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A Situational Analysis of Education for Sustainable Development in the Asia-Pacific Region

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A Situational Analysis

of Education for Sustainable Development
in the Asia-Pacific Region

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UNESCO Asia and the Pacific



South-East Asia



Central Asia



South Asia



Pacific



Table of Contents

Selected Abbreviations.....vi

Preface.....viii

Acknowledgements.....ix

Foreword.....x

Introduction.....1

Conceptual Overview of ESD.....5

Results of Situational Analysis.....9

North Asia.....11

Republic of Korea.....12

Japan.....14

People's Republic of China.....20

Mongolia.....24

South-East Asia.....29

Sub-Regional Overview.....30

Socialist Republic of Viet Nam.....37

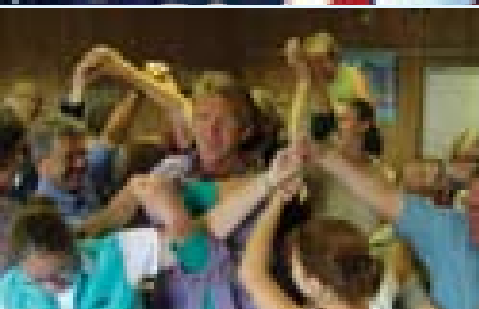
Central Asia.....43

Sub-Regional Overview.....44

South Asia.....53

Sub-Regional Overview.....54





Pacific.....63

Pacific Island Nations.....64

Australia.....73

ESD Regional Initiatives.....81

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESDE).....83

United Nations Environment Programme and ESD.....87

United Nations University Institute of Advanced Studies and ESD Programme.....91

National Institute for Educational Policy Research/UNESCO Asia-Pacific Programme of Educational Innovation for Development: Regional Seminar.....95

ESD and Natural Disaster Preparedness: Reaching All Stakeholders.....99

References.....105

Photo credits:

1. Australian Research Institute in Education for Sustainability
2. Thailand Environment Institute
3. Centre for Environment Education
4. Asia-Pacific Centre of Education for International Understanding
5. Osamu Abe
6. Regional Environment Centre for Central Asia

Selected Abbreviations

ACCU	The Asia/Pacific Cultural Centre for UNESCO
ACT	Australian Capital Territory
ADB	Asian Development Bank
APEID	Asia-Pacific Programme of Educational Innovation for Development
ARIES	Australian Research Institute in Education for Sustainability
ASEAN	Association of South East Asian Nations
ASP	Associated Schools Project (UNESCO)
AusAID	Australian Agency for International Development
BPfA	Beijing Platform for Action
BPoA	Barbados Programme of Action
BPoA+10	10-year review of the BPoA to be held in Mauritius in January 2005
CAREC	The Regional Environmental Centre for Central Asia
CETC	Community Education and Training Centre (Pacific)
DANIDA	Danish International Development Agency
DESD	Decade of Education for Sustainable Development
DFID	Department for International Development (United Kingdom)
EE	Environmental Education
EERI	Environmental Education Research Institute (Mongolia)
EIU	Education for International Understanding
EFA	Education for All
EPD	Environment, Population and Sustainable Development
ESD	Education for Sustainable Development
ESD-J	Council for the Promotion of the Decade of Education for Sustainable Development (Japan)
ICT	Information and Communication Technology
IEEP	International Environmental Education Programme
IGES	Institute for Global Environmental Strategies (Japan)
IESD	Institute for Environment and Sustainable Development, UNEP-Tongji University
IUCN	The World Conservation Union
JFIT	Japanese Funds-in-Trust
Lao PDR	Lao People's Democratic Republic
MDGs	Millennium Development Goals

NCAFW	National Committee for the Advancement of Women (Viet Nam)
NEEC	National Environmental Education Council
NETTLAP	Network for Environmental Training at Tertiary Level in Asia and the Pacific
NIER	National Institute for Educational Policy Research (Japan)
NGO	Non-Governmental Organization
NSW	New South Wales (Australia)
NT	Northern Territory (Australia)
OECD	Organization for Economic Cooperation and Development
PFNet	People First Network (Pacific)
PIS	Period for Integrated Study
ROK	Republic of Korea
SACEP	South Asia Cooperative Environment Programme
SAYEN	South Asia Youth Environment Network
SIDSNet	Small Island Developing States Network
SIV	Small Islands Voice Initiative
SPREP	South Pacific Regional Environment Programme
SOPAC	South Pacific Applied Geoscience Commission
TEI	Thailand Environment Institute
TEEN	Tripartite Environmental Education Network
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIFEM	United Nations Development Fund for Women
UNU-IAS	United Nations University-Institute of Advanced Studies
USP	University of the South Pacific
WET	Water Education and Training Initiative
WSSD	World Summit on Sustainable Development
WWF	World Wildlife Fund

Preface

This *Situational Analysis of Education for Sustainable Development (ESD) in the Asia-Pacific Region* was commissioned by the UNESCO Asia and Pacific Regional Bureau for Education and financed by Japanese Funds-in-Trust.

The Situational Analysis provides a snapshot of ESD's current state throughout Asia and the Pacific. The Analysis describes to what extent countries in the region have integrated ESD policies, programmes and practices into both formal and non-formal educational settings at the grassroots, sub-national and national levels.

The knowledge gained from this Analysis has directly informed the development of the *Working Paper: Asia-Pacific Regional Strategy for ESD*. It will guide UNESCO's project implementation and future project formulation, and will also help to create and strengthen regional partnerships and networks for ESD.

This document is also available online on the UNESCO Bangkok website at www.unescobkk.org/esd.

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Firstly, we would like to thank the many authors who contributed their knowledge and expertise to this publication. Despite time constraints, geographic distance and difficulties in gathering information, these contributors persisted throughout the project in a thoroughly professional manner. Sincere thanks also goes to Lucy Hargreaves, Project Assistant for ESD at the UNESCO Asia and Pacific Regional Bureau for Education, whose editorial efforts were invaluable to the quality and timeliness of this report.

Thanks must also go to the Director of UNESCO's Asia and Pacific Regional Bureau for Education, Sheldon Shaeffer, and to Molly Lee, Coordinator of UNESCO's Asia-Pacific Programme of Educational Innovation for Development, who both provided direction and support throughout the project. We would furthermore like to thank colleagues at UNESCO Headquarters for their encouragement and support, with special thanks to Mary Joy Pigozzi, Director of the Division for the Promotion of Quality Education (PEQ) and Malika Ladjali, formerly Acting Chief of ESD in Paris.

Finally, yet importantly, we would like to thank the Government of Japan, and particularly the Ministry of Education, Culture, Sports, Science and Technology (MEXT), for their generous financial contribution through Japanese Funds-in-Trust and continued support, without which this analysis would not have been possible.



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Foreword

Ensuring Education for All has become a global priority as a fundamental human right, which enhances individual freedom as well as provides significant benefit to society as a whole. The global community has agreed to devote two of the Millennium Development Goals to education (to ensure that all boys and girls complete a full course of primary schooling, and to eliminate gender disparity at all levels of education). These are supported by the United Nations Literacy Decade, which commenced in 2003 to extend literacy to those who have little access to it. With a view to further enhancing these endeavours to ensure quality education for all, the United Nations Decade for Education on Sustainable Development (UNDESD) was endorsed at the World Summit on Sustainable Development (WSSD) in 2002, and adopted by the UN General Assembly. UNDESD envisages a society where people have an opportunity to learn a set of values, behaviours and lifestyles for a sustainable future through quality education. ESD is a holistic concept, embracing societal, cultural, environmental and economic issues with comprehensive strategies, thereby “potentially touch[ing] on every aspect of life.”¹ Thus, it requires the involvement of a large number of stakeholders: truly, as UNESCO puts it, everyone should be a stakeholder in ESD.

In the Asia and the Pacific Region, UNESCO Bangkok has been working as the driving force for the promotion of UNDESD, in collaboration with other key agencies such as United Nations Environment Programme (UNEP) and the United Nations University (UNU). Considering the diversity that the region embraces in terms of economics, culture, society and environment, one can easily understand that there is a great need for ESD in this region to further treasure and develop the region’s cultural and natural heritage. The Asia/Pacific Cultural Centre for UNESCO (ACCU), located in Tokyo, has become a strong advocate of UNDESD. With 30 years of experience in educational and cultural cooperation in the region, the ACCU is committed to ensuring that the ESD concept becomes reality.

This *Situation Analysis of Education for Sustainable Development in the Asia-Pacific Region, coupled with the Working Paper*, provides an overview of the current status of ESD and, thus, serves as a foundation to further plan and implement ESD-related activities in the region. Though it has been recently endorsed, ESD is not an entirely new endeavour: It builds on the continuous efforts we have made thus far in pursuit of quality education for all. Therefore, it is requisite for the effective implementation of ESD to take a fresh look at our previous endeavours from an ESD viewpoint. The Analysis also proves that a wide variety of activities had already been conducted in many parts of the region - from Central Asia to the Pacific - even before the concept of ESD came into being. Much to our delight, those activities are now converging under the single concept of ESD. This new trend will bring forth increasing inter-institutional and cross-sectoral cooperation among stakeholders in the region. In turn, this cooperation will contribute to the availability of higher quality education and the promotion of peaceful co-existence of diverse people and cultures.

I sincerely hope that the reprint of *Education for Sustainable Development: Asia-Pacific Region* enables new ESD initiatives to take root widely, to produce fruitful results and, ultimately, to lead to realisation of the society that ESD envisages for the future.



NAKANISHI Kojii

Director-General
Asia/Pacific Cultural Centre for UNESCO

¹ UNESCO (2005) United Nations Decade of Education for Sustainable Development, Draft International Implementation Scheme, p.5.



Introduction

Selected Abbreviations

Preface

Acknowledgements

Foreword



Introduction

Conceptual Overview of ESD

Results of Situational Analysis

North Asia

Republic of Korea

Japan

People's Republic of China

Mongolia

South-East Asia

Sub-Regional Overview

Socialist Republic of Viet Nam

Central Asia

Sub-Regional Overview

South Asia

Sub-Regional Overview

Pacific

Pacific Island Nations

Australia

ESD Regional Initiatives

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESD)

United Nations Environment Programme and ESD

United Nations University Institute of Advanced Studies and ESD

National Institute for Educational Policy Research/UNESCO Asia-Pacific

Programme of Educational Innovation for Development: Regional Seminar

ESD and Natural Disaster Preparedness: Reaching All Stakeholders

References

“Education for sustainable development is a life-wide and lifelong endeavour which challenges individuals, institutions and societies to view tomorrow as a day that belongs to all of us, or it will not belong to anyone.”¹

In 2002, the proposal for establishing the Decade of Education for Sustainable Development (DESD) was endorsed at the World Summit for Sustainable Development (WSSD) in Johannesburg. The 57th Session of the UN General Assembly later adopted the Decade by consensus, designating the years of the Decade as 2005-2014, and appointing the United Nations Educational, Scientific and Cultural Organization (UNESCO) as the lead agency in coordinating the initiative. The Decade provides an opportunity for a focused effort on the widespread global implementation of Education for Sustainable Development (ESD). A draft International Implementation Scheme has been developed by UNESCO Headquarters and regional implementation schemes will soon follow.

UNESCO Bangkok launched this Situational Analysis to obtain a snapshot view of the current state of ESD in the region and to assist in guiding the regional implementation of the DESD. In order to make evidence-based decisions regarding the implementation, it is essential to learn to what extent countries in the region have integrated ESD policies, programmes and practices into both formal and non-formal educational settings at the grassroots, sub-national and national levels. In addition, this Analysis will help to create and strengthen regional partnerships and networks on ESD, which are essential in facilitating the exchange of knowledge and experiences, encouraging future cooperation and strengthening regional coordination of ESD.

The Situational Analysis is just one of several Asia-Pacific ESD initiatives and consultations that have taken place over the past few years. These initiatives served to inform the creation of the *Working Paper: Asia-Pacific Regional Strategy for ESD*. Rather than a prescriptive set of targets and priorities, the Strategy is an open document that provides general guidance and is adaptable to the changing needs of the Decade.

The research method applied included a careful selection of organizations and individuals with ESD knowledge and expertise in the Asia-Pacific region. These representatives were invited to prepare either country or sub-regional reports. At a pre-project workshop, researchers were asked to identify core regional ESD issues that would become the focus of the Analysis. The issues identified were:

- Information and Awareness
- Knowledge Systems (including indigenous knowledge)
- Environmental Protection and Management
- Peace and Equity
- Local Context: community empowerment and engagement
- Rural and Urban Transformation
- Culture
- Cross-Cutting Issues and Themes: human rights, citizenship, gender equality, partnerships, governance, etc.
- Health
- Environmental Education
- Engagement of Leaders

Researchers committed themselves to examining some of the core issues as they related to the specific country or sub-region they were investigating. They reviewed national and international

¹ Draft International Implementation Scheme for the Decade of Education for Sustainable Development, p. 7.

documents on ESD and surveyed both activities and plans of ESD-related institutes. Researchers also conducted an exploration of ESD initiatives in terms of delivery platforms including formal education (national curriculum/standards) at primary, secondary, and university levels; non-formal education; informal education; and ICT (Information and Communication Technology).

Given the time constraints and other limitations placed on researchers, the Situational Analysis does not attempt to reflect the status of ESD in all countries in the region. Such a task would be an immense undertaking that is far beyond the scope of this project. Obtaining information proved difficult for some researchers due to inaccessibility or simple lack of data. As ESD is a relatively new term that holistically encompasses many existing ideas and practices, data on 'ESD' as a separate entity is sometimes difficult to access.

This Situational Analysis indicates that ESD is still predominantly conceptualized by many key stakeholders and decision-makers in the context of Environmental Education (EE). Although much can be learned from the experience of successful EE initiatives, especially at the grassroots level, it is imperative that stakeholders understand the unique holistic and cross-cutting nature of ESD. Moving from EE to ESD will be a key challenge for the Decade. The Situational Analysis also indicates that traditional values play an important role in ESD, and this must be addressed by the Decade. Youth, rural and indigenous communities also play important roles in furthering ESD. Finally, it is evident from the Analysis that National Commissions for UNESCO are crucial starting points in launching and implementing ESD at the national level.

It is with great anticipation that we hope this publication will serve to inform, guide and inspire ESD initiatives throughout the Asia-Pacific region during the Decade of ESD.



Sheldon Shaeffer

Director

UNESCO Asia and Pacific Regional Bureau for Education

Conceptual Overview of ESD

Selected Abbreviations

Preface

Acknowledgements

Foreword

Introduction

➤ Conceptual Overview of ESD

Results of Situational Analysis

North Asia

Republic of Korea

Japan

People's Republic of China

Mongolia

South-East Asia

Sub-Regional Overview

Socialist Republic of Viet Nam

Central Asia

Sub-Regional Overview

South Asia

Sub-Regional Overview

Pacific

Pacific Island Nations

Australia

ESD Regional Initiatives

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESDE)

United Nations Environment Programme and ESD

United Nations University Institute of Advanced Studies and ESD

National Institute for Educational Policy Research/UNESCO Asia-Pacific

Programme of Educational Innovation for Development: Regional Seminar

ESD and Natural Disaster Preparedness: Reaching All Stakeholders

References

Defining Education for Sustainable Development (ESD)

ESD is a dynamic and expansive undertaking that envisions a world where every person has the chance to benefit from educational opportunities and to learn the lifestyles, behaviours and values necessary to create a sustainable future. It is not restricted to young learners in the formal education system. ESD is for everyone, at all stages of life and in all possible learning contexts. Due to its extensive coverage, ESD employs a partnership approach that engages multiple sectors and stakeholders – including media agencies and the private sector – and utilizes all forms and methods of public awareness-raising, education and training to promote a broad understanding of sustainable development.

Addressing environmental concerns has traditionally been the focus of many sustainable development initiatives. However, ESD equally addresses all three pillars of sustainable development - society, environment and economy - with culture as an essential additional and underlying dimension. By embracing these elements in a holistic and integrated manner, ESD enables all individuals to fully develop the knowledge, perspectives, values and skills necessary to take part in decisions to improve the quality of life both locally and globally in terms which are most relevant to their daily lives. Achieving sustainable development will require not only appropriate skills and resources, but also a fundamental alteration to the way development and change are conceptualized.

The following perspectives are identified in UNESCO's draft **International Implementation Scheme for the DESD** as important concerns and challenges that must be addressed in the effort to achieve sustainability (UNESCO, 2005).

- *Socio-cultural perspectives:* human rights, peace and human security, gender equality, cultural diversity and intercultural understanding, health, HIV/AIDS and governance
- *Environmental perspectives:* natural resources, climate change, rural transformation, sustainable urbanization, and disaster prevention and mitigation
- *Economic perspectives:* poverty reduction, corporate responsibility and accountability, and market economy

United Nations Decade of Education for Sustainable Development (DESD)

The Decade provides an opportunity for a focused effort on the widespread global implementation of ESD. The proposal for establishing the DESD was endorsed at the World Summit for Sustainable Development (WSSD, 2002). The 57th Session of the UN General Assembly later adopted the DESD by consensus. The Decade has four objectives:

- Facilitate networking, linkages, exchange, and interaction among stakeholders in ESD
- Foster an increased quality of teaching and learning in education for sustainable development
- Help countries to make progress toward and attain the Millennium Development Goals (MDGs) through ESD efforts
- Provide countries with new opportunities to incorporate ESD into education reform efforts

Seven interlinked strategies are proposed for the promotion and implementation of ESD throughout the Decade. These are: advocacy and vision-building; consultation and ownership; partnership and networks; capacity-building and training; research and innovation; information and communication technologies; monitoring and evaluation.

Monitoring and evaluation will be essential throughout the Decade, and specific indicators are required to measure qualitative and quantitative progress. It is important to collect baseline data at the beginning of the Decade so that progress can be measured in the coming years.

Working Paper: Asia-Pacific Regional Strategy for ESD

The results from the Situational Analysis, and other initiatives have directly informed the development of the **Working Paper: Asia-Pacific Regional Strategy for ESD**. These other initiatives include the International Conference on Sustainable Development Education in Ulaanbaatar and the International Forum on ESD in Beijing, both in 2003. In 2004, a Multi-agency Consultation on ESD was held in Bangkok, while several focused workshops took place throughout the region to address specific aspects of ESD. Educational innovation for sustainable development was explored at a regional seminar organized by the National Institute for Educational Policy Research (NIER) of Japan and UNESCO's Asia-Pacific Programme of Educational Innovation for Development (APEID). Details of this seminar can be found later in this report. Other workshops focused on the role of the media, private sector partnerships, monitoring and evaluation, strategic planning and community engagement.

Key sections of the Strategy were drafted by over 100 experts from across the region at a participatory and interactive Strategy Workshop in Bangkok in February 2005. The Strategy focuses on collaboration and networking from the perspectives of various stakeholders. The key sections of the Regional Strategy are: core issues for ESD in the Asia-Pacific; roles of stakeholders; and monitoring and evaluation for the promotion and coordination of ESD efforts.

ICT, gender and culture are important elements of the Strategy. ICT is recognized as a key strategy for the DESD; mainstreaming gender is a major focus of UNESCO globally; and culture is the important underlying dimension of ESD through which the elements of society, environment and economy are interconnected.



Development
Education
Sustainable
Education
Results of
Situational
Analysis

Selected Abbreviations

Preface

Acknowledgements

Foreword

Introduction

Conceptual Overview of ESD

➤ Results of Situational Analysis

North Asia

Republic of Korea

Japan

People's Republic of China

Mongolia

South-East Asia

Sub-Regional Overview

Socialist Republic of Viet Nam

Central Asia

Sub-Regional Overview

South Asia

Sub-Regional Overview

Pacific

Pacific Island Nations

Australia

ESD Regional Initiatives

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESD)

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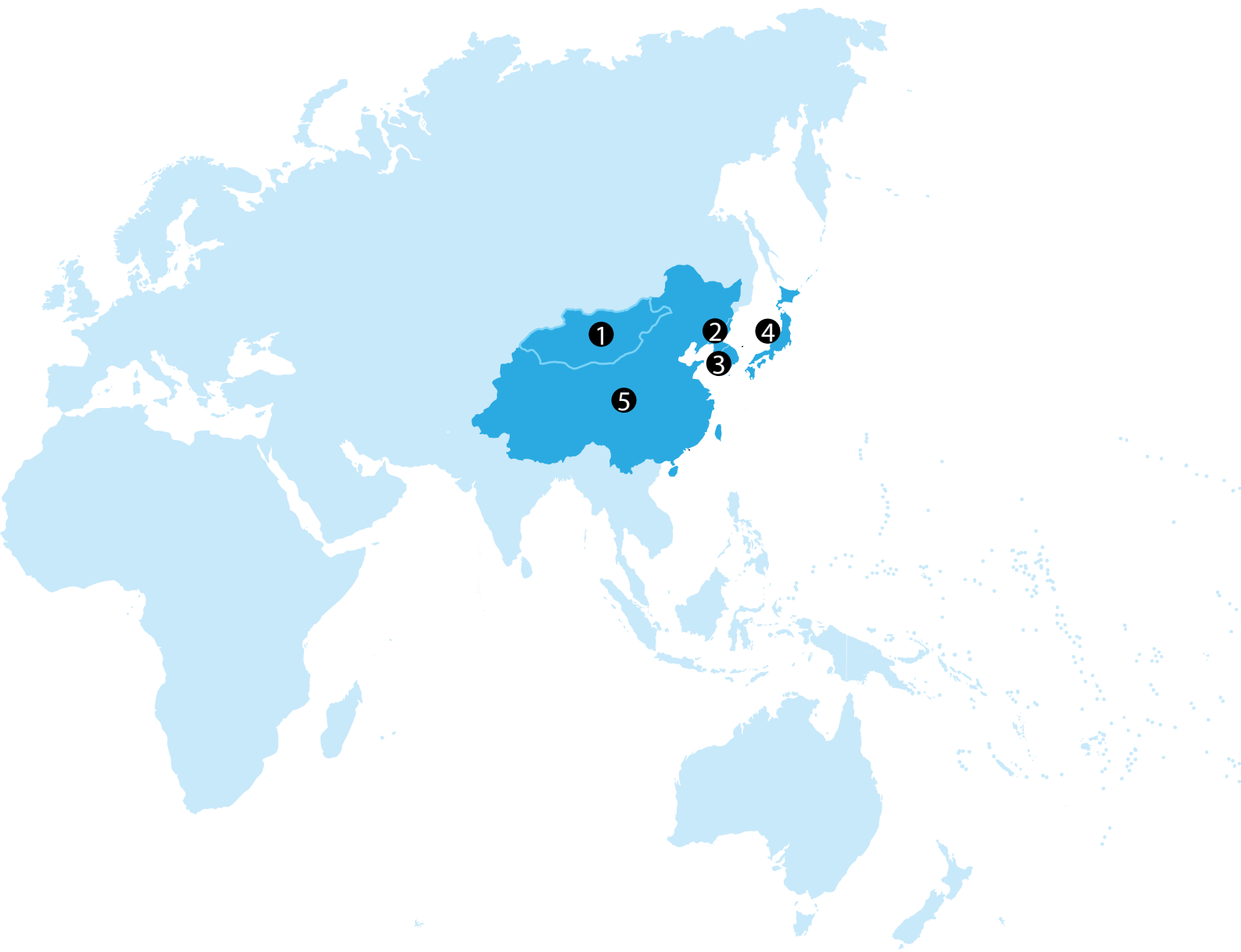
References



Photo credits:

1. Asia-Pacific Centre of Education for International Understanding
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North Asia



1. Mongolia
2. Democratic People's Republic of Korea
3. Republic of Korea

4. Japan
5. People's Republic of China

Republic of Korea



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CURRENT STATE OF ESD IN THE REPUBLIC OF KOREA

The Republic of Korea (ROK) provides an interesting country-specific case study of ESD. It only recently, in the last decade, became an OECD Member State. Yet, the general population has a high level of consciousness regarding environmental, peace and equity issues due to the democratization processes and citizens movements that have occurred in the country. Achieving a more sustainable society in ROK, and throughout the Asia-Pacific region, requires a similar large-scale societal shift in consciousness. ESD will play a key role in facilitating these changes.

