in facilitating this process.

Objectives

- Share the understanding, current status and needs of Education for Sustainable Development
- Showcase best practices for ESD from different parts of the world
- Strengthen networking and active participation of all stakeholders for ESD for the next decade
- Develop a strategy and a blueprint of action for the Decade, including India's strategy and its role in the Decade
- Work towards developing guiding principles, roadmaps and priorities for Education for Sustainable Development in Decade.

Process

The Conference highlighted the role of ESD in the context of the expectations for the Decade. During the plenary sessions, keynote speakers from across the world helped focus the conference on critical issues facing educators and communicators.

In addition, the links of DESD to other global commitments like Millenium Development Goals, Education for All and UN Literacy Decade and how these can work synergistically, were considered. The various workshops discussed the specific Education and Communication related issues in relation to the specific sectors.

Participants discussed sector-specific concerns and developed roadmaps for ESD action, at 20 concurrent workshops.

Workshop Themes

1. Education for Sustainable Livelihoods
2. Enabling Cleaner Solutions—Industry and Environment
3. Communication for Biodiversity Conservation
4. Ideas to Action—Policies and Practices for Sustainable Development
5. Education for Water and Sanitation
6. Education towards Sustainable Human Settlements
7. Participation in Sustainable Waste Management
8. Educating for Sustainable Energy Management
9. Education for Ocean Conservation
10. Education for Sustainable Development in Mountain Regions
11. Reorienting Formal Education
12. Training Professionals in ESD
13. Local Initiatives as Global Learning Opportunities
14. Information and Communication Technologies (ICT) for SD
15. Using Media for SD
16. Youth and ESD
17. Open and Distance Learning for ESD
18. ESD: Values and Perspectives
19. University Leadership for ESD
20. Community-based Approaches for ESD

Exhibitions were an important medium for sharing information at the Conference. Over a hundred participants put up displays of their organizations and projects. The exhibition also showcased local crafts and arts. The Conference received more than a hundred papers on various aspects of ESD, which were shared with all participants.

The plenary also received inputs and feedback from the workshops relating to the UN DESD Draft International Implementation Scheme.

The proceedings of the Conference reflected the international recognition of the key role that Education and Communication can play in enabling and enhancing sustainable development efforts, and processes leading towards these. The recognition that education is a critical agent of transformation in terms of changing lifestyles, attitudes and behaviour, in increasing participation, in visioning and realizing a sustainable world, and facilitating the use of Communication, Education, Participation and Awareness (CEPA) to foster the change needs in different sectors, needs to be further strengthened. Reflection, visioning and sharing are the crucial elements of ESD.

Perhaps the most significant recognition was that of the need for a paradigm shift which would address not only the paradigm of development that needed to be changed to achieve sustainability, but also the paradigm of education.



It is not just “development” that needs to be redefined...

It has taken a long time to realize that the paradigm of development that largely ignored the environment was a disaster. The journey from Stockholm to Rio, and onto Johannesburg took thirty years. Now, at long last, there is the acceptance that we need to move towards a more sustainable form of development.

It is also being recognized that in order to achieve sustainable development, there need to be policy changes, changes in the systems of work, changes in the technologies we use, etc. What is also getting better recognition is that, for this to happen, we need to use education and communication to raise awareness, capacity build communities to vision and participate in bringing about the change, and equip societies with the kinds of expertise required to make the change.

But what is, perhaps, not as widely recognized is that it is not only the paradigm of development that needs to be changed to achieve sustainability, but that the paradigm of education also has to change in certain fundamental ways. Some of these changes are listed below. The various points are interrelated and form part of a single paradigm shift which is needed as we move towards education for sustainable development.

Learning rather than teaching

This change is fundamental to the way one thinks of education—Education, from being something that society determines for its citizens, or adults decide for their children, will have to become “seeker” oriented. The classical “guru” concept of ancient India where the guru would teach, as strictly as a teacher, but recognize that the pupils would someday seek their own path. Teaching, therefore, needs to be focused on making the student a better learner, rather than filling the student with information per se. And ESD is not only about learning individuals, but learning institutions and societies.

Life long and continuous rather than confined to a specified period

Education was something thought of as an activity you essentially did during the first quarter or so of your life. It aimed to give you the knowledge and skills required for the rest of your life. With the rapid pace of change today, this is obviously not quite enough. Institutions have started a variety of in-service courses. Increasing adult education programmes are available. Non-formal opportunities, and opportunities for community education have increased manifold. But the older paradigm still remains largely intact. In a new world through internet and other emerging educational opportunities, it is likely that certification will no longer be based on “residency” factors. Technology is also driving people to learn new skills. But there are still many who have a diffident attitude towards new learning. “I’m too old” to learn. Distance learning is emerging as a major alternative way for learning. But issues such as access for all, digital divide, are continuing concerns.

Multi-sourced and accessed rather than top down, controlled, and orchestrated

The school and the textbook no longer have the virtual monopoly they had on the child's mind. Most children have independent access to information, without "gate keepers". Even parents can't "control" the educational exposure the child has. And this is only going to increase. The teacher now has to "compete" with other sources. The student can verify information given in the class room.

Empowering rather than socializing (indoctrinating)

ESD is about individuals and communities, questioning, visioning and making changes. It is, in that way, contrary to conventional education which is a process of a system meant for fitting people to fit in and not upset the status quo, to a process where people are empowered to change the world.

Global and yet locale specific

Education today needs to give people the global perspectives and connections, at the same time enable them to interpret generic learnings in their local context, and to not only act locally, but see the wider impacts of their actions.

Capacity building to build abilities for critical thinking and problem solving

With the onslaught of information from various sources and ever increasing amounts of data, the issue is often of being able to select and process information, critically analyze it, and take decisions based on this. It is these skills that ESD attempts to develop.

Multi-disciplinary approach as opposed to a single new discipline

Real world problems need integrated, multi-disciplinary solutions while most institutions—from school education on, and including government—are organized sectorally. This compartmentalization starts with school education. An important task for ESD is to break these barriers, and help in seeing connections and the holistic linkages.

Sensitive to gender, diversity etc.

ESD needs to not only be sensitive to, but also support and enhance the celebration of diversity—of cultures, languages, societies, and diversity in the natural world. Sensitivity to gender, equity and other issues, needs to be an integral part of ESD, and it needs to be inclusive of, as against discriminatory on, gender, caste, and other factors.

Participatory and based on learning with peers

Conventional education dictates what and how learners should learn. In an increasingly complex world, people will decide what they need to learn and how best, and when, they need to learn. ESD needs to empower and enable learners to learn when, where, what and how they choose, as opposed to one-directional teacher to passive learner.

Sarabhai, Kartikeya V. (2005), The Final Report of the International Conference on Decade of Education for Sustainable Development 'Education for a Sustainable Future' Ahmedabad, India, 18-20 January 2005, Centre for Environment Education.

”

Perspectives on DESD Draft International Implementation Scheme

Recognizing the importance of UN DESD Draft International Implementation Scheme in setting the tone and guiding activities during the Decade, the participants of the Conference discussed this document in great detail. The Workshops detailed out how the Decade could be effectively planned in their sector. Apart from sectoral comments, certain larger comments emerged at the Workshops, which were discussed at the Plenary. These were:

- *It is not the DESD document that will change the world, but the processes it has initiated, must.*
- *Through a widening process, we encourage others to make their contributions to this living document.*
- *The Ahmedabad Conference sees the need to reach out to other stakeholders and a wider audience so as to achieve the objectives of DESD.*

The participants felt that it was important to capture and articulate the spirit underlying the Decade. This would help stakeholders to use the opportunity of the Decade to initiate processes and actions which would strengthen ESD. The Document, it was felt, should serve as a starting point for a process of dialogue, discussion, and action, but not be perceived as a limit to what needs to be done. It was also recognized that the Document itself needs to continually evolve with inputs from a diverse variety of stakeholders, and not be frozen at any point in time, and become cast in stone.

