

Report on
The Regional Strategy Consultation Meeting on
Education for Sustainable Development in
South-East Asia

17-18 November, 2008

Amari Watergate Hotel, Bangkok, Thailand



Co-organised by

Institute for Global Environmental Strategies (IGES), Hayama, Japan
United Nations Environment Programme (UNEP), Bangkok, Thailand

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BACKGROUND

Rationale

The concept for the consultation meeting began with four rationales which provided the basis and focus for the presentations and discussion sessions.

Ultimate goal and target groups of the DESD – As described at the beginning of the Decade of Education for Sustainable Development in 2005 by the Director-General of UNESCO, Koichi Matsuura, the ultimate goal of the DESD is to make ESD a concrete reality for everyone. Youth were a focal point as they are a key stakeholder group in the DESD and have a fairly standard definition around the world.

Urgent environmental issue – climate change was chosen as a main concept for two reasons. First, it has been identified as one of our greatest global challenges and one of the most important summit themes at the 2008 G8 meeting in Hokkaido, Japan. Secondly, it is an issue with trans-boundary relevance that every nation regardless of diversity – from Singapore to Philippines, could identify with.

Economic growth and emissions – due to the incredible growth rates experienced over the past 15 years in south-east Asia emissions and climate change are becoming increasingly important for the region, in particular for developing awareness and the right kind of knowledge for society to take appropriate courses of action to create a balance of economic development and environmental protection.

ESD challenges in south-east Asia – one of the major challenges of ESD in the region has been mainstreaming into formal and informal education while being seen as uniquely beneficial and distinct from environmental education.

Aims

The overall aim of the consultation meeting was to bring together various types of practitioners and policy makers from around south-east Asia in order to:

- Report on current conditions of ESD policies and strategies regionally, nationally, and locally;
- Present examples of successful local level projects that are well linked to the policy level, to help facilitate discussions and share technical and logistical information for project implementation;

- Discuss bridging the gap between policy and high-level recognition of ESD, and the realities of local level awareness and implementation;
- Have open discourse on critical factors for taking action on ESD and to achieve the goals of the DESD; and
- Draw on the IGES case study for discussion and insights into future courses of action for ESD, particularly for youth and climate change.

Expected outcomes

The consultation meeting was a unique opportunity for a diverse group of practitioners and policy makers to sit down together to discuss the reality of ESD in their individual contexts and how those contexts can be brought into closer alignment to help move us along towards the goals of the DESD and relevant regional policies. The results of the presentations and discussions were expected to lead to the following outcomes:

- Identify strategies to contribute to developing unique and practical approaches to promoting ESD in the south-east Asia region;
- Support current and future initiatives regarding CO2 emissions and climate change through ESD policies and implementation among ASEAN member states;
- Develop a channel for sharing information and knowledge among those working in ASEAN countries, regardless of levels of economic growth and development, and;
- Identify the clear direction of ESD projects and areas for IGES to follow up on through research.

Targeted invitees

In order to support the aims and outcomes of the consultation meeting the following groups of stakeholders were invited:

- Government officials from ministries of education and environment;
- Educators from institutions instructing youth including formal and non-formal education;
- Civil society and other practitioners whose work involves youth, climate change, and ESD.

AGENDA

Welcoming Dinner - Monday, 17 November, 2008	
Venue: Amari Watergate Hotel	
17:30 –18:30	Registration & Reception
18:30 – 20:00	Welcoming Dinner
	Remarks by Dr. Young-Woo Park, Regional Director and Representative for Asia and the Pacific, UNEP

Consultation Meeting Day – Tuesday, 18 November, 2008			
Venue: Amari Watergate Hotel			
Opening Session		Chair: Dr. Mee Young Choi, IGES	
	Remarks	Dr. Young-Woo Park, UNEP	5 min.
9:00-9:15	Remarks	Dr. Raman Letchumanan , ASEAN Secretariat	5 min.
	Remarks	Dr. Mee Young Choi, IGES	5 min.
9:15 – 9:35	Introduction of the participants		20 min.
9:35 – 9:45	Objectives and scope of consultation	Dr. Mee Young Choi, IGES	10 min.
9:45 – 9:50		Group Photo	
Session 1		Chair: Mr. Mahesh Pradhan, UNEP	
Regional ESD Policy and Its Implementation	<i>Overall Status and Direction of ESD in Asia-Pacific</i>	Mr. Mikko Cantell, UNESCO	15 min.
	<i>ESD Policy and Implementation Plan for South-East</i>	Dr. Raman Letchumanan , ASEAN Secretariat	15 min.
	<i>Selected ESD Case Studies from Southeast Asia</i>	Mr. Robert Kipp, IGES	20 min.
9:50 – 11:00	Q & A		15 min.

11:00 - 11:30		Coffee Break	
Session 2		Chair: Dr. William Schaedla, WWF	
National policy and Implementation in ASEAN Countries – Group I	ESD National Policy and Strategy for Singapore	Mr. Howard Yap, Singapore Polytechnic	15 min.
	ESD National Policy and Strategy for Vietnam	Mr. Puong Quag Ngoc, Institute for Education Science about Environmental Education	15 min.
11:30 – 12:30	ESD National Policy and Strategy for Thailand	Ms. Savitree Srisuk, Ministry Natural resources and Environment	15 min.
	Q & A		15min.
12:30 – 13:45		Lunch	
Session 3		Chair: Prof. Surichai Wun'geo, Chulaongkorn University	
National policy and Implementation in ASEAN Countries - Group II	ESD National Policy and Strategy for Brunei Darussalam	Ms. Sarimah Abu Bakar, Ministry of Education	15 min.
	ESD National Policy and Strategy for Lao PDR	Mr. Chithanom Ounsida, Department of Environment Water Resource and Environment Administration	15 min.
13:45 - 14:45	ESD National Policy and Strategy for Philippines	Ms. Elenida Basug, Environmental Education and Information Division Environmental Management Bureau	15 min.
	Q & A		15 min.

14:45-15:00		Coffee Break	
Session 4		Chair: Professor Mario Tabucanon, UNU	
16:50	15:00 –	Synthesis of country presentations: <i>Challenges, opportunities and strategic directions</i>	Mr. Robert Kipp, IGES 10 min.
			Open-discussion 40 min.
16:50 – 17:00		Planning for the Future of IGES ESD Project: <i>Priority research topics, pilot projects, and enhanced networking</i>	Open-discussion 60 min.
			Mr. Mahesh Pradhan, UNEP 5 min.
		Closing Remarks	Dr. Mee Young Choi, IGES 5 min.



WELCOME REMARKS

Dr. Young-Woo Park
UNEP Regional Director and Representative for the Asia and Pacific, UNEP

It gives me great pleasure to be with you this morning at the opening of the Regional Strategy Consultation Meeting on Education for Sustainable Development (ESD) in South-East Asia. This meeting comes at the right timing, just ahead of the Tokyo consultations on the UN Decade of the Education for Sustainable Development (UN-DESD) scheduled for the first week of December, and as a follow-up to the earlier ASEAN Environmental Education Implementation Plan Implementation workshop held in Cha-am, Thailand in July earlier this year.

UNEP is pleased to assist IGES in the co-organization of this consultation today. IGES is a strategic partner of UNEP, especially in the context of the Asia Pacific region. UNEP is pleased to host a project office of IGES at the Regional Resource Centre for Asia and the Pacific (RRCAP). I understand IGES has undertaken a similar exercise on ESD for Northeast Asia earlier this year in Beijing. UNEP hopes that the outcomes of these consultations will assist IGES to focus its research so as to be responsive to the needs and aspirations of countries in the Asia Pacific region. We look forward to further strengthening our strategic partnership with IGES in the area of capacity development and education, and welcome the presence of Dr. Mee Young Choi, as a manager of this important project.

We are very pleased that the Head of ASEAN's Environment Programmes, Dr Raman, is able to join us in person today. As you might be aware, Thailand will be hosting the upcoming East Asia Summit on 17 December in Chiang Mai, where a special session on the partnership between ASEAN and the UN will be held.

Environmental Education (EE) has been defined as the process of helping people, through formal and non-formal/informal education, to acquire understanding, skills and values that will enable them to participate as active and informed citizens in the development of an ecologically sustainable and socially just society. EE, as a key integrating component of Education for Sustainable Development (ESD), also involves learning how to employ new technologies, increase

productivity, avoid environmental disasters, alleviate poverty, utilise new opportunities and make wise decisions for a sustainable future. Furthermore, it involves the acquisition of skills, motivation and commitment to work individually and collectively towards the solution of existing environmental problems and preventing new ones.

Earlier this year, UNEP has identified six priority areas under its Medium Term Strategy 2010-13 – namely: Climate Change, Ecosystems services, Disasters and Conflicts, Environmental Governance, Hazardous Waste, and Resource Efficiency. To deliver on these priority areas, five cross cutting mechanisms have been identified, namely:

- Sound Science;
- ***Awareness raising, outreach and communications;***
- Capacity building and technology support (BSP);
- Cooperation, coordination and partnerships;
- Sustainable financing for the global environment.

UNEP hopes to continue its activities related to awareness and capacity building, with focus on the six MTS thematic priorities. In particular, UNEP is keen to support the development of ASEAN wide Leadership Programmes, based on the rich experience of the joint UNEP-Tongji Institute of Environment for Sustainable Development.

Ladies and Gentlemen, responsible environmental behaviour has never been so imperative, in the face of global climate change and other environmental challenges facing the global community. Education for Sustainable Development is a fundamental response to enable the global community to rise up to this challenge, and avoid the “tipping point”. I hope that the discussions today will help us move towards the direction of sustainable development, especially in the context of Southeast Asia.

In closing, let me once again thank all the organizers, and wish all of you every success in your deliberations.

Thank you for your attention.

KEY NOTE SPEECH, OBJECTIVES AND SCOPES

Dr. Mee Young Choi

Project Manager, Capacity Development and Education Project, IGES, Japan

Key Note Speech

My distinguished guests and participants,

First off, I would like to express my deep thanks to all the attendees and speakers today for taking the time to come to this consultation meeting. We are happy to have this opportunity to share ideas about ESD in our region and contribute to progressing the values and goals of the DESD through our work. It is greatly appreciated that you can share your thoughts, opinions, and experiences here today.

Especially, I would like to express my particular gratitude to Dr. Young-Woo Park for taking the time to say a few remarks at the welcome dinner last night, thank you very much. I also would like to convey my heartfelt thanks to UNEP assisting the Institute for Global Environmental Strategies (IGES) with constant help and support to make this consultation meeting happen today.

This year IGES celebrates our 10th anniversary of conducting strategic policy research to support sustainable development in the Asia-Pacific region. During the past decade IGES has contributed in many ways to global issues, in particular climate change. Since 1999 IGES has been the base for the Technical Support Unit for the Intergovernmental Panel on Climate Change, which includes an internship programme for youth to become familiar with the research methodologies and practices for GHG inventories. Along with this programme, IGES has a constant stream of young researchers from around the world taking part in the internship programme in each of the ten research areas throughout the year.

Along with celebrating our 10th anniversary this year, IGES has made contributions to the global response to climate change of which we're quite proud. Just this year IGES co-organized a Roundtable on Climate Change just prior to the G8 Summit in Hokkaido, and contributed papers for discussion to the G8 Environment Ministers' Meeting in Kobe this May. IGES was also designated as the Japanese focal point for the Research Network on Low Carbon Society at the G8 Environmental Ministers' Meeting. In fact, IGES has recently gone through restructuring in order to strengthen its capacity to deal with climate change issues.

What I would like to say here then is that addressing climate change and creating opportunities for youth have been at the core of IGES's mission throughout our short history, with focus on climate change increasing over time as new research and policy are published that create opportunities for analysis and change.

Working in line with these IGES aims regarding climate change issues, my research team, Capacity Development and Education Project has been reviewing the existing policies promoting Education for Sustainable Development with attention turned to climate change issues in the Asia-Pacific region. It is also hoped that the factors and issues of the cases and policy, and from the discussions generated here today, that ESD can become a reality for many people globally and become a part of our everyday life.

I sincerely hope today we can contribute to the ESD political arena by providing practical guidelines for policy decision-makers and implementers, and provide substantial evidence of ESD policies and implementation which demonstrates the linkage between the national and local level, and ultimately contribute to changing behaviours and living towards a sustainable society.

From the consultation meeting we shall gain an understanding of how the rapidly developing countries and a developed country are responding or reacting to issues which have been identified by the most developed countries as *the great global challenge*.

Objectives and Scope of the Consultation Meeting

To all of our guests and speakers today, before we begin the proceedings, I would like to quickly outline the objectives and scope of this consultation meeting.

First I will present the overall objectives from which the idea for this meeting began. Secondly I will discuss more specific issues which we would like to address today which will contribute to promoting and mainstreaming ESD in our region.

Overall, the objective of this consultation meeting is to present and discuss policy and strategy of implementing ESD in South-East Asia, and to give examples of projects with the characteristics of the principles, goals, and values of ESD. Of the key stakeholders identified by UNESCO for the DESD, youth are the focus of this consultation meeting. In this regard, today we have gathered here experts from among the other key stakeholders such as civil society, various levels and types of government and education to discuss their interactions with and approach to our next generation of experts, youth, with climate change as the topic around which we will gather and discuss our experiences and opinions.

While keeping in mind the importance of localization of ESD, this consultation meeting can also serve as an example of how a diverse set of interests and countries actually have a great amount of experiences and examples to share among each other despite national and cultural differences. We hope that those from the more developed countries can turn to the emerging economies for ideas and vice versa, and that the flow of information and opinions can be continually open through the recognition of the great necessity of multi-laterally addressing the very urgent matters resulting from climate change. With that in mind we also acknowledge that one of the most important aspects of ESD is local context, taking what is important locally and orienting society towards sustainability in our global village. In this regard it will be interesting to see what the “great global challenge” of climate change means in the countries of each of our presenters and guests here today and how recognition of the similarities and differences can be purposively directed towards achieving our goals and responsibilities.