The research conducted as part of this Situational Analysis found that there is some understanding of EE and sustainable development in ROK. The connection between education, in general, and sustainable development has not been as easily made, especially in terms of the connections between values education and sustainable development. Even experienced professionals in the sustainable development field tend to restrict their focus to policy aspects of sustainable development and largely overlook the values and attitudinal aspects of education that are critical to ESD's success.

Awareness of ESD appears to be highest among researchers and activists in the environmental field. For professionals in other sustainable development-related fields, such as peace, gender and human rights education, familiarity with ESD issues is very low. Researchers and activists in these fields tend to view sustainable development and environmental problems within the sphere of state responsibility. Although the state plays an important role in directing policies towards creating a sustainable future, one cannot overlook the essential roles that citizens, educational institutions and the private sector play in promoting awareness and attitudinal, behavioural and lifestyle changes towards sustainable development.

Within government, informal discussions indicate that more needs to be done in terms of publicizing and educating officials about ESD and the importance of the DESD for all countries in the Asia-Pacific region. The launch of a regional strategy for ESD will provide an excellent opportunity to reach these stakeholders.

Due to the level of awareness of environmental issues, the Government has actively promoted EE through increased financial support and legislation. It has also been equally active in promoting values education in areas such as Education for International Understanding (EIU). Initiatives have included the provision of government funding for teacher training in EIU and the expansion of institutional capacity through the creation of institutions such as The Asia-Pacific Centre of Education for International Understanding. Similarly, institutional capacity for sustainable development has been expanded through the creation of institutions such as the Presidential Commission on Sustainable Development. Within this Commission, there is an active Education Committee that has the potential to play a catalytic role in promoting ESD.

There are several key priorities for furthering ESD. First, it is essential to create a common vision for sustainable development among policy makers, local communities and NGOs. This must be followed by a public awareness campaign using the media, grassroots organizations and the public sector. The Green Korea Citizen's Committee recently recommended that a league of parliamentarians be established within the Government to achieve greater coordination of ESD issues at the Cabinet level. A Government-endorsed National Action Plan for ESD, accompanied by appropriate funding, is also essential. Teacher training, policy development and identification of best practices are additional important elements in furthering ESD.

Japan

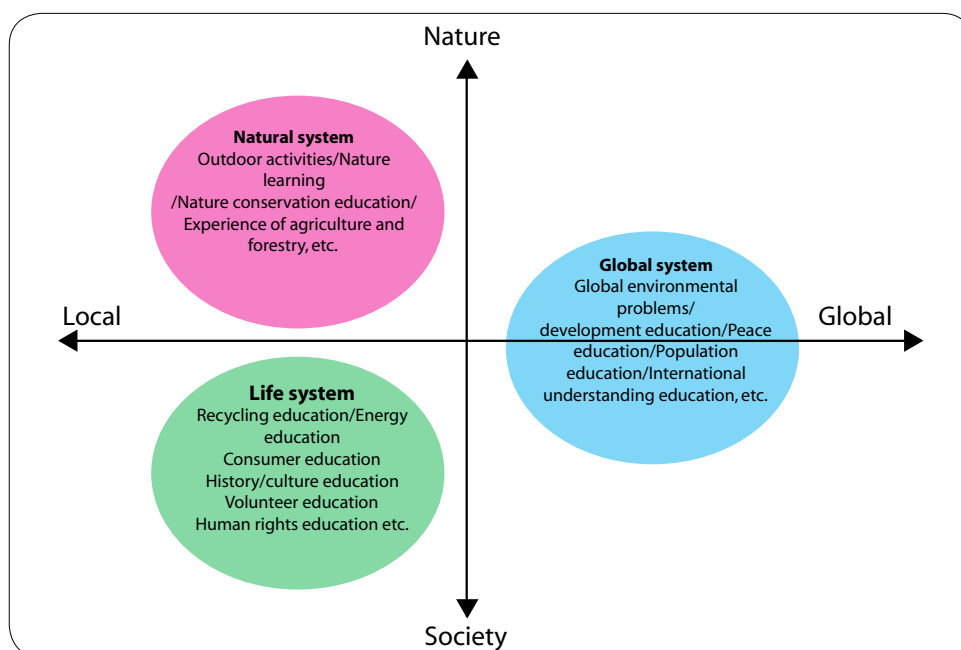
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CURRENT STATE OF ESD IN JAPAN

ESD is a newly introduced term in Japan, but educational activities that aim to establish a sustainable society have existed for a long time. Prior to the 1990s, sustainability-oriented education activities were classified into three thematic categories: natural-system related; life-system related; and global-system related. The diagram below illustrates these categories. These three categories operated separately, and integration between categories occurred infrequently.

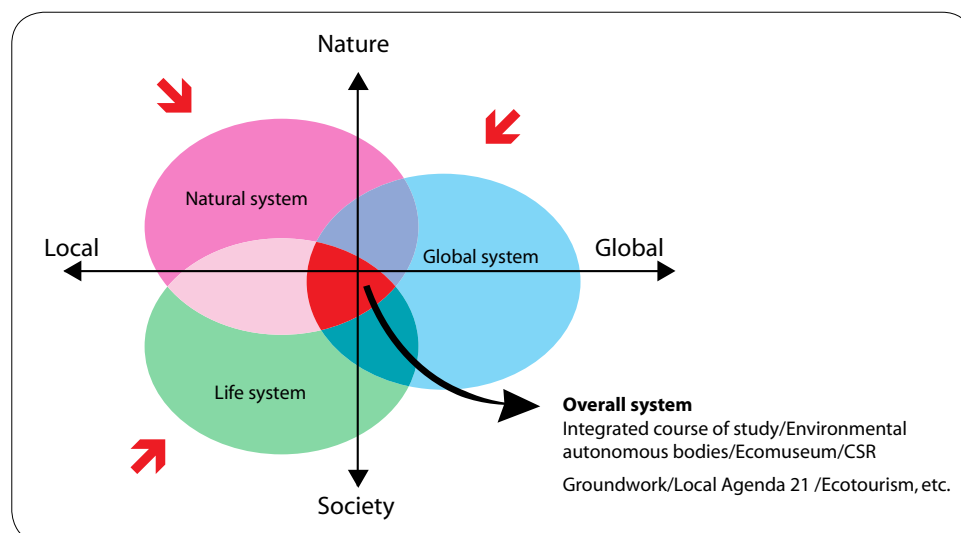
Education and activities for a sustainable society – before 1990



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This conventional classification began to change in the 1990s. It became clear that other issues such as development, poverty, overpopulation and peace are connected to global environmental issues. Practitioners engaged in the educational activities described above discovered that their own activities too closely connected to one another, and that greater collaboration was needed to achieve educational objectives. The diagram below illustrates how this collaboration resulted in the creation of a new thematic category entitled "Comprehensive-system EE."

Education and activities for a sustainable society – after 1990s



© Osamu Abe

Elements of the Comprehensive-system EE were incorporated into the formal school curriculum in 2002. They aim to build sustainable communities and encourage people to “think globally, act locally.” Core ESD concepts are embodied throughout Comprehensive-system EE.

Role of the National Government

The Government has made many attempts to address EE. The Basic Environment Law of 1993 promotes EE, and the Renewed Basic Environmental Plan of 1999 ranks EE as a key environmental policy. An Environmental Education Promotion Law was also introduced in 2003. This law provides for the development of a basic governmental policy for EE.

In many cases, EE efforts from government agencies have not been coordinated. They often too strongly reflect a particular agency’s mandate, lacking an overall perspective on realizing a sustainable society. Due to the current compartmentalized nature of the administrative structure, government efforts to deal with EE – and ESD – must become more comprehensive and systematic. This could be achieved through the creation of an organization or governmental department that is responsible for the overall coordination of such efforts. Some joint Ministry projects for EE have been recently initiated, which indicates a positive step in this direction.

NGOs provide support for governmental EE activities. In Western Europe, NGOs conduct many EE initiatives and have significant influence on the implementation of environmental policies. In Japan, however, NGOs have far less influence on many issues, and EE is no exception. Environment-related NGOs tend to have a weak organizational and financial base despite the fact that many Japanese citizens have a great deal of interest in the environment.

To recognize the leading role NGOs can play in civil society, the Law to Promote Specific Non-profit Activities was enacted in 1998, but the situation for environment-related NGOs has yet to show significant improvement.

The Government established a Global Environment Fund in 1993 to provide support for activities aimed at protecting the environment, including education work by civilian groups such as NGOs. In the 10 years since then, a total of 7 billion yen has been given out for environmental protection work by NGOs, covering up to 2000 different initiatives. The introduction of this fund has received much praise; however, there have been many restrictions on the types of projects that are eligible for funding.

Law for Enhancing Motivation on Environmental Conservation and Promoting Environmental Education

Enacted: 1 October, 2003

Purpose:

- To promote people’s proactive participation in environmental conservation activities in order to establish a sustainable society
- To increase momentum to developing human resources that would lead to environmental conservation activities

EE/ESD in Formal Education

The Japanese Government has placed priority on EE in the formal education system. Schools are expected to implement EE activities and promote the participation of the local community in these activities. EE is connected to curricular and extra-curricular activities at school through every subject. The Ministry of Education prepared a series of teachers guides called “Environmental Education Guidance Materials” (1991, 1992, 1995) to assist teachers in conducting EE activities.

Various educational reforms are being implemented by the Government through some agencies, such as the National Council on Educational Reform and the Central Council for Education. In preparation for new educational systems, discussions are centered on developing education strategies that can deal with the enormous social changes resulting from globalization and information technology.

The Ministry of Education assumes the responsibility of educational administration at the national level. It prescribes guidelines for the curriculum, courses and credit requirements from kindergartens through high schools. Curricular standards for elementary and secondary schools are described in the courses of study produced by the Ministry of Education. The Ministry is also responsible for authorizing textbooks for elementary and secondary education.

A course entitled “Period for Integrated Study” (PIS) was introduced in 1998 by the Ministry of Education. This course is mandatory, and follows cross-sectoral and comprehensive studying activities. These studies are related to the life environment of students including topics such as international understanding, information, environment, welfare and health. Each school is able to select the topical content of these studies. PIS was implemented in all primary and secondary schools in 2002.

Life Environmental Studies (Seikatsuka)

“Life Environmental Studies” is an elementary school subject that incorporates elements of science and social studies together into an integrated curriculum. This subject is considered to be a good example of EE in the formal education system, and three hours of class time is spent on the subject every week. Teachers create their own teaching material, drawing examples from various sources. The subject places an emphasis on nature and social relationships.

PIS was established to provide children with direct experiences about nature and human relations. It has already had an impact on the Japanese EE/ESD movement. Many practitioners hope that PIS will encourage children to be engaged members of society, and expect that it will assist schools in implementing Education for Sustainability.

Further Development of EE/ESD in Formal Education

EE is not clearly positioned in the formal education curriculum. The Ministry of Education has been developing various EE policies since 1997, but has not adopted EE at the curricular level. Although each school develops their own curriculum based on a general course of study, the Ministry of Education has the authority to develop the course of study, which is the core of the curriculum, and authorizes textbooks based on this course of study. Therefore, without Ministerial support, EE will not be formally incorporated into the curriculum.

In order to effectively promote PIS as EE, it is furthermore important for teachers to develop their teaching capacity. Training courses should be offered to improve teacher’s abilities to coordinate local community participation in school activities; facilitate children’s learning; and conduct interdisciplinary lessons that integrate subjects.

ESD in Non-Formal Education

There have been many efforts by the Government to promote ESD in non-formal settings. One of the successful experiences is found in the Junior Eco-Club initiative. The Junior Eco-Club (*Kodomo-eko-kurabu*) was established in 1995 by the Ministry of the Environment to raise children’s awareness and interest in environmental conservation. It is a voluntary nationwide green club activity. The Ministry of the Environment encourages school children to work in a group for the environment, and supports their activities. The activities differ from one club to another. Students’ experiences and successes are shared with other fellow students through a bi-monthly newsletter, as well as through national and regional exchange programmes. The Japan Environment Association serves as the national secretariat to the Junior Eco-Club. The goals of the Junior Eco-Club are:

- To foster children’s awareness of environmental conservation
- To build a sustainable society

- To support children so they can learn about their local and global environments, and take specific and positive measures/actions to improve these environments.

Clubs can be organized with a minimum of three elementary and/or junior high school students. Each club has one or more supporters who offer advice regarding their activities, help them to make groups and correspond with the secretariat. Each club should register at the local and national secretariats of the Japan Environmental Association. The Japan Environmental Association prepares a national list of club members.

Club activities are based on member's unique needs and interests. In order to make club activities consistent and enlightening, clubs must adopt a common framework of learning activities designed by the national secretariat.

Role of Local Government

Local government agencies in Japan have been involved in several initiatives related to ESD. All 47 of the prefecture and city governments, (and many other local authorities) have developed their own local Agenda 21.² Over 3 percent of the total number of local authorities have registered with the international environmental certification ISO14001, and many have also become members of the Coalition of Local Government for the Environment initiative. Finally, 85 percent of prefecture governments have developed EE plans.

Key Stakeholders

Japanese NGOs have been involved in an array of different activities related to ESD, such as human rights education, EE, development studies, peace studies and cooperation for international education. There are many areas where ESD efforts are only in their infancy, but activities connected to ESD are expected to extend to more spheres of life and more regions of Japan in the future. NGOs are not well-supported in Japan, but the importance and potential of this key stakeholder group must not be overlooked in planning and implementing activities for the DESD. Both the Japanese Government and NGOs were instrumental in bringing the proposal of the DESD to the forum at the WSSD, held in Johannesburg in 2002.

The private sector in Japan is beginning to realize the important role it plays in creating a sustainable society. Some companies have acquired international environmental accreditations such as ISO 14001, while others have become firmly committed to EE partnerships with NGOs and local communities. The number of corporations involved in these activities is still small and, as a result of Japan's long economic recession, many firms have little capacity to develop new initiatives. ESD initiatives and commitments could be incorporated into existing corporate social responsibility programmes, which are becoming more common in the private sector. Government pressure will likely be necessary to prompt companies to take such actions.

ESD-J

A significant step towards implementing ESD in Japan was taken with the formation of the Council for the Promotion of the Decade of ESD (ESD-J) in June 2003. ESD-J now includes more than 90 organizations as members. The Council aims to support the activities of groups and individuals involved in education on social issues such as health care, cultural

² Agenda 21 is a comprehensive plan of action to mitigate human impact on the environment. It was adopted at the Earth Summit in Rio de Janeiro in 1992. It outlines actions to be taken globally, nationally and locally by organizations of the United Nations System, Governments and Major Groups in every area in which humans impact the environment.

diversity, gender equality, peace, human rights, appropriate development and the environment, and connect these activities within the framework of the DESD.

It is envisioned that ESD-J will become a counterpart to national and local governments, corporations and education bodies, and link the activities of related NGOs both in Japan and overseas. ESD-J plans to implement the following initiatives from 2005-2014 as part of the Decade:

- *Network programme*
 - Establish and support an ESD roundtable in each region
 - Formulate and support regional ESD programmes
 - Collaborate and cooperate on building a network of NGOs connected to ESD with a focus on the Asia-Pacific region
- *Planning and implementation of programmes at the national level*
 - Establish a national ESD roundtable
 - Offer guidelines and policy advice for the participatory process
 - Develop a scheme for promoting ESD at the local level
 - Promote the mainstreaming of ESD in the formal education system and in adult education
 - Conduct monitoring and mid-term evaluation activities
- *Communication programme*
 - Conduct a review of DESD activities
 - Offer policy advice regarding how to promote ESD after the conclusion of the Decade

Stakeholders in Japan have been transitioning from EE to a more comprehensive approach since the WSSD in 1992. The establishment of ESD-J is an excellent step towards implementing the DESD in Japan. The education of all stakeholders about the meaning of the ESD concept will be an essential first step in laying the framework for the Decade.

People's Republic of China

Du Yue

Chinese National Commission for UNESCO

Shi Gendong and Qian Lixia

Chinese National Working Committee for EPD



STATE OF ESD IN THE PEOPLE'S REPUBLIC OF CHINA

People's Republic of China

China covers an area of over 9.6 million square kilometres, with coasts stretching more than 18,000 kilometres in length. It is the most populous country in the world, with an estimated 1.3 billion inhabitants in 2004. It is predicted that the population will expand by more than 10 million annually over the coming decade.

The Chinese Government views sustainable development as essential to meeting the challenges of the 21st Century. In 1992, *Agenda 21 for China* clearly stated that addressing issues such as overpopulation, exploitation of natural resources, over consumption, environmental pollution and urban/rural development is imperative in order to achieve sustainable development.

EPD in China

Education for Environment, Population and Sustainable Development (EPD) is a key ESD initiative. Although specifically aimed at teenagers, EPD seeks to provide all members of society with knowledge about environment, population and sustainable development issues. The rationale and operational modes strive to make practical connections between international ESD initiatives and national environmental, economic and socio-cultural characteristics.

Initiated in 1998 by the Chinese National Commission for UNESCO, EPD has received support at high levels of government, has involved more than 1000 schools and is designated as a UNESCO flagship project.

EPD Rationale and Approaches

EPD purports that education and learning play key roles in the process of implementing sustainable development strategies. The basic content of EPD focuses on enhancing interdisciplinary and moral education using nationally relevant sustainable development issues like environmental pollution, resource shortages and overpopulation. The programme asserts that the implementation of EPD in the school curriculum will improve the quality of teaching and learning. Teacher training is an essential component of the programme. Partnerships and cooperation between all-levels of government, universities, NGOs and other relevant stakeholders are also important elements.

EPD uses innovative teaching and learning methods, such as inquiry-based approaches, inclusiveness, cooperative activities and experiential learning. The following activities are either planned or underway as part of the EPD initiative:

- A regular national workshop and international forum to discuss EPD issues;
- Construction of a teaching model of inquiry-based approaches and inclusiveness;

EPD Objectives

- Enhance educators' understanding and ability to work on EPD issues through training methods based on quality education
- Enhance students' knowledge about EPD issues, and cultivate their scientific abilities and skills
- Foster a new generation with creative spirits, abilities and ideas for sustainable development
- Work with other nations to combine education about the environment and population with sustainable development in order to improve the global living environment in and achieve sustainable societal development for all

- Construction of an activity model of inquiry-based approaches and concern for environment/concern for life concepts in subject-based teaching;
- Establishment of experimental schools to test EPD education methods; and
- Organization of a training and evaluation activity for EPD education.

Structural Organization of EPD

The EPD initiative is organized under the guidance of several committees: a National Steering Committee for EPD and a National Working Committee for EPD. Local Working Committees assist with the planning and implementation of EPD at the local level. With the guidance of both the national and local working committees, more than 1000 EPD Project Schools have been designated. There are three degrees of participation for schools in the EPD programme:

Heart in Yangtze River – Reforms towards multi-subject integration in Chang'an Primary School, Xi Cheng District, Beijing

An essential component of ESD is the holistic and interdisciplinary approach to sustainable development issues. Recognizing this, researchers at Chang'an Primary School in Xi Cheng District selected themes to be integrated across subjects for different grades. In Grades 3 and 4, the teachers of music, society, maths, nature, art and Chinese integrated the theme of environmental protection of the Yangtze River watershed into their curriculum. Collectively, the teachers prepared lessons, designed a teaching programme and discussed appropriate teaching methods for each subject.

Different methods were used to integrate the theme in various subjects. In music class, students study music about the Yangtze River to develop a sense of the river's grandeur. In society class, teachers and students discuss the economic, social and environmental implications of the Gezhou Dam Water Conservancy Project, which has been built on the Yangtze River. In maths class, students develop a quantitative understanding of the river by producing statistical tables regarding various aspects of the river. Teachers implementing this programme feel that integrated curriculum avoids knowledge repetition and new teaching methods stimulate students' interest in learning about sustainable development issues.

- **Project Member Schools:** Educational institutions that abide by the *Regulations of EPD in China* and *Project Manual of EPD in China*, and are willing to take part in EPD educational activities.

- **Project Experimental Schools:** Project Member Schools are eligible to apply for project experimental status once they have participated in EPD education initiatives for more than two years and have stable leadership/research schemes.

- **Project Pilot Schools/EPD Eco-schools:** Project Experimental Schools are eligible to apply for pilot school status if they have made significant achievements in using EPD-based education and teaching models.

International Partnership Approach

The EPD programme actively seeks out regional and international partnerships. The initiative has sponsored principals and teachers from project schools and professional researchers to visit and study successful cases of EPD education at home and abroad. EPD project experts have participated in international ESD conferences and regional seminars to exchange experiences and learn from others.

Achievements

The EPD initiative has made several major impacts. First, the project has influenced national policy

makers' understanding of EPD and the importance of education in achieving sustainable development. Second, using the practical experience received from participating in the EPD programme, the Beijing Education Commission has supported the development of textbooks for a course on "Environment and Education on Sustainable Development." This subject will be launched in primary and secondary schools in 2005. Third, by successfully demonstrating EPD in pilot schools, the project has changed educators' viewpoints and has promoted educational innovation to support ESD. Teachers have also undertaken

pedagogical innovations, such as the use of ICTs and experiential learning. Fourth, the EPD project has guided students towards learning to care for society, cherish life and protect the environment. Many students who have attended EPD project schools feel more empowered to strive for sustainable development and actively participate in public service activities in their communities.

THE WAY FORWARD: PROGRESSING ESD IN CHINA

ESD can be further progressed in China through the promotion of a national curriculum reform initiative. Educational reforms should be guided by global trends, while taking into account Chinese educational needs and practices. Change is most likely to be sustainable if undertaken in a consultative manner to suit the needs of all stakeholders. Emphasis should be placed on quality education.

Efforts must also be made to increase the public's awareness of ESD and their understanding of sustainability. To do this, the National Working Committee for EPD can explore ways to engage the media in sustainability issues, increase the use of ICTs and encourage EPD project school students to share their knowledge with friends, families and communities.

Teacher training is also essential in progressing ESD in China. Teachers must be given the skills and knowledge necessary to meet the challenges of teaching new concepts in an innovative manner. Modes of training include study tours, workshops, field visits and specialized courses. Self-learning is particularly important for rural and isolated teachers.

Finally, the importance of partnerships should not be overlooked. Cooperation among education institutions, communities, NGOs and the private sector already exists, but can be strengthened and expanded. Through partnerships, the EPD National Working Committee hopes to mobilize the participation of more schools in the EPD project.