- *The DESD processes must include as many inhabitants of the world as possible, and must support people to develop the capacity and skills to engage with the issues and risks relevant to their situation and context.*

This came from the feeling shared by participants that everyone is a stakeholder in ESD, and there is no one who should remain untouched by these processes. In the course of reaching out to all, it was stressed that ESD must be contextualized to the needs of every learner.

- *The UN DESD must engage with the environment in its totality, including the pressing social, economic, political and biophysical challenges our planet faces, and help develop the capacity to overcome these.*

The Conference participants discussed the need to interpret the word 'environment' in its widest sense, and to engage with all aspects of this.

- *The DESD must be guided by the principles of the rights of all life on earth; justice and equity.*
- *The limits of the life-support systems must be recognized, respected and accepted in economic decision making.*

The Conference stressed the need to move away from an anthropocentric view of the world, and value and respect the rights of other lifeforms. Justice and equity, inter- and intra-species and inter- and intra-generational were recognized as the cores underpinning sustainable development. At the same time, the need to understand the close links between the well-being of life support systems and economic development was urged.

- *It must be recognized that while there are some basic universal values, there are many others which are culture-specific. ESD must empower communities to engage in an ongoing dialogue to decide which values or modifications in them will prevail.*
- *Contents and methods of transacting values must be determined through dialogue and discussion, rather than by governments or experts.*
- *Prevailing values which have promoted unsustainability are supported by existing systems, and therefore these systems must be addressed through ESD.*

While it was appreciated that ESD is based on values, the group had a number of concerns about the 'universality' of values and how values should be dealt within an educational process, and the dangers of top-down value education which could quickly tend towards indoctrination. At the same time, the group felt the need to question prevalent societal values which promote unsustainability.

- *The narrow log-frame approach to evaluation currently indicated in the document is limiting and may even inhibit the potential of the Decade. The evaluation criteria listed do not do justice to the overall objectives of the Decade. We need to find new, different and creative ways to find out if the processes that we see as essential to ESD have in fact taken place.*

The group had a large number of concerns regarding the approach to evaluation. It was felt that the indicators suggested in the document would lead to a measurement of the wrong things, and may in fact lead to a loss of the spirit and essence of ESD. The participants felt that a major re-thinking was required on this aspect of the Draft.

- *We support the participation of youth in developing the plan of implementation for the Decade, with the belief that they are uniquely equipped to do so, and urge the system to facilitate these inputs.*

The Conference recognized the special importance of youth in the DESD, both as the citizens of tomorrow, and as those who will be most impacted by the decisions and actions that we take today. Thus, it was felt that youth had a special role in DESD.

- *As the Decade of Education for Sustainable Development commences and we proceed on our widening journeys, we are aware of our responsibilities as inhabitants of planet Earth. We recognize that we will be confronted by many diverse challenges and are determined to meet these in a spirit of commitment and goodwill, and encourage others to do the same.*

Finally, the group recognized that the successful implementation of DESD would depend on the participation of all stakeholders, and acknowledged its responsibility in this.

ESF Outputs

ESF was the first international event to mark the beginning of the UNDESD. The Conference came out with a message to educators, the development community, and all key stakeholders, which clarified the nature of DESD, prioritized key actions, and gave momentum to the Decade.

Participants contributed their vision for the Decade in a special space that was termed 'The Declaration Wall'. An international committee drafted a Declaration, called the Ahmedabad Declaration based on the comments which were put up on the Wall. The Declaration was drafted on the evening of January 19 and opened for discussion at the plenary session on 20 January 2005. The ideas and suggestions that emerged during these discussions were incorporated and the Declaration was finalized. It was accepted and adopted formally on the same day.



The Ahmedabad Declaration

This Declaration was made on January 20, 2005, by more than 800 learners, thinkers and practitioners from over 40 countries, engaged in education for sustainable development, at the Education for a Sustainable Future conference held at Centre for Environment Education, Ahmedabad, India.

As the first international gathering of the United Nations Decade of Education for Sustainable Development (DESD), we warmly welcome this Decade that highlights the potential of action education to move people towards sustainable lifestyles and policies.

If the world's peoples are to enjoy a high quality of life, we must move quickly toward a sustainable future. Although most indicators point away from sustainability, growing grassroots efforts worldwide are taking on the enormous task of changing this trend.

We accept our responsibility and we urge all people to join us in doing all we can to pursue the principles of the Decade with humility, inclusivity, and a strong sense of humanity. We invite wide participation through networks, partnerships, and institutions.

As we gather in the city where Mahatma Gandhi lived and worked, we remember his words: "Education for life; education through life; education throughout life". These words underscore our commitment to the ideal of education that is participatory and lifelong.

We firmly believe that a key to sustainable development is the empowerment of all people, according to the principles of equity and social justice, and that a key to such empowerment is action-oriented education.

ESD implies a shift from viewing education as a delivery mechanism, to the recognition that we are all learners as well as teachers. ESD must happen in villages and cities, schools and universities, corporate offices and assembly lines, and in the offices of ministers and civil servants. All must struggle with

how to live and work in a way that protects the environment, advances social justice, and promotes economic fairness for present and future generations. We must learn how to resolve conflicts, create a caring society, and live in peace.

ESD must start with examining our own lifestyles and our willingness to model and advance sustainability in our communities. We pledge to share our diverse experiences and collective knowledge to refine the vision of sustainability while continually expanding its practice. Through our actions we will add substance and vigor to the UNDESD processes.

We are optimistic that the objectives of the Decade will be realized and move forward from Ahmedabad in a spirit of urgency, commitment, hope, and enthusiasm.

Ahmedabad Declaration, International Conference 'Education for a Sustainable Future' Ahmedabad, India, 18-20 January 2005 <http://www.ceeindia.org/esf/Abad_d.asp>

”

New York '05

International Launch of DESD

The United Nations Decade of Education for Sustainable Development (DESD) was officially launched at UN Headquarters in New York on the afternoon of 1st March 2005, by UNESCO's Director General Koïchiro Matsuura. The launch of the Decade event was preceded by a round table of experts on the major challenges and objectives for the implementation of the Decade.

The Decade is a commitment that will be implemented by Member States according to their priorities and approaches. It also represents a common understanding, as outlined in the relevant General Assembly (GA) resolutions, to work towards common goals and objectives. Thus, it is important that some common milestones are identified that can be addressed by all actors. These include:

- clearly identifiable plans and/or activities in place in Member States;
- identification of focal points in Member States with reporting responsibilities;
- regional plans or strategies; these may also be present at subregional levels;
- indicators of progress and mechanisms for monitoring their achievement;
- identified sources for technical assistance and examples of good practice;
- information sharing on relevant research, development and innovation;
- modalities for fostering partnerships;
- provision of guidance in key areas;- mid-Decade and end-of-Decade reports to the GA.

As the lead agency for the promotion of DESD, UNESCO is to play a coordination role to:

- catalyze new partnerships with the private sector, youth, and media groups;
- encourage monitoring and evaluation;
- encourage a research agenda and serve as a forum for relevant research on ESD;

- serve as forum for bringing together important stakeholders in the Decade such as: representatives of key multinationals, faith-based institutions, youth associations, indigenous people, etc.;
- share good ESD practices;
 - ? link Member States that have put in place ESD curricula, policies, research, etc., with those Member States that are requesting help;
 - ? convene flexible working groups on particular topics; and fulfill its strategic role with regard to ESD.

UNESCO'S Commitment to DESD, (2006), UNESCO'S Responses to UN Resolutions 57/254, 58/219 & 59/237.
<http://www.unescobkk.org/index.php?id=4039>

World Environmental Education Congress

The idea of holding a World Environmental Education Congress (WEEC), was first mentioned at the Earth Summit in Rio de Janeiro in 1992. The NGOs at the Global Forum that drafted an Alternative Treaty on Environmental Education in Rio in 1992 had pledged to hold a Planetary Meeting of Environmental Education for Sustainable Societies within three years. It took 11 years for their vision to be realized.