The purpose of being here today of course is to collect information on the status of national ESD policy and strategies and to present examples of implemented ESD projects at a local level that are linked to the national level policy in order to show how this can be done in our various contexts. And while we recognize that ESD in one form or another has achieved generally high-level recognition in many of the governments in the region, that mainstreaming of ESD has not made the type of progress we might have hoped for by this time. As such, through our discussions we hope to conceptualize some of the critical factors for promoting ESD in the second half of the Decade of Education for Sustainable Development.

The final purpose then is to draw on the cases and examples presented here today for further research and insights about future implementation of ESD projects, in particular for those focused on climate change and targeting the education of youth. Through this meeting and others like it, we aim to build up the network of ESD practitioners in the region who can turn to each other for support and information sharing and help solidify the concepts of ESD. As while for many people ESD has been distinguished from Environmental Education over the last few years, the exact purpose of ESD still seems to be a question that is being asked.

I have outlined the objectives and aims for this consultation meeting, most of which have a direct policy or academic relevance and outcomes which are useful to those areas. But we would also like everyone here to walk away from this conference with better ideas on how to approach their personal work and lives in terms of education for sustainable development, and with a clearer understanding of what can be done for making the changes in our society necessary for a sustainable future.

Again, I would like to acknowledge all of the distinguished guests and participants of today's workshop.

Thank you very much for your attention.

KEY MESSAGES OF THE CONSULTATION MEETING

The purpose of this section is to present a summary of the main topics of discussion and themes from the presentations and Q&A sessions. While the themes of the consultation meeting and the presentations were mainly ESD in relation to approaches to youth and climate change, through the course of discussion, a number of subtopics arose which highlighted important areas and guidelines to consider for future research and action to undertake.

Undoubtedly, the presentations and discussions largely took an environmental perspective, with social and economic spheres being brought up in association with the environment or as outcome resulting from actions oriented to environmental issues. As well, much of the discourse was centred on formal education, in particular how to make ESD relevant and practical to all stakeholders in that context. The following is a list of the main themes from the presentations and discussions.

Education for Sustainable Development

The discussion was generally geared towards taking action and building upon the dialogues that have occurred to date, and in so doing to provide tangible evidence of ESD in the region. During the discussion several participants described what they felt as feeling uncomfortable with ESD due to the relationship and comparisons with environmental education (EE), partly due to little tangible evidence to distinguish the two. Therefore it was felt that time should not be spent discussing ESD itself so much, rather to focus our energies on carrying out projects and research, along with documenting and sharing our work. The implication being, that by taking action and sharing information ESD can be further reified through practice and progress to become more mainstream through the accumulation of projects and knowledge, and recognition of processes and policies which support the fundamentals of ESD. To enable this action we should continue using climate change as a focus for ESD in the region as it is a trans-boundary issue, together with youth as a target group due to their relevance to ASEAN interests and the Decade of Education for Sustainable Development

Youth

The discussion on youth took two forms – how to engage youth, and in so doing the necessity of empowering youth to take responsibility for the activities they have been engaged in. The discussion of future action for engaging youth was essentially centred on five recommendations from the ASEAN Implementation Workshop held in July, 2008. Of these five points the discussion turned towards green schools programmes in particular along with utilizing the ASEAN Environmental Education Inventory Database for sharing ideas across the region. Empowering youth involves leadership training and having the confidence to step back from a project and let the youth involved create the drive and momentum. An interesting suggestion was to include youth in forums such as the consultation meetings to provide feedback.

Climate Change

Climate change was generally recognized as an excellent issue to employ as a central topic for ESD projects and research to focus on. However there is a real issue of access to locally relevant and suitable quality materials, and knowledgeable educators to teach about climate change. There is a challenge of making such an international issue relevant at the local level under conditions of limited resources and expertise, and with limited policy or process to allow for its inclusion in a school curriculum.

Teacher Engagement

On the one hand educators were described as being very interested in climate change and ESD, but experiencing a lack of resources – locally relevant and topic specific materials such as for climate change; while on the other hand not having room in the curriculum for special topics such as climate change. Complicating this, educators were not familiar or simply not in touch with policy or the policy making processes which influence their curriculum.

Infusing the Curriculum

The issue of finding room in the curriculum for educators was addressed with consideration for two important stakeholders –for educators to have better communication with policy makers and awareness of existing policies, and drawing on external demands such as those

from industry and parents. As well, it was mentioned that many curricula such as in business schools have many elective courses, so finding room for sustainable development should be very possible if a concerted effort was made. In this discussion a distinction should be made between having sustainable development as a separate module or stand-alone course, versus actually incorporating the concepts and values of ESD into each and every subject.

Parent Involvement

Although not a prevalent topic of the presentations per se, parent involvement became a common topic for discussion in the Q&A sessions. In particular, the discussion moved to parents as an important stakeholder group to consider due to their influence on the lives of youth and their demands on school curricula. And while it is common to discuss making ESD or climate change relevant to local issues or interesting to students through new media, there was a clear necessity for engaging with parents to keep them informed and interested in their children's educations and to indirectly spread awareness of ESD.

Network for Information Sharing

Networking for information sharing had two main purposes: to serve as a connection for those who practice ESD or are interested in ESD regionally; and to document and demonstrate good examples of EE and ESD projects and programmes in terms of content and implementation so as to build up a database of knowledge and processes. In addition these networks can contribute to providing a form of quality assurance for specific topics and to support sustainability of ESD. For instance, the establishment of a network Secretariat to be the regional focus, to make connection to other international networks and to help ensure sustainability of the network.

Action on plans

It was recognized that various strategies and policies exist with similar focus and intent, so the next necessary step is to take action on the plans. An important aspect of taking action is regional inclusiveness and to document and share the implementation of EE and ESD programmes and projects among ASEAN member states.

Post-consultation Meeting Observations

The discussion and presentations resulted in new and interesting ideas which can contribute to ESD in the region. And three topics which were raised in the discussions yet stand to reason as deserving further attention and research due to the limited time and focus of the consultation meeting are as follows:

1. How to garner political support to promote ESD implementation at national and local levels as it can be a very useful and unifying tool for the ASEAN countries, especially at the beginning of the era of ESD.
2. How we can ensure ESD agendas filter down through to the national and local level from the international and regional levels as there is still a disparity in understanding, drive, and congruence.
3. How to narrow the gap between policy, academia, and practitioner – including educators and NGOs, as from the discussions there does seem to be an invisible barrier between, and even among, these stakeholders.



SUMMARY OF SESSION DIALOGUES AND PAPERS

Introduction

On 17-18 November, 2008 the Regional Strategy Consultation Meeting on Education for Sustainable Development in South-East Asia was co-organized by IGES and UNEP at the Amari Watergate Hotel in Bangkok, Thailand. The consultation meeting aimed to present and discuss existing policies and strategies for implementing ESD in South-East Asia and to give examples of practice in the form of projects and programmes which share the characteristics of the goals, principles, and values of ESD.

A core component of the consultation meeting was to have perspectives from stakeholders at various levels, from the regional to the local level. As such, a representative from UNESCO presented on the broad Asia-Pacific region, ASEAN gave a perspective for south-east Asia, and IGES compared local ESD projects from countries within the region. As the lead agency for the Decade of Education for Sustainable Development the UNESCO-Bangkok representative was invited to give an update on the current status of ESD and to clarify the role of UNESCO and the future direction of ESD globally and across the Asia-Pacific region. The ASEAN Secretariat was invited to present current information on existing policy and desired courses of action to take for environmental and sustainable development education and initiatives for member states. While the IGES presentation compared across nations, six presenters gave domestic perspectives on environmental and sustainable development education in their respective countries. The second aim of the consultation meeting was to discuss future action and research on ESD in south-east Asia.

This proceedings report serves to bring together the main themes from the presentations and topics of discussion from the Q&A sessions. This report is ordered as the actual consultation meeting, with each session summarized, followed by a description of the individual presentations, and an overview of the Q&A sessions and the resultant discussions.

I: Opening Session

Chair: Dr. Mee Young Choi, IGES

Speaker: Dr. Young-Woo Park, UNEP

The Opening Session began with remarks from Dr. Young-Woo Park, Regional Director and Representative of the UNEP Regional Office for Asia and the Pacific, Bangkok. Dr. Park, who had a formal speech prepared, stated he would like to begin by changing the tone of his speech to make it more informal, which reflected the nature of the consultation meeting and the focus on productive and open discussion between participants. Dr. Park remarked on how IGES is paying attention to ESD and contributing to inputs, and that the most important point to remember about ESD is that of changing people's minds and behaviour. To support this he encouraged starting education in sustainable development from a young age, so as youth grow older they will think in a sustainable development way. When these children and youth grow up and develop technologies they will do so in thinking about sustainable development. And while he stated that the consultation meeting is an important step in that direction and towards enhancing and improving policies developed in the participants own countries, that sustainable development cannot be achieved by any one country, that an integrated and holistic approach is necessary. This sentiment was expressed by other attendees during the discussion sessions, in particular towards having an integrated network among ASEAN member countries for sharing experiences and approaches.

Speaker: Dr. Raman Letchumanan, ASEAN

Dr. Raman, Head of the Environment and Disaster Management Unit in the ASEAN Secretariat began by stressing the importance of ongoing dialogue and facing problems from the heart. Overall he spoke of action and outcomes which provide people with the tools and knowledge to address their interests in and concerns about commercial promotion of "green" labelling and a desire to take individual action, as well as to build on awareness that has been developed in the past years. In an interesting comparison Dr. Letchumanan spoke of how as a result of the financial crisis that politics and finance have come closer together, and how similarly due to environmental conditions that economics and the environment are coming together. In closing he reiterated how there is plenty of awareness in general of SD and environmental issues

nowadays but also a certain level of scepticism among people about the extent to which commercial products and practices that claim to be environmentally friendly actually are “green” and beneficial. To address this he suggests there is a need to bridge the gap with science to build on the aware public and create a knowledgeable public.

Speaker: Dr. Mee Young Choi, IGES

Dr. Choi, a Project Manager and Senior Policy Researcher at IGES in Japan spoke briefly of the objectives and scope of the meeting. Dr. Choi opened the consultation meeting with a thank you to the speakers and participants, and to UNEP for helping to organize the event. Dr. Choi spoke briefly of IGES’s history of research and activities on climate change in the region, and of future plans to continue to focus on ESD and climate change issues. Dr. Choi reiterated the purpose and outcomes for the day, in particular how it is essential to have open discussion and follow up on action through documenting good practices and sharing our results to build on the awareness and efforts that have been generated to date in the region. Dr. Choi finished by again offering warm wishes and thanks to everyone involved with the consultation meeting.

II: SESSION 1 - Regional Policy and Implementation

Chair: Mr. Mahesh Pradhan, UNEP

Session Summary

The purpose of this session was to give an overview of ESD in the Asia-Pacific region, with UNESCO, ASEAN, and IGES providing three perspectives. The session consisted of presentations on the overall status of ESD in the Asia-Pacific from UNESCO's perspective (by Mr. Mikko Cantell), ASEAN cooperation and direction of activity for environmental education (by Dr. Raman Letchumanan) and a comparative case study from IGES on how three ASEAN member countries address ESD, youth, and climate change (by Mr. Robert Kipp). The presentations covered:

- Overarching issues with ESD – global, regional, national, and local;
- How ESD differs fundamentally from environmental education;
- The role of non-governmental bodies such as ASEAN and UNESCO;
- Specific target areas for action to be taken to build upon existing awareness and capabilities, and the matter of including sustainable development in the school curriculum.

Common across all the cases was the importance of collaboration between stakeholders to promote more action on the existing policies, and perhaps most importantly to document and share activities through networks and database in order to continually build upon successful implementation. Emphasis was given to making ESD accessible to all stakeholders and to infusing curricula with the concepts of sustainable development. While Mr. Cantell's presentation took a more broad view of ESD, Dr. Letchumanan tended to focus more attention to formal education and regional perspectives, while Mr. Kipp looked very closely at ESD at the national and local levels.

Overall status and direction of ESD in Asia-Pacific

Presenter: *Mr. Mikko Cantell, UNESCO*

Mr. Cantell covered several topics in his presentation, beginning with a general overview of ESD to specific examples of local level cases showing ESD in action. The central messages included:

- ESD is about learning, rather than teaching
- ESD driven by universally accepted values
- ESD is participatory and collaborative – emphasize the benefits to collaboration
- Support collaboration and participation in ESD by using *clear, brief, and practical* messages

Mr. Cantell began by describing ESD and the Decade of Education for Sustainable Development, and acknowledging that the concept of ESD is getting more clear from “What is ESD?” to more understanding now that we are into the third year of the DESD. In describing the context in which UNESCO works, emphasis was given to the absolute necessity of setting standards in capacity development and the importance of networking and information sharing to UNESCOs mission. The capacity development component can include a range of topics, such as emotional and social skills or awareness and behaviour skills for consumers.

Mr. Cantell underscored the importance of letting youth take charge by presenting an example of a school project which reduced or offset carbon emissions through the ideas and action of youth, with the take home message of not only the example he gave but of his entire presentation on ESD, and that is ESD is about learning rather than teaching. In discussing the characteristics of ESD Mr. Cantell spoke of ESD being values driven - universally accepted values, rather than contested values. And while ESD is characterized in part through being participatory and collaborative, that people all too often fail to appreciate the value in collaboration. This sentiment was brought up by other presenters who, while stressing the positive outcomes of collaboration, noted that it cannot be taken for granted or assumed and there are going to be difficulties in collaborating with those outside of their usual practice.

To address this and other challenges, Mr. Cantell suggested having a *clear, brief, and practical message* and remarked on the importance of sharing successful experiences, a role he noted, which IGES plays a part. Further, he stated that ESD is time bound, adding that the Asia-Pacific strategy has been extended for an additional year to 2015. Finally, he drove home the point that education can solve very few things on its own; rather that education needs to be attached to larger strategies.