Mongolia

Adyasuren Tsokhio

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Institute ECO ASIA



CURRENT STATE OF ESD IN MONGOLIA

Mongolia

Landlocked between Russia to the north and China to the east, west and south, Mongolia is sparsely populated, with 2.4 million people spread over 1.6 million square kilometres. The population has doubled since 1975, and nearly two-thirds of the nation's inhabitants now reside in urban areas. Nonetheless, 40 percent of the Mongolian workforce is employed in the agricultural sector, primarily in animal husbandry; twelve percent of the workforce is employed in the industrial sector. This activity has left the nation's natural resources depleted, especially by the mining industry. Even the country's abundant water resources, are showing signs of degradation due to human activities (UNEP, 2002).

Poverty is a key issue, as severe economic problems in the 1990s resulted in a significantly lowered standard of living. In 1994, poverty was estimated to affect nearly 30 percent of the population (UNEP, 2002). Solid waste management is a serious concern in rapidly growing urban areas. In Ulaanbaatar, the capital, waste is collected on a daily basis and is transferred, untreated, to open dumps located on the urban periphery. Several waste reduction and anti-pollution programmes have been implemented by the Government, but adequate waste treatment facilities are still urgently required (UNEP, 2002).

Core Issues of ESD

Environmental Education

The Mongolian Action Programme for the 21st Century was created in 1998, and contains a national sustainable development strategy. The programme consists of four parts: Sustainable Social Development, Sustainable Economic Development, Use of Natural Resources and Environmental Protection, and Means of Implementation. The fourth section on Means of Implementation explores ESD in Mongolia.

According to the Ministry of Education, Culture and Science, primary and secondary schools in Mongolia must provide natural science training with courses such as local environment study, nature exploration, geography, biology, chemistry and physics.

The primary goal of environmental and natural science education is to provide youth with the opportunity to develop a deeper understanding of their natural surroundings, often through experiential learning. A wood plantation activity, organized by the Ministry of Nature and Environment and implemented by EERI ECO ASIA in 1999/2000 allows small groups of students to learn about reforestation techniques, tree life cycles and forest ecosystems. Student's environmental and ecological knowledge improved as a result of this activity, as did their ability to understand the environment as an integral part of sustainable development.

Traditional Land Management Practices in Mongolia

Mongolians have a long tradition of pastureland management that began over 5,000 years ago. Traditional methods of pastureland management vary depending on factors such as geography and climate. Youth today must learn these traditional methods through formal education programmes because the experiential learning methods of the past are no longer practiced. To this end, the National University of Mongolia, Institute of Agriculture and the Environmental Education Research Institute (EERI) ECO ASIA have initiated experiential training programmes for students in both urban and rural areas.

Training has included learning modules such as how to plan for four seasonal pasturing methods and how to divide the grassland according to sector and seasonal usage. Students also learn through simulation exercises about information exchange methods used by herdsman to identify good pasturelands. Some challenges include the lack of a handbook, guides and related learning materials. Insufficient human, financial and technical resources also limit the programme's ability to expand and reach more learners.

Higher Education

In 2002, the National Council for Sustainable Development of Mongolia, in collaboration with EERI ECO ASIA, initiated a study about ESD in Mongolian universities. The goals of the project were to introduce ESD into the curriculum of tertiary education institutes in

Waste Reduction Training

Ecological Public Awareness is a government-sponsored education programme in the Chingiltei District of Ulaanbaatar. The programme objectives include enabling the public to understand their environmental responsibilities; extending EE activities; and implementing a 'blue bag' project to educate the public about appropriate waste management practices. The programme targeted women as key stakeholders and held meetings with housewives to discuss issues such as the hygienic disposal of household waste. Academics also provided community training on basic ecological principles. Waste management guidebooks and blue coloured bags with labels such as 'metal', 'bone', 'cans' and 'paper' were distributed to women with instructions on how to separate waste.

Many women voluntarily initiated a neighbourhood cleanup as part of the programme. Recyclable materials were returned to manufacturers for refunds, resulting in increased household income. Companies and industries have since recognized the financial potential of this practice, and have opened processing depots.

Unfortunately, financial resources are currently not available to support the continuation or expansion of this project, nor the implementation of similar projects. Funding partnerships with international organizations and NGOs must be explored.

Mongolia; to help students gain more detailed knowledge of sustainable development; and to improve the skills of lecturers and trainers in teaching for sustainable development. As part of the study, a sustainable development textbook and a national university-level ESD curriculum and training guide were developed and distributed to universities and colleges.

Gender Issues

Mongolia has achieved a range of extremely impressive outcomes with respect to female education. The education system is dominated by women both as students and teachers from early childhood education through to the post-graduate level. Since the socialist era, enrolment rates of girls have consistently been higher than those of boys for primary, secondary and tertiary education. In secondary education, gross enrolment rates for girls are 20 percent higher than for boys, while women now account for 70 percent of all students in tertiary education. Although this bodes well for women in Mongolia, the low retention rate for boys is a concern. The main reasons for the growing gender gap in education have been the withdrawal of boys from schooling to assist in income-earning activities such as herding, the lack of male role models within the school system and the collapse of the vocational education system that was traditionally male-dominated.

Despite the achievements in school enrolment, women have not been able to take full advantage of their higher educational status and emerging opportunities. The pattern of employment shows a considerable division of labour and discrimination, especially when it comes to managerial positions. Women lack access to resources, funds and market information in order to set up their own businesses. They also have limited access to information on recent legislation and social entitlements. Women face a significantly higher incidence of poverty throughout the country. In Ulaanbaatar, data for 1998 reveals that the proportion of poor women (44 percent) is more than double the proportion of poor men.

Public Awareness

Public awareness initiatives are addressed in the Mongolian Action Programme for the 21st Century as main conduits for implementation of programme goals. Currently, public awareness programmes for sustainability appear to focus on environmental and ecology-related issues. It is important that such campaigns take a more holistic approach to sustainable development if ESD is to be successfully implemented.

A recent writing competition for secondary school students served to promote public awareness of sustainable development issues. Students were invited by the Government to write articles about environmental protection and sustainable development. These articles were judged by a selection committee, and finalists appeared on live television to answer questions about sustainable development. In conjunction with the writing contest, local media outlets also produced news items on sustainable development to further increase public awareness. The involvement of the media generated much public interest in the competition, and was essential to its success. The media's involvement also allowed rural populations to benefit from this unique educational opportunity.



Photo credit:
Thailand Environment Institute

South-East Asia



1. Myanmar
2. Thailand
3. Cambodia

4. Lao PDR
5. Viet Nam
6. Malaysia

7. Indonesia
8. Brunei Darussalam
9. Philippines

10. Timor-Leste

Sub-Regional Overview

Ampai Harakunarak

With Walaitat Worakul

Thailand Environment Institute



CURRENT STATE OF ESD IN SOUTH-EAST ASIA

South-East Asia

Geographically, South-East Asia lies east of India and south of the People's Republic of China, bordered by the Bay of Bengal, the Indian Ocean, the South China Sea, and the Pacific Ocean. The countries of the sub-region are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, the Kingdom of Thailand, Timor Leste and the Socialist Republic of Viet Nam.

At present, South-East Asia is estimated to have more than 30 ethnic groups comprising over one million people. Most nations have one or more dominant cultures that play major roles in defining national ideologies, policies and development priorities. Ethnic heterogeneity is one of the defining characteristics of South-East Asia, and the source of some serious social and political challenges.

Experts predict that the countries of South-East Asia will develop diverging demographic patterns over the next twenty years. While some, such as Brunei, Singapore and Thailand, will begin to experience a slowing of their population growth rates, others will grow significantly. Indonesia, the Philippines and Viet Nam are projected to have the highest percentage of population increase by 2025.

Most parts of South-East Asia have considerable biological and ecological resources. A large percentage of all the active volcanoes in the world lie in the sub-region, and contribute to soil fertility, species diversity and human settlement. The sub-region's physical endowments are shaped not only by its position near the equator, but also by monsoonal climatic exchanges between the Pacific and the Asian mainland. As a result of the combination of this unique geographical and climatic pattern, the environmental resources of South-East Asia are some of the richest in the world.

Sustainable Development Issues

Countries face similar challenges regarding appropriate development and improvement in the quality of life. Despite the similarity of the challenges, each nation has its own unique approach in dealing with the complexity of these issues.

During the past decade, all South-East Asian economies except Myanmar and Timor Leste registered positive growth rates, with Viet Nam recording the highest at 7.9 percent, and Brunei the lowest at about 2 percent (ADB, 2004). In most countries, unemployment rates remained much higher than in the period prior to the financial crisis of 1997, while progress in poverty reduction was mixed (ADB, 2004).

Although South-East Asia is expected to be an area of major economic development in the 21st Century, disparities are expected within and between countries. Expediting financial and corporate restructuring is critical in Indonesia and Thailand. While in the transitional economies of Cambodia, Lao PDR and Viet Nam, broadening the industrial base, reducing poverty and boosting outward-oriented growth are vital to sustaining growth.

Most of the population in South-East Asia lives in the lowlands and practices agriculture. A revolution in farming during the last two decades, with widespread use of new crop varieties and chemical fertilizers, has had a powerful impact. Many agricultural families have doubled their income and are now able to send their children to school. Primary education is almost universal in South-East Asia. It is not unusual for parents to send their children to higher education at the university level.

The economic changes in South-East Asia have had significant environmental consequences. In the 1960s, much of the sub-region was forested, ranging from lowland

Urbanization in South-East Asia

South-East Asian cities are growing rapidly as young people migrate in search of a better education and jobs. Manila, Bangkok and Jakarta are now among the largest cities in the world. Overpopulation, crime, unemployment, homelessness and pollution are common in such urban centres. Effective governance at the local level to improve urban services, stimulate private sector investments and increase community participation is essential to improve the quality of life in the sub-region's urban cores.

Most South-East Asian cities face an acute shortage of safe drinking water and poor sanitation services. This has led to persistently high incidences of infant and child mortality in the secondary cities of the sub-region. Industrial pollution is also an urban issue, as a large percentage of industrial waste in South-East Asia, including hazardous chemicals, are discharged without treatment. This waste directly affects the mainly poor residents who are living near factories. Many urban waste disposal systems are also inadequate. Disposal of untreated wastewater spreads water-borne diseases and damages marine and aquatic life.

evergreen rainforests to peat and mangrove forests in coastal areas. By 2000, nearly half of the forests in South-East Asia had been destroyed by legal and illegal logging. Land clearance for animal husbandry and subsistence farming also contributed to this destruction. In 2004, the dangerous consequences of this deforestation were clearly demonstrated by the mudslides in the Philippines. Further, the loss of mangrove forests - both as a natural buffer and as the critical breeding ground for coastal marine resources - exacerbated damage caused by the recent Indian Ocean earthquake and subsequent tsunami.

Awareness and Perceptions of ESD

ESD has become a pre-eminent challenge of the 21st Century for South-East Asian countries. The concept of educating for sustainability has increasingly been adopted in government ministries, schools and communities. Both learners and educators must search for new ways of thinking to creatively address the complexity of sustainable development. Although a large body of EE literature and projects has been generated over the last few decades, ESD practices in formal education are only a recent phenomenon in South-East Asia.

Core Issues of ESD

Both history and recent demographic, economic and cultural changes in the sub-region have profoundly influenced the role and development of the countries' education systems. The use of local languages in formal education systems is a relatively recent phenomenon in much of South-East Asia. The view that education is a basic human need that is integral to quality of life, a support for moral and social values, and an instrument for economic growth and productivity is also a relatively new concept.

The first level of basic education in South-East Asian countries is primary education that lasts about 5-6 years. Secondary education is often divided into two levels, and higher education varies widely in terms of subjects and course duration offered. Generally, high levels of economic development are associated with high levels of education enrollment. In more developed countries such as Singapore, Brunei Darussalam, Malaysia, Thailand, the Philippines, Indonesia and Viet Nam, primary education has become nearly universal, and the expansion of secondary education has been marked. However, the net enrollment rates in primary school appear to be low in less-developed countries such as Myanmar, Cambodia, Lao PDR and Timor Leste. In most countries, substantial improvement in adult literacy among both males and females has been observed over the last decade. An emerging concern within the sub-region has been the quality of education.

Values Education

Despite educational reform policies in many countries, implementation of knowledge-based and values-based education at the school level is still in its early stage. Schools and communities in South-East Asia are now focusing on a series of important issues. These include quality and equity in science, mathematics, languages, communication and creativity; quality and relevance of the curriculum to community needs; and quality and equitable governance. The call for attention to be paid to traditional values is also echoing throughout the sub-region as educators, parents and children are increasingly concerned about – and affected by – violence, growing social problems and the lack of social cohesion. Increasingly, education is being called on not only to provide a nurturing lifeline for the self, but also to pave the way to overall human development and well-being. Informal education systems incorporate existing cultural values and beliefs in many localized teaching and learning contexts.

Environmental Education

Significant work has been undertaken to reformulate and redefine EE in the sub-regional context, with a focus on incorporating sustainable development issues. An initial survey suggests that most countries in the sub-region have conducted EE initiatives to support nature conservation, as well as to protect local cultural and community resources. These initiatives are often developed by Ministries of Environment and/or Agriculture. Most countries have moved towards providing supportive policy environments for EE, with a focus on formulating and/or implementing strategies for mainstreaming EE.

In Thailand, EE has been integrated into both formal and non-formal education since 1977, and into the school curriculum since 1997 (Tabucanon, 2004). The Thai Government and civil society organizations have carried out a significant number of programmes and activities to promote EE. A plan to establish a Provincial Environmental Education Centre in every province is also being implemented.

Regional organizations such as the Association of South-East Asian Nations (ASEAN), international agencies, and NGOs have also assisted with implementation of EE programmes in the sub-region. The Environment Ministers of ASEAN member countries have declared resolutions on the environment and development which incorporate EE (Sunchindah, 1999). In October 2000, the ten ASEAN member countries also adopted the ASEAN Environmental Education Action Plan 2000-2005 in which values and skills that will enable the people to participate in the development of an ecologically sustainable community are integrated.

Human Rights Education for ESD

Human Rights Education (HRE) is a long-term and lifelong process by which all people in all strata of society learn respect for the dignity of others and the means and methods of ensuring that respect. It allows people to participate in their communities and society in a constructive and respectful way for themselves, others and the environment. It aims not only to deliver outcomes such as personal and social growth and the respectful conduct of citizens towards each other, but also significantly contributes to the promotion of equality and sustainable development.

UNESCO has a longstanding commitment to promoting human rights education. In the Asia-Pacific region, it is involved in various initiatives such as:

- The production, translation and adaptation of Human Rights Lesson Plans in English, Khmer, Vietnamese and Indonesian
- Support to the Thai National Human Rights Commission human rights education project in teacher training universities
- Support to the Malaysian National Human Rights Commission in its work to increase public awareness of human rights education through the media
- Support to national studies in selected countries to review the status of HRE

ESD and Society

South-East Asian countries are committed to increasingly engage girls, women, children, the poor and vulnerable in programmes concerning health education. In ethnically and linguistically diverse countries such as Lao PDR, providing basic health care, education and improving the quality of life are major challenges. Several training and health promotion activities have been initiated by NGOs, including awareness-raising on health issues such as HIV/AIDS, youth health, malaria and other epidemics such as cholera and typhoid. In Timor Leste, a civic education programme was recently introduced to promote sustainable development actions such as reconciliation, non-violence, mutual respect, peace and unity (UNDP, 2003). A significant number of community-based education initiatives and community learning centres have also been developed throughout the sub-region to serve local communities in remote and isolated areas.

Gender Issues

During the last decade, gender disparities in education have been reduced in most South-East Asian countries. The ratio of girls to boys in primary and secondary schools tends to be higher in relatively high-income countries (ASEAN Statistical Yearbook, 2004). Gender inequalities in the labour market have slowly decreased, though significant gaps persist in most of the region's countries (ASEAN Statistical Yearbook, 2004).

One positive development in a number of countries has been the formalized organizational activities of women's groups. The Lao Women's Union, for example, assists the Ministry of Education to implement non-formal education activities in Lao PDR. The Union was founded in 1955 to promote the advancement of women and equal gender rights. It supports provincial and district offices with training and technical advice. The Union receives support from government, international organizations and donors to enhance the organization's capacity in dealing with all development issues that are of concern to women.

THE WAY FORWARD: PROGRESSING ESD IN SOUTH-EAST ASIA

Promoting and Improving Basic Education

For decades, South-East Asian nations have placed great emphasis on basic education, particularly on the eradication of illiteracy through formal and non-formal means. Governments have invested significant amounts in basic education, while international donors have also provided both technical and financial assistance. Consequently, most South-East Asian countries are able to provide initial access to basic or compulsory education. Substantial improvement in adult literacy has also been observed over the last decade, and the magnitude of gender disparities in favour of males, as well as that of disparities in favour of urban areas, has decreased (UNESCO, 2000; Sjöholm, 2002).

In most South-East Asian countries, there is a substantial dropout rate in the formal education system. The reasons for this low rate of retention are varied, but mostly centre on poverty. Many countries have established a non-formal learning institution within their governments to promote literacy programmes for the attainment of basic skills; the development of livelihood skills; and the provision of learning opportunities to marginalized and disadvantaged groups.

Re-orienting Existing Education Programmes

In recent years, many countries in South-East Asia have paid greater attention to the re-orientation and expansion of their basic education system. Funding from government, bilateral donors such as AusAID, or international financiers such as the World Bank and ADB has assisted this process. Curricular reform aims to "prepare young people for the

job market within the existing economic climate, while providing the human resources necessary to ensure sustainable national development” (Byron, 1999). This can be achieved by:

- Improving the quality and scope of vocational education
- Strengthening science and technology education
- Developing competence in ICT skills by introducing or expanding the use of ICT in the classroom

The relatively advanced economies of the sub-region have initiated reviews of: education and training policies and priorities; guidelines and curriculum development; professional development; educational models that promote a whole-school approach; and capacity-building for teachers. The guiding principles of such reviews include the view that direct and indirect impacts of poverty and uneven development on both the natural and cultural environment, as well as on human resources, social stability, peace, and people's quality of life, should provide a focus for the development of ESD.

Developing Public Awareness and Understanding of Sustainability

In many South-East Asian nations, there are many opportunities available for the public to access informal education through mass media (i.e. radio, television, newspapers, and magazines) and engage in social functions such as community education and services, youth activities, and social pedagogy at all levels. There is, thus, a great chance for sustainable development issues to be incorporated into these initiatives during the DESD.

Training

Most South-East Asian nations have developed systems of vocational training, facilities and networks that represent partnerships between industry, business, government, and, in some cases, the local community. Indonesia, the Philippines and Thailand have established a system of technical high schools or vocational colleges that provide a mix of on-the-job training with academic and general studies. Lao PDR also plans to deliver vocational skills training through non-formal education programmes. ESD elements could be incorporated into such training programmes.

EMERGING PRACTICES FOR ESD

ESD in Non-Formal Education

A non-formal ESD programme in Thailand provides youth with the opportunity to learn about the dangers of agricultural chemical use based on the experiences of other communities. In the villages of Pa Thon and Pa Lan in Chiang Rai Province, northern Thailand, the local economy is based on the cultivation of rice and vegetables. As people immigrated to the area, modern farming technology and machines were introduced to local farmers, who were encouraged to use pesticides and chemical-based fertilizers on their crops to increase agricultural productivity. The chemicals were improperly used as the farmers had no prior experience or training, and many people suffered from chemical-related health problems. In addition, the more farmers invested in chemicals, the higher the amount of debt they incurred. The chemicals also affected drinking water and air quality in the area.

The Thai Department of Environmental Quality Promotion set up a youth learning programme to allow Thai youth to learn about the dangers of improper agricultural chemical use. Participants in the programme have the opportunity to interview affected farmers, and observe the usage of chemicals and the symptoms caused by improper usage.

Through this learning process, youth are empowered to transfer the knowledge back to their community in an attempt to reduce the use of chemicals in agriculture.

To complement this programme, the Thai Education Foundation, has adapted the Integrated Pest Management approach into a course on ecological systems in rice fields and vegetable patches, and into a course on organic farming. At present, this course has been introduced in 49 schools in six provinces, as well as in 20 agricultural colleges across the country. It has also been adopted by the Office of Non-Formal Education in more than 50 provinces.

ESD in Formal Education

Thailand offers another strong example of integrating ESD into the formal education system. A national initiative, “Local Science: Research for Empowerment,” was implemented and supported by the Thailand Research Fund from 2002-2004. The project sought to increase teacher’s skills in designing and implementing a local science curriculum; provide an opportunity for teachers and students to work together in the investigation of local issues; and improve student’s awareness of local science-related issues.

The project was initiated at 47 schools from six provinces in Thailand. Four thematic areas – natural resources, environment, vocational skills, and local wisdom and culture – were chosen, and participants from the schools were divided into thematic groups. Each group developed a research topic and approach called “curriculum profiling” that would fit their local environments and communities.

Teachers explored various sources of information with their students to gain a thorough understanding of the topic that he or she had chosen. The results were presented at a science fair in Bangkok in 2004, and the participating teachers became more confident and competent in designing effective curriculum.

Socialist Republic of Viet Nam

Do Thi Bich Loan

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CURRENT STATE OF ESD IN THE SOCIALIST REPUBLIC OF VIET NAM

Viet Nam

Viet Nam covers an area of almost 330,000 square kilometres, and is located in South-East Asia, bordering the Gulf of Thailand, Gulf of Tonkin, and South China Sea, alongside China, Lao PDR and Cambodia. The climate is tropical in the south and monsoonal in the north with a hot, rainy season and warm, dry season. The topography of the country is varied, and ranges from a low, flat delta in the south and north to central highlands and mountainous terrain in the far north and northwest. Natural resources include phosphates, coal, offshore oil and gas deposits, forests and hydropower.

The population totals over 82 million, and the current annual growth rate is approximately 1.3 percent. Ethnic minorities comprise around 13 percent of the total population. Five of these ethnic minorities have populations of less than 1000. Agriculture is the primary economic activity, followed by industry and the service sector. Main agricultural products include rice, corn, potatoes, rubber, soybeans, coffee, tea, bananas and sugar.

Sustainable Development Issues

Viet Nam has had to recover from the ravages of war, the loss of financial support from the former Soviet Union and the rigidities of a centrally-planned economy. The country has made significant progress in the last two decades in terms of socio-economic development and environmental protection. The economy has shifted from a centrally planned economy to a socialist market economy. The economic growth rate is high and relatively stable. The socio-economic development of Viet Nam has relied heavily on the exploitation of natural resources, and production technology and consumption patterns that use large amounts of energy and raw materials and release substantial quantities of emissions. Consequently, the natural environment has suffered greatly in many areas. Rapid population growth; poverty; inadequate basic education and health care services; and social problems are also pressing issues.

The Government issued a document in August 2004 entitled, "The Strategic Orientation for Sustainable Development in Viet Nam." This document outlines the challenges facing Viet Nam, and sets out frameworks, policies, legal instruments and priority activities that need to be implemented in order to work towards sustainable development. There are 19 priorities identified covering economic, social and environmental concerns. The Ministry of Planning and Investment will be the coordinating body for implementation in all sectors and provinces, while local councils are responsible for discussion, assessment and oversight of sustainable development at the provincial and local levels.

Awareness and Perceptions of ESD

Views on sustainable development have yet to be clearly and consistently expressed in state policies and regulatory instruments. Socio-economic policies favour economic growth and social stability, but do not pay significant attention to the importance of environmental sustainability. Environmental protection policies place much emphasis on reacting to environmental incidents, addressing degradation and improving environmental quality, but do not address long-term development goals. In addition, managing and monitoring mechanisms for sustainable development have yet to be clearly defined.