At the 2002 Johannesburg World Summit on Sustainable Development, the idea of a world network of environmental education associations was raised when representatives of regional associations and networks from around the world met for the first time. These ideas became a reality in 2003 when the first World Environmental Education Congress was held in Espinho, Portugal in 2003. The 2nd Congress was held in Brazil in 2004, and the 3rd Congress was held in Torino, Italy in 2005. From then on Congresses were scheduled every two years.

The WEEC and International Association was established to give the Congresses continuity. It was expected that this would facilitate discussions about the key issues in environmental education; the exchange of thoughts, experiences and proposals from one Congress to the next; and the creation of a worldwide community of research and practice in environmental education and sustainability.

Objectives

The objective of the WEEC is to offer an international platform for educators, scientists, researchers, scholars, politicians, technicians, activists, the media and teachers to debate key issues associated with environmental education. Increasingly, many discussions are turning to the role that environmental education plays in strengthening education for sustainable development. The discussions may also broaden the focus of environmental education by considering insights from other sectors such as media, communication, environmental sciences, and research, and consider the need for an integrated perspective. In the first three WEEC meetings, special emphasis was given to:

- Harnessing the skills and experience of environmental educators from around the globe
- Transversal analyses of pedagogical, technical, scientific and social skills required for meaningful environmental education processes

Durban'07

- Critical analysis of the political economies of educational reform as these relate to environmental education and institutional change in different sectors
- Case studies promoting meaningful learning and highlighting diverse environmental education processes
- Critical analysis of key concepts and processes significant in environmental education, including multi-disciplinary and holistic approaches
- Promoting the basis for a global and periodic forum of international co-operation amongst environmental educators
- Consideration of the scientific dimensions of environmental education processes, particularly as these relate to environmental education research.

Fourth World Environmental Education Congress which met at Durban from July 2-6, 2007 aimed to take forward the work of the previous three World Congress meetings. Through encouraging critical reflection on 30 years of environmental education (since the founding meeting in Tbilisi, Georgia in 1977), the WEEC 2007 also hoped to inform the forthcoming UNESCO Fourth International Conference on Environmental Education (Tbilisi +30 Conference) in Ahmedabad, India in November 2007. The Congress theme 'Learning in a Changing World' was meant to create a platform for critically considering how a changing world influences learning, and perhaps even how environmental learning can change the world.

The 2007 World Environmental Education Congress hoped to extend creative opportunities for dialogue, reflection and evaluation in a growing and dynamically evolving field that is currently engaging with the outcomes of the World Summit on Sustainable Development and the implications of the UN Decade on Education for Sustainable Development.

Ahmedabad'07

Fourth International Conference on Environment Education (ICEE)

It is 30 years since the first ever international Conference on Environmental Education was held in Tbilisi. The fourth international conference on EE is planned to be held in Centre for Environment Education, Ahmedabad, India. ICEE also known as Tbilisi+30 is going to be held between 26-28 November, 2007.

The Conference will bring together participants from sectors that include environment, health, water and sanitation, human rights, gender, peace, citizenship, social justice, civil society/NGOs, corporates, academics, media, government and UN agencies. The participants will deliberate in smaller groups through 30 themes that are crucial for sustainable development and require the engagement of Education. Critical areas like HIV AIDS and Climate Change will be discussed as cross-cutting issues.

The conference will primarily focus on the strategic role of education in decision-making for sustainable development. It will provide a platform for the sharing of experiences and best practices. It will encourage exchange of ideas and information about ongoing initiatives and strategies for strengthening the role of Environmental Education (EE) as a champion of ESD. The conference format will provide opportunities to explore and establish partnerships to further the ethos of sustainability across all sectors.

Spreading the Word

“The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.”

Belgrade Charter, 1975

Networks of EE: Reaching Far and Wide

Networks play a key role in the realization of goals of EE and ESD. In a devolved way, EE and ESD networks have been liaising with individuals, communities, NGOs—small and big, governments, administrative structures, education systems. They have been functioning to work at the cutting edge level in a range of ecological, socio-economical and cultural concerns that have enhanced government involvement, intergovernmental and regional coordination; effecting policy changes, and required citizen involvement. They have been aiding in facilitation and delivery of education, efficient use of resources, wider dissemination of knowledge, and a concerted action for change.

Having understood the importance of networking for far and wider reach, many organizations and institutions working for furthering EE and ESD are either associated with networks, carry out networking functions, or create network of networks mechanisms, besides their organizational functions.

Memberships, subscriptions, partnerships, conferences and seminars, web mediated forums like list serves, etc., and clearing-house mechanisms are some of the ways in which networks function.

Some networks are listed here:

Asian South Pacific Bureau of Adult Education (ASPBAE)

The ASPBAE is a regional association of organizations and individuals engaged in both formal and non-formal adult education, working with and through government agencies, universities, NGOs, community groups, trade unions, indigenous people's and women's organizations, the media, and other institutions across the Asia-Pacific region. Established in 1964 by a group of adult educators, inspired by the idea of promoting adult education in the region the network currently comprises around 640 organizations and individuals as members, and operates in 30 countries of the region.

URL: <http://www.aspbae.org/>

Email: aspbae@vsnl.com

Asia-Pacific Forum for Environment and Development (APFED)

Asia-Pacific Forum for Environment and Development (APFED), a regional group of experts operating since its establishment in 2001, aims to address critical issues facing Asia and the Pacific region and to propose new models for equitable and sustainable development of the region.

APFED aims to support policy making and its implementation for sustainable development through enhancing knowledge networks under the partnership of eminent persons mainly from Asia and the Pacific region, experts and NGOs.

URL: <http://www.apfed.net/>

Email: apfed@iges.or.jp

Asia-Pacific Network for International Education and Values Education (APNIEVE)

The Asia-Pacific Network for International Education and Values Education (APNIEVE) was established in 1995. The major objectives of APNIEVE are to promote and develop international education and values education for peace, human rights, democracy and sustainable development through inter-country co-operation among individuals and institutions working in these fields.

APNIEVE was established in March 1995 in Seoul, Republic of Korea, upon initiative of seven member countries during the organizational meeting to form the Network of Regional Experts in Education for Peace, Human Rights and Democracy. In light of UNESCO's mandate embodied in its Constitution, the mission of APNIEVE is to promote and develop international education and values education for peace, human rights, democracy and sustainable development, through inter-country and within-country cooperation among individuals and institutions working in these fields in UNESCO member states of the Asia Pacific region.

APNIEVE is composed of individual members and institutional members from both government and non-government sectors.

URL: <http://www.unesco-apnieve.org>

Email: apnieve@yahoo.com.cn

Asia-Pacific Programme of Educational Innovation for Development (APEID)

The fundamental mission of APEID is to contribute to sustainable human development (underpinned by tolerance, human rights and a culture of peace) through the design and implementation of education programmes and projects, mainly at the post primary level of education, which stress 'educational innovation for development'. APEID was officially launched to strengthen Member States' capabilities at national and local levels for creation and use of educational innovations in achieving national development goals. The Asia-Pacific Programme of Educational Innovation for Development (APEID) has evolved into a 'network of networks', which combine and interact in order to maximize UNESCO's important work in the Asia-Pacific Region.

It promotes regional co-operation by forming a network of institutions, called Associated Centres, across the region to facilitate educational innovations and, thus, assist Member States build national capacities according to the self-perceived needs of the countries themselves. Associated Centres join APEID to contribute to, and to benefit from, the exchanges of insights, skills and expertise promoted under the programme.

URL: <http://www.unescobkk.org/index.php?id=595>

Email: apeid@unescobkk.org

Australian Association for Environmental Education (AAEE)

The Australian Association for Environmental Education (AAEE) is the premier, national, professional association for those who identify themselves as working in the fields of environment or sustainability education. It was founded in 1980 and has a membership of over 500. Through its representative roles on state and national committees and its state-based Chapters, AAEE represents and advocates for the interests of environmental education and educators. AAEE provides an important network of educators, and it supports its members with up-to-date research and policy information, access to resources, and regular workshops and conferences.

AAEE exists to provide a forum for professionals interested in Environmental Education to come together, network and share their knowledge and expertise. It also serves to represent the environmental education fraternity in national discussions and debates.