ESD policy and implementation plan for South-East Asia

Presenter: *Dr. Raman Letchumanan, ASEAN*

Dr. Letchumanan spoke about the regional level structure for environmental education and ESD in south-east Asia, and emphasized that the challenge of having the structure is to show the results of the activities conducted and to focus talks on the results rather than just talk about the structure. And considering that there is a strategy policy framework in the form of the ASEAN Environmental Education Action Plan 2008-2012(AEEAP), the focus now should be on doing projects and join existing programmes together in order to improve progress. Dr. Letchumanan's presentation centred around five topics:

1. ASEAN Environmental Education Action Plan 2008-2012 (AEEAP)
2. ASEAN Environmental Education Inventory Database
3. ASEAN Youth Portal on Sustainable Development
4. ASEAN Environment Year (AEY)
5. Recommendations from the AEEAP Implementation Workshop

The overall theme of Dr. Letchumanan's presentation was a call for action to build on the policy structure that has been created, and cooperation in sharing results and in connecting existing projects together. The AEEAP, which is the ASEAN contribution to the DESD, was deliberately kept short and brief, with the main concern in drafting the AEEAP to implementation capacity and focusing efforts on a few activities that could reasonably be accomplished. While the AEEAP has four target areas – formal education; non-formal education; manpower capability training; networking, collaboration, communication – Dr. Letchumanan directed much of his talk on formal education and the importance of collaboration and networking.

He commented that the formal education sector is talked about a lot, but nothing much has changed, the focus in formal education is just not on the environment. Relating back to his comments during the opening suggestion, Dr. Letchumanan suggested there are many reasons for why the environment and sustainable development are not included to a greater extent in formal education, and supposed that educators face challenges and limitations to get SD or EE into their curriculum, reflecting a lack of knowledge on how to act on awareness. He acknowledged that it is a problem of curriculum development, and that while EE is generally recognized as being “good”, there are issues with how exactly to go about incorporating EE into courses, especially when in competition with a large number of additional courses.

Dr. Letchumanan discussed the need to come up with courses for schools along with a quality assurance system for courses which are implemented. In relation to this, Dr. Letchumanan’s presentation greatly emphasised networking and sharing examples of actions taken and projects carried out in ASEAN member countries. As the consultation meeting demonstrated, there are many interesting and valuable activities going on in the region, but a lot of things are not being captured, so to address this he called attention to the ASEAN Environmental Education Inventory Database which stores information on projects, organizations, and key individuals in each of the ten ASEAN member states.

Selected case studies from South-East Asia

Presenter: *Mr. Robert Kipp, IGES*

Mr. Kipp presented a comparative case study on three ASEAN countries – Singapore, Thailand, and Vietnam. The focus of the case study was on ESD-based approaches to addressing youth, with the common theme of how climate change is approached in this regard in the three countries. The presentation had three main components:

- Environmental education and ESD – differences in fundamentals and focus;
- Key features from each country regarding youth, ESD and climate change, and;
- Comparison across cases of common attributes and unique features

The results of the case study showed some uncertainty among people who are familiar with EE as to what ESD is and what it is for or what ESD can contribute, relative to EE. Mr. Kipp presented a study that explains the primary differences lay in the *focus and intent* of EE and ESD, which draw on the foundations of each concept. Environmental Education- has roots in and has based much of its current structure and focus on environmental conservation and protection. ESD is unmistakably based on sustainable development with Agenda 21 as the foundational document. There is clear overlap between the two, and while society and economy are considered by EE they are completely central to ESD along with the environment.

The theoretical basis for the case study came from the Communities of Practice, in which the participants of the cases were seen as forming a community of like-minded practitioners and policy makers who had a certain level of expertise and knowledge about their domain of shared interest, and through their regular interactions they could learn to accomplish their tasks and problem solve, leading to better outcomes in relation to their ESD activities.

Each country case emphasized different aspects of ESD, which reflected in part how the environment and sustainable development can be approached in different cultural and socio-economic contexts. The following are some of the key features of each country:

- Singapore - government's central role in relation to other stakeholders, in particular schools and the community in terms of facilitation and support. Stakeholders generally being familiar with and attuned to the policy and goals of the government.
- Thailand - the school as a hub in the community between youth, parents, and other stakeholders in the local and further reaching community.
- Vietnam – direct and indirect policy impacts on the quality and type of environmental education. Many overlapping policies. Increasing sophisticated of Hanoi youth and the use of new media to choose their community and access information.

More commonalities were seen in approaches to youth and climate change in Vietnam and Thailand, compared to Singapore:

Singapore

- Youth generally quite aware and increasingly active in SD activities
- Two critical factors - government support through school programmes and recognition through achievement awards;
- Strong linkage between youth, schools, government, and industry was described
- Climate change- mitigate contributions through emissions reduction.

Vietnam and Thailand

- Youth engaged through schools with emphasis on the school as a hub between youth, their families, and the community at large;
- Climate change a rather disconnected issue from daily life, relative to Singapore;
- Climate change- adapt to changes, connect climate change to locally relevant environmental issues such as mangroves.

Regarding youth, Information Communication Technology was noted as being very important for not just engaging youth, but also for NGOs and schools to *keep up* with urban youth in particular. In addition, regarding *Education for Sustainable Development*:

- ESD does indeed have high level recognition at the policy level, but is still rather ambiguous for many of the respondents at the local level. Familiarity with ESD itself and the concepts was found to be quite low in general.
- Aim to resolve this by attaching ESD to specific examples; and
- Communicate outcomes of ESD projects to other stakeholders through networking and a database similar to the ASEAN database;
- Gain support by demonstrating the cross-cutting nature of ESD.

And while it was acknowledged that ESD may not be mainstreaming at the rate expected at the beginning of the Decade of Education for Sustainable Development, a final comment given was for patience as ESD gains support and develops a body of literature and evidence of good practice and critical factors. The 30 year history of Environmental Education was given as an example of how it can take a generation of youth to go through the school system and begin to make the ideas a concrete reality in their lives and careers.

**ESD, youth, and climate change:
IGES case studies in Singapore, Thailand, and Vietnam**

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Introduction

The purpose of this report is to give a brief overview of the particulars of the case study, including aspects of the topic, Education for Sustainable Development (ESD), and an explanation of the components of the case study. The report begins with a look at the Decade of Education for Sustainable Development with UNESCO as the lead organization of the Decade; and follows up with a look at ESD and Environmental Education (EE). Following this are details about Communities of Practice (CoP), the theory and concepts which were used as the theoretical basis. Web links are given in footnotes for those interested learning more about CoP. Next is a description of the background of the case study itself, with particulars such as how the cases were selected. Finally, the report ends with a brief look at the case study countries and a summary of the findings.

UNESCO and the Decade of Education for Sustainable Development

The goal of the United Nations Decade of Education for Sustainable Development (2005-2014, DESD), for which UNESCO is the lead agency, is to integrate the principles, values, and practices of sustainable development into all aspects of education and learning. This educational effort will encourage changes in behaviour that will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations.¹

The purpose of this section is to give a description of the basis of the DESD by looking at the values, goals, vision, and stakeholders as described in the International Implementation Scheme, published in 2005, which was one of the first major documents published at the beginning of the Decade.

The IIS paper outlines the major goals and values of the DESD while describing the importance of linkages to other international education initiatives. A partnership/alliance approach is emphasized, with responsibilities and value added of each partner and for UNESCO in

¹ UNESCO DESD Homepage http://portal.unesco.org/education/en/ev.php-URL_ID=27234&URL_DO=DO_TOPIC&URL_SECTION=201.html

their role as the lead agency outlined. A key feature of this document is the emphasis given on ownership. One of the main tasks for UNESCO as the lead agency is to help encourage and build ownership in the wide range of partners involved with the DESD by expressing what each partner can bring to the Decade. The IIS shows partners at levels from the sub-national (local, community) to the international level, with examples of types of organization proposed for each category. The IIS provides a sample list of potential partners from the sub-national, national, regional, and international level. The list contains governmental organizations, civil society and NGOs, and private groups. These partners range from the provincial and district level to the national and regional level which includes intergovernmental groups and networks. Private is taken to include businesses and family units such as clans and individuals along with business associations, networks, and international corporations. These categories were expanded and clarified in the follow up document, the *Working Paper: Asia Pacific Regional Strategy for Education for Sustainable Development*, also published in 2005 by UNESCO.

There are different levels and ranges of goals and values described in the IIS and other UNESCO DESD publications, with variations on wording and emphasis. The IIS states that the overall goal of the DESD is to “integrate the principles, values, and practices of sustainable development into all aspects of education and learning” (UNESCO, 2005a, p. 6). The “primary” goal is as described by the United Nations General Assembly resolution 59/237, whereby governments are encouraged to consider implementing the Decade into their education systems and national development plans. Then there are the sub-goals for DESD at the national level which are to “refine and promote the vision of and transition to sustainable development” in all forms of education, public awareness and training on the one hand, and on the other hand “to enhance the profile of education and learning in sustainable development”. This leads to the objectives for the DESD which are to facilitate networking among stakeholders, increase the quality of teaching and learning in ESD, help countries make progress on their MDGs, and help partner countries to incorporate ESD into their education systems. UNESCO and the countries participating in the DESD have very similar tasks in the main “thrusts” of improving access to quality education, reorienting education programmes to ESD, developing public understanding and awareness, and to provide training.

The basic vision of the DESD then encompasses these goals with a view of the world where “all people have the opportunity to benefit from education and learn the values, behaviours, and lifestyles required for a sustainable future and for positive societal transformations” (p. 6). The challenge that ESD must address in order to achieve these goals and reach the vision and outcomes is to educate and empower people to deal with the complex issues that our planet is facing.

Education for Sustainable Development and Environmental Education

*“ESD...calls for giving people knowledge and skills for **lifelong learning** to help them find new solutions to their **environmental, economic, and social issues.**”* ESD Toolkit²

The purpose of this section is to briefly explore the fundamental differences between environmental education (EE) and education for sustainable development by looking at the foundations of each and specifically the goals, principles and intent of EE and ESD. This is important to consider as ESD is still often conceptualized in the context of EE , or seen as a potential replacement to EE in the future. This section will attempt to distinguish the two, EE and ESD, and describe how they are distinct in focus and intent. The arguments presented here draw from an article by McKeown and Hopkins³ for discussing the foundations of EE and ESD. The premise is that due to the foundations, environmental education and education for sustainable development, while sharing certain similarities with content, differ quite significantly in intent and focus.

McKeown and Hopkins present three documents as the basis of their paper which are used to highlight the foundations of EE and ESD. It should be noted as well, that the authors acknowledge that both EE and ESD have evolved since their formative years, but that their intent and focus very much remain close to the fundamental focal points from which they began.

² <http://www.mpervis.nic.in/sdnp/esdtoolkit.htm>

³ McKeown, R., Hopkins, C. EE =/ ESD: Defusing the worry. *Environmental Education Research*, Vol 9, No 1, 2003

The “essence” of EE is found in two documents, the Belgrade Charter which is found in the Final Report of the International Workshop on Environmental Education in 1975, and the Tbilisi Declaration which was a part of the Final Report of the Intergovernmental Conference on Environmental Education held in 1979. In addition to reviewing the documents, McKeown and Hopkins also spoke with some of the people involved with their actual writing, with Hopkins himself being integrally involved with formulating EE in the 1970’s. The Belgrade Charter expresses the goal of EE as to develop awareness and concern in the global population of the environment. Similar to ESD there is mention of the individual and collective movement towards finding solutions to (then) current problems and preventing new ones. The primary factors are related to environmental awareness and the capacity to find solutions and prevent problems, mainly in relation to environmental pollution, with “the environment” often being nearly synonymous with “pollution”. While there are similarities to ESD in this regard, it can be noted that here is no mention of society, economics, or development.

The Tbilisi Declaration built on the ideas from the Belgrade Charter and included additions to account for regional needs (localization). While there was mention of society, participation, and development, it was in the context of focusing on the human impact on the environment. Socio-economic concerns are present, but the vantage point that is taken is one which views these concerns with an environmental eye and their relationship to the environment. Socio-economic concerns were utilized as a means to protect the environment. Indirectly it could be argued that by protecting the environment society can prosper or new economic opportunities can be found, but that was not the intention or spirit of the time. Rather, it can be said that the main thrust of the two documents is to protect the environment through education and raising awareness, and the focus is clearly from an environmental perspective from which society and economic concerns are viewed.

It is often quoted that every chapter of the sustainable development “blueprint”, Agenda 21, contains mention of “education”. Chapter 36 contains the major “thrusts” of education, awareness, and training: improving the quality of and access to basic education, reorienting existing education to address sustainable development, developing public awareness and understanding, and training. This essentially marked a shift in view from environmental

protection and awareness regarding environmental issues to actually working to find a balance between socio-economic concerns such as poverty and development, along with environmental concerns. Environmental education was never without attention paid to socio-economic or cultural issues; the point here is that Agenda 21 and by extension ESD have an inherent emphasis on sustainable development which includes much more than what formed the foundations of EE. Furthermore, while EE would certainly benefit from a more literate world with better access to quality education in a community that endorses and promotes human rights, the emphasis on these issues is found in ESD as shown by looking at Agenda 21, UNESCO publications on ESD, and other academic literature on the subject. To be sure, both EE and ESD have been evolving over time with certain areas of overlap, but it is certainly fair to say that the difference is in the focus, with EE based in the environment with an eye on socio-economic and cultural relevancy in relation back to environmental issues, while ESD has these as the foundation upon which other areas are viewed.

The purpose of this section was to clarify the differences between EE and ESD, which can be seen by looking at the fundamentals of each. Each has their own place in education and society, depending on the purpose and intent, with neither set to take over or replace the other due to differences in focus.

Communities of Practice

The concept of “communities of practice” is primarily built on work by Etienne Wenger and Jean Lave in the 1990’s, with Wenger’s book “Communities of Practice: Learning, Meaning, and Identity” providing much of the theoretical basis used in this case study.⁴ The components of the theory and ways of describing them have changed slightly over time, though the fundamental features remain much the same. Drawing on the book and on writing by Wenger and others we have the following description to clarify a community of practice:

Communities of practice are groups of people who share a concern or an interest, or an area of expertise, for *something they do* and they *learn* how to do it better as they *interact* regularly in their common ongoing efforts.⁵

⁴ Wenger, E. *Communities of Practice: Learning, meaning, and identity*. Cambridge University Press: 1998.