The ideology of harmonious living in synergy with nature has been long established and is attached to moral and social traditions and community institutions. These traditional factors should be harnessed to assist with the implementation of ESD.

Core Issues of ESD

Values Education

Educational goals in Viet Nam have shifted from simply providing knowledge to equipping people with skills and developing capacity for learners. Four pillars for education in the 21st Century identified in the Delors Report (*learning to know* - associated with knowledge, *learning to be* - associated with values, *learning to live together* - associated with attitude, and *learning to do* - associated with practical skills) are considered vital to the reform of Viet Nam's education system (Delors, 1996).

The Education Act (1998) regards life-skills education as one of three major programmes in non-formal education. Values education is addressed within this programme area through morals and civics subjects. These subjects are included in grade-equivalency programmes in non-formal settings.

Environmental Education

Realizing the increasing importance of environmental protection, the national government issued a directive in 1998 to "strengthen environmental protection in the period of industrialisation and modernisation of the country." The tasks assigned in the directive are:

- To implement education and advocacy on environmental protection, develop environmentally friendly lifestyles and community-based environmental protection activities
- To mainstream environmental protection into the curriculum at all levels of the national education system

Prior to 1996, EE in Viet Nam was designed to develop people's knowledge and professional skills, but not necessarily influence their values and attitudes. The UNDP-DANIDA funded project, "Environmental Education in the Schools of Viet Nam, 1996-2004" brought a new perspective and addressed the fundamental causes of environmental problems such as human values and behaviours, politics, economics, culture, tradition, history and the physical environment. It has aimed to engage students in the exploration and resolution of environmental issues in order to promote lifestyles that are compatible with the sustainable and equitable use of resources. This approach to EE is now prevalent in Viet Nam.

There have been several EE programmes conducted by NGOs in the country. One successful example is WWF Indochina's school programme, "Nature's Classroom," which aims to increase knowledge and understanding about nature and promote conservation action in schools. To date, the programme has reached primary, secondary and high school students in Cat Tien, Phu Quoc, Con Dao, and Cat Ba National Parks.

Since its inception in 1997, WWF Indochina's EE Unit has been working to motivate all individuals to actively participate in conserving biodiversity and managing natural resources. Environmental projects conducted by WWF include a community programme in protected areas, "Nature for Life," which aims to improve knowledge and understanding about nature and promote conservation actions for local communities living in and around protected areas. The public education

Culture of Peace Education

Culture of Peace education is aimed at promoting values, attitudes and behaviours that reflect a sense of values, human rights and respect towards life and people. The Culture of Peace concept is mainstreamed and integrated into existing curriculum with the aim of: (i) educating young people to gain an awareness of the earth as a shared home for all; (ii) recognizing the mutual and interdependent relationships between nations; (iii) conducting instructional activities aligned with daily community life with the view to sustaining and keeping peace; (iv) raising awareness and providing students with skills and practices for environmental protection; and (v) increasing understanding and respect for the differences among cultures in the world.

programme, "Nature's Wonders," is directed at increasing knowledge and understanding of nature in urban communities through public information and education services. WWF also educates policy and industry leaders on values about nature, and promotes conservation action and corporate responsibility through a policy and industry programme. The tourism programme raises awareness about nature and promotes conservation action by tourists, while also promoting eco-tourism.

ESD and the Economy

The National University of Economics in Hanoi offers a compulsory subject on environmental economics designed by the Ministry of Education and Training. The University's Faculty of Economics and Urban and Environment Management, together with its Research Centre, provides Bachelor and Masters degrees that specialize in environmental economics.

Cross-Cutting Tools, Approaches and Issues

Gender Issues

Vietnamese government policy over the past 15 years has continued to promote the advancement of women through the promulgation of different resolutions and directives.

HIV/AIDS

As in other countries where the prevalence of HIV/AIDS infection is increasing, Viet Nam has been actively attempting to mitigate the spread of the virus through education. The country's Ministry of Education and Training initiated an HIV/AIDS prevention education programme in the early 1990s. To date, HIV/AIDS prevention education has been integrated into the formal education system at all levels through in-school and extra-curricular activities. The recently adopted "National Strategy for HIV/AIDS Prevention and Control in Viet Nam until 2010 with a Vision to 2020" states that the Ministry is responsible for implementing HIV/AIDS prevention education into the curricula of all education institutions.

The National Committee for the Advancement of Women and the Viet Nam Women's Union aim to improve the quality of women's material and spiritual life as well as establish the conditions necessary for women to experience their fundamental rights, and to fully and equally participate in and benefit from all aspects of political, economic, cultural and social life (NCFAW, 2002). In addition, the Viet Nam Development Goals, which are based on the UN MDGs, make particular reference to the importance of universalizing education and ensuring gender equality and women's empowerment. Gender issues must be addressed in formal and non-formal education programmes.

Information and Communication Technology

ICT has become an indispensable tool in the fight against poverty. ICTs, such as television and radio, are key information tools for many farmers. Access to these more traditional ICTs remains high, while access to newer tools, such as computers, e-mail, mobile phones and the Internet, remains quite low throughout Viet Nam, particularly in rural areas.

In Viet Nam, the potential of ICT in education and learning is just beginning to be realized. Computers were first introduced to Vietnamese universities in the early 1990s. Some primary and secondary schools were also equipped with computers in the mid-1990s. Various CD-ROMs on different training subjects and levels of education (e.g. foreign language, math, physics, chemistry, art, etc.) are available at a reasonable price, though are often illegally copied. These training packages are developed by private companies, education institutions, and government.

Government regulations support the efficient use of ICTs in education and learning at all levels. The *IT Master Plan for Education* for the period 2001-2005 emphasizes the use of ICTs to promote innovative thinking, independent problem-solving skills, and information searching and processing skills to facilitate lifelong learning for all.

Lack of computers and ICT-related equipment, inadequate Internet access and insufficient human resource capacity are the major challenges faced by Viet Nam in implementing ICTs in education. Recently, there has been an increased focus on ICT education within a number of pedagogical universities and colleges. It is hoped that this trend will lead to a supply of school teachers with ICT skills, enabling an acceleration of the use of ICTs in education as a whole. There is scope for ESD to be better incorporated into existing ICT initiatives.

THE WAY FORWARD: PROGRESSING ESD IN VIET NAM

Promoting and improving basic education

Curricular reform and reform of education and training methods is necessary in order to improve the quality of education to match international education standards. Support must be provided to disadvantaged provinces to ensure full lower secondary enrolment by 2010. There is also an urgent need to provide quality education to rural communities so that people have the opportunity to obtain the basic knowledge and skills relevant to local industries. Viet Nam has prioritized Education for All (EFA) and has developed an action plan to achieve this goal. The plan has identified general goals, specific objectives and targets for sub-sectors of EFA, including early childhood care and primary, lower, secondary and non-formal education. Government expenditure for education in relation to GDP is expected to increase from 3.7 percent in 2002 to 4.2 percent in 2015. The average schooling duration of the population is 7.3 years. Significant progress towards achieving EFA goals has already been made. Some statistics from the EFA Global Monitoring report are outlined below (UNESCO, 2004):

- The gross enrolment rate in pre-primary education rose from 40.2 percent in 1998 to 43.1 percent in 2001.
- The net enrolment rate in primary education dropped from 96.7 percent in 1998 to 94 percent in 2001.
- The net enrolment rate in secondary education rose from 49.4 percent in 1998 to 65.3 percent in 2001. Gross enrolment ratios in tertiary education dropped from 10.9 percent to 10 percent over the same time period.
- Adult literacy rates averaged 90.3 percent in 2000-2004.
- The female to male ratio at the primary level in 2001 was 0.93. At the secondary level, the ratio was 0.92.
- From 1998-2001, the number of out-of-school children increased from 361,000 to 544,400, and the retention rate to Grade 5 rose from 82.8 percent to 89 percent.

Education for ethnic minorities and disadvantaged regions must also be prioritized to reduce disparity among regions.

Re-orienting Existing Education Programmes

To date, the only progress made in this area is the inclusion of EE in the national formal education curriculum. Although a step in the right direction, the inclusion of EE in the curriculum does not equate with the re-orientation of existing education programmes towards ESD. This is clearly an issue that needs to be addressed in Viet Nam, as in many other countries in the Asia-Pacific region, throughout the DESD.

Developing Public Awareness and Understanding of Sustainability

Viet Nam's Agenda 21 highlights the importance of raising awareness of sustainable development for all individuals, communities, the private sector and state agencies. The inclusion of state agencies and the private sector in this vision is important because these are key decision-making stakeholders. The document also stresses the role of youth in ensuring a sustainable future and the importance of including them in decision-making processes.



Photo credit:
Regional Environmental Centre for Central Asia

Central Asia



1. Kazakhstan
2. Uzbekistan

3. Kyrgyzstan
4. Tajikistan

5. Turkmenistan
6. Afghanistan

7. Iran

Sub-Regional Overview

[Regional Environmental Centre
for Central Asia]



Central Asia

For the purposes of this Analysis, Central Asia is defined as consisting of seven countries: Afghanistan, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The sub-region is located in the centre of the Eurasian continent, and stretches nearly 4,500 kilometres from east to west. It occupies a total land area of over 4 million square kilometers.

The population of Central Asia was estimated in 2003 to hover around 60 million. Given the vast area of the sub-region, the total population density is low, at about 13 inhabitants per square kilometre. The proportion of the people living in rural areas remains quite high, at approximately 50 percent for most countries (ADB, 2005).

Central Asia is generally mountainous, with mountain peaks as high as 7,400 metres in Tajikistan and Kyrgyzstan. Arid and semi-arid conditions predominate, and the terrain is generally harsh and poses substantial barriers to transportation, communication and trade.

Agriculture remains a critical economic sector. Livestock and grain industries, cotton, manufacturing and natural resource extraction are also important economic activities.

Central Asian countries are united by a common geopolitical environment, cultural roots and deep links at the ethnic and political levels. Considerable differences remain in terms of levels of socio-economic development, democratization and decentralization. The breakup of the Soviet Union led to independence for Central Asian republics in 1991. At that time, the former Soviet republics faced the dual challenge of political transition and the transition to a market-based economy. These are formidable tasks that are still being addressed and continue to have a significant impact on the ability of countries to tackle sustainable development issues.

“Education for sustainable development is a prerequisite of my nation’s future.”

Gulmahmad Davlyatov, State Committee of Environmental Protection and Forests, Tajikistan

UNESCO’s Strategic Plan for Education and Water (2006 – 2007) in the Asia-Pacific Region

As part of the 2006-2007 programming cycle, UNESCO has outlined several key priorities regarding education and water. UNESCO’s Education programme will work towards enhancing water education programmes through capacity-building and materials development. The Natural Sciences programme has the following priorities regarding water:

- Assess and manage the impacts of global change on the water cycle
- Manage water as a scarce resource for human needs
- Mitigate water-related risks and facing social challenges
- Manage land-water interactions through an ecosystem approach

From 2002-2007, the International Hydrological Programme, UNESCO’s international scientific co-operative programme in hydrology and water resources, is committed to studying the societal aspects of water resources. The Water Education and Training (WET) initiative is a priority component of this programme, and is strongly interwoven with other themes. WET activities cover all levels and aspects of education, information transfer and training. However, priority is given to higher education, including institutional capacity-building and networking, education for research at the postgraduate level, continuing professional education and activities targeting the training of trainers.

Sustainable Development Issues

The momentous developmental changes experienced since the breakup of the former Soviet Union in 1991 have had serious consequences for the sensitive ecosystems in Central Asia. Sustainable development issues are characterized by significant disturbances to the natural environment, resulting in absolute or partial loss of natural resources; decreased productivity of natural landscapes; exhaustion of water systems and soils; and contamination and deterioration of the human habitat. Conflict over environmental and economic interests has exacerbated the problem.

Water quality and quantity are important issues that must be jointly addressed by all countries. The shrinking of the Aral Sea is an unprecedented environmental disaster that has created a complex set of social and economic problems. Water continues to be regarded from an economic resource perspective with little regard for its other uses. The integration of all national and sub-regional programmes related to water saving, water use and the protection of water sources is strongly recommended. This is a priority of the Central Asian Initiative for Sustainable Development/Central Asian Agenda 21, a sub-regional partnership initiative.

“(ESD) ... is about fostering love for your homeland and your own nature in children and adolescents; it is a call for the whole of humanity to protect their environment; it is a great contribution to biodiversity preservation; and it is not only about natural resource preservation, it is also about natural resource enhancement.”

Muhammedgurban Orazov, Ministry of Environmental Protection, Turkmenistan

Desertification due to deforestation, erosion and pollution is another significant issue. Salinization is a related problem that affects large portions of land. Should salinization continue to increase at the present speed, major rural areas surrounding river basins will soon become useless for agriculture and potable water supplies will become scarce.

Habitat alteration and destruction has resulted in a loss of biodiversity in Central Asia. Agriculture, resource extraction and energy generation activities are key contributors to the destruction

of habitats. National Biodiversity Preservation Strategies in some countries have worked towards establishing protected areas to preserve habitats and species. As in much of the Asia-Pacific region, climate change, national security, food security, environmental security, health, unemployment and poverty are also recognized as key sustainable development issues in Central Asia.

National strategies incorporate sustainable development issues. The past decade has demonstrated that uncoordinated efforts by separate sectors, countries and international organizations have led neither to expected results nor resolved serious environmental and sustainable development issues. The main causes of inefficiency and ineffectiveness appear to include a weak capacity of central and local governments and NGOs to tackle the issues; limited access to information, in particular at the planning stage and lack of transparency in the decision-making process; lack of clearly formulated common goals and measurable indicators; and undeveloped legislative and institutional mechanisms for achieving consensus between various stakeholders. It is essential for the success of ESD to bring stakeholders together to promote partnerships for sustainable development. The experience of Central Asia also highlights the importance of good governance in enabling the promotion and implementation of ESD.

Awareness and Perceptions of ESD

Awareness and perceptions towards ESD vary across Central Asia. As in other Asia-Pacific sub-regions, ESD is often conceptualized in the context of EE and the terms are often used interchangeably as many practitioners mistakenly think that the terms hold the same meaning. EE remains the primary approach to educating for sustainable development, and

this presents an enormous challenge for the Decade and underscores the urgent need to educate stakeholders about the ESD concept. It is essential to investigate which key stakeholders are not engaged in ESD-related efforts and the reasons for this.

Core Issues of ESD

Values Education

Post-Soviet political transition, internal conflict in Tajikistan, divergence over environmental and economic priorities, and a rich and diverse ethno-cultural heritage all underscore the need for values education. By ratifying numerous international conventions and agreements, countries have recognized the importance of peace, unity, civil harmony, human rights and democracy as essential preconditions to sustainable development. Despite this, such subjects are not well incorporated into the sub-region's formal education systems.

Non-Formal Education

Central Asian nations have long-standing cultural traditions and a wealth of indigenous knowledge. In Turkmenistan, a unique system of indigenous knowledge includes varied components such as the traditional art of carpet weaving; Ahaltekin racehorse breeding; and the traditional breeding methods used to produce the numerous varieties of Turkmen melons. Much of this traditional knowledge has been integrated with modern techniques and is practiced in daily life. An initiative is being developed in Turkmenistan in which applied indigenous knowledge will be taught at various vocational training schools.

The rich cultural heritage of Central Asia has been haphazardly preserved in some countries. Historical artifacts and archaeological/historical sites in Kazakhstan require urgent protection as they have deteriorated and, in some cases, been destroyed through the processes of urbanization, industrialization and political transition. In order to preserve Kazakh cultural traditions and indigenous knowledge, and to unify many centuries of Kazakh spiritual experience, there is a need to create comprehensive educational materials about history, the arts, science and culture in the state language. A Cultural Heritage Programme (2004-2006) has been developed in Kazakhstan in an attempt to remedy the situation.

Environmental Education

EE is a relatively well-developed and well-known concept in Central Asia in both formal and non-formal spheres of education. Although EE provides a solid foundation on which to build ESD, it will likely be a challenge to encourage long-term EE practitioners to move towards a broader vision of ESD.

In Kyrgyzstan and Kazakhstan, as in many other Central Asian nations, NGOs promote public awareness of sustainable development and encourage greater public participation in government decision-making processes. The public environmental movement is developing rapidly in the major cities of Kyrgyzstan; however rural areas are not experiencing the same growth.

LEAP – Kazakhstan

Kazakhstan's LEAP project (Enhancement of Local Environmental Management) facilitates activities that empower local communities to develop a vision of their own future. Participating communities assess the local environmental status; identify ecological priorities; select appropriate actions to address urgent issues; and take measures where necessary to achieve real improvement in the environment and health of the local population. The final outcome of the process is the Local Action Plan on Environmental Protection.

Formal Education

EE was integrated into the educational policy and curriculum of Kazakhstan in 1998 by the Ministries of Education and Environmental Protection. In 2002, an EE Framework to guide initiatives was adopted by the Government. In most Central Asian nations, the fundamentals of EE are taught at preschool institutions through an environmental component in the curriculum. In Kazakh secondary schools, environmental issues are formally integrated in the curriculum of other subjects. Unfortunately, textbooks and methodological guidebooks are not always locally relevant and do not reflect the specific environmental problems of Kazakhstan. Few institutions actually implement stand-alone EE courses.

Health Education

Public health issues are a major concern in Central Asia because many health problems have arisen from recent social and economic hardships. Poor water quality, tuberculosis, cardiovascular disease and HIV/AIDS are just some of the major problems. Public health issues are most often addressed through non-formal education.

In Kyrgyzstan, health sector reforms in 1993 provided for the development of a health information system to inform patients of disease prevention and treatment options. In Turkmenistan, a health information centre run by the Ministry of Healthcare and Medical Industry provides public information to promote healthy lifestyles; enhance mother-child health; promote healthy nutrition and sanitation; and provide HIV/AIDS education.

HIV/AIDS is an increasingly important issue in Central Asia. To address a growing HIV/AIDS problem, the Government of Uzbekistan implemented a counteraction programme. This programme conducts various preventive activities throughout the country through 230 confidence offices, anonymous counseling facilities, and disposable needle and disinfectant distribution facilities.

UNESCO Bangkok Launches State-of-the-Art Teacher Training Manual

In early March 2005, the UNESCO Asia and Pacific Regional Bureau for Education in Bangkok launched a new generic teacher training manual, entitled *Reducing HIV/AIDS Vulnerability Among Students in the School Setting*. The manual aims to equip teachers with knowledge and methods for teaching about HIV/AIDS and related topics in their classrooms. It includes many group activities, ensuring the topic is dealt with in a student-centered manner, with a minimum of lectures and a maximum focus on strengthening basic life skills that can help reduce young people's vulnerability to HIV/AIDS.

The manual will be adapted for use in 13 countries in the Asia-Pacific region. Links will be ensured to existing teaching-learning materials developed by the Ministry of Education or by other organizations. This teacher training project is funded mainly by Japanese Funds in Trust (JFIT), as well as by UNAIDS. For more information, contact the UNESCO Bangkok HIV/AIDS Coordination and School Health Unit. (aids@unesco-bkk.org).

Cross-Cutting Tools, Approaches and Issues

Information and Communication Technology

ICT in education is essential to increase the global competitiveness of Central Asian educational systems. Kazakhstan was the first among the Central Asian states to supply all schools with computers. Resources must also be spent to improve computer literacy among teachers; accelerate the development of electronic textbooks and multimedia training aids; and create at least one comprehensive educational portal for student and teacher distance learning.

Gender Issues

A variety of initiatives to promote gender equity have been implemented in Central Asia, primarily through the formal education system. Formal gender education in

Kazakhstan is still in the early stages of development. To successfully incorporate gender education in the curriculum at higher education institutions requires:

- A gradual increase in the number of teachers and researchers familiar with gender issues;
- Development of gender research centres;
- Publication of articles, books and training manuals that are linked with gender issues;
- Re-orientation of activities by women's organizations to focus not only on social and political issues, but also on population, gender information and education;
- Development of a national action programme with respect to the improvement of women's societal position; and
- Expansion of public awareness of gender issues.

In Kazakhstan, the initiative 'Gender and Water in Central Asia' has been proposed by the Global Water Partnership for the Central Asian and Caucasus Region, and the Scientific Research Centre of the Interstate Coordination Water Commission. The aim of this initiative is to establish cooperation between organizations and individuals on gender issues as they relate to water resources management.

Turkmenistan, meanwhile, has designed its legal framework equally in the interests of both women and men. The country has demonstrated a high degree of female empowerment and is ahead of other Central Asian nations in this respect. The share of women in the Parliament is high at 26 percent compared to the international average of 15 percent.

THE WAY FORWARD: PROGRESSING ESD IN CENTRAL ASIA

Promoting and Improving Basic Education

Effective ESD will be dependent on the quality of, and access to, basic education. Most Central Asian governments have recognized the importance of basic quality education and are working towards improving access. In Kazakhstan, the Government recently drastically increased the amount of spending on education. Priorities include funding to support the enrolment of children from poor families and special needs children. Significantly, the Government also plans to increase the length of mandatory education to 12 years, which is the prevailing global standard.

Re-orienting Existing Education Programmes

Some countries have made efforts to integrate ESD-related issues into existing curriculum. In general, these efforts focus on environmental concerns, rather than the full spectrum of sustainable development issues that are included in ESD. The DESD should address this issue.

In 2001, Kyrgyzstan began to re-orient education curriculum and training programmes towards a sustainable future. The Republic's Universal Education Action Plan aims to achieve six of the Dakar Framework for Action goals by 2015. The Dakar Framework commits governments to achieving quality basic education for all by 2015 or earlier (UNESCO, 2000).

Educational reform in Tajikistan is geared towards developing the knowledge and professional capacity of its citizens to enable their participation in the new market economy. Scarce funding, a problematic legal and regulatory framework and economic transition pose challenges to reforms. Despite this, there have been some positive changes in the structure and content of education, as well as in teaching and management methods. It is clear that there is much progress to be made in re-orienting education programmes towards ESD.

Developing Public Awareness and Understanding of Sustainability

Central Asian nations have demonstrated their commitment to increasing public awareness over the past few years, and many have adopted various international conventions and national policies towards this end. Regular government bulletins covering the most critical environmental and sustainable development issues are common public information tools. For example, the Ministry of Nature Protection in Turkmenistan issues a monthly informational bulletin entitled, "Tebigat Habarlary" (Nature's Messenger). These bulletins could be used as key ESD public awareness tools during the Decade.