The association sponsors an annual professional journal, a quarterly newsletter and biennial national conferences.

URL: <http://www.aaee.org.au>

Email: admin@aaee.org.au

Canadian Sustainability Indicators Network (CSIN)

Environment reporting and the use of indicators evolved in the 1970s, and began in earnest in the 1980s. Although people around the world were doing environment and sustainability reports, there was no organization to help connect and share information on an ongoing basis.

In 2001, a group of experts, founded the International Sustainability Indicators Network (ISIN). In March 2003, the ISIN meeting in Toronto provided the springboard for the creation of a Canadian network. The Canadian Sustainability Indicators Network (CSIN) seeks to improve the quantity and quality of indicators and sustainability reports in Canada by providing a forum for indicator and reporting practitioners.

URL: <http://www.csin-rcid.ca/about.aspx>

Email: csin@iisd.ca

Environmental Education Association of Southern Africa (EEASA)

EEASA was established in 1982. Since then the Association has grown steadily and now has almost 400 members including teachers, conservation officials, community and development workers, resource developers and researchers.

The role of EEASA is to support environmental education in southern Africa. It endeavours to achieve this by providing opportunities for the exchange of ideas and opinions on environmental education through its publications, the annual national conference and workshops as well as the activities of working groups in the regions. In addition, EEASA acts as a responsible body for consultation on and co-ordination of, matters of public and professional interest concerning environmental education.

There has always been a dual role between EEASA as a loose network of members, and EEASA as a more formal organization developing projects, raising and managing money and lobbying for environmental education.

URL: <http://www.eeasa.org.za/>

Email: eeasa@wessa.co.za

Environmental Education Network of Indonesia (JPL)

This active network of more than 60 NGOs, Indonesian Universities and Government bodies, as well as concerned individuals from across Indonesia, was founded in 1996.

The network functions as a communication forum for individuals and institutions working on Environmental Education in Indonesia. Workshops and planning sessions are held regularly.

Ongoing issues addressed by this network include program planning, results and resource sharing, and support for the development for Environmental Education in both formal and informal settings.

URL: www.idepfoundation.org

Email: info@idepfoundation.org

Global Rivers Environmental Education Network (GREEN)

The Global Rivers Environmental Education Network (GREEN) seeks to engage young people as active citizens who improve conditions in their watersheds now and in the future. GREEN empowers young people to learn more about the watersheds they live in and use their findings to create lasting solutions to pressing water quality issues.

The impetus for GREEN began in the spring of 1984 with a group of concerned students at a high school located along the polluted Huron River in Ann Arbor, Michigan. Their teacher contacted Dr. William Stapp at the University of Michigan, and together they developed a comprehensive educational program called GREEN.

To date, with the support of over 22 local partner organizations and several corporate sponsors, GREEN has engaged over 30,000 young people in watershed protection.

URL: <http://www.earthforce.org/section/programs/green>
Email: earthforce@earthforce.org

IUCN Commission on Education and Communication (IUCN-CEC)

IUCN Commission on Education and Communication is a global network of experts in environmental and sustainable development education and communication. CEC is one of IUCN's six global Commissions.

CEC's Mission is "To champion the strategic use of education and communication for conservation and sustainable use of biodiversity as a basis of sustainable development for the present and future generations."

CEC members are volunteers contributing their expertise to guide IUCN policy and advocacy for education and communication, as well as on the effective management and evaluation of educational programmes. These are individuals from all over the world with practical expertise in specific areas of environment and development communication, marketing, advertising, communication research and management, information and environmental education. Most are drawn from institutions, government and NGO, engaged in environment and development work and share a strong professional interest in improving the appreciation of environmental education by change agents and improving the practice of education and communication.

CEC develops capacity building programmes in environmental communication. CEC is an international network of over 560 education and communication experts from governmental, NGO, journalistic and educational institutes.

URL: <http://cec.wcln.org>
Email: ctn@hq.iucn.org

Japan Environmental Education Forum (JEEF)

Toward creating a sustainable society, which is one of the most emerging global challenges, the JEEF commits itself to taking an initiative in exchanging and cooperating with various sectors for promoting a variety of environmental education practices and establishing related institutions

URL: <http://www.jeef.or.jp>
Email: info@jeef.or.jp

National Environmental Education Network (NEEN)

NEEN was established in May 2001 as an initiative under the Australian Government's National Action Plan on Environmental Education. NEEN's purpose is to improve inter-governmental coordination of the delivery of environmental education, promoting efficient use of resources and better outcomes.

The Network mostly exchanges information electronically or in hard copy, with limited face-to-face contact to ensure participation costs are kept at a minimum.

URL: <http://www.environment.gov.au/education/neen/index.html>

Network for Environmental Training at Tertiary Level in Asia and the Pacific (NETTLAP)

NETTLAP is a key activity of UNEP's Environmental Education and Training Unit (UNEP/EETU) and the Regional Office for Asia and the Pacific (UNEP/ROAP).

The Network consists of institutions and individuals active in environmental education and training at tertiary levels in the Asia-Pacific region. The Network, with its National Focal Points, Regional Thematic Network Coordinators and Sub-Regional Thematic Network Nodes, has grown rapidly over the last two years. It now covers 35 countries in the region with over 200 tertiary institutional members and 1,600 individual members.

URL: <http://www.roap.unep.org/program/edu.cfm>

North American Association for Environmental Education (NAAEE)

The North American Association for Environmental Education (NAAEE) is a network of professionals, students, and volunteers working in the field of environmental education throughout North America and in over 55 countries around the world. Since 1971 when it was founded as the National Association for Environmental Education, the Association has promoted environmental education and supported the work of environmental educators.

NAAEE uniquely combines and integrates perspectives of both environmental interest groups and organizations dedicated to improving education. It takes a cooperative, non-confrontational, scientifically-balanced approach to promoting education about environmental issues.

The North American Association for Environmental Education promotes excellence in environmental education and serves environmental educators for the purpose of achieving environmental literacy in order for present and future generations to benefit from a safe and healthy environment and a better quality of life.

URL: <http://www.naaee.org/>
Email: communicator@naaee.org

Regional Centres of Expertise

An RCE is a network of existing formal, non-formal and informal education organizations aiming to deliver education for sustainable development (ESD) to a regional/local community. RCEs aspire to achieve the goals of the UN Decade of Education for Sustainable Development (DESD, 2005-2014), by translating its global objectives into the context of the local/regional community in which it operates.

An RCE is composed of a network of: actors in the formal, non-formal and informal education sectors (school teachers, professors at higher education institutions, researchers, NGOs, media), providers of content for ESD (scientists, researchers, museums, zoos, botanical gardens), supporters of the delivery of ESD (local government officials, representatives of local enterprises, volunteers, media people, and any other civic associations or individuals who work in spheres of sustainable development such as economic growth, social development, and environmental protection), and, students and learners at all levels.

RCEs and their network worldwide will constitute the "Global Learning Space for Sustainable Development". This learning space will include international academies of science, institutions of higher education and policy makers, who will work together to develop the human resources base - educators, professionals and researchers - in developing countries, which is necessary to activate and sustain the application of science and technology for sustainable development. Activities of the Global Learning Space will involve curriculum development, north-south networking, strategic planning in educational planning and policy, capacity building in problem-based scientific research, and learning and other programmes.

URL: <http://www.ias.unu.edu/research/regionalcentres.cfm>

Email: fadeeva@ias.unu.edu

SADC Regional EE Programme

SADC Regional EE Programme (SADC REEP) was established in 1993 and through its Regional Environmental Education Network supports environmental education processes in the southern African region through enabling decentralized networking of environmental education practitioners within the SADC region.

The purpose of the Regional Environmental Education (EE) Programme is to enable environmental education practitioners in the SADC region to strengthen environmental education processes for equitable and sustainable environmental management choices. This will be achieved through enhanced and strengthened environmental education policy, networking, resource materials and training capacity.