⁵ 1. <http://www.ewenger.com/theory/>

The key components of a community of practice are joint enterprise, mutual engagement, and a shared repertoire of resources and experiences through which the members of the CoP learn and solve common problems and to do their “practice” better:

- **What they do** - Identity defined by a shared *domain* of interest and key issues. Implies a commitment to the domain, and a shared competence that distinguishes members from other people in their pursuit of a **joint enterprise**.
- **How they interact** – in the *community* of those involved in pursuing their interest in the domain, **mutual engagement** occurs for the benefit of gaining knowledge and competence. Key features are building relationships for interaction and learning, and to share information which helps each other – a sense of belonging.
- **What they have** – **shared repertoire** of *resources and capabilities* developed from their interactions through the course of their engagement – experiences, tools, problem solving methods, documents.

What they do can be informal or formal, it can be explicitly acknowledged or more discreet or every day. The key factor is that through their interactions (engagement) people develop abilities and knowledge (repertoire) that contribute to their endeavors (enterprise). So for example despite working in the same institute, casual conversation between colleagues does not necessarily account for mutual engagement. However, if the regular encounters become a source of information sharing and provision of knowledge that contributes to their shared practice then it relates much more to the community of practice concept. For example in the Vietnamese case the community of practice would be the NGOs working in environmental education in Hanoi. Their joint enterprise is what they do - work with teacher training colleges and public schools to teach about the environment. They are recognized as having a certain amount of expertise relative to the layman and specific knowledge relative to each other, which is a source of identity which helps distinguish their community. Their shared repertoire can be seen in their experiences and valuable knowledge gained in the course of carrying out programmes

and implementing projects in that local context, particularly for international NGOs, along with the physical documents and outputs of their projects which symbolize their experiences and expertise in their joint enterprise. In this case the EE curriculum and textbooks produced in collaboration with each other, along with their shared understanding of what is necessary to work in the local context.

There are three important components of shared repertoire – reification, participation, and alignment. Basically, reification is taking an abstract concept and making it concrete. For example, the concept of ESD is rather abstract, but can be made concrete by using examples that represent the values, goals, and objectives of ESD. Participation is quite dependent on reification in that if a concept is difficult to grasp only a few who understand it will be able to fully participate in the practice. Reification then becomes greater as participation increases and a more clear understanding of the practice unfolds. Participation and reification cannot be considered in isolation from each other, as the more clear a concept the greater the participation as the concept is easier to grasp, assuming that it is beneficial to do so. As Wenger states, “In general, viewed as reification, a more abstract formulation will require more intense and specific participation to remain meaningful” (1998: 67). The more a process, or practice, is documented, talked about, and clarified, the effect is to enhance participation. Bringing reification and participation together requires a common purpose to work towards; the result is what Wenger refers to as “alignment”.

“Alignment requires specific forms of participation and reification to support the required co-ordination ... With insufficient participation, our relations to broader enterprises tend to remain literal and procedural: our co-ordination tends to be based on compliance rather than participation in meaning ... With insufficient reification, co-ordination across time and space may depend too much on the partiality of specific participants, or it may simply be too vague, illusory or contentious to create alignment.”

In consideration of a community of practice, for concepts that are abstract or still rather cerebral it may be beneficial to bring together those who are already participating and use their experiences to make the abstract concept more concrete in order to increase participation

outside of a select few individuals or groups with a strong interest in the concept. This can be done through developing networks and making examples of successful practices and projects.

Overview of the Case Study

The purpose of this section is to give a brief overview of the case study itself and the findings. Overall the research project is about ESD among ASEAN member countries, with the case study looking at the specific countries which were chosen based on the following criteria. The case study has three core components which form the background of the research. First the cases were meant to look at the reality of ESD in each of the countries. This was done through a literature review of policy studies and academic research on ESD in each of the countries, and with a review of existing policies which relate to ESD. This, in addition to interviews from the field work contributed to building a picture of ESD in each country. In UNESCO's Situational Analysis of the Asia Pacific Region one of the key challenges of ESD in the region is conceptualizing ESD as distinct from EE. So the literature review also contributed to conceptualizing the local context of ESD and EE and helping to distinguish the two. Youth were chosen as they are identified as critical to promoting ESD in DESD publications, along with rural and indigenous communities.

However, as not all nations have rural (Singapore) or clearly defined and accessible indigenous populations (Indonesia for example has an enormous variety of local cultures), youth were a suitable group to target. For this reason also urban areas were selected. Finally, the case study was centered on an urgent global issue, climate change. While it would be interesting to look at how youth are approached in general, it was useful in this study to frame the inquiry around a common topic that has global relevance in order to have a point of reference among the cases. ASEAN countries were categorized using World Bank statistics for low-mid-high income levels, which is also useful in considering the nature of ESD under varying economic conditions. In relation to economic growth and climate change, each of the three countries have experienced quite high levels of growth and accompanying increases in energy consumption⁶. This has coincided with increased pressure on environmental resources and greater emission production,

⁶ UNESCAP (2005) State of the Environment in Asia and the Pacific 2005: Economic Growth and Sustainability, UNESCAP; Bangkok, Thailand

with Vietnam and Thailand more than doubling emissions since the early 1990's. All three countries share common calamities due to climate change and emissions, such as rising sea levels and haze.

The case study considered both formal and in-formal/non-formal education in order to be inclusive of whichever type is most predominant or typical in a given context. The field work was carried out from 25 August, 2008 until 11 September, 2008. The primary method of data collection was qualitative interviews, with a semi-structured format in terms of topics and respondents across the three countries. Overall we were looking for critical factors for promoting and implementing ESD programmes at the local level. Ideally we were looking for cases with clear lines between the policy and the local level. There are respondents from the highest level of government including Ministries of Environment and Education, research institutes and NGOs, along with actual local schools including teachers, administration, and students.

In the case of Singapore there are three approaches identified for approaching the main topics of the case study - ESD, climate change, and youth: broad campaigns for developing awareness and action; programmes targeted at individuals or small groups such as those interested in environmental issues and those for whom the environment is a secondary issue; and, infusing curriculum in academic institutions with sustainable development and environmental topics. Certainly, there are many other approaches to addressing the climate change and environmental/sustainable development in Singapore. But through the course of the research these are the types of approaches which were identified by the respondents when asked about their approach to climate change and youth. Each of the approaches could be employed by any of the groups. For example, while the National Environment Agency of the Ministry of Environment and Water Resources employed nationwide campaigns to develop awareness and encourage action on preventing climate change through emission reduction, they also had youth targeted programmes that developed skills and knowledge about sustainable development issues in youth who were interested in these topics. Some of these youth would later go on to university and start their own on-campus programmes very similar to the nationwide campaigns which were intended to develop awareness on campus of emission reduction and climate change. Three key characteristics of the Singapore case are inclusiveness, partnerships, and integration. The

community of practitioners, policy makers and implementers, educators, and activists are very well connected and there is frequent interaction and consultation with one another when developing policy and implementing projects. For example, the Blue Earth Greening project, which taught youth ICT and marketing skills through promoting environmental issues, stakeholders from industry, government, and local schools all contributed to the end outcomes of the project. This was partly by design and partly due to government policy regarding support for project which requires multi-stakeholder participation.

The approach to climate change in Singapore is generally quite straightforward. As a country Singapore aims to reduce their contribution to climate change through reducing emissions by using less energy and finding alternative sources of energy with fewer emissions. In regards to youth and ESD, there has been a shift over the past 8 years or so, from a youth with awareness and slight scepticism towards sustainable development issues to a country with aware and active youth who are beginning their own organizations and campaigns. Much of the shift from being simply aware to taking action was attributed to social groups on the internet and support from the government for community initiated projects. The topic of climate change itself can be seen as a driver of action, as many Singaporeans and youth in particular were described as having gotten behind the issue after the Al Gore movie “An Inconvenient Truth” and in particular after endorsement from the head of state. This turned out to be an important factor for garnering support and drive for projects, endorsement of the topic from the highest levels of government.

While in Singapore the partnerships between various stakeholders such as industry, schools, and government with emphasis on how to create better job skills and business environment for developing a green Singapore stood out at critical factors, in Thailand the prominent aspect of their ESD programmes was the very strong emphasis on community in terms of engagement and participation. For participation, critical factors were a sense of membership in the community along with social responsibility. These were developed by having clear common goals and developing practical skills and knowledge with emphasis on socio-cultural aspects to further reinforce the community-focused factor. It became quite clear in the Thai case how the school and education-based activities formed a “hub” in the community between the students, their parents, and the community at large. This was facilitated by NGO and school environmental

or sustainable development initiatives. And while schools can be seen as being a major link between local issues and youth, NGOs played an important role in linking local and international issues. That is not to say that one did not do the other, but it was a feature which stood out in this case in particular. For example, Plearnpattana School as a hub for environmental education activities encouraged not only students but also their parents, universities, and even local factories to be involved. The mangrove planting programme meanwhile was held by an NGO and brought together a local issue and the influences of a major international challenge, climate change.

In this way the Thai case held greater similarity to the Vietnamese case, in that climate change was linked directly with other local issues, while in Singapore the tendency was to directly address the causes of climate change rather than mitigation of the effects of climate change on the local environment as was predominantly seen in Thailand and Vietnam.

In the Vietnamese case study, the main respondents were NGOs that worked with local schools in “greening” programmes and in teacher training colleges providing training in creating EE-based curriculum and new teaching methods to improve the quality of education. Quality of education and teacher training were identified by respondents as two critical factors in Vietnam which lead to EE-based NGOs to gain access to schools, as they could use EE as a means to approach teacher training through seminars and workshops which included curriculum design. They attributed the demand for training and curriculum design as coming from the communities the schools were in, as well as to policy which included extra-curricular activities to be designed at the local level, as opposed to the core curriculum which was designed centrally. As many schools did not have enough of a budget to create EE programmes, the NGOs contributed in this regard. Through these programmes then they would address local issues specifically (local water sources in Hanoi for example) and relate them to the broader context, with climate change and emissions being brought in to the discussion through these means, rather than as a standalone topic as in Singapore.

There was also a question of whether the affects attributed to climate change were really just a result of locally changing weather. This in a way reflects the very strong overtone of local

context. Regardless of the topic, the respondents emphasized the importance of local Vietnamese pilot cases, and localized “Vietnamese issues” versus “other countries issues”. While this may be the case in other countries to some extent, it stood out as a critical factor for promoting issues which other areas may accept, and then localize, rather than localize first and then possibly accept it.

Urban youth in Hanoi were described as becoming very sophisticated in terms of access to technology and information. Most of the respondents described how in their experiences in working with communities and schools in EE, that they noticed a certain “backlash” to contributing to the local community or group, perhaps they noted as a result of the changing society and economy over the past decade. However, it was mentioned that this was mitigated in a large part among urban youth by their use of the internet to seek out and create their own communities of interest. An example of this is a youth group that formed in a large part on the internet to combat emissions production by encouraging Hanoi residents to use bicycles rather than scooters or cars.

ESD certainly has high-level recognition in Vietnam, though at the local level there were many questions about what exactly ESD was for. “Education for what?” was a common statement from Vietnamese and international NGOs. What seemed to be needed was greater reification of the concept, as even those familiar with the term mentioned they could not quite grasp it.

Comparing across cases – key characteristics

In comparing across the three cases we can look at four characteristics – how the stakeholders in the case studies were attuned to the government and policy, the type of engagement of other stakeholders, approaches to climate change, and approaches to youth.

Role of government

In Singapore and Vietnam the tendency was to be strongly attuned to the direction set by government in determining what areas to focus on. In Thailand of course the government and policy have a major role, but it was seen that along with a great amount of implementation by NGOs the focus was on the local community.

Engaging multiple stakeholders

In Singapore engaging multiple stakeholders is indeed mandated by the government if those involved need support in the form of financing or training. And due to the nature of the “green” or sustainable development community, it was very common regardless of policy to give voice to other relevant groups when making policy or implementing a project. In Vietnam engagement of other stakeholders was often out of necessity. Schools didn’t have the funding to improve the quality of education or to develop EE for extra-curricular education. As well, the NGOs themselves would engage one another to support their efforts, for example when an EE NGO enlisted the support of government curriculum designers to assist in grading teacher trainees in creating EE curriculum. The Thailand case was unique in how the schools were a hub in the community and built their ESD programmes around involving others.

Approaching climate change

Approaches to climate change were quite similar in Thailand and Vietnam, where climate change was taught in conjunction with “local” topics such as mangroves or local water quality, with the mitigation of affects the main concern. Contrast this with Singapore where climate change was approached rather straight forward – how to mitigate their contribution to emissions through reduced use of greenhouse gas causing sources of energy and reducing energy consumption in general through changes in behaviour and better technology.

Approaching youth

In all the cases education was used as a gateway to engage youth with a practical outcome which would affect society or the individual. In Singapore there was typically an expectation of practical outcomes which would benefit youth in finding employment and bettering their skills. These last points were also true in Thailand and to a certain extent Vietnam, though the intention was to better connect youth, the schools, their families, and the community at large.

Concluding Remarks

There are four main conclusions drawn from the cases. First, ESD is still quite an ambiguous concept for many. Even those who had been to ESD workshops or networking events

were still not quite sure what to do with their knowledge of ESD or felt there was little need to promote ESD as they already had what they described as “ESD-like, though not in name” practices.

Second, ESD had quite high level recognition in policy or in the government, but very little awareness at the local level. People just don’t know about ESD, and as was mentioned before, those that do know aren’t sure really what it is for or the benefit of calling projects ESD. These first two points indicate a need to not just promote ESD, but how to make the case for doing so.

Third, Information Communication Technology is incredibly important for engaging youth. As a medium for expression it can give voice to youth and conveniently combine multiple interests and bridge geographic boundaries. This is not a new revelation, but in the cases it came across as being quite a critical factor for engaging the youth and their communities of practice. Finally, mitigating contextual factors played a role in how the outcomes of programmes were achieved. This can include local perception of “foreign” concepts and the challenges therein, and also issues such as corruption and non-transparent decision making processes.

Finally it is interesting to look at how each of the countries linked youth with others, with the school as a “hub” or focal point. In Singapore the emphasis was on enabling youth to develop marketable job skills and reaching out to private industry. The entrepreneurial spirit was a major driving force. In Vietnam the emphasis was on including the family in the student’s studies, in particular to make the environmental and sustainable development studies more of a reality beyond the walls of the school. While in Thailand the emphasis was on connecting to the broader community at large, drawing on local issues and knowledge and blurring the lines between school and community life.