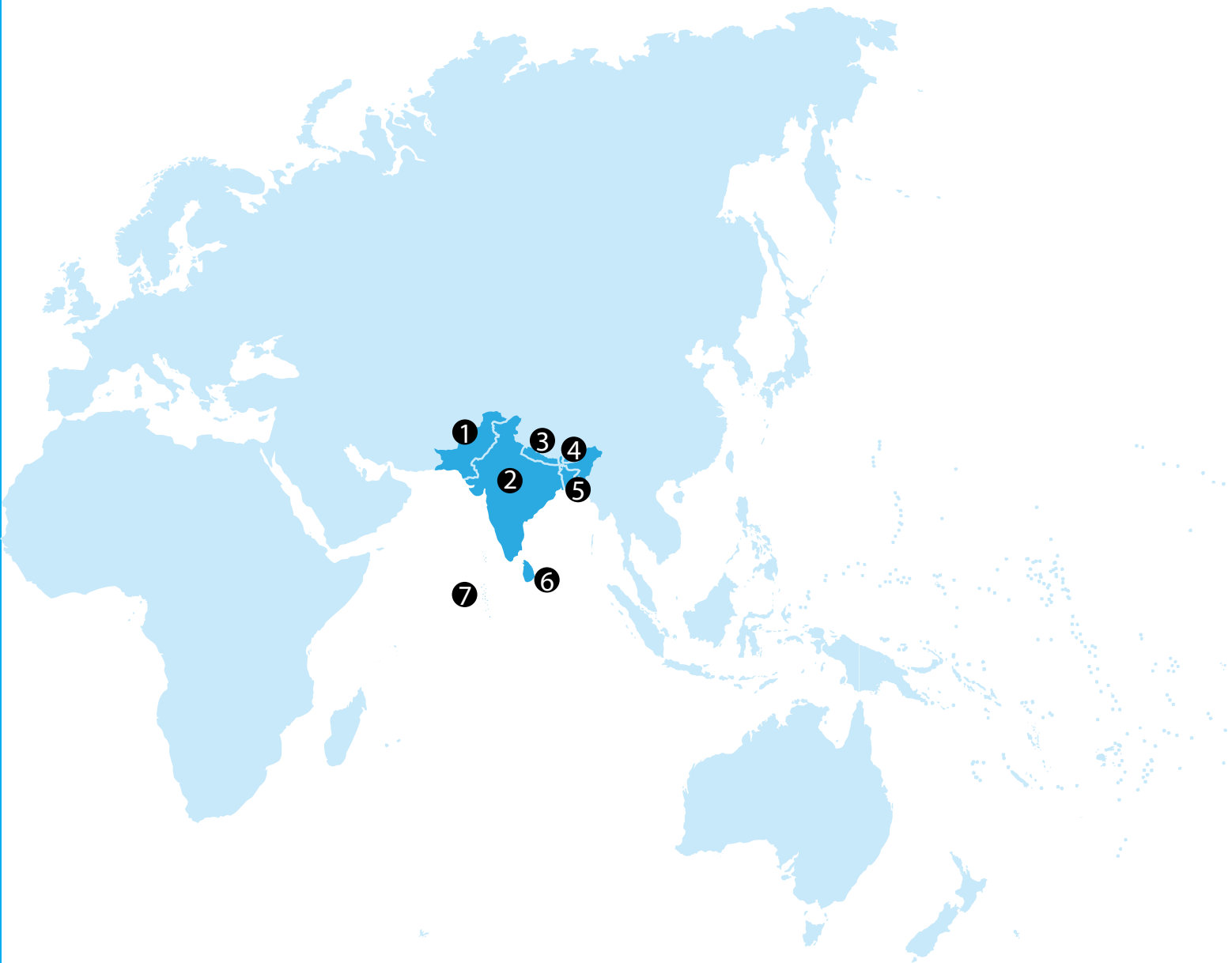
The media also plays an important role in increasing public awareness of sustainable development. Although the level of independence in the media varies, the number of non-governmental media outlets is increasing. Specialized newspapers and magazines collaboratively produced by NGOs and media groups provide extensive coverage of issues related to interaction of humans and the environment. ICTs, particularly the Internet, could play an increasingly important role in ensuring public awareness of sustainable development.

There are many positive lessons to be gathered from the ESD-related initiatives in Central Asia. In particular, much can be learned from the experience of the "Joint Central Asian Working Group on EE and ESD" in collaboration and joint management of ESD-related projects. It is only through collaboration and partnership that true progress towards sustainable development can be achieved.



Photo credit :
Centre for Environment Education

South Asia



1. Pakistan
2. India

3. Nepal
4. Bhutan

5. Bangladesh
6. Sri Lanka

7. Maldives

Sub-Regional Overview

Madhavi Joshi and Shivani Jain
Centre for Environment Education, India



CURRENT STATE OF ESD IN SOUTH ASIA

South Asia

South Asia, incorporating Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka, covers an area of more than 5 million square kilometres, and is home to approximately 1.4 billion people, more than one-fifth of the world's population. The diverse physical geography of the area ranges from the oceans of the Maldives and Sri Lanka to the high peaks of the Himalayas. South Asia has some of the world's largest river systems. About 18 percent of the total land area is forested, while 5 percent is protected. South Asia is also home to diverse flora and fauna. The socio-political geography of South Asia is quite complex, and civil war and sub-regional conflicts have been common.

Sustainable Development Issues

Poverty, population pressures, natural resource degradation and depletion remain a challenge despite achievements in areas of literacy, child immunization and population control in countries like Sri Lanka and the Maldives. Rapid economic and social development over the last 15 years has been remarkable, but enormous challenges remain for improving the quality of life as more than 40 percent of the population continues to subsist on less than one US dollar a day (World Bank, 2004).

Regional and national assessments prioritize the need to eliminate poverty and create human security, manage population growth, conserve natural resources and create a secure economic base. Food and income security are also key priorities. The high population growth rate of 1.8 percent puts pressure on land, water and other natural resources.

Natural resource depletion and ecological degradation pose serious long-term sustainability concerns. Significant natural resource concerns include water quality degradation and local and regional water scarcity; dwindling forests, coastal wetlands, freshwater bodies and fisheries; soil degradation due to nutrient depletion and salinization; and poorly managed water resources. Many of these issues are particularly important for the rural poor and disadvantaged groups. The causes of resource depletion and environmental degradation are many – increasing urban lifestyles; overpopulation; inadequate legal and policy frameworks for protection; subsidies and policy distortions; and limited data on resources and environmental quality.

Awareness and Perceptions of ESD

Although awareness of ESD is quite low, EE is understood in the domain of formal education, both at the secondary and higher levels. The view that ESD is an extension of EE is prevalent among practitioners, educators and government officials. The Ministries of the Environment and Education have the task of promoting EE. Many education activities in the areas of health, water resources management, and urban and rural development integrate sustainable development concepts which are generally not integrated across sectors. ESD is generally perceived as environmental or science-related by a cross-section of government officials, NGOs and academics.

There is an urgent need to educate decision-makers about sustainable development policy formulation and to empower citizens to participate in the decision-making process. A common vision of ESD between the citizens and the governments of South Asia is achievable, but requires greater citizen mobilization, greater involvement of local communities, and greater integration of ESD into existing policies and programmes.

Core Issues of ESD

Values Education

Rich cultural traditions that foster values for conservation and protection of the environment characterize the societies in this region and are often enshrined in their constitutions. Religious and philosophical beliefs such as assigning sacred properties to wildlife, forest and water resources have helped generations of communities to protect them. Traditional knowledge is passed down through poems, songs, dances and practices. Civil society groups and universities are helping communities to document this knowledge and revive practices by making them relevant to present realities. Faith-based teachings often highlight values such as the virtues of peace, unity, harmony, and respect for other beings in nature. In India, the Krishnamurthy Foundation integrates values education as part of the entire experience for the students.

Environmental Education

EE is well understood as an important tool for sustainable development by governments in this region. The South Asia Cooperative Environment Programme (SACEP) and UNEP recently developed the South Asian Environmental Education and Training Action Plan 2000-2005, outlining activities for EE and training.

Judiciary Gets Active

The Supreme Court of India has made the environment a compulsory subject at all levels of education from the academic year 2004-2005 onward. It directed the NCERT; University Grants Commission (UGC) and All India Council for Technical Education (AICTE) to prepare syllabi for schools and higher education institutions. NCERT and the UGC have been nominated as implementing agencies.

Environment is introduced as a separate subject or infused in curriculum at all levels of formal education. National policies on the environment and education recognize environmental protection as an integral part of the curriculum. NGO networks, in partnership with the Departments of Education and universities, carry out teacher training in EE. In-service and pre-service opportunities for incorporating EE are offered

through EE courses and project work. However, rigid and overloaded curricula, time constraints and a conventional approach to teaching still pose a challenge to the integration of EE in formal education. Systemic changes and ongoing capacity-building will be required to address these issues. Distance education networks exist in Sri Lanka and India, an option that could be explored for ESD.

More children are attending school than ever before in South Asia, but low retention rates during the primary cycle account for the world's largest share of out-of-school children. Efforts are underway to create non-formal learning opportunities for these children. The Consortium for Street Children, for example, has partnered with UNESCO and Childhope Asia to address the educational needs of children living and working on streets in Indonesia, Nepal, Pakistan, and the Philippines.

Non-formal education takes an innovative approach to EE. Eco-clubs, nature camps and Environmental Brigades are gaining popularity in South Asia, and are catalysts for imparting awareness, knowledge, attitudes and skills among children and youth. The long-standing involvement of NGOs in EE has resulted in the development of large amounts of relevant educational material. Governments have also been actively involved in supporting non-formal EE, evident from the many experiential and hands-on learning opportunities. Non-formal education, though, is often not prioritized in education systems and many teachers lack the skills and training necessary to provide effective EE experiences.

Health Education

Governments, international agencies and NGOs are actively addressing a wide range of health issues. Agencies such as Save the Children have been involved in capacity-building and awareness-raising for HIV/AIDS among high-risk groups and communities in Nepal. Nationwide public campaigns use multiple approaches employing new and traditional media. In-school programmes are carried out regularly to target HIV/AIDS, mosquito-borne diseases, diarrhea, oral health, leprosy, rabies and personal hygiene. Critically, many health programmes do not adequately reach women, the disadvantaged and rural populations. Service delivery mechanisms in the health sector need strengthening through improved infrastructure, training and capacity-building.

Increasingly, water and sanitation programmes address issues of personal hygiene and health. The Government of India's Swajaldhara and Total Sanitation Campaign, for example, aims to provide access to safe drinking water and basic sanitation to the rural poor, especially women. The Campaign focuses on empowering local communities to participate in institution building and decision-making.

ESD and Urban Transformation

Urban areas face critical problems of poverty, inadequate and overstretched infrastructure and diminishing resources. Solid waste, water quality, pollution and transportation are some of the issues that affect urban quality of life. Innovative governance models that are more transparent and participatory have been implemented in some countries. In India, urban local government bodies have been given decision-making powers by the Constitution, which have proven to be positive for city managers. In Ahmedabad and Surat, Gujarat, for example, sweeping changes in the urban infrastructure and tax collections made.

Concerted efforts to educate through dialogue and sharing learning opportunities are ongoing with the help of the International City Managers' Association in India and Nepal. These governance and information-sharing models need broader appeal if they are to be successful. Planning and architecture schools in the region integrate ESD into their curriculum and network regionally. The Centre for Environmental Planning and Technology in India is designing a course for planning institutes in Pakistan and Sri Lanka. Demonstration and capacity-building that focuses on alternative technology and innovative methodologies to facilitate urban transformation need to be integrated into the ESD knowledge base. It is also important to address the judiciary and industrial groups through dialogue, consultations and capacity-building for ESD.

Cross-Cutting Tools, Approaches and Issues

Gender Issues

The level of gender disparity varies across South Asia. In Sri Lanka, women and men hold relatively equal status due to extensive social welfare programmes and the political empowerment of women. Literacy rates and health status have generally improved in India; however, these improvements vary widely across the country. NGOs are active in implementing programmes that focus on women's empowerment through education, health and livelihood security. The Grameen Bank in Bangladesh, for example, has lent small sums to over 20,000 women to buy cellular phones to use in 'pay phone' businesses, which has proven to be a successful model in economic and social security for poor women.

Curricula and textbooks often reinforce gender stereotypes. Complex and deeply embedded cultural values tend to discourage women's active participation in personal and professional development. Gender mainstreaming across syllabi and in government policies and implementation plans needs to be further addressed in most nations. It is

clear that no education or communications process will be successful without a large-scale change in women's societal position.

Information and Communication Technology

South Asia exhibits some strong examples of strategic ICT use for information dissemination, education and capacity-building across various sectors. Owing to over 20 years of successful experience in satellite-based education, India has now launched a satellite, EDUSAT, dedicated to education. Governments and NGOs use ICTs, including the Internet, for information dissemination and communication. Civil society groups frequently use the Internet to disseminate information, conduct campaigns and network with like-minded groups at the international level.

Youth Involvement

Youth have always been a major force in initiating change, and, must be involved in ESD planning and decision-making processes. Children and youth increasingly participate in sustainable development activities through non-formal education programmes, and both regional and national networks. Websites, newsletters, TV and radio are frequently used by youth organizations to disseminate information on sustainable development issues. The South Asia Youth Environment Network (SAYEN) promotes youth participation in sustainable development practices.

Government programmes for youth have begun incorporating sustainable development concerns. India's National Youth Policy (2003) places increased emphasis on environment and sustainable development issues and initiatives.

Despite this progress, there are still significant opportunities to further incorporate ESD into youth initiatives. Youth programmes require a clear strategy and institutional support for greater opportunities, constructive learning and involvement in ESD. Higher education institutions could also play a greater role in providing opportunities for youth involvement in ESD.

There are some innovative examples of ICT use in rural areas, such as the rural telecentres in India and Sri Lanka. Many of these work towards the social and economic empowerment of women and men.

Though progress is being made, ICT's potential for educating is yet to be fully realized. Lack of infrastructure and connectivity in remote areas of Nepal, Bangladesh and the Maldives make it difficult to quickly adopt electronic media. Ensuring the availability of locally relevant software in diverse languages would increase user access of electronic media. Skilled and trained communicators, programme content developers and technical personnel are required for this task. Infrastructure, support structures, costs and accessibility are concerns for using ICTs in education. There have been several commendable attempts by the mass media to address the problem of low IT literacy and to introduce ICT to a larger section of the community. Such initiatives include the *Wijeya Pariganaka* Magazine, *Kotmale* community radio project, the TV programme *Antharjalaya Obe Nivasata* (Internet to your home) and the radio programme *Antharjalayai Obai* (Internet and you). There is potential to integrate ESD into these initiatives.

THE WAY FORWARD: PROGRESSING ESD IN SOUTH ASIA

Improving Basic Education

Access to education has improved in the region, with approximately 78 percent of children completing primary education. Specific focus on girls' education has improved girls' school attendance in schools with sub-regional variations – the highest attendance rates occur in Sri Lanka, while Nepal experiences the lowest rates. Improvement in infrastructure, social and economic incentives and sensitive planning could further increase participation of girls in education. Free education for girls, work education, values education and activity-based learning have already been introduced in India through the *Sarva Shiksha Abhiyan* (Education for All).

South Asian illiteracy rates are the highest in the world at 45 percent (World Bank, 2004). Sri Lanka's literacy rate is second only to the Maldives, while Nepal continues to have low literacy levels, especially among women. To improve this situation, it is critical to provide life skills education along with basic literacy skills.

Re-orienting Existing Programmes

Education programmes in South Asia must be re-oriented to support ESD, furthering the process already initiated by the introduction of EE. In addition to institutional reform, curricular reform and development of locale-specific resource material incorporating ESD are priorities. The re-orientation of education programmes towards EE, although a positive step, will not suffice to achieve the holistic goals of ESD.

One effort to re-orient education to ESD in India is spearheaded by the Ministry of Environment and Forests. This Ministry interacts with the University Grants Commission and the Ministry of Human Resources Development to introduce and expand environmental concepts and issues in the curricula of schools and colleges. The government-supported Environmental Orientation to School Education scheme aims to promote experimentation and innovation in EE curriculum to make it more locally relevant. In Sri Lanka, curricular reform aims to integrate learning across subjects. The new curriculum will allow time and resources to be dedicated to a variety of learning activities focused on culture. Such integration should become more common if ESD is to have a significant impact in South Asia.

Information and Communication Strategies for Water Education

Sustained access to water and sanitation is essential to ensure a better quality of life and enhanced productivity. Local technical interventions are often used to increase access, but these are prone to neglect and misuse due to lack of community understanding and empowerment. The *Jal Sankalp* (Pledge For Water) initiative carried out by the Centre for Environment Education in 28 villages in Gujarat, India engages communities in a continuous dialogue that helps sustain water and sanitation systems.

Jal Sankalp is part of the larger Ghogha Regional Water Supply and Sanitation Project that covers 82 villages. *Jal Sankalp* uses innovative communication and education approaches like focus group meetings, demonstration and street theatre and mobile kiosks to create awareness and build capacity within the villages. The project, despite many challenges, has been able to successfully engage communities in the capacity-building process, encouraging them to take continuous action to improve their water and sanitation systems.

Capacity-Building and Training

Training of key educators to lead the ESD process in South Asia is important. Teacher training is generally carried out by the Departments of Education and universities at both the pre-service and in-service levels. EE is offered as a separate subject in the B.Ed course in some Indian universities, while some NGOs offer separate orientation programmes for teachers. In Nepal, EE is being introduced as a component in pre-service teacher training conducted at universities. In-service training is a government responsibility, and environmental dimensions are being added to this. In Sri Lanka, short-term teacher training programmes that focus on specific themes, including EE, are conducted by various government agencies and NGOs. EE teacher's manuals are prepared by the Central Environment Authority and are being piloted in select schools. Teacher training on ESD in South Asia has focused primarily on training for EE. For the DESD to achieve its goals, teacher training on ESD must be prioritized.

Governance and Policy

ESD cannot succeed in the absence of good governance. Issues of accountability, transparency, access to information and decentralization have been addressed in South Asia with

varied degrees of success. There is a strong need to educate decision-makers in the area of policy creation and to empower citizens to effectively participate in decisions pertaining to sustainable development. Though most national policies reflect gender and equity concerns, access to education, and provision of basic services, these are often not translated into appropriate actions.

A Paradigm Shift for Education in Moving Towards ESD:

- Learning rather than teaching
- Lifelong and continuous, rather than confined to a specified period
- Multi-sourced and accessed, rather than top down, controlled, and orchestrated
- Empowering, rather than socializing (indoctrinating)
- Globally and locally specific
- Training-oriented to build abilities for critical thinking and problem solving
- Multi-disciplinary, as opposed to a single new discipline
- Sensitivity to gender, diversity etc.
- Participatory and based on learning with peers



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Pacific



1. Palau
2. Papua New Guinea
3. Australia
4. Federated States of
Micronesia

5. Marshall Islands
6. Nauru
7. Solomon Islands
8. Vanuatu
9. Kiribati

10. Tuvalu
11. Fiji
12. Samoa
13. Tonga
14. Niue

15. Tokelau
16. Cook Islands
17. New Zealand

Pacific Island Nations

Seema Deo
Independent Consultant



The Pacific Islands

The Pacific sub-region is a vast area. The Pacific Islands span 30 million square km of the Pacific Ocean, stretching almost 10,000 km from east to west and 5,000 km from north to south. This sheer geographic enormity creates many unique challenges and opportunities for the implementation of ESD.

The Pacific sub-region comprises Australia, New Zealand and 22 other island countries and territories. Australia and New Zealand were not included in this section of the Analysis to allow for a greater focus on the unique issues faced by small Pacific Island nations. The total population of this area is approximately 33 million. Australia, the largest country, has a land mass of almost 7.7 million square km and a population of over 20 million. Papua New Guinea has the second largest population in the Pacific, estimated at 5.6 million and a land area of 415,000 square km. New Zealand has a population of just over 4 million and a land area of 268,000 square km. The other islands have a combined estimated population of 3 million and a land area of around 85,000 square km. The smallest islands, such as Nauru, Pitcairn, Tokelau and Tuvalu, are each less than 30 square km.

Sustainable Development Issues

Pacific Islanders have traditionally led subsistence lifestyles, relying primarily on island ecosystems for their survival needs. Whilst some environmentally questionable practices have occurred in the past, smaller and more dispersed populations allowed the ecosystems to regenerate. Community-based management of natural resources, rooted in traditional knowledge and practice, has been successful in some Pacific Island nations (UNESCO, 2004). In Vanuatu, tabus such as seasonal closures or restrictions on fishing areas and the use of certain fishing gear provide the foundation for sustainable marine tenure (Johannes, 1998).

Economic development over the past century has, in many cases, resulted in greater pressures on natural resources as communities and governments have searched for additional ways to generate income. As markets have grown, so has the demand for manufactured products resulting in chronic waste disposal problems in many of the islands. Community expansion has placed pressure on the environment through activities such as resource extraction, land reclamation, deforestation and over fishing. Poverty, urbanization and high population densities have also become widespread.

Following the Rio Summit in 1992, Pacific Island nations have placed considerable emphasis on determining their priority areas for action and embodying these in their National Environment Management Strategies. Priorities and needs have also been articulated in various national and regional reports to the WSSD and in preparatory material for the 10-year review of the Barbados Programme of Action (BPoA+10) that was recently held in Mauritius in January 2005. Specific issues include climate change and rising sea levels, natural and environmental disasters, waste management, natural resource management (coastal, freshwater, land), energy resources, tourism, trade and investment, health and education. Priority areas of action have been identified as governance and security, capacity-building, financial resources, partnerships and international cooperation, public information and communication.

In April 2004, Pacific Island Forum Leaders, consisting of the Heads of Governments of the Pacific Island nations including Australia and New Zealand, adopted a new vision for the Pacific that seeks to give all Pacific people lives that are "free and worthwhile." The leaders identified the priorities for the region as economic growth, sustainable development, governance and security. A commitment was made to develop a Pacific Plan that will assist

in initiating and reinforcing partnerships for sustainability. A series of sectoral reviews will guide the development of the Pacific Plan.

Awareness and Perceptions of ESD

ESD is generally viewed as a new approach to, or an extension of, EE. As in much of the rest of the Asia-Pacific region, EE practitioners consider that the terms EE and ESD can be used interchangeably.

Future thinking/visioning and values clarification/orientation do not appear to feature strongly in discussions on ESD, but these concepts are interwoven in many activities that could be described as ESD related or driven.

Common Descriptions of ESD in Pacific Island Nations

- Participation
- Capacity-building and evaluation
- Environmental care and protection
- Equipping citizens with practical skills to participate actively in all forms of decision-making
- Lifelong, ongoing and beyond formal education
- Relevance to the people
- Responsibility for impacts of development activities
- Action-oriented

In general, ESD is better understood by those involved in EE than those who are practicing in areas such as health education. At the political level, governments have established cross-sectoral national commissions for sustainable development. However, personnel in government departments still tend to view ESD as an environmental or science-related issue.

There is very little published literature on ESD. The only documentation found was from the Secretariat for the South Pacific Regional Environment Programme (SPREP), which is attempting to re-orient the Pacific Regional Environmental Education and Training Strategy to focus more on ESD. A few studies about EE were conducted in the 1990s, and provide some insight to the challenges that could be expected for ESD.

Core Issues of ESD

Values Education

There are several conservation programmes in the Pacific that focus on re-learning traditional values and practices, with a particular emphasis on youth. These values and practices are based on respect at all levels, and village elders are encouraging a return to traditional practices that may help revive these values. It is believed that teaching traditional values to young people may help reduce youth migration to urban centres and encourage them to learn the skills required to practice agriculture or harvest marine resources, resulting in more effective local conservation and natural resource management practices. The widespread interest of international organizations, donors and NGOs in the use of indigenous knowledge and traditional practices has further inspired such activities.

Interestingly, interviews and discussions with local community groups revealed that those involved in non-formal education programmes often do not link their activities to ESD, or even to the concept of values education. Many local NGOs and other civil society groups tend to be run by non-academics and people who have become involved in an activity because of a deep-rooted belief or desire to bring about change. Values are simply considered an integral part of the change process, and may be imparted through religious teachings, drama and song, discussion groups (within the cultural context) or experiential learning. Significantly, it is recognized that positive values alone will not bring about change, and village rules help ensure that the values are translated into appropriate action.