URL: <http://www.sadc-reep.org.za/>

Email: sadc-reep@wessa.co.za

South and Southeast Asia Network for Environmental Education (SASEANEE)

The South and Southeast Asia Network for Environmental Education is a regional networking initiative of the Centre for Environment Education (CEE), India, launched in collaboration with IUCN-Commission on Education and Communication (CEC). SASEANEE is a network of agencies involved in or interested in networking, initiating or supporting environmental education programmes.

URL: <http://www.saseanee.org>

Email: saseanee@ceeindia.org

South Asian Youth Environment Network (SAYEN)

SAYEN which was set up in July 2002, is supported by the UNEP Asia and the Pacific and is linked to TUNZA, UNEP Strategy for Children and Youth. At present, over 1500 youth organizations, network, individuals, educational institutions, government and NGOs are associated with SAYEN. The objective of the network is to mobilize and ensure participation of youth for SD in South Asia and to influence decision-making processes at national and regional levels.

All the South Asian Association for Regional Cooperation (SAARC) countries are members of SAYEN. Centre for Environment Education (CEE) hosts the secretariat for the network. One-two organizations in each of the SAARC countries have been identified as the National Focal Point (NFP) for the network. Number of SAYEN members in each country ranges from 20 to 100 with over 200 organizations in the region as SAYEN members. NFPs facilitate SAYEN activities in their respective countries.

URL: <http://www.sayen.org>

Email: sayen@ceeindia.org

Tripartite Environmental Education Network

This project has been led jointly by environmental education institutes of Korea, China and Japan for effective environmental education, with a thorough recognition that the environmental education improves human behaviour and constitutes one of the most important initiatives in working on environmental problems.

Centre for Environmental Education and Communication of SEPA (CEEC)

Email: Niulingjuan66@263.net

Korean Society of Environmental Education

Email: ecopark@yonsei.ac.kr

The Japan Environmental Education Forum

Email: miyake@jeef.or.jp

UNESCO International Network on Technical and Vocational Education (UNEVOC)

The UNEVOC Network of specialised technical and vocational education and training (TVET) institutions is the most prominent network of the UNESCO-UNEVOC International Centre. It is a unique platform for the sharing of knowledge and experiences regarding all aspects of TVET and consists of more than 263 specialised TVET institutions - the so-called UNEVOC Centres - in 163 UNESCO Member States. Through the Network, knowledge and expertise about innovative and best practices are transferred from one country to another. The Network also facilitates the information flow within countries.

In order to facilitate cooperation, the UNESCO-UNEVOC International Centre provides additional tools, such as other networks (e.g. the electronic discussion forum e-Forum and regional cooperation), knowledge sharing and publications, advisory services, and human resource development.

URL: <http://www.unevoc.unesco.org/>

Email: info@unevoc.unesco.org

World Conservation Learning Network (WCLN)

The World Conservation Learning Network (WCLN) is a conservation, environment and sustainable development-focused global network with regional and national chapters. Partnering faculties, other institutions of higher education and training, academic networks and NGOs, WCLN builds professional capacity for environmental sustainability by developing and delivering 'New Learning for Sustainable Solutions'.

The WCLN acts as a platform for exchange for facilitating communities of practice and networking between institutions engaged in capacity development for conservation, environment and sustainable development.

It brokers between higher education, capacity development, conservation, environment and sustainable development sectors, to match demand and supply of New Learning for Sustainable Solutions.

The WCLN is an initiative of the World Conservation Union (IUCN), led by IUCN's Commission on Education and Communication (CEC) and supported by the IUCN Secretariat.

URL: www.wcln.org

Journals: Furthering EE and ESD Discourse

Environmental Education has evolved from nature appreciation, conservation education, outdoor education to education for sustainable development. A number of events of environmental significance, responsive international workshops and conferences focusing on impacts of human interaction with environment led to the recognition of education as a management tool to influence all spheres of human activity.

Various national, regional and international journals of EE and ESD have helped in capturing, analyzing, sharing and forwarding various perspectives and practices in the discourse of EE and ESD. Identified and listed here are some of these journals:

Alternatives Journal

Alternatives is a long-standing environmental journal that provides environmental ideas and solutions to readers in Canada and around the globe. Within its pages, Alternatives brings together thoughts from top experts who have an intimate connection with, and sincere dedication to the environmental movement – keeping Alternatives on the cutting edge of today's most pertinent issues. Each theme-based edition illustrates the interdependent relationship of environmental stewardship to social justice, politics and economy.

*Contact: Executive Editor, Nicola Ross
Alternatives Journal
Faculty of Environmental Studies
University of Waterloo
Waterloo, Ontario
Canada N2L 3G1
Email: editor@alternativesjournal.ca
URL: <http://www.alternativesjournal.ca>*

Applied Environmental Education and Communication

This is a scholarly, peer-reviewed quarterly journal for both academics and practitioners. It presents the latest environmental developments in the fields of education, communication, social marketing, journalism, and behavioral science, as well as information on sustainability education, environmental interpretation, risk communication, public relations and outreach, environmental health communication, governmental and corporate public awareness, and environmental campaigns around the world.

This multidisciplinary journal is written in a straightforward style with a minimum of technical jargon. It provides practitioners with specific recommendations based on experience and research. Authors are encouraged to report what worked and what did not and to make suggestions for future strategies.

The journal is published in association with the North American Association for Environmental Education, the Australian Association for Environmental

Education, and the IUCN World Conservation Union - Commission on Education and Communication.

Contact: editor-in-Chief

Brian A. Day

President

International Institute for Environmental Communication

1917 Greenbrier Drive

Charlottesville, VA 22901-2914 USA

Email: info@aeec.org

URL: <http://www.aeec.org/>

Australian Journal of Environmental Education (AJEE)

AJEE of the Australian Association for Environmental Education is an internationally refereed journal which publishes papers and reports on all aspects of environmental education. It presents information and arguments which stimulate debate about educational strategies that enhance the kinds of awareness, understanding and actions which will promote environmental and social justice.

Contact: Journal Editor - Jo-Anne Ferreira

Griffith University Nathan QLD 4111

Email: j.ferreira@griffith.edu.au

URL: <http://www.aeee.org.au>

Canadian Journal of Environmental Education (CJEE)

CJEE is a refereed journal published once a year. It seeks to further the study and practice of environmental education by providing a thoughtful forum for researchers, scholars, practitioners, and post-secondary students. The publication and distribution of articles and reviews should contribute to Canadian thought and practice in environmental education and/or issues and practices of international importance to this field of study.

Published in cooperation with the Canadian Network for Environmental Education and Communication (EECOM) and Lakehead University

Contact: Editors: Bob Jickling & Connie Russell

Faculty of Education

Lakehead University

955 Oliver Road

Thunder Bay, Ontario P7B 5E1

Email: cjee@lakeheadu.ca

URL: <http://cjee.lakeheadu.ca/index.php/cjee>

Electronic Journal of Sustainable Development

The Electronic Journal of Sustainable Development is a biannual, peer-reviewed journal, available online at no charge. This multidisciplinary journal, will address the issue of 'sustainable development' and how it can be achieved. It publishes scholarly articles in the realms of public policy, science, economics

and the law as they relate to the concept of sustainable development and its various facets (i.e. human well-being, economic growth, environmental quality, natural resource use and management, innovation, and technological change).

The EJSD is a co-publication of International Policy Network (www.policynetwork.net) and the University of Buckingham (www.buckingham.ac.uk).

*Contact: Electronic Journal of Sustainable Development
C/o International Policy Network
3rd Floor, Bedford Chambers
The Piazza, Covent Garden
London WC2E 8HA
United Kingdom
Email: editor@ejsd.org
URL: <http://www.ejsd.org/>*

Environment, Development and Sustainability

Environment, Development and Sustainability is an international and multidisciplinary journal covering all aspects of the environmental impacts of socio-economic development. It is also concerned with the complex interactions which occur between development and environment, and its purpose is to seek ways and means for achieving sustainability in all human activities aimed at such development.