Suggestions

In regards to promoting ESD, it might be quite useful to create a formal network for ESD which includes concrete case studies with examples of what ESD is in context. So many questions were asked about what ESD is for, how it can be mainstreamed and operationalised. Developing a shared repertoire of resources and a pool of knowledge from the local level could

help to solidify the concepts of ESD and bring more people to consider how ESD can help their causes. As more cases are developed, “making the case” for ESD will become much more apparent. And while it is fair to consider the rate at which ESD is being spread and made into a “concrete reality”, we should also consider the 30 year history of Environmental Education and the enormous amount of literature devoted to that topic. “It takes a generation” was how one respondent in Singapore described how they have progressed from “youth with awareness” to “youth in action”. So perhaps by the end of the Decade of Education for Sustainable Development we will see the beginnings of the first generation of ESD-aware youth.

III: Session 2 - National policy and Strategy (Group 1)

Chair: *Dr. William Schaedla, WWF*

Session Summary

The aim of Session 2 and Session 3 was to provide an opportunity for policy level participants along with practitioners at the local level to present on the current situation of ESD policies and practices in their respective countries. The purpose was to illustrate the policy side of ESD and how ESD concepts have been recognized and even integrated with existing policy, and to give examples of how ESD is practiced with examples and lessons learned from implementation of projects and programmes. Each session here begins with an introduction to each presenter and their presentation, followed by a more detailed synopsis, and concludes with an overview of the Q&A discussion sessions which highlights the key points.

The presenters gave three very unique and distinct approaches to ESD in their respective countries. As an educator at Singapore Polytechnic, Mr. Howard Yap gave a view from the local level on how to approach youth by engaging and empowering youth leaders and employing a youth-centric approach based on an understanding of youth culture and Information Communication Technology as a very effective means to propagating a message and encouraging action.

In contrast to the Singapore presentation, the Vietnamese presentation (by Mr. Duong Quang Ngoc, Vietnam Institute for Educational Sciences) looked at ESD as a part of the policy process of carrying out state identified goals and objectives and at the individual level by encouraging learning from real life cases and using groups outside of the formal classroom setting as a means to communicate and develop knowledge, particularly for youth. The Thai case (by Ms. Savitree Srisuk, Ministry of Natural Resources and Environment) showed a community-focused and stakeholder inclusive approach to ESD with the government playing a coordinating role. Unique to the Thai case was the trans-ministry policies for ESD, emphasizing the blurring of lines

between sectors and departments, with integration and initiatives held together by the overlying strategic framework.

Both Thailand and Vietnam expressed concern for how to link climate change to local issues and anchoring initiatives to real world problems in a practical and authentic manner, with an issue of relevant and quality materials. Regarding youth, involvement from an early age was emphasized in order to create a generation of aware and active youth for whom considering and including sustainable development in all aspects of life comes naturally. The Singapore case however focused on allowing youth to express themselves as a form of participation.

Using new media to engage our youth – Case study: Blue Earth Greening Project

Presenter: *Mr. Howard Yap, Singapore Polytechnic, Singapore*

Mr. Yap's presentation focused on approaching and engaging youth by using a combination of multimedia and business skills, and directing efforts towards pressing environmental issues such as climate change. The lessons learned and shared at the meeting drew on experiences gained from the Blue Earth Greening project, a competition for youth to make videos on environmental issues which were then hosted on YouTube for voting. Entrants are encouraged to promote their video and message using marketing and networking skills, while training and support was given to use the multi-media tools. Mr. Yap described two types of interconnected relationships which should be considered when engaging youth using ICT– their relationship with media, and relationships among themselves. Mr. Yap discussed the “great digital divide” with digital natives on one side and digital immigrants on the other. Digital natives are the current generation of youth who grew up with email, blogs, and the majority of media they access being user generated. Through this new media youth are experienced with expressing themselves and using the power of word of mouth to propagate ideas. When there is an issue that is to be addressed, the effects of the message are more powerful when coming from a youth opinion leader rather than traditional means. Mr. Yap suggested that rather than asking “how do we promote this message to youth?” to ask “how do they promote the message to each other?” which formed the basis for the Blue Earth Greening project. Mr. Yap emphasized the use of

existing networks rather than creating new ones, which along with appropriate incentives and prizes aids in garnering credibility with youth for new programmes.

Environmental Education for Sustainable Development in Vietnam

Presenter: *Mr. Duong Quang Ngoc, Vietnam Institute for Educational Sciences, Vietnam*

Mr. Ngoc gave a broad presentation, touching on current policy before moving on to describe current issues and future intent in relation to ESD in Vietnam. Throughout the presentation Mr. Ngoc emphasized real world learning and relevancy of projects to real and local issues, in particular when youth are involved. Generally, environmental education and sustainable development are being integrated into curricula and teacher training at all levels, from kindergarten to tertiary, but it is still greatly a work in progress with collaboration and cooperation still being formed between the key players in government, schools, and civil society. Looking at youth as a target group of environmentally focused education, emphasis was given on showing how a small, individual action can have larger, harmful effects in the world around us – such as littering or water use. In engaging and activating youth, Mr. Ngoc considered three learning spaces – the classroom, the textbook and real life experiences. He stressed learning from life and through discussing in groups for ideas to take shape and grow with youth. Much of the presentation dealt with limitations and challenges in Vietnam, in particular insufficient knowledge and understanding of EE and SD along with a lack of effective integration and consistency among projects and implementation. In particular to teachers, he described a lack of adequate initiatives which are anchored in real world problems in a practical and authentic manner. In conclusion, Mr. Ngoc restated a point made by other presenters, and that is in the school setting of starting early with students for their education in the environment and sustainable development.

ESD National Policy and Strategy for Thailand

Presenter: *Ms. Savitree Srisuk, Ministry of Natural Resources and Environment, Thailand*

Ms. Srisuk's presentation was built on the promotion and spreading of ESD throughout the organizations and Ministries of Thailand. The presentation referred frequently to the Environmental Education for Sustainable Development Master Plan, a very inclusive

framework with specific targets set for 2008-2012. A key issue raised in this, and other presentations, was how to make sustainable development in education a reality. A possible contribution to a solution is found in blurring the lines between sectors and spreading responsibility among ministries to encourage collaboration and cooperation, as well as individual initiative unburdened by differing mandates, as under the Master Plan all organizations can act on the policies. Ms. Srisuk expressed how any Thai can achieve sustainable development if they can see the linkages between economic, environmental, and social concerns, hinged however on the relationships between these three areas being made clear so greater participation and action can take place. Ms. Srisuk spoke of creating “Envi-Citizens” and as with other presenters she spoke of the need to involve children and youth so when they complete their education they can be suitably prepared to contribute to a sustainable society.

Using New Media to Engage Our Youths: A Case Study of Blue Earth Greening Project

Mr. Howard Yap

Quantitative Methods & Information Technology

School of Business

Singapore Polytechnic, Singapore

1 BACKGROUND

Blue Earth Greening is a school outreach programme jointly organised by School of Business and School of Media and Info-Communications Technology, Singapore Polytechnic (SP), to promote climate change awareness to secondary school students; to highlight the impacts it has on our environment, our lives and what youths can do to make a positive difference.

Blue Earth Greening parallels two of our Prime Minister's initiatives:

- i) Embedding green technologies into everyday life.
- ii) The positive use of New Media and the web by today's youths.

Unlike other green initiatives, Blue Earth Greening is a competition which requires participants to take the lead in promoting environmental awareness using the new media, to their schools and the electronic communities they reside in. To prepare the participants for the competition, a JumpStart Workshop was conducted by SP lecturers as well as technology experts from leading green energy companies.

To date, two Blue Earth Greening programmes had been organised; the inaugural event was held in October 2007 and the second in June 2008. The third Blue Earth Greening programme is in the pipeline.

2 UNDERSTANDING THE YOUTHS OF TODAY AND TOMORROW

For an environmental programme targeted at youths to be effective, it is paramount to first understand their mindsets and habits.

2.1 Characteristics of the Youths Today

They are notably different from the youths of the 80s and 90s. While we recognise the fact that every individual is different, in our daily interactions, we observed a few common characteristics of these youths:

- Desire to be involved and have a voice
- Have short attention span
- Strong ability to multitask
- Constantly finding new trends to define themselves
- Can be easily influenced by opinion leaders

2.2 Digital Natives Vs Digital Immigrants

When 19 year old Melody Ng wakes up every morning, the very first thing she would do is to check her mobile phone for messages. As she goes online to read her emails, she would also be downloading her favourite iTunes in the background. She hardly watches TV or picks up a book to read; she doesn't have the time because she's usually online. If she forgetfully leaves home without her hand phone, she would travel 15 minutes (or even 50 minutes) back to get it. Melody is a typical Digital Native; the new generation girl who cannot get through a day without instant communication.

44 year old Mark Johnson on the other hand is a Digital Immigrant. Even though he uses email for work and sells stuffs on e-Bay, he prefers to spend his time working out in the gym or watch a few good old movies whenever he can find time. At heart he's still living in the old world.

The generation divide has always been acknowledged but it is only recently that its impact is becoming evident. Baron Saatchi, a mogul in the advertising industry proclaimed the death of traditional advertising because digital technology has changed the way people assimilates information. He claimed that the Digital Native's brain is physically different from a Digital Immigrant's and this is a result of the digital input it is exposed to while growing up.

To sum it up, the Digital Native's brain probably responds faster, has a shorter attention span, and recalls less.

3 NEW MEDIA AS A PROPAGATION PLATFORM

Knowing that the majority of our youths are Digital Natives, it is important to connect with them in their media of choice. Although there is a broad spectrum of new media, we narrowed down to the following selection for outreach:

3.1 Types of New Media

Blogs

Blogs are independent, web-based journals containing opinions about anything and everything. A blogger's focus is usually about promoting a single point of view whereas a journalist's goal is usually about providing a balanced perspective. Blogging provides experts with an easy way to make their voices heard in the myriad World Wide Web (WWW) of ideas. Examples of popular blog hosting sites are multiply.com, blogger.com and our local www.stomp.com.sg

Viral

Viral, buzz or word-of-blog marketing allows others to tell their story and drive actions. Somebody creates something – a funny video clip, a cartoon or a story – to amuse friends, and one person sends it to another and that person sends it to yet another, on and on. For some, the creator might have expected the viral to reach at most a few dozen friends. For some classic viral phenomenon, millions of people viewed the viral in weeks. Millions of exposures were reached at no cost. The price tag to get results like that from traditional marketing might have totalled tens, if not hundreds, of millions of dollars. Examples of viral sites are EepyBird.com and YouTube.com

Social Network

The popularity of social networking sites is phenomenal. Social networking sites make it easy for people to create a profile about them and use it to create a virtual network of their offline friends and to make new friends online. Of course, not all visitors to these sites create their own profile, but there are millions of people who do create one to share their photos, journals, videos, music and interests with a network of friends. Facebook.com and Friendster.com are examples are of social networking sites.

3.2 Relationships between Singaporeans and the Media

The media exposure per day for an average Singaporean is highest on the internet as depicted in the pie chart below. This figure is increasing with time and is inline with the global trends.

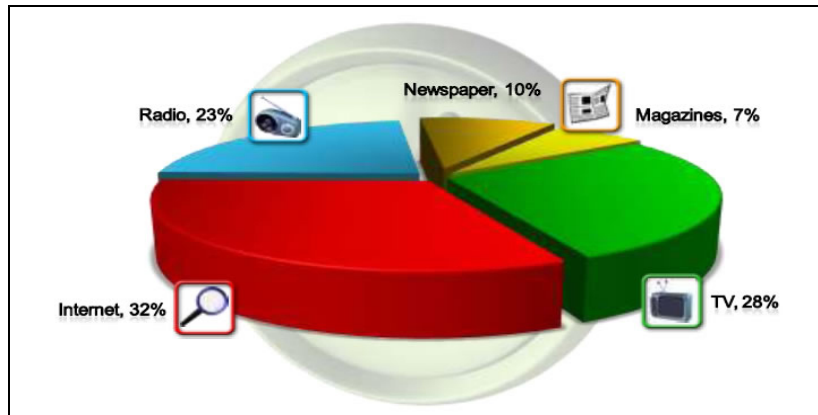


Diagram 1: Media Exposure per day for an Average Singaporean

Source: Synovate Asia Bus Jun / Jul 2007, 15-64 years

3.3 Figuring out the Figures

- 1.6 billion email addresses vs 253 million in 1998
- 60 million visit eBay monthly
- 200 million visit Google and Yahoo daily
- 100 million users of MySpace
- 100 million daily video streams on YouTube
- 1 billion shared songs daily
- 200,000 dog owners with websites on dogster.com
- Over 160 billion gigabytes in global digital content - 30 times more than all human language ever spoken
- 2010: 70% of all digital information are consumer-created

Source: Synovate Media Research, 2007

The figures are staggering and are growing by the day. Without a doubt, new media can be a compelling and fruitful platform to engage our youths effectively.

4 KEY STRATEGIES FOR OUTREACH

In an increasingly saturated market filled with seminars, competition and outreach programmes organised by education institutions and private organisations, our target market of secondary school staffs and students are spoilt for choice. Hence Blue Earth Greening programme has to stand out from the rest of the herd and must carry a perceived value that is attractive to our prospects in order to secure their participation.

4.1 Tapping on Government Agencies Network

In our invitations to schools, we were able to tap on two agencies, namely, The National Environmental Agency (NEA) and Infocomm Development Authority of Singapore (IDA). Both agencies have established networks with Singapore schools through their Environmental Clubs and Infocomm Clubs respectively.

Blue Earth Greening was advertised on their monthly electronic newsletter and invitations were sent through their electronic mailing list. Through these channels, we managed to sign up students who were either IT savvy or pro-activists for the environment.

4.2 Empowerment of Youths

Unlike internet marketing, where advertisers put up web banners and flash advertisements for promotion, new media marketing is consumer-centric and relies on the word of mouth, where consumers are empowered to become ambassadors for the brand.