In Fiji, the concept of values education appears to have been taken seriously by the Government, as highlighted by the current national reconciliation programme. Issues of respect for one another, racial harmony, peace and unity are being highlighted through a media campaign, and an in-school education programme is being piloted. A schools-based civic and human rights education programme is also being developed by the Fiji Human Rights Commission and the Ministry of Education.

Pacific education policy documents make reference to the need to develop appropriate values to emphasize sustainable development. Religious studies and similar subjects provide a useful background against which to develop basic human values; however, a holistic approach is absent in the majority of schools due to the compartmentalization of such subjects.

The UNESCO Associated Schools Project (ASP) provides opportunities for schools to participate in a range of pilot projects and activities based on specific themes like peace, intercultural understanding, poverty, hunger and environmental protection. The networking aspect of the project has the potential to foster friendships and understanding among students and teachers from a wide range of countries. Involvement in projects is voluntary; the degree of involvement is often dependent on the interest and motivation of teachers.

Environmental Education

EE is a well-understood concept and acknowledged by most governments as an essential tool for sustainable development. The Secretariat for SPREP is responsible for coordinating the implementation, monitoring and evaluation of the Pacific Regional Action Strategy for Environmental Education and Training. The 5-year strategy was reviewed in early 2003, and it was recommended that an implementation plan be drafted to encompass ESD principles within the context of EE. A draft implementation plan was developed by an expert group of environmental educators and is now undergoing further consultation before being presented for endorsement by Pacific environment ministers.

Formal Education

Most education policy and curriculum statements underscore the need for EE to be integrated into the curriculum. Some countries have developed specific environmental subject areas to ensure that such issues are addressed. The primary school EE curriculum in Papua New Guinea focuses on developing positive values for the environment. Kiribati's Environmental Science curriculum for primary schools covers sustainability, natural resource management and other environment studies issues. These curricula aim to provide students with a basic understanding of environmental systems and of the impact of human activities on these systems.

The introduction of new pedagogical choices presents a challenge for EE in the formal system. Workshops and training programmes have been conducted to impart teaching methodologies that encourage critical thinking and student-centered learning; however, results have not always been realized in the classroom. While teaching methods are changing, conservative pedagogies are prevalent in most Pacific Island nations. This conservative approach is due to teacher attitudes and values; time constraints; the need to adhere to the prescribed syllabus; a lack of skills and confidence to employ alternative pedagogies; and a lack of integration between the school and the rest of the community. Teachers would benefit from long-term training programmes that include ongoing guidance and assistance.

Non-Formal Education

There are many examples of non-formal education initiatives aimed at raising community awareness about environmental protection and better management of natural resources. The more successful initiatives are those that are locally organized and have relied on local means of communication to get messages across. An example is the much-referenced Wan Smolbag Traveling Theatre of Vanuatu. Operating since 1989, this theatre group puts on plays in different villages that simultaneously entertain and inform villagers about important issues such as HIV/AIDS, malaria reduction and natural resource conservation. A turtle conservation play in 1995 prompted many villages to implement turtle conservation programmes, which have since proven extremely successful (UNESCO, 2004).

ESD and the Economy

Government and international economic policies often go uncontested by the public largely due to insufficient understanding of the issues under discussion. In many cases, the watchdog role is left to NGOs and civil society groups who do not always have the necessary resources to achieve change. There is an urgent need to make information about economic principles, policies and their potential impacts available to the public.

Economics courses are available in most secondary schools enabling students to progress to tertiary degrees in economics, management, marketing and other related subjects. Economics courses at the secondary level tend not to address sustainable development issues. The University of the South Pacific (USP) provides courses in Environment and Natural Resource Economics. There is scope for additional programmes in areas such as natural resource management economics, environmental auditing and small business management.

Some of the more holistic EE initiatives do attempt to integrate economic issues into the overall framework of their activities. Examples of these are the Environment Training Module of the CETC and some of the schools-based initiatives of Live and Learn Environmental Education. The SPREP Primary Teacher Training Workshop curriculum, based on UNESCO's Learning for a Sustainable Environment programme, also addresses environmental protection and management from a sustainable development perspective, and focuses on highlighting relationships between the economy and social and environmental health.

Health Education

Health education has been ongoing in the region for several decades and covers vector-borne diseases, food and nutrition, child care, sexually transmitted diseases and non-communicable diseases such as diabetes. The Fiji School of Medicine offers a popular Environmental Health Diploma Course which has helped bring environment and health issues together, specifically in the area of waste management. In recent years, policy makers have started to consider the impacts of unhealthy communities on the economy; however, such initiatives are still in their infancy and dependent on available expertise.

Cross-Cutting Tools, Approaches and Issues

Information and Communication Technology

ICT is recognized by governments and practitioners as a growing necessity in a region separated by vast expanses of ocean. While equipment costs remain high, the use of the Internet is growing in urban areas and there is great potential for ICT integration in ESD.

The constraints posed by cost and limited access encouraged the development of an initiative in the Solomon Islands by an organization known as the People First Network

(PFNet). PFNet was established in 2001, and aims to promote and facilitate equitable and sustainable rural development and peace-building by enabling better information sharing and knowledge-building among and across communities in the Solomon Islands. A short-wave wireless e-mail system was set up to promote better communication in remote rural areas, and new applications for its use are constantly being identified. The USP recently successfully piloted a distance education programme whereby the PFNet system was used to deliver two (appropriately tailored) university courses to rural trainees.

Despite initiatives such as this, there are still many practitioners who, while acknowledging the value of ICT, tend to be skeptical of its use in more remote communities. This is understandable, and will perhaps only change with reduced equipment costs and with greater awareness and understanding of the potential and adaptability of this technology.

Gender Issues

The majority of Pacific Island nations have adopted the Beijing Platform for Action and the Convention on Elimination of All forms of Discrimination Against Women. A gender sector study conducted for the Pacific Plan Assessment outlines considerable progress in commitment and action for gender equity. According to the study, the number of women in senior positions in both private and public sectors has increased. Girls outnumber boys in primary school enrolments and generally tend to out-perform boys in an academic context; however, female enrolment numbers decline after the first few years of primary education. Despite this significant progress, Pacific Island nations are lagging behind many others in terms of the economic, social and political advancement of women. Gender stereotypes, domestic violence, access to health and reproductive health care and economic vulnerability continue to affect women. These issues are pertinent to the delivery of ESD and to sustainable development, in general. There is a need for considerable action in the mainstreaming of gender issues.

THE WAY FORWARD: FURTHERING ESD IN PACIFIC ISLAND NATIONS

Promoting and Improving Basic Education

Effective ESD will be dependent on the quality of, and accessibility to, basic education. Governments have recognized the need to provide quality basic education that is accessible to all, and most have committed up to 20 percent of their total expenditure on education. Countries such as Samoa, Kiribati, the Marshall Islands and the Solomon Islands have also been recipients of large-scale projects funded by the Australian Agency for International Development (AusAID), the ADB and the UK Department for International Development (DFID). Projects have ranged from strengthening of corporate/administrative services in education to equipping science laboratories and developing locally relevant textbooks and other resources.

In May 2001, the Ministers of Education at the Pacific Islands Forum developed the Forum Basic Education Action Plan that seeks to achieve universal and equitable educational participation and achievement, and to ensure access, equity, improved quality and outcomes. The adoption of a complementary Action Plan in 2001 signifies a commitment by Ministers to the EFA Framework for Action and the MDGs. Key areas of the Action Plan are:

- Education Policies and Planning
- Improving Quality in Basic Education
- Financing Education
- Non-Formal Education

- Gender and Equity Issues
- Teaching of Governance and Civics
- Technical and Vocational Education and Training
- Developing Partnerships

Funding has recently been received from the European Union to commence initiatives for the delivery of basic education. These initiatives aim to enhance basic education by strengthening education planning and implementation processes in each recipient country. As basic education, including non-formal and vocational education, is strengthened, so are the opportunities to progress ESD. ESD can also be used to help strengthen initiatives at the very early stages.

Re-orienting Existing Education Programmes

For ESD to be successful, its vision must become embedded within other initiatives, rather than in a separate programme. This is true not just for formal education, but also for non-formal and informal education. National governments can assist with the process through the development of policies that recognize ESD as an integral element of all education programmes. Regional documents such as the Pacific Regional Assessment (based on National Assessment Reports prepared for the WSSD and the BPoA+10) suggest a national interest in committing to ESD at the highest level. Turning policy into practice will require long-term commitments and appropriate allocation of human resources, as well as awareness and support for these activities from school management authorities, principals, teachers and training institutions.

One effective way to re-orient an existing education programme is to participate in a curriculum review process. Several countries in the region (Samoa, Fiji, Kiribati, Vanuatu, the Marshall Islands and Papua New Guinea) have either recently undertaken reviews or are in the process of doing so. In the majority of cases, environment, health and development issues have been integrated into the curriculum. However, the tendency to relegate environment and health to science-based subjects and development issues to social studies is still common.

On a broader scale, the Pacific Regional Action Strategy for EE and Training has attempted to re-orient EE to ESD through a revised draft implementation plan. The DESD could potentially assist with finalizing this regional plan and help commence its implementation.

Developing Public Awareness and Understanding of Sustainability

Achievement of sustainable development will require informed societies that are willing and able to participate in identifying and enacting sustainability measures. This means that all people must become aware of their role in sustainable development. It will require the active, strategic and coordinated participation of local media, civil society groups, private sector entities and governments. There is a need for greater input to raise public awareness and develop people's understanding of their power to bring about change. NGOs, civil society groups and the media can help in this process; however, human resources, financing and training are essential if these groups are to be involved. It is recommended that policies and guidelines be developed to enable greater coordination between these groups and governments.

The development of specialized training programmes to ensure that all sectors of the workforce have the knowledge and skills necessary to perform their work in a sustainable manner has been identified as a critical component of ESD. It is clear that there is a dearth of skilled communicators and educators able to work with communities on culturally specific sustainability issues. Although NGOs tend to be better resourced in this area, they too often sacrifice specialist skills for local language capacity. This lack of locally skilled experts must be addressed if ESD is to be successful in the region. Consideration should be given to how larger and better established NGOs and civil society organizations may potentially assist in developing training programmes to build capacity at the community level.

Sustainable development training programmes at higher education institutions are being developed. The Small Island States Universities Consortium was launched in January 2005, and comprises five member universities. The Consortium aims to harness the expertise of each university to build country capacity to implement the Barbados Programme of Action. The first activity of the Consortium will be to develop an integrated post-graduate course in sustainable development.

Effective Partnerships

There are many partnership initiatives at local, national, regional and international levels to which Pacific Island nations subscribe in the ongoing quest to achieve sustainable development. The range of initiatives and partnerships is overwhelming and, despite best efforts, duplication, repetition and re-consultation frequently occur. The emphasis on research studies, policy development, consultative conferencing and reports currently appears to outweigh substantive action for tangible change. There is a growing acknowledgement of the need to achieve balance between partnerships, for process coordination and partnerships that are more substantive.

Identifying effective partnerships will be an essential component of the DESD. While a large expectation of partnerships is the mobilizing of financial resources, it is important to consider the non-monetary benefits of good partnerships such as information sharing, human resources, ideas and innovations.

The Type II Partnership Initiatives of the WSSD offer a system by which coordination and implementation of activities can occur. The Pacific Islands launched 14 Type II Umbrella Partnership Initiatives at the WSSD, including one on capacity-building and distance education. One of the more successful of these is the Water Type II Initiative facilitated by the South Pacific GeoScience Commission. This partnership provides many lessons for effective coordination of national, regional and international activities focused on water management.

The Small Islands Voice Initiative: Bringing People Together Through ICT

The UNESCO Small Islands Voice (SIV) Initiative combines new information technology with more traditional forms of communication to provide an innovative and cost-effective communication system that allows people to raise issues at the local level, and then debate these regionally and internationally. SIV aims to enhance discussion within and between small islands in an effort to highlight the challenges of small islands and to encourage individuals to actively participate in solving these problems.

A local coordinator is engaged to initiate discussions at the local level using meetings, opinion surveys, radio and television talk shows and other conventional means of communication. Those with access to the Internet then submit the results of these consultations through a moderator to the wider Internet community. Interesting ideas and points for debate are then picked up by other participants, who may either submit their ideas directly to the moderator or bring it up for further discussion (using conventional modes) in their own countries.

Since the launching of the project in 2002, Pacific Islanders, along with people from other small island regions, have participated in the initiative, airing their views on a range of social, environmental and economic issues. SIV coordinators in several countries have also started outreach programmes encouraging communities to put their ideas into practice and develop real solutions. In Palau, communities are participating in an ongoing community visioning programme aimed at involving communities in identifying long-term sustainable development solutions.

Youth are also being encouraged to participate in the global discussions through the SIV Youth Internet Forum. Despite limited access to the Internet, students and teachers in Fiji have participated actively in the programme, meeting regularly to discuss issues and submitting group responses to discussions and debate. Comments received during an evaluation exercise conducted by the local coordinator suggest that the programme has been enthusiastically received due to the opportunity it gives students to interact at a global level.

ICT has proved an exceptional means of eliciting increased commentary from individuals in Pacific Island communities who may not have otherwise participated in such discussions. SIV is helping to turn the tide and involve those who matter the most.

For further information: www.unesco.org/csi/smis/siv/about.htm

Australia

Daniella Tilbury

Australian Research Institute in Education for
Sustainability



STATE OF ESD IN AUSTRALIA³

Australia

Located between the Indian Ocean and the South Pacific Ocean, Australia covers a total area of over 7.6 million square kilometers and has a population of around 20 million. A reflection of its colonial past, Caucasians comprise 92 percent of the total population. Aboriginal settlers arrived on the continent from South-East Asia about 40,000 years before the first Europeans began exploration in the 17th Century. Six colonies were created in the late 18th and 19th Centuries, and the Commonwealth of Australia was created in 1901.

The Australian climate of is generally arid to semi-arid, with temperate regions in the south and east, and tropical zones in the north. Long-term sustainability concerns include soil erosion from over-grazing, industrial development, urbanization and poor farming practices; soil salinity; desertification and limited natural fresh water resources; loss of natural habitat due to agricultural clearing; and depletion/destruction of the largest coral reef in the world, the Great Barrier Reef, due to increased shipping and tourism. Australia has a Western-style capitalist economy, with a per capita GDP on par with dominant West European economies. The service sector dominates, accounting for 70 percent of economic output.

Overview

Helping shift EE practices towards education about and for sustainability presents a major challenge to nations across the globe. In Australia, there appears to be recognition that this task, although ambitious, is necessary. Malone, Fien, Guevara and Lang (2004) have recently argued that Australia has been slow to adopt the term “sustainable development” and terms such as “environmental education,” “education for sustainability” or “education for sustainable development” are often used interchangeably. However, there is clearly a shift taking place between conservative ways of informing people and students about the environment (commonly practiced as EE) by educating to think more critically and reflectively about change and how to engage in change for sustainability, which underpins ESD approaches.

There have been a number of national developments over the past four years that help contextualize ESD policy and practice in Australia. The *Environmental Education for a Sustainable Future National Action Plan* was launched in July 2000. The purpose of the National Action Plan is to provide better coordination of activities and to support leadership across major groups and at various levels. The document interprets EE for sustainability very broadly and recognizes needs across formal education, further and higher education, and community education, in addition to business and industry.

The *National Environmental Education Council* (NEEC) is a non-statutory body providing expert advice to the Minister for Environment and Heritage, as well as to the federal Department for Environment and Heritage. It was established in July 2000 to provide advice on the effectiveness and profile of the Commonwealth's EE and ESD activities, and assists in identifying priority needs in Australia. NEEC, which meets three times a year, is composed of key stakeholders from business and industry, community education, EE professional associations, as well as school, vocational education and university education.

The *National Environmental Education Network*, established in May 2001, brings together government managers from environment and education portfolios from across Australia.

³ Adapted from: Tilbury, D. (2004) Rising to the Challenge: Education for Sustainability in Australia *Australian Journal of Environmental Education* 20 (2), 103-114.

The purpose of the Network is to exchange information, share resources between States, Territories and national bodies; support the development of quality government programmes and materials; provide a platform for exploring the theoretical aspects of EE and promote the strategic development of EE in Australia (Malone et al., 2004).

The Australian Research Institute in Education for Sustainability, located at Macquarie University, was established in August 2004 to meet the Australian Government's need for research, as identified in the National Action Plan for EE. The Institute is working on a range of projects aimed at better understanding and at achieving organizational and stakeholder change towards sustainability. In its first six months, it has undertaken the following projects: a comprehensive review of EE practices and their contribution to sustainability in Australia across sectors, including formal education, community education, further and higher education and industry education (Tilbury et al., 2004b-e); research into existing models of education about and for sustainability in MBAs across Australia (Tilbury, Crawley and Berry, 2004); research into international frameworks informing Sustainable Schools Programmes (Henderson and Tilbury, 2004); and research into existing ICT tools that can assist industry to make changes towards sustainability (Tilbury and Adams, 2004a).

EE and ESD in Formal Education

The formal education sector continues to be the dominant focus of EE thought and practice, but not a great supporter of ESD. EE is a non-mandatory component of schools, with the exception of New South Wales (NSW), and, as a result, struggles for acceptance in mainstream formal and teacher education in Australia. It has a presence in the curriculum, but remains marginalized in practice. Science and Studies of Society and Environment, identified as key learning areas in the curriculum, provide opportunities for students to learn about the environment. Opportunities for modeling or developing understanding of sustainability in schools are limited. Similarly, whole school approaches which involve staff, students and community in learning for change towards sustainability are rare. In 2004, the Australian Federal Government commissioned a research study (Tilbury, Coleman and Garlick, 2004c) which reviewed EE in the formal education sector and its contribution to sustainability in Australia. The study found that the formal education sector has been the most resistant to change towards sustainability. Curriculum policy and guideline documents across the States have been slow to react to this thrust in EE, and few have only recently begun to take on the language of sustainability. Similarly there are few EE programmes with a sustainability focus, and even fewer courses that promote learning for sustainability.

Formal education is the responsibility of each State and Territory, so it is not surprising to find that the status and place of EE and ESD varies across the country. NSW, Queensland and Victoria have an EE policy document for schools. However, NSW is the only state where EE for sustainability is mandatory in government schools (NSW Department of Education and Training, 2001). In Queensland, ACT and NT there are specific curriculum guidelines for EE – although the sustainability dimension is not very strong. In Western Australia (WA), South Australia (SA) and Tasmania, EE is integrated into the core curriculum documents and reflects some elements of sustainability thinking. There have been several calls for an Australian EE policy that represents a national agreement on the key curriculum aims and pedagogical principles for schools in the area of EE (Coad, 2003; Heck, 2003; Smith, 2004). During the compulsory years of schooling, and despite its recognized cross-curricular nature, EE is still occurring predominately in the Science and Studies of Society and Environment Key Learning Areas (KLA) (Curriculum Corporation 2003). However, reference to the environment and EE can also be found in Health and Physical Education, Technology and Mathematics. Furthermore, the general nature of some learning outcomes provides teachers with opportunities to deal with environmental issues and learning for sustainability in other KLA's. These opportunities can be found in English, Technology, Health and Physical Education, and the Arts (Curriculum Corporation, 2003).

A very recent development, following the Curriculum Corporation audit, has been the consideration given to the development of a national ESD statement. The curriculum statement will provide a framework for schools to prioritize and address issues of ESD within their social contexts. It is argued that this initiative reflects a concerted effort by the Australian Government portfolios of education and environment portfolios with to work together with environmental educators in the ESD policy's development and implementation (Malone et al., 2004).

EE and ESD in Non-Formal Education

Community participation and education are an increasing focus of natural resource management research and policy (Thomsen, 2004). The *Environmental Education for a Sustainable Future* National Action Plan recognizes the importance of non-formal education as a key to lifelong learning and learning for sustainability. Underpinning the plan is involvement of community stakeholders through action-oriented approaches. Not only does the plan recognize the array of different stakeholders, but it also acknowledges the complexity of competing interests. Consistently, the plan has also established funding opportunities for EE and ESD programmes led by community organizations. *Local Agenda 21*, promulgated by the Federal Government (Australian Government 2004b), and the NSW government's strategy Learning for Sustainability 2002-05 (NSW Government, 2002) are examples of additional policy instruments that provide a framework for the design and implementation of community learning in ESD.

In Australia, community education has evolved over time to result in a diverse range of learning for sustainability programmes initiated at governmental and non-governmental levels. Community ESD ranges from "add-on" or "feel-good" programmes that focus on information sharing, to participatory programmes that focus on action and lifelong learning, aiming to build healthy, vibrant communities (Kliminski and Smith, 2003). Increasingly, ESD in the community is focusing on the ability of the community to influence, share and/or control the decision-making process (Beck and Crawley, 2002). Inherent in this ability is a community's values, skill set, motivation, and capacity to effectively and efficiently contribute to processes of change. In essence, the building of these capacities is a core objective of ESD in the community (McKeown and Hopkins, 2003). The range of stakeholders involved in ESD community programmes in Australia, however, is diverse. Each programme defines the role and purpose of community stakeholders in contributing to the successful community education process. Community ESD providers in Australia include government agencies, community organizations and NGOs, networks and associations, businesses and higher learning institutions and operate from national to local scales. Directing these organizations are different policies and strategies that outline an organization's learning priorities and contribute to the process and outcomes of the education provided. These priorities and the limited resources available to these organizations mean that there is an immensely diverse range of educational programmes offered to communities.

Funding for community ESD programmes can be obtained from a variety of sources in Australia. Funding grants are offered through competitive processes or as one-off gifts. Government funding, in particular, generally includes assessment criteria, which are typically tied to outcomes-based performance and are determined through a competitive application process. Some grant authorities, such as the Environmental Trust Fund in NSW, strongly encourage cross-sectoral partnerships for ESD programmes. Increasingly, community participants, providers and funding bodies are recognizing the importance of partnerships in understanding the interconnectedness and political nature of sustainability, and in achieving systemic and structural change for sustainability. Partnership projects have been important in addressing imbalances in programme content and methodology. Partnerships for community ESD programmes in Australia are established in one of three ways: (i) from community concern/commitments and aim to address local issues; (ii) from a desire to attain funding for a specific project; or (iii) from agencies external to

local communities, with a view to developing and/or supporting particular functions within those communities. Partnerships have been instrumental in generating community capacity. Responsive, flexible, respectful and reflective partnerships are beginning to emerge to ensure mutually beneficial outcomes and the sharing of work/information across partner organizations and sectors.

EE and ESD in the Private Sector

Industry is under ever-increasing pressure to engage with and respond to sustainability issues. However, studies show that many companies, large and small, are struggling with this new broader business agenda. This may be due to a lack of belief in the business case for sustainability and/or a lack of the knowledge, skills and values required to generate the necessary change. Numerous state and federal government departments, NGOs, industry associations and private consultancies are seeking to address this by providing ESD training courses, toolkits and other resources. Companies, themselves, are also investing in and developing ESD resources for their employees and, increasingly, their external stakeholders. A number of companies in Australia now quantify the training they provide in their annual or sustainability reports in line with the Global Reporting Initiative's GRI core indicator LA9 "Average hours of training per year per employee" (Global Reporting Initiative, 2002). Others detail the number of employees that have attended certain training courses, especially those focusing on environmental management and occupational health and safety. However, few go further than this to consider the impact of such training and the contribution it makes to industry sustainability. Indeed, few companies appear to carry out any sort of evaluation at all, and those that do tend to rely on surveys which do not always provide the information required to truly assess learning and effectiveness.