*Contact: Environment, Development and Sustainability
Springer
P.O. Box 17
3300 AA Dordrecht
The Netherlands
URL: www.springer.com*

Environmental Education Research

Environmental Education Research is an international refereed and peer reviewed journal published five times a year. It publishes analytical and critical papers and reports on all aspects of environmental education. The journal works to advance understanding of environmental and sustainability education through a focus on papers reporting research and development activities. The journal also carries, conference reviews, retrospective analyses of activities in a particular field, critical commentaries on policy issues and comparative aspects of an environmental education issue. It discusses ideas that are transferable to other educational systems and cultures and are accessible to an international audience. The review focuses on books, reports and publications in other media which deal with international environmental issues.

*Contact: Dr Alan Reid, Department of Education,
the University of Bath, Claverton Down, Bath BA2 7AY, UK.
URL: <http://www.tandf.co.uk/journals>*

International Journal of Environment and Sustainable Development (IJESD)

IJESD is a fully-refereed academic journal and themes encompass ecological studies, field research, empirical work and descriptive analyses. The journal reports on initiatives involving environmental improvements in developing and industrialized nations, disseminates case studies, projects and programmes and reports on the findings of studies and research on environment and sustainable development. It fosters information exchange with respect to pilot projects on transport, recycling, waste management and analysis of legislation and appraisals of the impacts of regulations, among other topics. It also serves as a vehicle for the documentation and dissemination of what government bodies, research agencies, international bodies, universities and aid agencies are doing to pursue the path of sustainable development.

Contact: Prof. Peter Hills

Email: ijesd@inderscience.com

URL: <http://www.inderscience.com>

International Journal of Sustainability in Higher Education (IJSHE)

IJSHE is a fully-refereed academic journal published in conjunction with the Association of University Leaders for a Sustainable Future (ULSF). The journal addresses issues related to environmental management systems (EMS), sustainable development and Agenda 21 issues at higher education institutions, worldwide. It acts as an outlet for papers dealing with curriculum greening and methodological approaches to sustainability. In addition, the journal reports on initiatives aimed at environmental improvements in universities, and the increased competitiveness of self-regulatory mechanisms such as environmental auditing and maintaining EMS. IJSHE disseminates case studies, projects, and programmes whilst still considering the market opportunities available.

Contact: The Editor: Professor Walter Leal Filho

*Technical University Hamburg-Harburg, Technology Transfer (TUHH/TuTech),
Schellerdamm 4,*

D- 21079 Hamburg,

Germany

Email: beids@tutech.de

URL: <http://www.emeraldinsight.com/info/journals/ijshe/ijshe.jsp>

International Journal of Sustainable Development (IJSD)

IJSD publishes refereed scientific work, of an interdisciplinary character, at the interface of science, technology, policy and society to establish an effective channel of communication between policy-makers, government agencies, academics and research institutions, and professionals working in the field, and to provide a forum for them to disseminate information and to learn from each other's work. The subjects it covers include ecological, economical, social and political dimensions of sustainability including policy making and review. A particular emphasis is placed on the value and importance of

stakeholder partnerships for effective communication on issues of sustainability. The international dimension is emphasized in order to overcome cultural and national barriers and to meet the needs of accelerating technological change and changes in the global economy. Four issues per year.

Contact: Editor-in-Chief Dr. M. A. Dorgham

Email: ijsd@inderscience.com

URL: <http://www.inderscience.com>

International Journal of Sustainable Development and Planning

The International Journal of Sustainable Development and Planning is an interdisciplinary journal covering the subjects of environmental design and planning, environmental management, spatial planning, environmental planning, environmental management and sustainable development in an integrated way as well as in accordance with the principles of sustainability.

Contact: The Editors

The International Journal of Sustainable Development and Planning

WIT Press, Ashurst Lodge, Southampton

SO40 7AA, UK

Email: carlos@wessex.ac.uk

URL: www.witpress.com

Journal of Education for Sustainable Development

The Journal of Education for Sustainable Development, a refereed journal, publishes empirical as well as research articles, reports and essays relating to all aspects of the emerging field of Education for Sustainable Development (ESD) as practiced in formal primary and secondary schools, colleges and universities, community organisations, government agencies, businesses and nonprofit organisations around the world.

In the UN Decade for Education for Sustainable Development (2005-2014) this journal is a forum to which both academics and practitioners contribute and benefit from keeping abreast with the latest developments in thinking and practice in the field. The scope of content covers all fields of formal and nonformal ESD. It also journal strikes a balance in the geographical focus by covering innovations and research in the developing world along with those in the industrialised world.

Contact: Editor-in-Chief

Kartikeya V. Sarabhai, Director

Centre for Environment Education

Ahmedabad, India

Email: cee@ceeindia.org

URL: <http://jsd.sagepub.com>

Journal of Environment & Development (JED)

JED is a peer-reviewed, interdisciplinary publication on international environment and development issues. It offers policymakers, academics, governmental and nongovernmental organizations, and the business community an international forum that combines cutting-edge academic research with pragmatic policy analysis on a wide range of issues at the nexus of environment and development. Research areas include: sustainable development and the implementation of Agenda 21, national environmental policy, international environmental governance, greenhouse gas mitigation strategies and national energy policies, biodiversity conservation and natural resource management, marine environments and resources, fresh water resources, pollution abatement technologies, private sector and the environment and free trade and the environment.

*Contact: Editor-in-Chief, Raymond Cléménçon,
Graduate School of International Relations and Pacific Studies,
University of California, San Diego
Email: envdev@ucsd.edu
URL: <http://jed.sagepub.com/>*

Journal of Environmental Education (JEE)

JEE publishes material that advances the instruction, theory, methods, and practice of environmental education (EE) and communication for all levels, from primary to college and adult education. It publishes articles dealing with research; program evaluations; review articles; critical essays/analyses and commentaries. Based on recent research in sciences, social sciences, and humanities, the journal details out how best to present environmental issues and how to evaluate programs already in place. Reviews of the most recent books, textbooks, videos, and other educational materials by experts are also carried. JEE is useful for those who administer and fund environmental education programs for schools, parks, camps, recreation centres, and businesses.

*Contact: Heldref Publications, Helen Dwight Reid Educational Foundation, 1319
Eighteenth Street, NW, Washington, DC 20036-1802
Email: jee@heldref.org
URL: <http://www.heldref.org>*

Journal of Environmental Health (JEH)

JEH is published 10 times per year by the National Environmental Health Association, USA and provides up-to-date information on current issues, new research, useful products and services. It is useful to professionals working to solve problems in a spectrum of environmental health topics such as air quality, drinking water, food safety and protection, hazardous materials/toxic substances management, institutional environmental health, occupational safety and health, terrorism and all-hazards preparedness, vector control, wastewater management, and water pollution control/water quality.

*Contact: National Environmental Health Association
720 S. Colorado Blvd., Suite 1000-N
Denver, CO 80246-1926
Email: jscigliano@neha.org
URL: <http://www.neha.org/JEH/>*

Journal of Experiential Education (JEE)

JEE presents scientific and conceptual inquiries into the study and practice of experiential education in order to increase knowledge develop skills and clarify values. The diversity of interdisciplinary topics in the JEE makes it of special interest to academicians, consultants, educators, practitioners, and students of experiential education.

Published since 1978 by the Association for Experiential Education, the JEE is a peer-reviewed professional journal presenting a diverse range of articles in subject areas such as research, theoretical aspects of experiential education, outdoor adventure programming, service learning, environmental education, therapeutic applications, creative arts, and organizational training and development.

Published three times per year.

*Contact: Co-Editors: Mary Breunig & Tim O'Connell
Department of Recreation & Leisure Studies
Brock University
500 Glenridge Avenue
St. Catharines, Ontario L2S 3A1
CANADA
Email: jee@lakeheadu.ca
URL: <http://jee.lakeheadu.ca>*

New England Journal of Environmental Education (NEJEE)

NEJEE is an interdisciplinary journal from New England Environmental Education Alliance (NEEEA). It promotes quality environmental education across New England in partnership with the state environmental education organizations. It is for practicing environmental educators: teachers, naturalists, program developers and administrators and explores the state of the art, debates the issues facing environmental education and examines environmental affairs as they relate to EE. It takes an informal, wide ranging approach to EE, with a goal of placing our daily experiences of environmental education in a broader perspective.