The "Just Do It" Nike brand campaign is a trademark advertising campaign of recent years. However, in Japan, recognition of the Just Do It campaign tapered off since reaching a peak in the 90's. In response, Nike Japan decided to air a TV commercial designed to reignite that spirit in the young generation, Nike's target group. At about the same time, Nike Japan ran a web-based contest called Kimewaza Battle ("Killer move" Battle), in which the target audience was encouraged to submit images, with winning entries featured in a Nike Japan advertisement. Drawing on a theme of 'self expression through sports', a target group aged 12 to 24 of eager-to-show-off exhibitionist users were asked to submit through cell phones or computers high level images featuring their various 'killer moves'. While active, the site received over 230,000 visitors

and gathered over 400 images. Then, a corporate "Consumer Generated Ad" was created using only the images submitted by those general consumers.

The story of this unprecedented corporate campaign born from the 'Kimewaza Battle' ('Killer move' battle) spread through major media channels, newspapers, magazines, and blogs, at unprecedented speed. It is believed this huge stir triggered over 70,000 Google searches on the subject as of December 11th 2006.

Nike Japan, through moving beyond a one-way corporate message and including the thoughts and ideas of the consumer, succeeded in communicating the message of the "Just Do It" campaign, and making consumers experience the very spirit of the brand.

Source: http://www.wonderactive.jp/award/nike/kimewaza/index_e.html

The voice of youths can be a powerful tool for outreach, perhaps even more so than the directives propagated directly from the governing agencies or institutions. The new media provides readily available tools, like blogs and viral sites that youths can tap on to propagate the green message. And just like how Nike turned its youthful consumers into brand ambassadors for the "Kimewaza Campaign" with great success, turning youths into ambassadors for the environment using the new media can be equally effective.

5 CASE STUDY: BLUE EARTH GREENING PROJECT

5.1 The Blue Earth Greening Trilogy

The Blue Earth Greening programme was initially a marketing outreach initiative to promote the Diploma in Business Information Technology (DBIT). During the time when the programme was conceived, climate change and environmental issues was the in thing. It was an opportunistic approach to tap on "latest fad" bandwagon to promote our school and course.

The participation from secondary schools was better than anticipated. But the pleasing part is; not only did we manage to promote our course and school, the programme also managed to convert both teachers and students into environment activists for their schools (please refer to 5.2 Feedback).

Following is a snapshot view of the Blue Earth Greening events:

II. 2007: A Website Competition to Turn Our Earth Green

The inaugural event focused on generating awareness on the environmental issues. Participating teams were to create a microsite to spread their green message along with actionable steps for individuals to reduce CO₂ emission. 22 teams comprising of 108 students from 10 secondary schools took part in the event. More than 320 student supporters and teachers turned up for the event finals. Around 15,000 votes were cast on the voting site.

III. 2008: Embedding Green Technologies in Everyday Life

In the UN Frameworks Convention for Climate Change held in December 2007 in Bali, our Prime Minister, Lee Hsien Loong, spoke of the need to “embed green technologies in everyday life”. In Blue Earth Greening 2008, we extended his vision as a challenge to secondary school students, to come up with creative renewable energy solutions that can be embedded into our daily lifestyle. 17 teams comprising of 80 students from 16 secondary schools took part. More than 260 student supporters and teachers turned up for the finals. The videos posted at YouTube by the participants generated more than 6000 views and it is still increasing.

IV. 2009

The theme of the programme for 2009 has yet to be finalised. But it should be a progressive sequel to its predecessors. 2007 was about raising awareness; 2008 was about exploring creative but sustainable solutions in daily life, 2009 could be more angled towards exploring potential value-add for companies who takes a environmental friendly approach in conducting their business and operations.

5.2 Overview of the Programme Roadmap

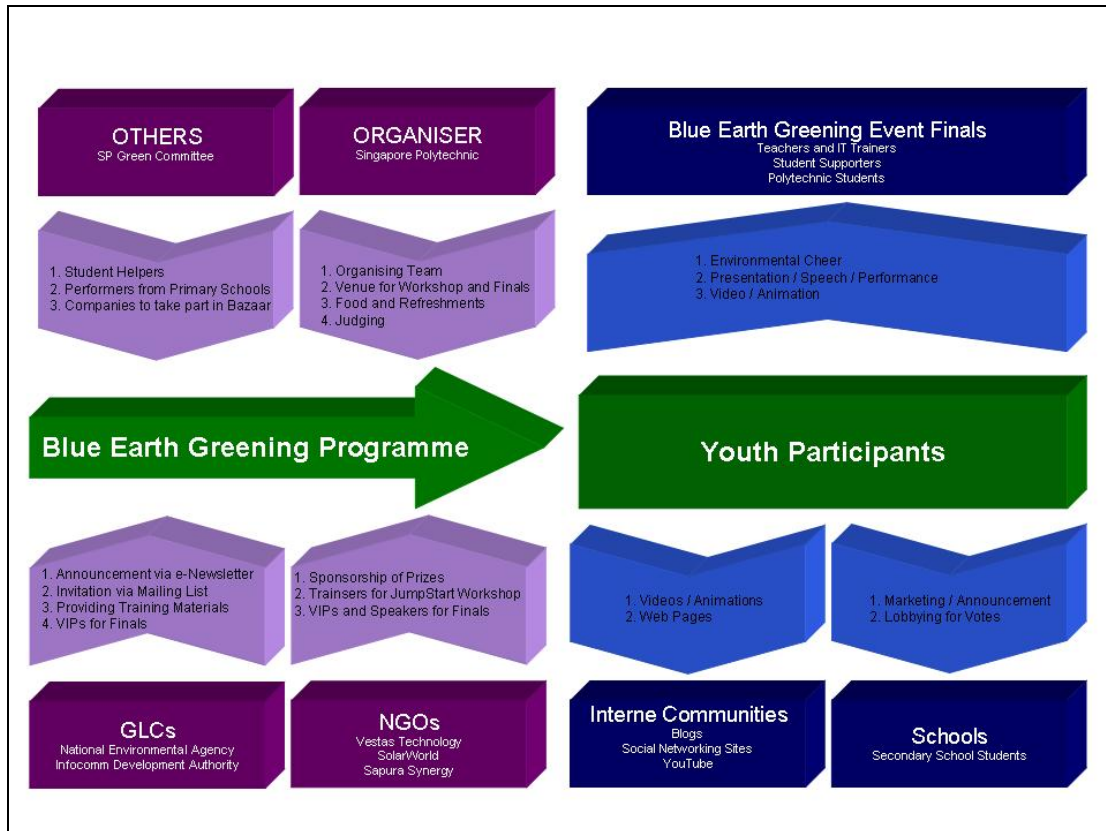


Diagram 2: Blue Earth Greening Roadmap

5.3 Key Activities in the Programme

- Event Announcement and Invitations to Schools
- Deadline for Registration (2 months after announcement)
- JumpStart Workshop for Participants (3 hrs per session)
- Deadline for Submission (1 month after JumpStart Workshop)
- Electronic Voting Period (1 week)
- Announcement of Finalists (2 weeks before finals)
- Event Finale

5.4 Feedback

"I am impressed by the videos produced by the students. My congratulations for making a good effort."

- Prime Minister Lee on the videos submitted by the participants

"The competition was very tough yet but yet very fun at the same time. I learnt so much about green technologies of today's world that I certainly would not find in textbooks. Blue Earth Greening has been a very meaningful programme for me. It made me more environmentally active in events organised by my school and also has given me an inspiration to organise eco-friendly activities for the student body. I will surely support the event again next year!"

- Thendral Vasakm, Student Participant, Hong Kah Secondary School

"This is the first time that Riverside is taking part in the competition. Blue Earth Greening is definitely impactful & fun for the participants. My girls are so motivated that they have actually signed up for the coming competition "CPF Connects!". They have even recruited their friends to join them. "

- Ms Tang Wai Yin, Teacher, Riverside Secondary School

"Thank you for organising this event. It is a very good platform for students to promote environmental messages in a creative manner via use of technology and media."

- Madam Erlis Abdul Manaf, Teacher, Dunman Secondary School

"The pupils have certainly benefited from this experience. Other than creating a website, they are now more aware of climate change and are willing to become environment champions within their own circle of friends. My pupil participants and presenters were also impressed by the performance put up by your Singapore Poly students and they were enlightened by the speeches made by guest speakers. It was certainly an eye-opener for everyone who attended. As an educator, I would like to see more of such events taking place."

- Madam Norhikmah Sohoi, Teacher, Hong Kah Secondary School

6 FUTURE DIRECTION

Environmental initiatives today cannot be just public relations campaigns to fool the consumers. In Singapore Polytechnic, School of Business, it is our hope to cultivate and nurture future “eco-preneurs” who are not only committed to commercial success, but also equally committed in running their business in a truly sustainable approach.

Although it has been a challenge to conceptualise a meaningful programme that incorporates business, IT and environment conservation, we will strive to continue to make headway in this direction. It is our hope that the fruits of our labour can be enjoyed and adopted by existing businesses in their aspiration to become more environmentally friendly.

APPENDICES

I. BLUE EARTH GREENING RESOURCES

Blue Earth Greening Blog

<http://blueearthgreening.multiply.com>

Blue Earth Greening Event Website

<http://sb.sp.edu.sg>

Blue Earth Greening 2008 Entry Submissions at YouTube

<http://www.youtube.com> (search the keywords Blue Earth Greening)

II. PROFILES OF PARTNERS AND SPONSORS

The Blue Earth Greening Programme was supported by the following partners and sponsors:

The GLCs

National Environmental Agency (NEA)

The NEA is the leading public organization responsible for improving and sustaining a clean and green environment in Singapore. The NEA develops and spearheads environmental initiatives and programmes through its partnership with the People, Public and Private sectors. It is committed to motivating every individual to take up environmental ownership and to care for the environment as a way of life.

Website: <http://www.nea.gov.sg>

Infocomm Development Authority of Singapore (IDA)

The strategic goal IDA is to cultivate a vibrant and competitive infocomm industry in Singapore - one that attracts foreign investment and sustains long-term GDP growth through innovative infocomm technology development, deployment and usage in Singapore - in order to enhance the global economic competitiveness of Singapore.

Website: <http://www.ida.gov.sg>

The NGOs

Vestas Technology R&D Singapore Pte Ltd

With a 23 per cent market share, Vestas is the world's leading supplier of modern energy solutions. We have installed more than 35,500 wind turbines in 63 countries on five continents. And we install an average of one wind turbine every four hours, twenty-four hours a day. In fact, our wind turbines generate more than 60 million MWh of energy a year – or enough electricity to supply millions of households.

Website: <http://www.vestas.com>

SolarWorld Asia Pacific Pte Ltd

SolarWorld Asia Pacific is part of the SolarWorld Group, one of the largest solar companies worldwide. Active at all levels of the solar industry's value chain – from silicon as a raw material to complete solar power plants, the SolarWorld Group is solely focused on the successful commercialisation of solar as a viable alternative source of energy.

Website: <http://www.solarworld.sg>

Sapura Synergy Singapore Pte Ltd

Sapura Synergy Singapore is the main distributor of Adobe Software and Apple Products to the five polytechnics in Singapore.

Website: <http://www.sapura.com.sg>

Others

SP Green Committee

We are committed to work with staff and students to promote the Green Message within SP and beyond its boundary. The Green committee will work with the ISO 14000 committee to implement programs to create awareness and educate staff and students on environmental issues that may have significant impact. Website: <http://www.sp.edu.sg/greenreport2007/>

Environmental Education for Sustainable Development in Vietnam

Duong Quang Ngoc

Vietnam Institute for Educational Sciences, Vietnam

I. Introduction

It is recognized by Viet Nam's government that the rapid progress of science and technology, the dynamic development of economies, the process of integration and globalization make the reduction of gap between development levels of different countries more realistic and faster. Education plays the vital role in enhancing national awareness, the responsibilities and capability of the generations. Environmental Education (EE) activities have implemented in Viet Nam for a long time, especially after the ASEAN Environmental Education Action Plan 2000 – 2005.

In this context, this report will firstly focus on current national policy and strategy for *ESD/EE for SD* and briefly describes overall picture of Viet Nam education system in regarding to EE perspectives. The report then moves to some observations to draw its implications and challenges from EE practices. The report will be concluded by summing up future perspectives and initiatives towards EE in Viet Nam.

II. Current national policy and strategy for *Education for Sustainable Development (ESD)/Environmental Education for Sustainable Development (EE for SD)*

1. Strategic environmental protection countries by 2010 and towards the year 2020 (2003) with 36 programs, for example:

- + Bringing the project content of environmental protection in the education system nationally

- + "Whole population participate in the environmental protection" programme.

 - + "The socialization of environmental protection activities" programme.

- + The program to design and implement new route change in the direction of technology-friendly environment

...

2. Resolution No. 41 of the Political Bureau on environmental protection in the period in order speeding up industrialization and modernization of the country (2004). Group with 7 solutions:

- + The first group: Promote the propaganda, education and raising awareness and responsibility to protect the environment. 'Bringing the contents environmental education into the curriculum, textbooks of the education system nationally, increasing duration and subject formed to study the courses for junior level ".

- + The second group : Enhancing the management of the State Environment Protection

- + The third group: promote the socialization of Environment Protection
- + Groups of fourth and fifth: the application of economic measures in environmental protection; create the fundamental changes in the investment environment protection
- + Groups of sixth and seventh: promote scientific research, applied technology and human resource training on the environment, expand international cooperation on environment.

3. Agenda 21 of Viet Nam (Agenda21): The Strategic Orientation for Sustainable Development in Vietnam provides a framework strategy including major directions for ministries, sectors, localities as well as concerned organizations and individuals to implement and cooperate to ensure the country's sustainable development in the 21st century. The Strategic Orientation for Sustainable Development raises the challenges facing Vietnam, sets out orientations, policies, legal instruments, priority activities that need to be implemented in the 21st century.