A recent participatory action research PAR evaluation by Sydney Water of its "ESD Awareness" programme is a rare example of best practice in this area (Tilbury, Adams and Keogh, 2004b). There is still an inadequate body of knowledge about what effective ESD looks like within the business and industry sector (Sustainable Development Education Panel, 2003). This lack of analysis is also reflected in the dearth of case studies about industry ESD. Indeed, there has been little discussion at all about this topic compared to the formal education sector, which, continues to be the dominant focus of much EE thought and practice.

The Australian Federal Government recently commissioned the first review of needs and opportunities for EE and ESD education for the private sector (Tilbury et al., 2004b). It provides a snapshot of the current context and documents experiences in order to inform future research projects. A number of key themes are identified to assist in constructing a picture of ESD experiences in business and industry. These themes consider different outcomes industry is seeking from ESD along with different methods by which it can

Sustainable Schools

The Sustainable Schools Programme is in the early stages of development in Australia, with NSW and Victoria implementing and beginning to evaluate the first pilot programmes in 2002/2003. During this time, interest in the programme by the other States and Territories has grown substantially, and now Western Australia, South Australia and Queensland are involved in developing the initiative. All Australian States and Territories have also agreed to participate in the development of a national programme facilitated through the Australian National Environmental Education Network (Department of Environment and Heritage, 2004).

The defining feature of Sustainable Schools is the integration of existing and fragmented approaches to environmental education and ESD into a holistic programme with measurable, environmental, financial and curriculum outcomes (Woods, 2004). The programme helps staff and students implement efficiencies in a school's resource consumption (including energy, waste and water) and impact on biodiversity in a way which is closely aligned to the formal curriculum. The programme also opens the school doors to the community by encouraging partnerships with the local community and private sector. The initiative has been successful in actively engaging schools in change and in helping staff to develop competencies in ESD.

access this learning. The themes are inextricably linked: Informal Learning through Peer Networks; Education for Product Stewardship; Educating Stakeholders for Sustainability; Resources and Tools for Change; Beyond Compliance Education; Education relating to Environmental Performance; Formal Education and Training for Industry – Contributions from the VET Sector; and Formal Education for Business – Contributions from the University Sector. The study found that many companies struggle to distinguish between environmental performance and the broader notion of sustainable development (Roome and Oats, 1997). Those that have made this distinction recognize that sustainable development involves profound changes in core thinking, policies and practices (Roome and Oats, 1997).

Many advocates for sustainable development question whether incremental change strategies go far enough, regarding them as more focused on maintaining the status quo (Dunphy, Griffiths and Benn, 2003) or unable to progress a company beyond the initial corporate sustainability stages of environmental compliance and performance. To achieve lasting sustainability requires a fundamental and long-lasting shift in corporate culture. For this, it is argued, companies need transformational change. The compliance and performance promoted many ESD practitioners within Australian industry still have a role to play in setting up the foundations of transformational change. However, for transformational change to occur, companies must define where they want to be and explore alternatives for getting there. These and other complex issues relating to ESD in industry are beginning to enter the dialogue in Australia.

ESD - In Progress

ESD in Australia is “in progress.” Despite the major developments outlined above, much capacity-building work is yet to be done in the area of ESD. To assure resources are effectively and strategically invested, the Federal Government under the Department for Environment and Heritage recently announced that \$1.8 million dollars will be provided to fund ESD research. The funding will assist in the creation of a new institute (the Australian Research Institute in Education for Sustainability, ARIES) and will fund innovative policy and practice-oriented research projects. Research projects and research dialogues will involve key informants from various sectors. Research will serve to inform policy and practice, as well as government decision-making in ESD. This places Australia in a strong position to assist all stakeholders in making the shift towards sustainable development, and bodes well for the future of ESD in the country.

Education
Development
Sustainable
Environment
Economic
Sustainable
Education
ESD
Regional
Initiatives

Selected Abbreviations

Preface

Acknowledgements

Foreword

Introduction

Conceptual Overview of ESD

Results of Situational Analysis

North Asia

Republic of Korea

Japan

People's Republic of China

Mongolia

South-East Asia

Sub-Regional Overview

Socialist Republic of Viet Nam

Central Asia

Sub-Regional Overview

South Asia

Sub-Regional Overview

Pacific

Pacific Island Nations

Australia

➤ ESD Regional Initiatives

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESD)

United Nations Environment Programme and ESD

United Nations University Institute of Advanced Studies and ESD

National Institute for Educational Policy Research/UNESCO Asia-Pacific Programme of Educational Innovation for Development: Regional Seminar

ESD and Natural Disaster Preparedness: Reaching All Stakeholders

References

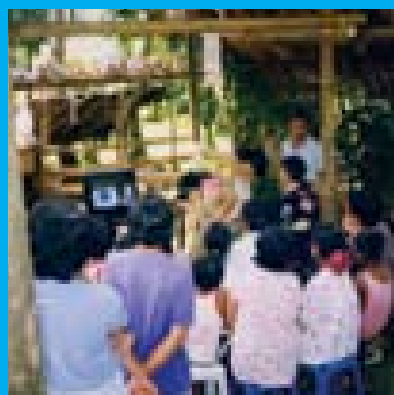


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Asia/Pacific Cultural Centre for UNESCO

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESD)

Masahisa Sato

Asia/Pacific Cultural Centre for UNESCO
(ACCU)



The Asia/Pacific Cultural Centre for UNESCO (ACCU) is a non-profit organisation that implements regional activities in Asia and the Pacific in line with the principles of UNESCO, primarily focusing on the promotion of mutual understanding and cultural cooperation among peoples in the region. Since its establishment in Tokyo, Japan in 1971, ACCU has been co-ordinating various regional cooperative programmes in the fields of culture, education and personnel exchange in close collaboration with UNESCO and its Member States in Asia and the Pacific.

The Education Division of ACCU has been carrying out literacy and Non-formal Education (NFE) programmes with UNESCO and its Member States, non-governmental organisations and international agencies, in the areas of material development, human resource development, establishment of Literacy Resource Centres for Girls and Women (LRCs), and network-building for the realisation of Education for All (EFA) and in contribution to the United Nations Literacy Decade (UNLD).

In 2005, the United Nations Decade of Education for Sustainable Development (UNDESD) was launched with UNESCO appointed as the lead agency. ACCU has a strong history of developing materials and dissemination programmes of direct relevance to some of the main strategic themes of ESD, such as water pollution, forest conservation, waste management, disaster prevention, intercultural understanding and so forth. Further, it is expected that existing ACCU programmes of EFA and LRC can be extended to ESD: ESD shares a primary concern for education of high quality, which is interdisciplinary and holistic, driven by values, and based on critical thinking and participatory decision-making to ensure relevance at the local level.

Thus, in response to the inauguration of the UNDESD, ACCU initiated its ESD programme in 2005. The ACCU ESD programme has three pillars: 1) Regional Planning Meetings on ESD, 2) Package Learning Materials on Environment (PLANET) series, and 3) the ACCU-UNESCO Asia-Pacific Programme for ESD under the UNESCO/Japanese Funds-in-Trust.

Firstly, ACCU plans to organise a series of Regional Planning Meetings on ESD. The situation of ESD in countries of the region will be reviewed, and regional activities will be discussed by experts and representatives from UNESCO Member States. Hence, it is hoped that these meetings will provide important opportunities for exchanging views about the promotion of ESD in the region, for planning and for evaluating regional ESD programmes.

Secondly, the PLANET series was designed and launched in 1997, in collaboration with specialists in NFE, environment and cartoon animation in Asia and the Pacific region. This series provides a package of quality materials in different formats (posters, booklets, animated cartoon videos and facilitators' guides) on specific ESD-related themes. It raises environmental awareness and promotes a sense of togetherness with nature and with humankind throughout the world, thereby contributing to the promotion of ESD. The ACCU prototype English version of the package has already been locally adapted in a number of countries. These versions are used both in formal and non-formal settings, such as schools, community learning centres, adult literacy classes, and community development programmes. ACCU also supports dissemination and utilisation of the local versions to ensure that the materials are delivered to and enjoyed by the target learners.

Finally, in cooperation with UNESCO Bangkok, ACCU will also plan and implement the ACCU-UNESCO Asia-Pacific ESD Programme under the UNESCO/Japanese Funds-in-Trust for the Promotion of ESD, which encompasses "ACCU-UNESCO Asia-Pacific Innovation Programme for ESD (in short, ESD Innovation Programme)" and "ACCU-UNESCO Asia-Pacific COE Programme for ESD (in short, ESD COE Programme)." The collaborative programme will support innovative activities and organisations so that they, in turn, may serve as models for the promotion of ESD in the Asia and Pacific region and further contribute to developing the quality of education, in general. ACCU and UNESCO shall jointly implement certain sub-programmes, and will build from lessons learned to strengthen the promotion of ESD in the region. In addition, it is also expected that the ACCU-UNESCO Programme will contribute to facilitating peaceful and cooperative relations amongst nations and ethnic groups, thereby promoting peaceful co-existence of different peoples and cultures in the region.



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1. Derek Elias
2. Thailand Environment Institute
3. Seema Deo

United Nations Environment Programme and ESD

Mahesh Pradhan

United Nations Environment Programme
- Regional Office for Asia and the Pacific



To fulfill its mandate of “Inspiring, Informing and Enabling” nations and people of the world to improve their quality of life without compromising that of future generations, UNEP is involved in EE, awareness and training programmes. At the global level, UNEP, in collaboration with UNESCO, was instrumental in the development of the International Environmental Education Programme (IEEP), which was carried out between 1975 and 1995. Through this programme, over 150 countries enrolled in EE, directly benefiting over 12,000 educators and trainers. An annual multi-language newsletter, training manuals and guidelines on EE were produced and disseminated during the programme. An offshoot of IEEP was the UNESCO/UNEP/BMU-Dresden postgraduate course on Environmental Management Studies, convened at Dresden University of Technology, Germany. It is now in its twenty-sixth year.

UNEP’s flagship publication, *Global Environment Outlook*, provides a wealth of environmental information and guidance for decision-making processes such as the formulation of environmental policies, resource allocation and action planning. A youth component of this publication specifically focuses on EE, and a youth version of the report and an accompanying teachers’ guide have been released.

In 1993, UNEP’s Regional Office for Asia and the Pacific (ROAP) established a programme to enhance the region’s capacity to manage the environment in a sound and sustainable manner. This initiative, the Network for Environmental Training at Tertiary Level in Asia and the Pacific (NETTLAP), evolved into a major contribution to help achieve both national and regional sustainable development goals. It explicitly recognized that tertiary institutions such as universities, technical and training institutes and teacher training colleges, play a major role in building capacity for sustainable development.

In the mid-to late 1990s, NETTLAP shifted its target beyond institutional strengthening and human resources development in the tertiary sector. While there is still an enormous need for such capacity-building activities, in-country initiatives have become much broader than the early NETTLAP focus on tertiary institutions. Countries have begun to take a comprehensive approach that targets other important “agents of change,” such as politicians, government officials, and leaders from the private sector and NGOs.

During the late 1990s and early 2000s, EE efforts at ROAP have focused on the formulation, endorsement and adoption of sub-regional EE action plans and strategies. Starting with the South Pacific Action Strategy on Environmental Education and Training (1999-2003), followed by the Association of South East Asian Nations (ASEAN) Action Plan on Environmental Education (2000-2005), and the South Asian Environmental Education and Training Action Plan (2003-2008), efforts are currently underway for the development of a similar sub-regional strategy for Northeast Asia (2005-2010). This is to build upon and consolidate existing initiatives in the sub-region, such as the Tripartite Environmental Education Network (TEEN) between the People’s Republic of China, Japan and the Republic of Korea.

In 2002, UNEP signed an agreement with Tongji University in Shanghai, China for the establishment of a joint Institute of Environment for Sustainable Development (IESD), located at Tongji University. The specific objectives of this Institute are to develop a new model of education in the field of environmental protection, design and management, aimed at cultivating research, technical and managerial talents for global environmental protection, particularly for developing countries. A Leadership Programme was convened in July 2004, bringing together over 35 participants from all of the five Asia-Pacific sub-regions, and focusing on human, environmental and sustainable development dimensions. A Master’s degree programme based on this model is also planned at the IESD beginning in 2005.

The upcoming UN Decade of Education for Sustainable Development provides an excellent opportunity to consolidate and intensify UNEP’s various EE efforts at the national, sub-regional and regional levels throughout Asia and the Pacific.

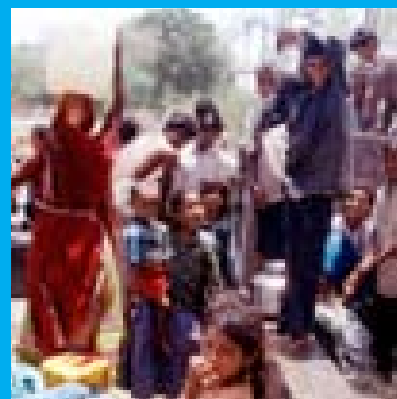


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1. Asia-Pacific Centre of Education for International Understanding
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3. Thailand Environment Institute
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United Nations University Institute of Advanced Studies and ESD Programme

Zinaida Fadeeva

United Nations University-
Institute of Advanced Studies



Located in Yokohama, Japan, United Nations University – Institute of Advanced Studies (UNU-IAS) is one of the newest in the network of research and training centres within the UNU system. The mission of the centre is to undertake research and postgraduate education on issues at the forefront of knowledge, policy development and learning. UNU-IAS is committed to contributing creative solutions to pressing issues of global concern.

The term advanced studies refers to a multidisciplinary approach to research problems. The centre engages experts from traditional disciplines such as economics, law, biology, political science, physics and chemistry, and asks them to pool their specific knowledge and expertise in a focused attempt to understand and resolve key challenges to sustainable development. Advanced research methodologies and approaches challenge orthodox thinking and locate creative solutions to the most pressing global problems.

The research focus of UNU-IAS continually strives to identify strategic areas of research into issues of concern for all humankind, for governments and decision-makers and, particularly, for developing countries.

UNU-IAS launched its ESD programme in 2003. The major components of the programme include:

- **Advocacy and dissemination of the Decade of Education for Sustainable Development (DESD).** To prepare for the DESD, UNU-IAS collaborated with UNESCO in developing the draft "International Implementation Scheme for the Decade." It also organized a number of seminars, workshops and meetings to promote the DESD, and has participated in various ESD-related international conferences.
- **Promotion of Regional Centers of Expertise on Education for Sustainable Development (RCEs) and their networking to bring about a "global learning space for ESD".** A RCE is a group of existing organizations of formal, non-formal, and informal educators who are mobilized to deliver ESD to a regional community. It is a network of knowledge institutions, governments, companies, NGOs and others. UNU-IAS developed a concept paper on RCEs, and presented it during various conferences to initiate discussions and promote demonstration RCE projects around the world.
- **Development of curricula and learning materials on ESD.** UNU-IAS collaborates with higher education institutions and research institutions, such as the Institute of Global Environmental Strategies and the University of the South Pacific, to develop modules and materials to promote ESD. It also conducts research to redirect existing education towards sustainable development.
- **Collaboration with the Global Higher Education for Sustainability Partnership to promote higher education institutional activities towards a sustainable future.** As a special collaborator, UNU-IAS contributed to the GHESP Resource Project by hosting the Tokyo Consultation in March 2004 and participating in the Strategic Planning Meeting in June 2004.
- **Promotion of distance on-line learning on ESD through ICTs.** In collaboration with the UNU Media Studio, UNU-IAS has been developing on-line learning modules on ESD.
- **Trainers' training on ESD.** For training and capacity-building, UNU-IAS, and the Japanese Ministry of Education, Culture, Sports, Science and Technology jointly organized the UNU-APEC Education Network Invitation Programme on ESD in August 2004, and dispatched experts to various training courses/seminars. One such meeting was the Regional Leadership Training Course on ESD in July 2004 in Shanghai, China.

UNU-IAS has also been closely collaborating with the Ubuntu Alliance, an alliance of eleven educational and scientific/technological institutions, to strengthen collaboration between science and technology researchers and educators; to better integrate science and technology into educational programmes for sustainable development; and to

strengthen cooperation between formal and non-formal education. In addition, UNU-IAS closely collaborates with other UN agencies and relevant international organizations such as UNESCO, UNEP, IUCN and IGES.

Research

The ESD Programme at UNU-IAS undertakes action-oriented research on **Regional Centres of Expertise** on ESD, which are proposed by UNU as a major vehicle to mobilize local stakeholders for ESD. RCEs are groups of organizations who jointly promote ESD at the regional/local level. At the initial stage of launching RCEs (several are scheduled to be launched by the end of 2005), UNU-IAS's research will document how local stakeholders come together, what modalities RCEs take depending on the local conditions, and explore how RCEs can contribute to articulating a global vision of ESD in local terms. By the end of the Decade of ESD, RCEs are expected to develop into a place for housing innovations in ESD and generating research to further promote ESD.

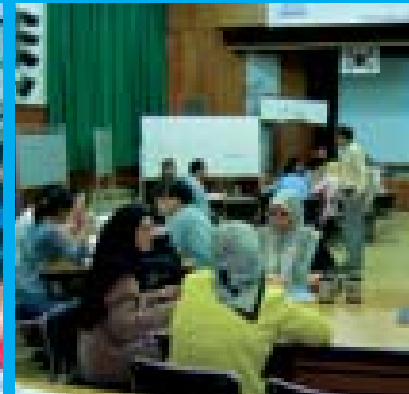


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**National Institute for
Educational Policy
Research/UNESCO
Asia-Pacific Programme of
Educational Innovation for
Development:
Regional Seminar**

UNESCO Bangkok



The Regional Seminar on “Policy, Research and Capacity-building for Educational Innovation for Sustainable Development” (27 July – 3 August) was organized by the National Institute for Educational Policy Research (NIER) of Japan and the Asia-Pacific Programme of Educational Innovation for Development (APEID).

The APEID Framework of Action for the 7th Programme Cycle 2002-2007, based on a regional consultation in 2001, includes ESD as one of nine programme areas. APEID strongly supports the mainstreaming of ESD into APEID programme areas, as was unanimously recommended at the initiative’s Strategic Development Meeting in February 2004. Similarly to many other international, regional, national and local stakeholders, APEID is well-positioned to contribute proactively to the Decade.

Enhanced coordination in planning and implementing initiatives for the Decade of ESD in the Asia-Pacific region is essential to avoid a duplication of efforts. The *Working Paper: Asia-Pacific Regional Strategy for ESD* has been developed by UNESCO Bangkok in cooperation with other stakeholders to assist in this coordination. Three of the six recommendations and suggested ESD-related actions for APEID contained in NIER’s Seminar Report are analogous to initiatives already being coordinated and implemented by the ESD programme at UNESCO Bangkok, while the remaining three are included in the Regional Strategy.

In close cooperation with UNEP, UNU-IAS and ACCU, UNESCO Bangkok has initiated the development of an Asia-Pacific Regional UN Interagency Steering Committee that will provide guidance and advice for the Decade. UNESCO Bangkok’s ESD website and a related database, to be constructed in the near future, will house reviewed resources, materials and information on ESD that can be accessed by all stakeholders throughout the region. To raise public awareness of ESD and to encourage broad support for the Decade, UNESCO Bangkok is developing locally-relevant informational brochures about ESD, the Regional Strategy and the Situational Analysis. These ESD resources will be distributed in the coming months to all stakeholders in all learning contexts.

Other recommended actions for APEID in the Seminar Report are the provision of a broad framework to be used as a regional guide to review/evaluate programmes; identification and recognition of an inter-sectoral structure – built on existing programmes and networks – to expand multiple ownership and partnership of the Decade with different sectors and all stakeholders; and initiation and implementation of a Joint Innovative Project on ESD in emerging knowledge economies, with a focus on curriculum renewal and teacher preparation through policy guidance, action research, capacity-building and ICT applications. These approaches are recommended in the Regional Strategy.

Due to its extensive network and experience in the Asia-Pacific region, APEID is in a strong position to contribute to the ESD initiatives outlined above. The importance of greater coordination of efforts both within and between organizations cannot be overemphasized in initiating plans for the Decade of ESD.

Development
Education
Environment
Equity
Health
Inclusion
Justice
Knowledge
Leadership
Participation
Resilience
Sustainability
Transparency
Trust
Values
Vision
Well-being
Work
World
Youth
Zones

ESD and Natural Disaster Preparedness: Reaching All Stakeholders

Selected Abbreviations

Preface

Acknowledgements

Foreword

Introduction

Conceptual Overview of ESD

Results of Situational Analysis

North Asia

Republic of Korea

Japan

People's Republic of China

Mongolia

South-East Asia

Sub-Regional Overview

Socialist Republic of Viet Nam

Central Asia

Sub-Regional Overview

South Asia

Sub-Regional Overview

Pacific

Pacific Island Nations

Australia

ESD Regional Initiatives

Asia/Pacific Cultural Centre for UNESCO (ACCU) and its Contribution to the United Nations Decade of Education for Sustainable Development (UNDESD)

United Nations Environment Programme and ESD

United Nations University Institute of Advanced Studies and ESD

National Institute for Educational Policy Research/UNESCO Asia-Pacific

Programme of Educational Innovation for Development: Regional Seminar

➤ ESD and Natural Disaster Preparedness: Reaching All Stakeholders

References

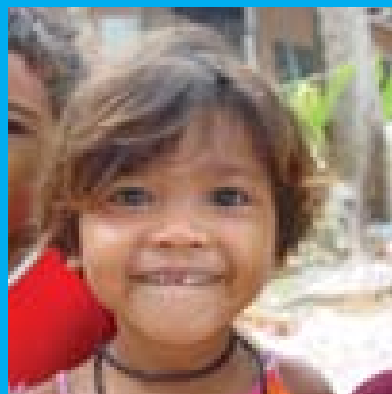


Photo credit: Derek Elias

ESD and Natural Disaster Preparedness: Reaching All Stakeholders



Disaster prevention and mitigation are core environmental issues identified by UNESCO in the draft International Implementation Scheme for the DESD. The Director General of UNESCO, Mr. Koïchiro Matsuura, recently highlighted the significant role of education in improving the capacity of individuals and communities to reduce the risk of disasters; “anticipating, educating and informing are the keys to reducing the deadly effect of such natural disasters” (3 January, 2005).

There is potential for disaster preparedness to be developed as an initiative under the DESD in Asia-Pacific. ESD is a most appropriate framework for disaster preparedness in three important ways:

Preserving Traditional Knowledge

The earthquake and subsequent tsunami waves on 26 December, 2004 devastated communities in coastal regions, primarily in Indonesia, the Maldives, Sri Lanka, India and Thailand, although many other countries suffered considerable loss of human life.

Significantly, the disaster has served to highlight the importance of local and traditional knowledge in the region. There are accounts in Thailand of sea gypsy communities that escaped the tsunami based on such knowledge. These and other traditional approaches should be seriously considered and utilized in future education for disaster preparedness initiatives.

- ESD is interdisciplinary and holistic. Therefore, important consideration is given to the impacts of natural disasters on, and relationship between, society, the environment, economy and culture;
- ESD promotes critical thinking and problem solving that is essential to the empowerment of stakeholder groups threatened or affected by disasters; and
- ESD seeks to be locally relevant, acknowledging that languages and cultures say and understand things differently, and addresses both local and global issues. Employing such an approach acts to maximise beneficial outcomes for stakeholders at the grassroots level.