*Email: mwyzga@wildlife.state.nh.us
URL: <http://www.neeea.org/nejee.html>*

Southern African Journal of Environmental Education, Ethics and Action

The Southern African Journal of Environmental Education, Ethics and Action is a research journal published by the Environmental Education Association of Southern Africa. It reports on a wide range of aspects relating to Environmental Education, Ethics and Action, through a focus on papers reporting research and development activities.

The journal furthers the study and practice of environmental education, ethics and action by providing a forum for researchers, scholars, practitioners and policy makers. It carries papers reflecting the diversity of environmental education practice in southern Africa, and includes conference reviews and keynote papers, retrospective analyses of activities or trends in a particular field, commentaries on policy issues, comparative aspects of an environmental education, environmental ethics or environmental action issue, and critical reviews of environmental education, ethics and action in a particular country or context.

Contact: Managing Editor, Heila Lotz-Sisitka, Rhodes University, PO Box 94, Grahamstown, South Africa 6140

Email: eeunit@ru.ac.za

URL: <http://www.eeasa.org.za/>

Taking it Forward Together

In January 2005, the Education for a Sustainable Future Conference was hosted by CEE in Ahmedabad as one of the first International events to herald the UN Decade of Education for Sustainable Development.

CEE is privileged to host the fourth International Conference on Environment Education (ICEE) being held in November 2007. This event marks the completion of 30 years of EE journey which began in Tbilisi in 1977. The Conference will welcome the EE and ESD fraternity, which has shaped this journey and which will take it forward collectively in its truest spirit.

While this document has attempted to capture the highlights of this journey, it is by no means complete and comprehensive. It is hoped that this will serve as a useful 'backgrounder' for discussions at the conference. The intention is also to provide a medium for inviting inputs, comments and contributions from the EE and ESD fraternity. It is planned that these inputs would be integrated into the next version of this document which would also include the outcomes and recommendations of the fourth ICEE. We look forward to a much more enriched version 2.

Bibliography

Bhandari, Bishnu B. and Osamu Abe (Eds.) (2001) *Environmental Education in the Asia and Pacific Region: Status, Issues and Practices (A Condensed Version)*. Japan: Environmental Education Project, Institute for Global Environmental Strategies.

Education for Sustainable Development, Report from the Nordic Council of Ministers' seminar held in Karlskrona on 12-13 June 2003.

Education for a Sustainable Future, *Final Report of the International Conference on Decade of Education for Sustainable Development*, 18-20 January 2005, Ahmedabad, India.

Fien John (Ed.), (1993) *Environmental Education: A Pathway to Sustainability*, Deakin University.

Fien John (1995) *Education for the Environment: Critical Curriculum Theorising and Environmental Education*, Deakin University.

Guha Ramachandra, (2000) *Environmentalism: A Global History*, Oxford University Press.

Hesselink, F., van Kempen, P.P., Wals, A., editors (2000). *ESDebate International debate on education for sustainable development*. IUCN, Gland, Switzerland and Cambridge, UK, viii+64 p.

Keating, Michael, (1993), *The Earth Summit's Agenda for Change, A Plain Language Version of Agenda 21 and the other Rio Agreements*, Centre for Our Common Future.

IUCN/UNEP/WWF. (1991), *Caring for the Earth. A Strategy for Sustainable Living*. Gland, Switzerland.

Learning to Change our World, International Consultation on Education for Sustainable Development, Reflect – Rethink – Reform, Göteborg, Sweden, 2004.

Palmer, J., Goldstein, W. and Curnow, A. (Eds) (1995), *Planning education to care for the earth*, IUCN, Gland, Switzerland and Cambridge, UK. x+169 pp.

Reorienting Environmental Education for Sustainable Development, Inter-regional Workshop, *Final Report*, 1995, *UNESCO-UNEP International Environmental Education Programme (IEEP) and Mediterranean Information for Environment, Culture and Sustainable Development University of Athens*.

Scoulllos, M., Malotidi V., (2004), *Handbook on Methods Used in Environmental Education and Education for Sustainable Development*, MIO-ECSDE, Athens.

Sandell Klas, Öhman Johan, Östman Leif (2005), *Education for Sustainable Development, Nature, School and Democracy*, Studentlitteratur, Lund.

Scott, William and Gough, Stephen (2003), *Sustainable Development and Learning (Framing the Issues)*, RoutledgeFalmer.

UN Economic and Social Council, Commission on Sustainable Development, Fifth Session, 7-25 April 1997, *Overall progress achieved since the United Nations Conference on Environment and Development, Report of the Secretary-General, Addendum, Promoting education, public awareness and training*.

UNESCO (2007), Björneloo, Inger and Nyberg, Eva, Eds., *Drivers and Barriers for implementing Learning for Sustainable Development in Pre-School through Upper Secondary and Teacher Education*, Technical paper.

UNESCO (1980), *Environmental Education in the light of the Tbilisi Conference*, Paris.

UNESCO (2002), *Education for Sustainability, From Rio to Johannesburg: Lessons learnt from a decade of commitment*, Paris

UNESCO-UNEP International Environmental Education Programme (IIEP), 1990, *Environmental Education: Selected Activities for UNESCO-UNEP International Environmental Education Programme 1975-1990*, Paris

UNESCO-UNEP (1988), *International Strategy for Action in the Field of Environmental Education and Training for the 1990s*, Paris.

UNESCO (2005), United Nations Decade of Education for Sustainable Development (2005-2014), *Links between the Global Initiatives in Education, Education for Sustainable Development in Action Technical paper*.

WCED (1987) *Our Common Future*, Oxford: Oxford University Press

Wickenberg Per, Axelsson Harriet, Fritzén, Helldén Gustav and Öhman Johan (eds.) (2004), *Learning to Change Our World, Swedish Research on Education & Sustainable Development*, Studentlitteratur, Lund.

Index

Agenda 21

53, 54, 55, 56, 57, 58, 59, 60,
61, 63, 65, 74, 81, 82, 84, 87,
88, 89, 91, 125, 127
Ahmedabad Declaration 109
Alternative Treaty on Environmental
Education 111
Alternatives Journal 122
Applied Environmental Education
and Communication 122
Asian South Pacific Bureau of Adult
Education (ASPBAE) 113
Asia-Pacific Forum for Environment and
Development (APFED) 114
Asia-Pacific Network for International
Education and Values Education
(APNIEVE) 114
Asia-Pacific Programme of Educational
Innovation for Development (APEID) 114
Atharva Veda 13
Australian Association for Environmental
Education (AAEE) 115, 123
Australian Journal of Environmental
Education (AJEE) 123

Barry, Commoner 4
Basic Education Movement 2
Belgrade Workshop, 18, 19, 24, 27, 30
Charter 19, 20, 23, 24, 113
Biosphere Conference 3
Blueprint for Survival 5
Brundtland, Gro Harlem 39
Brundtland Report 49

Canadian Journal of Environmental
Education (CJEE) 123
Canadian Sustainability Indicators Network
(CSIN) 115
Caring for the Earth: A Strategy for
Sustainable Living 50
Carson, Rachel 4
Chapter 36,
57, 58, 59, 61, 62, 63, 65, 68, 71, 74, 91
Education, Training and Public Awareness 57,
Closing Circle 4
Club of Rome 5, 6
Comenius, John Amos 1
Communitas 2
Connect 15

Dakar Framework for Action 77, 78, 89, 92
Dasmann, Raymond 4
Decade of Education for Sustainable
Development 91, 92, 95, 96, 99, 102, 108,
109, 110
Delors Report 62
Delors, Jacques 62
DESD Draft International Implementation
Scheme 104, 107
DESD Inter-Agency Coordination 101
Dewey, John 2

Earth Charter 54, 75, 77
Earth Summit 40, 54, 56, 60, 70, 75, 83, 111
Ecologist 5, 6
Education for a Sustainable Future 102, 109
EFA 2000 Assessment 78
Ehrlich, Paul 4