The program has 5 sections:

- + Part 1: Sustainable development, Vietnam's inevitable path
- + Part 2: Priority economic areas for the sustainable development
- + Part 3: The priority social areas for The sustainable development: Improve the education system and strengthening awareness about sustainable development for all citizens, communities, enterprises, organizations and institutions Office of the State at all levels.
- + Part 4: Priority areas in utilization and protection of natural resources and pollution monitoring essential for the sustainable development
- + Part5: Sustainable development implementation arrangements

(founded National Committee of decades of Education for the Sustainable Development of Viet Nam. Sustainable Development has become one of the content of education and education is considered to be the key to implementation of Sustainable Development)

III. Education system: major changes in response to national modernization and globalization demands

1. Educational aims

In the Education Act (2000) the national educational aims are broadly stated as: "Forming and fostering the personality, quality and ability of citizens; training working people who; are faithful to the ideal of national independence and building of a fair and civilized society; are moral, dynamic and creative; know how to preserve and promote the cultural values of the nation; are

receptive and open to all cultures; and have the necessary sense of discipline, organization and industrious behaviour to meet the requirements for building and defending the nation”.

2. Guiding ideologies

The socio-economic strategic plan for 2001 – 2010 states that: In order to respond to the requirements of human and human resources, which are the decisive factors for the country’s development in the period of industrialization, modernization, it is necessary to create radical and overall changes in education. Therefore the goals of education development for 2001 – 2010 are:

- To create radical changes in education quality in the direction of a closer access to the advanced level of the world, suitable to the Vietnamese practice, practically serving the socio-economic development of the country, regions, and localities; and in the direction of learning society. To strive to bring our country’s education out of left behind position in some aspects in comparison with developed countries in the region.
- To give the priority to the enhancement of the quality of manpower training special attention should be paid to training of highly qualified science-technology personnel, excellent managerial staff, skilful business managers, skilled worker-master, who will contribute directly to the enhancement of competitiveness of economy; the priority is also given to accelerating the universalisation of lower secondary education.
- To innovate goals, contents, methods, curricular at all levels; to develop teaching staff satisfying the increase of enrolment and the improvement of quality, effectiveness and the innovate the educational management; to create legal basis and to bring into play the internal forces for education development.

3. Present education system and its management

3.1. Levels of Education:

On November 24, 1993, the Vietnamese Prime Minister signed a Decree on the Vietnamese education system comprising all education establishments from crèches to post-graduate level. Placed under unified state management, this system includes:

- “Young Shoot” education (pre-school education): crèches and infant schools
- Primary Education
- Secondary Education: Lower - Secondary and Upper – Secondary Education
- Vocational Education : craft-teaching schools and secondary vocational schools
- Higher Education: colleges and universities; and

- Post-graduate level: master's degree and doctor's degree

3.2. *School age and duration of courses at each grade*

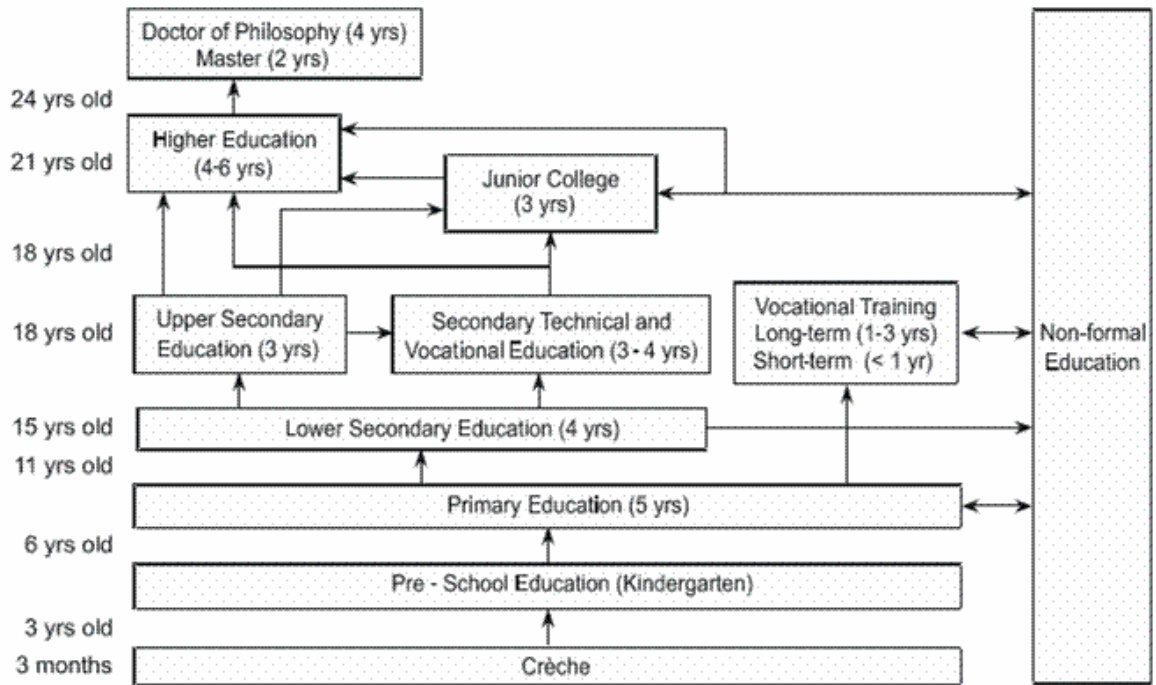
- Kindergartens admit children from 3 to 36 months of age
- Infant schools admit children from 36 to 72 months of age
- Primary schools admit children from 6 years of age calculated according to the year of birth. Primary education comprises five grades (grade 1 - 5).
- Lower – Secondary schools admit children from the age of 11 and comprises four grades (grade 6 - 9)
- Upper- Secondary schools admit children from the age of 15 and comprises three grades (grade 10 - 12)

3.3. *Types of schools classes*

There are the following types of schools and classes

- Public school: organized and managed by the State which makes investment in its physical facilities and provides for current expenditures
- Community-founded school: organized by social organizations having judicial standing; the social organizations are responsible for management, make investment in physical material facilities and see by themselves to all receipts and expenses
- Private school: Organized and managed by individuals who make investments in physical facilities and see by themselves to all receipts and expenses

VIET NAM EDUCATION LANDSCAPE



(Sources: Viet Nam Ministry of Education and Training Website, 2006)

3.4. Curriculum development and reform

Curriculum reform is considered as a remarkable change through system of general education system. Reforms to curricular have come about not only due to recognition by the government of the global pressures, but also due to the demands of teachers, pupils and parents who are aware of the outdated nature of the curriculum and the need for on-going curriculum change. In the third reform (the first took place in the 1950s, the second, in the 1970 – 80s), curriculum development is based on three factors: 1) the vision of the country's leaders concerning the economy and society within the next ten to twenty years.; 2) educational achievement and curriculum development experiences, based on country's characteristics; 3) the curriculum development trends and experiences of other countries.

Current reforms are based on the following orientations:

- A focus on basic, practical content which can be applied in everyday life

- An update content based on scientific, technological and other development in modern society
- Development of each student's ability, especially the ability and methods of self-learning
- Due consideration for humanistic and international education
- Preservation of national identity of Viet Nam, while participating in the world community
- Focus on international curriculum goals for *learning to know, learning to do, learning to be, learning to live together*

Successful aspects of curriculum reform: It is agreed that advances in the process of curriculum reform: (a) incorporation of new ideas and trends relating to the organization and mechanism utilized in the curriculum development process; (b) efforts to raise the scientific level and update subject contents; (c) the inclusion of health, population education and environmental protection in curriculum contents; and (d) adopting a systematic approach to raising teachers' skills and abilities in subject content and teaching methods.

Progress of reforms to date

- New curricular are being developed for primary, lower - secondary and streamed upper - secondary education.
- The primary education curriculum is being tested during implementation.
- The curriculum for lower-secondary education is implemented nationwide on the basis of experts' comments.
- The curriculum for upper-secondary education is being tested in 180 schools located in all provinces in Viet Nam.

IV. Implementation of EE for SD on Education

The national level implementation of the Environmental Education is assessed based on the four Target Areas: Formal Education; Non – Formal Education; Manpower Capability Building and Networking, Collaboration and Communication.

Some achievements on AEEAP in Viet Nam:

1. Target Area 1: Formal Education:

Overall objectives:

- To increase the awareness, develop the basic changes of the entire body of managers, teachers and students at all levels of general education schools on the signification and importance of environmental education inside the national education system in general and in the general education network in particular.
- Basic contents on environmental education are introduced into general education schools curricula and then permanently and systematically carried out in accordance with objectives, curricula, and training plans at every education level.

a) EE in kindergarten:

- There are four programs on EE: EE for kindergarten level, EE for teachers college of kindergarten pedagogy, EE for high school of kindergarten pedagogy, regular training for kindergarten teacher.
- Compiled and published some EE teaching materials/ textbook/ curricula for kindergarten level:
 - “Ask and answer” book on EE for kindergarten
 - “Ask-Answer” handbook on EE for teacher kindergarten
 - Improving ability for student’s colleges of kindergarten pedagogy
 - Guide book for kindergarten teacher about EE
 - Guide book for kindergarten teacher about method to integrate the contents’ EE

b) EE in Education schools:

- EE training courses have been organized for authors who compiling and writing schoolbook the way to integrate and combine EE curricula with formal subject matters in new schoolbook. These curricula have been taught in some schools and received well respond from teachers and pupils.
- Regular courses for teacher’s primary, lower - secondary school, upper - secondary school to improve knowledge and teaching skill on EE

- Compiled and published some EE teaching materials/ textbook/ curricula for education school:

- Guide book for teacher's primary school, lower - secondary school, upper - secondary school to improve knowledge about EE.
- Guide book for teacher's lower - secondary school, upper - secondary school to improve knowledge about energy saving.
- Training documents on EE in some Northern secondary schools
- Documents and module on EE in all schools level (VIE/98/018 project)

c) EE in professional training:

- Integrating EE into the subjects frame program of professional training
- Compiled and published some EE teaching materials/ textbook/ curricula for professional training.

d) EE in university:

- Built frame program to train master branches about Environmental scientific technology.
- Built general education curricula about EE for others branches.
- Compiled and published some EE teaching materials/ textbook/ curricula for university:
 - "Human and environment" book
 - "Science and environment" book
 - "Environment and development" book
- Compiled and published some EE teaching materials/ textbook/ curricula for specialist universities and different objects:
 - Universities of transport section
 - Universities of construction section
 - Universities of agriculture and forestry section
 - Universities of aquiculture section
 - Education universities and Technical education universities
 - Teachers of Education universities

- Taught some self-choice major in some universities and colleges such as: Human and environment, environment law, EE, environment management, plant and environment, environment and environment protection problems, population education – environment.

2. Target Area 2: Non - formal Education:

- ❖ EE activities are being conducted for all sectors through mass media campaigns: Action Month of Green, Clean and Beautiful; Week of Clean Water and Environmental Sanitation; Clean Up the World Day; World Environment Day; Earth Day; International Biodiversity Day; etc., are being organized annually at the national, provincial and community levels.
- ❖ Short and medium-term environmental training courses have been conducted by many centres, research institutes, or nongovernmental organizations
- ❖ Contests related to environment conducted for children and adults (for example: painting, poster-making, photography, essay writing, singing, and some pictures have achieved international prizes).
- ❖ Conducted environmental forums and exhibitions (for example: Workshop proceedings Education for sustainable development in the era of globalization)
- ❖ Broadcasted national television environment programmes: Education environment training for teacher on central program, guide programs for environment protection....
- ❖ In addition, EE activities in Vietnam were promoted by many projects:
 - VIE/96/063 project about cleaner production was performed by Hanoi university of Technology
 - VIE/04/064 project about stepping up cleaner production services
 - VIE/98/018 project about EE in schools was funded by DANIDA organization and performed by Center for Technology and Training Education
 - Promoting ability for education, training and researching in EE for the northern provinces project were performed by University of Civil Engineering
 - Education about environmental protect project in primary schools and secondary schools in Ha Noi were funded by Belgium Kingdom

...

3. Target Area 3: Manpower capability building:

- ❖ Some EE programs have been broadcasted on central channel and received so well respond from audiences.

- ❖ Exposure to new methods of training and research for Vietnamese staff members, through international programs.
- ❖ EE study tours have been organized, but not on a regular basis
- ❖ Conducted many training courses/ workshops/seminar about EE:
 - VIE/98/018 was trained for 244 observers from 64 provinces, cities; 213 observers from 73 Education universities and 705 Communist staffs
 - EE in schools project has been performed by Center for Technology and Training Education(funded by UNDP) and organized about 20 courses and trained for about 1000 staffs from departments and institutes of Education and Training ministry, 61 Education and training departments, 62 Education universities and others EE organization.
 - Education for Nature Vietnam has been organized about 30 courses about wild animal protection in national parks and nature reserves for 500 EE staff.
 - Every year, Central for technology and education environment has been organized summer courses to improve EE knowledge for school teacher from 64 provinces, cities about EE, environmental morality, ecological morality...
 - Central for consulting, training and transfer technology - Viet Nam environment protection agency has had some course about estimating of environmental affection to health, guiding how to chemical management and how to implement new environmental circulars (composed of staff of Department of Natural Resources and Environment, Department of Agriculture and Rural Development, Department of Industry, Department of Health from 64 provinces, cities).

4. Target Area 4: Networking, Collaboration and Communication:

- ❖ The 1st National EE workshop to popularize the ASEAN Environmental Education Action Plan 2008 – 2012 in March, 2008 and this workshop contributed to implement AEEAP 2008 – 2012 and promoted EE networking in Vietnam (composed of government agencies, NGOs, universities, teacher colleges).
- ❖ Many cooperation projects on environmental education and training for each level of education (from kindergarten to tertiary levels)

V. Target group – Young (12-14) with EE

Example: Video: One small action – one big harmful effect

Group includes 6 students in Trung Vuong lower - secondary, Hanoi.

This is program made video of education and it's sponsored by Panasonic Company. Students find idea and to write screenplay for the video.