Much existing educational material for natural disaster preparedness is academic and/or targets a limited audience. It is essential that this focus is expanded to include vulnerable populations and the key sectors that suffer as a result of disasters. These include, but are not limited to, education, agriculture, tourism, environment, fisheries, transport and communication, as well as the private sector.

Such education for disaster preparedness must also introduce sustainable development concepts to all key stakeholders across all sectors through formal, informal and non-formal education. Forming new partnerships to ensure delivery of such information will be a considerable challenge throughout the region, and ownership of such initiatives needs to be spread as broadly as possible in a coordinated manner in order to be successful.

To be effective, education for disaster preparedness must be undertaken in consultation with Ministries of Education and other relevant national and local government authorities. The involvement of key environmental organizations with knowledge and expertise in ESD that are already involved in disaster reduction education and in post-tsunami management and/or assessment at the local level is critical. Contributions from key stakeholders in other disaster-prone countries of the region such as Japan and the Philippines should also be sought.

Education, coupled with sustainable management and planning, remains the only effective long-term solution to minimizing the effects of future tsunamis and other natural disasters (such as floods, earthquakes, fires, typhoons etc). Communication is also critical for the planning and rehabilitation of areas affected by natural disasters. Some specific areas that could be addressed by education and communication activities include:

- Appropriate frameworks for sustainable development in the planning of infrastructure
- Coordination and clarification of roles and responsibilities of authorities and other stakeholders
- Effective communication strategy that includes all key stakeholders from the international and regional level to the local level
- Integrated Coastal Management for sustainable development

- Sustainable forestry, agri- and aquaculture
- Tourism strategy
- Integrated waste management

It is essential for the effectiveness of learning and capacity-building of local communities and other key stakeholders that materials produced are appropriate to local needs. The use of ICTs and other appropriate media formats like radio, Internet and community announcements (e.g. Mosque announcements) in education for disaster preparedness will maximise usage by targeted stakeholder groups.

It is, furthermore, important that existing and future educational materials for disaster preparedness are developed within the framework of ESD in order to highlight the relationship between social, environmental and economic issues in a culturally appropriate and locally relevant way. Education for disaster preparedness must benefit from local traditional indigenous knowledge and specifically target different stakeholder groups to enhance relevance and sustainability.

Long-term Sustainability

In the wake of the tsunami, numerous assessment teams have already begun gathering information on its impact on communities and the environment. The current focus of activity is naturally on relief. However, the implementation of many activities has been undertaken only with short-term needs in mind and issues of longer-term social, environmental, economic and cultural unsustainability are already becoming evident.

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References

- Abe, O. and Masahiro, T. 2002. Recent Trends of Environmental Education in Japan. *Report on the Tripartite Environmental Education Workshop among Japan, China and Korea*, 118- 124.
- Abe, O. 2004a. Issues in Environmental Education for Environmental Governance in Japan. *Environmental Education in Japan, China and Korea and its Comparative Perspective*, 69-72.
- Abe, O. 2004b. Promotion and Problems of the UN Decade of Education for Sustainable Development. *Environmental Education in Japan, China and Korea and its Comparative Perspective*, 106-109.
- Adyasuren, T. 1998. Environment and Development Issues in Mongolia. EERI ECO ASIA, Ulaanbaatar.
- Adyasuren, T., Erdenetogs, L., Enkhbaatar, B., and Nergyi, N. 2001. Problems to promoting ecological education in Mongolia. Ministry of Education, Culture and Science and Soros Foundation, Ulaanbaatar.
- Arcus, C. 2004. Policy, Research and Capacity-building for Educational Innovation for sustainable development: New Zealand Country Report. Ministry of Education, Wellington.
- Asano, Y. 2002. Japan's Environmental Education Measures. *Report on the Tripartite Environmental Education Workshop among Japan, China and Korea*, 104-105.
- Asian Development Bank. 2000. Lao People's Democratic Republic: Education Sector Development Plan. ADB, Manila.
- Asian Development Bank. 2005. www.adb.org/carec/about.asp
- Beck, A. and Crawley, C. 2002. Education, ownership and solutions: The role of community involvement in achieving grass roots sustainability. Sustaining our Communities Conference, Adelaide 3–6 March 2002, Conference Proceedings. Retrieved 18 June 2004, from www.regional.org.au/au/soc/2002/5/beck.htm.
- CAREC. 2002. Environmental Education in Central-Asian Countries. CAREC, Almaty.
- CAREC. 2003. Status, Prospects and Ways of Environmental Education Development in Central-Asian Countries. CAREC, Almaty.
- Clay, J. 1993. Looking Back to Go Forward. In: Burger, et al, *State of the Peoples*. Beacon Press, Boston.
- Chen, C. and Marcovici, K. 2003. Exploring the Status of Reintegrated Girls – A Participatory Study, Kailali and Kanchanpur. Save the Children/US, Nepal.
- Coad, S. 2003. Sustainability education: A curriculum imperative EQ Australia. *Curriculum Corporation*, 1, 35–37.
- Curriculum Corporation. 2003. *Environmental education review – Formal education sector (schools)*. (Report prepared for The Department of Environment and Heritage). Retrieved 11 March, 2004, from www.deh.gov.au/education/nap/council/summary-1.html.
- Delors, J. 1996. Learning: The Treasure Within. UNESCO, Paris.
- Department for Environment, Food and Rural Affairs - UK. 2004. Learning to Last – Sustainable Development through Education: A guide for professional bodies. DEFRA, London.
- EERI ECO ASIA. 2004. Development of the curriculum on ESD. EERI ECO ASIA, Ulaanbaatar.
- European Centre for Epidemiological Monitoring of AIDS (EuroHIV). 2003. HIV/AIDS Surveillance in Europe. End-year Report. Institut de Veille Sanitaire, Saint Maurice.

- Fien, J. 1993. Education for the environment: Critical curriculum theorizing and environmental education. Deakin University Press, Geelong.
- Fien, J. and Tilbury, D. 2002. The Global Challenge of Sustainability. In D. Tilbury, R. Stevenson, J. Fien and D. Schreuder (Eds.), *Education and sustainability: Responding to the global challenge*. IUCN, Cambridge.
- Global Reporting Initiative. 2002. Sustainability reporting guidelines. Retrieved 30 May, 2004, from <http://www.globalreporting.org/guidelines/2002.asp>
- Government of Mongolia. 1997a. Mongolia in the 21st Century: new challenges for economic and social development. Government of Mongolia, Ulaanbaatar.
- Government of Mongolia. 1997b. National Programme: Ecological Education for the Public. Government of Mongolia, Ulaanbaatar.
- Government of Mongolia. 1998. Mongolia Action Programme for the 21st Century. Government of Mongolia, Ulaanbaatar.
- Government of Viet Nam. 2004. The Strategic Orientation for Sustainable Development in Viet Nam (Viet Nam Agenda 21). Government of Viet Nam, Hanoi.
- Harris, R., Jacquemin, A., Ponthagunta, S., Sah, J. and Shrestha, D. 2003. Rural Development with ICTs in Nepal: Integrating National Policy with Grassroots Resourcefulness. *EJISDC*, 12(4): 1-12.
- Heck, D. 2003. The state of environmental education in the Australian School curriculum. *Australian Journal of Environmental Education*, 19, 115–124.
- Henderson, K. and Tilbury, D. 2004. Whole-school approaches to sustainability: An international review of sustainable schools programmes. Report prepared by ARIES, Macquarie University for the Department of Environment and Heritage, Australian Government.
- Hickey, F. and Johannes, R.E. 2004. Evolution of village-based marine resource management in Vanuatu. UNESCO, Paris.
- IUCN. 2003. Regional Biodiversity Programme, Asia: 2003 Annual Report. IUCN, Colombo.
- IUCN. 2004. Education for sustainable development. Retrieved 3 September, 2004, from www.iucn.org/themes/cec/education/whatis.htm
- International Water Management Institute -Tata Water Policy Programme. 2003. Addressing the Needs of Poor Farmers. *Water Policy Briefing*, 6: 1-8.
- Kliminski, G. and Smith, E. C. 2003. Community Education and Social Capital. *Community Education Journal*, 17: 3-4.
- Leeming, D., 2004. Strengthening Distance Education through Wireless Networking in the Solomon Islands. Pacific Islands Forum Secretariat, Suva.
- Loan, Do Thi Bich. 2004. Gender in Education for All. *Viet Nam. Magazine of Education Development*, May 2004.
- Malone, K., Fien, J., Guevara, J., and Lang, J. 2004. Education for sustainable development: Australia. Presented at UNESCO-NIER Regional Seminar on Policy Research and Capacity-building for Education Innovation for Sustainable Development, 27th July–3rd August 2004, Tokyo Japan.
- McKeown, R. and Hopkins, C. 2003. EE does not equal ESD: Defusing the worry. *Environmental Education Research*, 9(1), 118–128.
- MEES, Kyrgyzstan. 2000. National report on environment state of environment of Kyrgyzstan. _EES, Bishkek.

- MEES, Kyrgyzstan. 2004. National report on state of environment of Kyrgyzstan. _EES, Bishkek.
- MEES and UNDP. 2002. Assessment of results of the Kyrgyz Republic progress towards sustainable development. National review for RIO+10. MEES and UNDP, Bishkek.
- Ministry of Education, Lao PDR. 1998. Policies of Non-formal Education of Lao PDR. Decree Number 1510/EDUC. Lao PDR, Vientiane.
- Ministry of Education, Lao PDR. 2004. Lao National Literacy Survey 2001, Final Report. Lao PDR, Vientiane.
- Ministry of Education and Training, Viet Nam. 2003. Teaching and Applying ICT in School Systems. Ministry of Education and Training, Hanoi.
- Ministry of Education and Training, Viet Nam. 2004a. Educational and Training Development Reports of 2001, 2002, 2003 and 2004.
- Ministry of Education and Training, Viet Nam. 2004b. Educational Statistics and Data of 2000-2004. Ministry of Education and Training, Hanoi.
- Ministry of Environment and Natural Resources. 2002. *Sri Lanka's Middle Path to Sustainable Development in the 21st Century: National Report of Sri Lanka to the World Summit on Sustainable Development*. Ministry of Environment and Natural Resources, Colombo.
- Ministry of Environment and Natural Resources. 2002. *State of the Environment in Sri Lanka : A National Report*. Ministry of Environment and Natural Resources, Colombo.
- Ministry of Natural Resources and Environmental Protection of the Republic of Kazakhstan. Quarterly Informational Ecological Bulletin. Ministry of Natural Resources and Environmental Protection, Almaty.
- NSW Department of Education and Training. 2001. Environmental education policy for schools. Department of Education and Training Curriculum Support Directorate, Sydney.
- Okajima, S. 2003. Report on Current Trends in Japanese Environmental Education. *Report on the Tripartite Environmental Education Workshop among Japan, China and Korea*, 77.
- Pacific Islands Forum Secretariat. 2001. Forum Basic Education Plan. Pacific Islands Forum Secretariat, Suva
- Pacific Islands Forum. 2004a. Pacific Regional Assessment for the Barbados Programme of Action 10-year Review. Pacific Islands Forum Secretariat, Suva.
- Pacific Islands Forum, 2004b. Pacific Regional Initiatives for the Delivery of Basic Education (PRIDE) Project Document. Pacific Islands Forum Secretariat, Suva..
- Pacific Islands Forum, 2004. *Sector Studies for the Pacific Plan Assessment*. Electronic Copy.
- Poffenberger, M. (ed.). 2001. *Communities and Forest Management in South-East Asia*. Asia Forest Network, Berkeley.
- Perera, N. 2004. Alternative Livelihoods through Income Diversification: An Option for Sustainable Coral Reef and Associated Ecosystem Management in Sri Lanka. SACEP, Colombo.
- Raghunathan, M. 2000. South Asian Environmental Education and Training Action Plan, 2000-2005: Report to South Asia Co-operative Environment Programme, Sri Lanka. Centre for Environment Education, Ahmedabad.
- Roome, N. and Oates, A. 1997. Corporate greening in education for sustainability. In S. Sterling and J. Huckle (Eds.), *Education for sustainability*, 45–56. London: Earthscan.
- SACEP. 2003. South Asia Environmental Education and Training Action Plan, 2003 – 2007: Learning to Live in Harmony with Nature and Environment. SACEP, Colombo.

- SACEP. 2004. *South Asia Co-operative Environment Programme, Newsletter*, 3(2).
- SACEP. 2004. *South Asia Co-operative Environment Programme Newsletter*, 3(1).
- Senge, P. 1990. *The fifth discipline: The art and practice of the learning organization*. Doubleday, New York.
- Sjöholm, F. 2002. *Educational Reforms and Challenges in South-East Asia*. Stockholm School of Economics, Stockholm.
- Tabucanon, M.S. 2004. Development of Environmental Education for Sustainable Development. Presented at the Second National Environmental Education Forum, 2-3 March, Bangkok.
- Shakirova, T.A., Yezakovich, E.E., and Iskhakova, F.G. 2004. Central Asian Initiatives in the field of environmental education and education for sustainable development. CAREC, Almaty.
- Smith, S. 2004. The state of environmental education and education for sustainability in NSW schools: Their role in curriculum development in NSW. Submission on behalf of the NSW Council for Environmental Education to the Board of Studies, NSW, Feb 2004.
- South Pacific Regional Environment Programme. 1996a. Evaluation of Environmental Education in Tuvalu. SPREP, Apia.
- South Pacific Regional Environment Programme. 1996b. Evaluation of Environmental Education in Kiribati. SPREP, Apia.
- South Pacific Regional Environment Programme. 2003a. Review of the Pacific Regional Action Strategy for Environmental Education and Training, 1999-2003. Unpublished, Apia.
- South Pacific Regional Environment Programme. 2003b. Sustainable Development: successful case studies from the Pacific. SPREP, Apia.
- Sterling, S. 2001. *Sustainable education: Re-visioning learning and change*. Green Books, Devon, UK.
- Sustainable Development Education Panel. 2003. *Learning to last: The Government's sustainable education strategy for England*. Draft Presented to Ministers February 2003, London.
- Thomsen, D. (n.d.). Community-based research: An opportunity for collaboration and social change. Summary of study and guidelines for citizen/expert collaboration. Retrieved 1 March, 2004, from www.coastal.crc.org.au/citizen_science/publications.html.
- Tilbury, D. 1995. Environmental education for sustainability: *Defining the new focus of environmental education*. *Environmental Education Research*, 1(2), 195–212.
- Tilbury, D. 2002. *Emerging Issues in Education for Sustainable Development*. Paper presented at the World Summit for Sustainable Development, Johannesburg (unpublished).
- Tilbury, D. 2003. The summit, sustainable development and environmental education. *Australian Journal of Environmental Education*, 19, 109–113.
- Tilbury, D. 2004. Environmental education for sustainability: A force for change in higher education. In P. Blaze Corcoran and A. Wals (Eds.), *Higher education and the challenge of sustainability* (97–112). Kluwer Academic Publishers, The Netherlands.
- Tilbury, D. and Turner, K. 1997. Environmental education for sustainability in Europe: Philosophy into practice. *Environmental Education and Information*, 16 (2), 123–140.
- Tilbury, D., Crawley, C., and Berry, F. 2004. Education about and for Sustainability in Australian Business Schools. Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) for the Department of the Environment and Heritage, Australian Government. ARIES, Sydney.

- Tilbury, D. and Adams, K. 2004a. *Industry Toolkit Research: Background research and recommendations*. Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) for the Department of the Environment and Heritage, Australian Government. ARIES, Sydney.
- Tilbury, D., Adams, K. and Keogh, A. 2004b. *Environmental education and its contribution to sustainability in Australia: Industry education*. Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) for the Department of the Environment and Heritage, Australian Government. ARIES, Sydney.
- Tilbury, D., Coleman, V. and Garlick, D. 2004c. *Environmental education and its contribution to sustainability in Australia: Formal Education*. Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) for the Department of the Environment and Heritage, Australian Government. ARIES, Sydney.
- Tilbury, D., Coleman V., Jones, A. and McMaster, K. 2004d. *Environmental education and its contribution to sustainability in Australia: Community education*. Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) for the Department of the Environment and Heritage, Australian Government. ARIES, Sydney.
- Tilbury, D., Keogh, A., Leighton, A., and Kent, J. 2004e. *Environmental education and its contribution to sustainability in Australia: Further and higher education*. Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) for the Department of the Environment and Heritage, Australian Government. ARIES, Sydney.
- Tuladhar, S.K. Literacy Programmes for Women in Nepal. Presented at the 2nd Asia Regional Literacy Forum.
- UN. 2000. Review on environmental education effectiveness in Kyrgyzstan. UN, New York.
- UN. 2003. Uzbekistan: Country brief information. UN, New York.
- UNDP. 2001a. Kyrgyzstan: General assessment of the country state. UNDP, Bishkek.
- UNDP. 2001b. Democratic governing: new approaches to the development of Kyrgyzstan. UNDP, Bishkek.
- UNDP. 2003a. The Kyrgyz Republic: General assessment of country state. UNDP, Bishkek.
- UNDP. 2003b. Millennium Development Goals: A Compact Among Nations to End Human Poverty, Human Development Report. UNDP, New York.
- UNDP. 2004. *Regional Human Development Report: Promoting ICT for Human Development in Asia 2004, Realizing the Millennium Development Goals, Sri Lanka*. UNDP.
- UNEP. 2002. State of the Environment Report: Mongolia. UNEP, Nairobi.
- UNESCO. 1978. Final Report of Intergovernmental Conference on Environmental Education. UNESCO, Paris.
- UNESCO. 1994. EFA Global Monitoring Report. UNESCO, Paris.
- UNESCO. 1998. Girls' and Women's Education in Laos. UNESCO, Bangkok.
- UNESCO. 2000a. The Dakar Framework for Action. Education for All: Meeting our collective commitments. UNESCO, Paris.
- UNESCO. 2000b. A Synthesis Report of Education for All 2000: Assessment in the East and South East Asia Sub-Region. UNESCO, Bangkok.
- UNESCO. 2003a. Meta-survey on the Use of Technology in Education. UNESCO, Bangkok.
- UNESCO. 2003b. United Nations Decade of Education for Sustainable Development Framework

for the International Implementation Scheme: Information Paper 32C/INF.9 UNESCO 32nd General Conference.

UNESCO. 2004. Global Education Digest 2004 - Comparing Education Statistics Across the World. UNESCO, Montreal.

UNESCO. 2005. Draft International Implementation Strategy for the DESD. Unpublished. Available electronically at: www.unesco.org

Uzbekistan Women's Committee, Gender Problems and Development Bureau. 1999. National platform for the actions on women status rising in Uzbekistan and enhancement women role in society life. UNDP, Tashkent.

Uzbekistan Women's Committee, Gender Problems and Development Bureau. 1999. The report on women status in Uzbekistan. UNDP, Tashkent.

WCED. 1987. Our Common Future: The Brundtland report. Oxford University Press: New York.

Whitmore, T.C. 1990. *An Introduction to Tropical Rainforests*. Clarendon Press: Oxford.

Woods, P. 2004. Environmental Education for a Sustainable Future: Formal Schooling. Curriculum Leadership http://cms.curriculum.edu.au/leader/newcms/leader_view_issue.asp, 2(21), 1–3.

World Bank. 2004. *Second Education Development Project*. World Bank: Washington.

Interviews:

Irgashev, B. 2004. Interview with CAREC: August 2004.

Daovannary, H. 2004. *Interview with TEI*. Secretary-General, Lao National Commission for UNESCO, Ministry of Education. Vientiane: Lao PDR.

Sengmeuang, O. 2004. *Interview with TEI*. Deputy-Director, Department of Development and International Relations, Lao Women's Union. Vientiane: Lao PDR.

Somsanith, P. 2004. *Interview with TEI*. Deputy-Director, National Research Institute for Education Sciences, Ministry of Education. Vientiane: Lao PDR.

Thoummavong, B. 2004. *Interview with TEI*. Deputy-Director, Department of Non-Formal Education, Ministry of Education. Vientiane: Lao PDR.

Vixay, X. 2004. *Interview with TEI*. Deputy-Director General, Department of Environment, Science Technology and Environment Agency, Prime Minister's Office. Vientiane: Lao PDR.

Selected Internet Resources:

Alliance of Communicators for Sustainable Development
www.complusalliance.org

Australian Research Institute in Education for Sustainability
www.aries.mq.edu.au

Asian Development Bank
www.adb.org

Association of South East Asian Nations
www.asean.org

Central Asia Eco Portal
<http://eco-portal.kz/index.php>

Central Asia Natural Resources Management Programme
www.nrmp.uz

Central Asian Gateway to Development Issues
www.cagateway.org/index.php?sss=Конституция%20Узбекистана&lng=2

Centre for Environment Education (India)
www.ceeindia.org

Department of Non-Formal Education (Thailand)
www.nfe.go.th/en.htm

Ecumenical Centre for Research, Education and Advocacy
www.wcrea.org.fj

Education Resources Information Centre
www.eric.ed.gov

Electronic Journal on Information Systems in Developing Countries
www.ejisd.org

Environment and Sustainable Development in Central Asia
www.caresd.net

HIV/AIDS in Europe and Central Asia
www.worldbank.org/eca/aids

Institute of International Education
www.iie.org

Institute for Global Environmental Strategies
www.iges.or.jp

Intermediate Technology Development Group
www.itdg.org

International Labour Organization
www.ilo.org

Kyrgyzstan National Commission to UNESCO
www.kyrnatcom.unesco.kz

Kyrgyzstan People's Assembly
www.assamblea.kg

- Lanka Academic Network (Sri Lanka)
www.lacnet.org
- Ministry of Education and Science (Kazakhstan)
www.edu.gov.kz/?lang=en
- Ministry of Education, Culture, Sports, Science and Technology (Japan)
www.mext.go.jp/english
- Millennium Development Goals
www.undp.org/mdg
- National Education Act (Thailand)
www.edthai.com/act/index.htm
- Pacific Regional Environment Programme
www.sprep.org.ws
- Pacific Women's Bureau
www.spc.int/women
- Regional Environmental Centre for Central Asia
www.carec.kz
- Resources for Educational Technology Professionals
www.iste.org/resources
- Secretariat for the Pacific Community
www.spc.int
- Small Island Developing States Network
www.sidsnetpacific.org
- South Pacific Applied GeoScience Commission
www.sopac.org.fj
- State Committee of the Republic of Uzbekistan for Nature Protection
www.uznature.uz
- Sustainable Development Education Panel (UK)
www.defra.gov.uk/environment/sustainable
- Thailand Environment Institute
www.tei.or.th
- UNESCO
www.unesco.org
- UNESCO Asia and Pacific Regional Bureau for Education, Bangkok, Thailand
www.unescobkk.org
- UNESCO Asia-Pacific Centre of Education for International Understanding
www.unescoapceiu.org
- United Nations Development Programme
www.undp.org
- United Nations Economic and Social Commission for Asia and the Pacific
www.unescap.org
- United Nations Economic Commission for Europe & ESD
www.unece.org/env/esd/welcome.htm

United Nations Environment Programme
www.unep.org

United Nations Environment Programme – Regional Office for Asia and the Pacific
www.roap.unep.org

United Nations University – Institute for Advanced Studies
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