Electronic Journal of Sustainable
Development 123
Endangered Earth 49
Environment, Development and Sustainability
124
Environmental Education Association of
Southern Africa (EEASA) 116
Environmental Education Network of
Indonesia (JPL) 116
Environmental Education Research 124
Environmental Education Series 16, 36
Environmental Education
1, 2, 3, 10, 17, 18, 19, 20, 22,
23, 24, 25, 26, 30, 31, 33, 36,
37, 41, 42, 43, 44, 47, 48, 51,
58, 59, 62, 64, 65, 69, 71, 117, 122
ESD Caucus 101
ESD Consultative Group 101
ESD Hub 101
ESDebate 74, 98
ESF Outputs 109

Fernig, Leo 18
International Conference on Environment
Education, Fourth 112
Framework Convention on
Biological Diversity 54
Framework Convention on
Climate Change 54
Froebel, Friedrich 1

Gandhi, Indira 7, 13
Gandhi, Mahatma 2 109
Geddes, Sir Patrick 1
Global Environmental Outlook 81
Global Forum 53, 58, 111
Global Rivers Environmental Education
Network (GREEN) 17, 116
Goteborg Consultation on Education for
Sustainable Development 93
Deliberations 93
Guha, R. 6

Innovative Practices Forum 59, 65, 68
Intergovernmental Conference on
Environmental Education
(Tbilisi, USSR, 1977) 15, 25, 27, 30, 43
International Conference on Environment and
Society: Education and Public Awareness for
Sustainability
(Thessaloniki Conference) 65, 69
International Congress on Environmental
Education and Training
(Moscow Conference) 41, 47, 48
International Implementation
Scheme 92, 99, 104, 107
International Environmental Education
Programme (IEEP) 14, 16, 17, 36
International Journal of Environment and
Sustainable Development (IJESD) 125
International Journal of Sustainable
Development (IJSJ) 125
International Journal of Sustainable
Development and Planning 126
International Journal of Sustainability in
Higher Education (IJSHE) 125

- International Union for the Conservation of Nature and Natural Resources (IUCN) 2, 38
 Commission on Education and Communication 74, 117, 120, 121, 123
 International Workshop on Environmental Education (also see Belgrade Workshop) 18
- Japan Environmental Education Forum 117
 Johannesburg Declaration on Sustainable Development 82, 83
 Jomtien 50, 77, 78
 Journal of Education for Sustainable Development 126
 Journal of Environment & Development (JED) 127
 Journal of Environmental Education (JEE) 127
 Journal of Environmental Health (JEH) 127
 Journal of Experiential Education (JEE) 128
- Learning to Change Our World 93, 95
Learning: The Treasure Within 62
- Meadows, Donella* 5
 Millennium Declaration Goals 11
 Millennium Development Goals 79, 86, 90, 91, 96, 97, 103
 Moscow Conference 41, 43, 66, 69
 Monterrey Consensus 88
- National Environmental Education Network (NEEN) 118
 Network for Environmental Training at Tertiary Level in Asia and the Pacific (NETTLAP) 118
 Networks of EE 113
 New England Journal of Environmental Education (NEJEE) 128
 North American Association for Environmental Education (NAAEE) 118
- Only One Earth 14
Our Common Future 39, 40, 53, 54
Palme, Olaf 7
- Plan of Implementation (of the WSSD) 82, 83, 86, 87, 88, 89, 91, 92
Population Bomb, The 4
 Poverty eradication 79, 84, 86, 88
- Recommendation 96* 10, 14, 21
 Reflect-Rethink-Reform 93
 Regional Centres of Expertise 119
 Reorienting EE for Sustainable Development 62
 Rio de Janeiro 53, 56, 58, 84, 88, 91, 111
 Rio Conference (UNCED) 51, 61, 81, 89
 Declaration 54, 84, 88
 Rio+5 63
 Rio+10 Towards 81
Rousseau, Jean Jacques 1
- SADC Regional EE Programme 119
Silent Spring 4
 South and Southeast Asia Network for Environmental Education (SASEANEE) 120
 South Asian Youth Environment Network (SAYEN) 120
 Southern African Journal of Environmental Education, Ethics and Action 129
Stapp, William (Bill) Dr., 3, 17, 117
Stapplings 17
 Stockholm Conference 7, 10, 11, 12, 13, 14, 21, 53, 81
 Sustainable Development 21, 38, 39, 50, 53, Sustainable lifestyles 67, 109
- Tbilisi +30 112
 Tbilisi Conference 1977 15, 17, 35, 36, 43, 63, 65
 Declaration 30
 Guidelines 24
 Tbilisi Plus Ten 42
 Thessaloniki Conference 62, 65, 69, 70
 Declaration 69
Tolba, Mustapha 23
 Tripartite Environmental Education Network (TEEN) 120
- UN Literacy Decade 90, 103
 UNESCO International Network on Technical and Vocational Education (UNEVOC) 121
 United Nations Conference on Environment and Development (UNCED) (Rio Conference) 53, 54, 63, 81, 84, 88, 91
 United Nations Conference on the Human Environment (Stockholm Conference) 7, 8, 10, 11, 14, 64
 United Nations Decade of Education for Sustainable Development (DESD) 91, 92, 95, 96, 99, 109, 110
 United Nations Environment Programme (UNEP) 11, 12, 14, 23
- Ward, Barbara* 14
 World Commission on Environment and Development (WCED) 38, 39, 40
 World Conference on Education for All 50, 57, 78
 World Congress for Education and communication on Environment and Development (ECO-ED) 59, 70, 73
 World Conservation Learning Network (WCLN) 121
 World Conservation Strategy 37, 38, 49, 50
 World Education Forum 77, 78, 92
 World Environment Day 11
 World Environmental Education Congress (WCED) 111, 112
 World Summit on Sustainable Development (WSSD) 81, 82, 83, 84, 87, 88, 91, 92, 111, 112

The close links between environment and education have been reflected in the writings of thinkers and philosophers since time immemorial. The use of the term environmental education, formal definitions of its scope and key characteristics are of more recent origin. The intergovernmental conference held at Tbilisi in 1977 gave a formal recognition to Environmental Education. The thinking and practice have continued to evolve, reflecting as well as influencing the changing contexts.

This sourcebook follows the evolution of environmental education over the last four decades. It highlights the key milestones that marked the journey in the form of international conferences, key publications and documents and initiatives of the United Nations.

The book is a compilation of important resolutions, declarations, strategies and recommendations that have provided the framework and guiding principles for the EE Movement. It provides a comprehensive ready reference for students and teachers, as well as for EE practitioners.

Rs 250

ISBN 978-81-89587-25-3

Centre for Environment Education
Thaltej Tekra, Ahmedabad 380 054,
INDIA; Ph.: +91-79-26858002
Fax: +91-79-26858010
www.cxeeindia.org
E-mail: cee@ceeindia.org

Kartikeya V. Sarabhai is the Founder-Director of the Centre for Environment Education (CEE), Ahmedabad, India. He is a member of the Reference Group for UNESCO DESD Secretariat and a member of the Earth Charter International Council. Currently, he is the Vice Chair of the Indian National Commission of IUCN and has been the Asian Regional Chair of the IUCN Commission on Education and Communication. He also serves on several national and international committees, boards and trusts.

Under Sarabhai's stewardship, CEE hosted the first major international conference—Education for a Sustainable Future—in the UN Decade of Education for Sustainable Development in 2005.

Mamata Pandya is Programme Director, Instructional Design, at Centre for Environment Education. She has worked extensively in the development of EE teaching-learning materials, using a variety of media, as well as teacher training and capacity building of EE professionals, at national and international levels.

She is also part of the initiative of National Council of Educational Research and Training for developing textbooks based on India's National Curriculum Framework (NCF) 2005.

Rajeswari Namagiri is a Programme Officer with the Children's Media Unit of the Centre for Environment Education. She develops teaching-learning material for teachers and children. Her recent publications include *DISHA for Sustainable Development: A Facilitator's Handbook* and *The Environmental Education Handbook*.

CEE

Centre for Environment Education