VI. Challenges and difficulties in promoting EE for Sustainable Development

- Insufficient knowledge of EE among teachers, trainers and facilitators and they aren't trained and improved regularly and systematically.
- Poor infrastructure for promoting EE and lack of educational tools, lack of publications materials and facilitation equipment for EE: Pupils haven't got enough reference material for EE, teaching materials are still underdeveloped and not enough: lack of listening and seeing materials, tools for looking after and protecting plants and flowers,...
- Although primary education program had large improving in contents and structures but it has specified target, content and method not so clear in EE. Content subjects were contain of environmental factors but they have not combined to clear, specify targets yet. Program has still so much knowledge, lack of improving practice skill and action plant to protect environment. Teaching method in EE and environmental protection activities has still a lot of constrains.
- Lack of national EE information centres so lack of concentrated and united guide in administration level in EE; so that EE activities in school have dispersed, lack of clear target, implementation level has still depend on awareness level of each teacher or administrator.
- Teachers of EE in Education universities have mainly held concurrently, lack of infrastructure, labs, and materials in EE. Researching science themes in EE hasn't received the proper interest.
- Lack of updated, nationally relevant, sector based resource materials.
- Lack of commitment of leaders at the provincial and local levels to promote and implement EE activities.
- Lack of understanding of environmental concepts and problems by educational institutions and the general public.
- Lack of public awareness and understanding of EE.
- Lack of materials and activities of climate change in schools.
- Lack of financial support.

VII. Current and near-future projects/programmes in EE

- Basic contents on environmental education will be carried out in general education schools via their in-curricular teaching plan through integration, combination with formal

subject matters, especially in the primary level disciplines- moral education, health education, Natural and Social Sciences; in the secondary level disciplines; Civil education, Geography, Biology, Chemistry, Physics, etc. Other appropriate monographs on environmental education and extra-curricular activities inside and outside schools on environmental education must be organized along with the active participation in local environment protection activities like: cleaning the environment, planting trees and forestation, saving materials, electricity and paper.

- Teachers of all disciplines in general education schools must be trained regularly through environmental education monographs. Pre-service students in all teacher-training institutions will be trained through a formal curriculum on environmental education.
- Investments in new equipment will be made as well as in the improvement of the quality of old equipment used for environmental education. These newly built environmental education tools can consist of school garden, decorative garden, decorative plants and trees, information materials, reference materials, photos and drawings, video tapes serving the teaching of different disciplines and monographs and extra-curricular activities.
- A body of educational managers and consultants on environmental education will be organized. At every education level, at least 1 or 2 cadres will be trained in-depth on pre-service and in-service training on organization and management of environmental education activities at every general education school level. At every general education school, at least 1 or 2 teachers will be trained in-depth with the capacity to work as local school core teaching force on environmental education.
- Procurement of books (for teachers and students)
- Dissemination of EE related information through a variety of mediums such as posters, calendars, leaflets, websites, etc.
- Cooperation with other relevant government ministries in promoting EE.
- Organizing a survey to evaluate EE for Sustainable Development demand
- Organizing national workshops on EE for Sustainable Development (will compose of government agencies, NGOs, universities, teacher colleges).

VIII. Future Perspectives

- Due to the "Reform" policy initiated in the late 1980s, openness has increased rapidly, particularly following two biggest world events in which Vietnam successfully joined WTO and hosted APEC leader summit (November, 2006). Under this context, EE for SD will be a centre of attention in the field of education in recent future. More importantly, EE for SD will become an essential part of civic and moral education in Vietnam to confront both-side

impact of globalization. Therefore, it is needed to promulgate more specific policy from at least national level which can step up EE for SD practices in Viet Nam.

- In the coming time, EE for SD application in school system needs to step forwards so that its implementation process can be gained more effectiveness. It is agreed that EE for SD is not just the content or what is taught and understood but is how it is taught which means teaching principles embodied in the teaching-learning process. It is also agreed that EE for SD process should be undertaken through attaining Knowledge, Skills, Value, Action, and Commitment so that EE for SD should adopt Inter-disciplinary, Cross-subjects, and new paradigm approach.
- Training approaches have a great impact on teaching methods used in general education, not only subject matters but also any initiatives desired in schools such as EE for SD which uphold peace, non-discrimination, and dialogue among peoples.

ESD National Policy and Strategy for Thailand

A case of The Department of Environmental Quality Promotion
Ministry of Natural Resources and Environment, Thailand

Ms. Savitree Srisuk

Head of Environmental Education Section

**Department of Environmental Quality Promotion, Ministry of Natural Resources and
Environment, Thailand**

1. Introduction

While Thailand does not have an action plan and a direct and clear policy about environmental education, various issues related to people's right and duty on environment and sustainability have been mentioned in major law, policies and plans. These significant elements can be considered the rational and approaches for environmental education in Thailand. These include of some Articles in the Constitution of B.E. 2550, National Environmental Quality Promotion and Conservation Act of B.E. 2535, National Education Act of B.E. 2542, the Tenth National Economic and Social Development Plan (2007-2011) and the National Policy and Plan for the Promotion and Conservation of Environmental Quality (1997-2016).

Constitution of the Kingdom of Thailand B.E. 2550(2007)

Article 66. Persons so assembling as to be a community, local community or traditional community shall have the right to conserve or restore their customs, local traditional knowledge, arts or good culture of their community and of the nation and participate in the management, maintenance, preservation and utilization of natural resources and environment including biological diversity in a balanced sustainable manner.

Article 67. "The right of a person to participate, in conjunction with the State and Communities, in the conservation, preservation and exploitation, and preservation of the quality of the environment..."

Article 85. "The State shall implement the land, natural resources and environment policy as follows... (5) To support, maintain and protect the equity of environment under a sustainable development, as well as to control and eliminate pollution which affects the people's health, well-being, and quality of life by allowing the people, local communities and administrative organization to participate in the formulating of the operation plan."

The Enhancement and Conservation of the National Environmental Quality Act, B.E. 2535

Section 6 "For the purpose of public participation in the enhancement and conservation of national environmental quality, the following rights and duties may be accorded to individual persons as provided by this Act or governing law related thereto:

To be informed and obtain information and data from the government service in matters concerning the enhancement and conservation of environmental quality, except for information or data that are officially classified as secret intelligence pertaining to national security, or secrets pertaining to the right to privacy, property rights, or the rights in trade or business of any person which are duly protected by law.

..."

National Education Act B.E.2542

Section 6 Education shall aim at the full development of the Thai people in all aspects: physical and mental health; intellect; knowledge; morality; integrity; and desirable way of life so as to be able to live happily with other people.

Section 7 The learning process shall aim at inculcating sound awareness of politics; democratic system of government under a constitutional monarchy; ability to protect and promote their rights, responsibilities, freedom, respect of the rule of law, equality, and human dignity; pride in Thai identity; ability to protect public and national interests; promotion of religion, art, national culture, sports, local wisdom, Thai wisdom and universal knowledge; inculcating ability to preserve natural resources and the environment; ability to earn a living; self-reliance; creativity; acquiring thirst for knowledge and capability of self-learning on a continuous basis.

Section 8 Educational provision shall be based on the following principles:

- (1) Lifelong education for all;
- (2) All segments of society participating in the provision of education;
- (3) Continuous development of the bodies of knowledge and learning processes.

Section 15 “There shall be three types of education: formal, non-formal, and informal...”

Section 23 “Education through formal, non-formal, and informal approaches shall give emphases to knowledge, morality, learning process, and integration of the following, depending on the appropriateness of each level of education:

- (1) Knowledge about oneself and the relationship between oneself and society,...
- (2) Scientific and technological knowledge and skills, as well as knowledge, understanding and experience in the management, conservation, and utilization of natural resources and the environment in a balanced and sustainable manner;
- (3) Knowledge about religion, art, culture, sports,...
- (4) Knowledge and skills in mathematics and languages...
- (5) Knowledge and skills in pursuing one’s career and capability of leading a happy life.”

The 10th National Economic and Social Development Plan (2007-2011)

No. 1 The vision of the 10th NESDB plan 2007-2010 is to create the ‘Green and Happiness Society’. The Thai population should have morality and wisdom, strong family values, a strong community, a peaceful society, with a stable and fair economy. The country should have a quality environment and sustainable natural resource management under the good governance principle, as well as maintain democracy under the King. It should be able to remain within the world community with dignity.

No. 2 Mission “(1) to develop quality people...living with security and dignity in the equilibrium of biodiversity and environment (2) promote a quality economy...using the strengths of biodiversity and the Thai identity...(3) maintain the biodiversity and build up a stable base of natural resources and environmental quality, focusing on the balance between conservation and fair and sustainable utilization, creating value, encouraging the community to develop a body of knowledge as well as awareness which leads to protection of resources, protect the community’s rights and promote the community’s role in resources management, adjusting production and consumption patterns so that they are environment-friendly, and finally protect the nation’s interests in international agreements (4) develop the nation’s administration with good governance...towards fairness economically, socially and in using resources.”

2. Environmental Education Plan at National Level

Environmental education master plan and action plans (National Level: 1997-2001)

The Department of Environmental Quality Promotion, under the Ministry of Science, Technology, and Environment in 1994, has prepared an environmental education master plan and action plans. The plan was aimed to be a country’s guidance for developing EE within the next 5 year. The master plan comprised objectives, rationale, policies and measures while the action plans consisted of 48 environmental education projects to be implemented by the concerned agencies. The projects included national curriculum and learning aids development, media development for knowledge and information dissemination, staff development and training, and promotion and publicity. The operations were to be completed within five years (1997-2001), with a total budget of 450 million baht. Unfortunately, although the master plan was complete, it was not presented at national level and thus was made a policy. The projects have, therefore, not been implemented at the full plan.

Master Plan on Environmental Education for Sustainable Development (2008-2012)

Since 1992, The department had moved to be under supervision of Department of Environmental Quality Promotion, which was established in 1992 as a result of the Royal Thai Government announced the replacement of the 1975 legislation with the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992). By then, the Office of National Environment Board was restructured to three departments namely Pollution Control Department (PCD), Office of Environmental Policy and Planning (OEPP), and Department of Environmental Quality Promotion (DEQP). DEQP was adjusted its responsibilities by transferred Section of Environmental Analysis from Photograph to be under Division of Environmental Policy and Planning and transferred Environmental Research and Training to be under Division of Environmental Quality Standard. Moreover, the Royal Thai Government enacted the royal degree

of government restructuring Department of Environmental Quality Promotion to be under the Ministry of Science, Technology and Environment. In 2002, Department of Environmental Quality Promotion was transferred to be under Ministry of Natural Resources and Environment due to the government restructuring.

At the global interested, the full implementation of Agenda 21 and sustainable development were strongly reaffirmed at the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa in 2002. Later on in the same year, the United Nations declared the years 2005-2014 as the United Nations Decade of Education for Sustainable Development, aiming to integrate the principles, values, and practices of sustainable development into all aspects of education and learning.

At regional level, ASEAN countries developed the ASEAN Environmental Education Plan as an operational framework for 2000-2005. The plan had as its objectives the promotion of environmental education in member countries and the development among the public sensitivity to existing environmental problems. At the end of the plan, progress reports revealed that most member countries had environmental education plans and activities both inside and outside educational institutes. Once the first ASEAN Environmental Education Plan was completed, the second plan (2006-2010) was developed. Member countries suggested that this plan focus on real practice with enabling strategies that ensure success within a time frame of five years, not simply stopping at promotional efforts.

A major factor of the 2nd ASEAN Environmental Education Plan's success is the member countries' operations. In the case of Thailand, the work unit under the Ministry of Natural Resources and Environment that is directly responsible for ASEAN work is the Office of International Cooperation on Natural Resources and Environment. During the drafting of the plan, the Office had asked the Department of Environmental Promotion to act as a focal point in preparing Thailand's proposal. The Department is also expected to be the principal coordinator in seeing to the implementation of the ASEAN plan. Thus, DEQP see the need to have Thailand Environmental Education Plan in line with the ASEAN Environmental Education Action Plan and also to support the UN-DESD.

Then, in 2007, the Plan was initiated by the Department of Environmental Quality Promotion (DEQP) under the Ministry of Natural Resources and Environment. The EESD Master Plan aims to serve as the national frame of reference for government agencies as well as private sectors and non-government organizations concerned to develop action plans and budget allocation to support the development of EESD. The EESD Master Plan consists of four major principles; 1) the plan belongs to no specific agency and should not be regarded as a government's program; it is an EESD plan of all sectors in the society, 2) EESD development should be based on existing knowledge, particularly local wisdom and social capital from various sectors of Thai society. New definitions, new concepts, should be used only when necessary to avoid confusion which would do more harm than good, 3) it is important to achieve a balance

between school-based and society-based EESD, 4) it is important to recognize that diverse communal, social, cultural and ecological systems desire EESD with different emphases and approaches. The Master Plan will be a compass and a road map for those who have an interest and responsibility in EESD to foster an alliance and network to work together toward shared targets, and to allow each party see to see how it can contribute to and become part of the powerful driving force for sustainable development.

EESD refers to the process of learning and disseminating concepts related to the environment and the relationships between the environment and economy as well as social development, which form a basic knowledge for life and coexistence within a community, society, country, and the world. This will raise awareness as well as promote or change attitudes and behaviours in a way which nurtures development. Such development will be sustainable, for both this and next generations.

On the individual level, EESD involves life-long learning, which links all kinds of learning, including both formal education and natural learning in daily lives or the so-called informal education, with the objectives of promoting or changing attitudes and behaviours related to the environment. On the national level, EESD concerns the management of civic education for social development both now and in the future.

In conclusion, EESD's learning process aims to prepare "environmental citizen" to live and work with responsibility and knowledgeable to make appropriate choices. Thus, EESD's target groups cover populations of all genders, ages, and occupations and in every organization, community and society. Its fundamental concept related to:

1. sustainable development
2. environmental education
3. continual, life-long learning
4. civic education

Goal of EESD

- Thai people from all walks of life and from every sector understand the cause of environmental problems and their effects
- Thai people have positive attitudes towards environment, and are equipped with the necessary skills

EESD Master Plan Objectives:

- To determine clear principles, guidelines , directions, goals and strategies in developing the EESD which involves major stakeholders in advancing EESD
- To encourage the development of EESD in Thailand

Process of developing the EESD Master Plan

- Document studies/ expert meetings
- Research studies on EESD situation/interview
- Determining the principle and characteristics of Thailand's EESD
- SWOT analysis of EESD and identifying key success factors
- Determining strategies and major/minor alliance
- Determining the procedures of operation/ evaluation of EESD master plan
- Meeting for analysing /improving of EESD master plan
-

Mission of EESD Master Plan

- To act as a mirror: reflect problems and roles of EESD in Thai society
- To act as a compass and road map : identify common issues, objectives and guidelines for development

Targets of EESD Development: 2008-2512

1. Agencies, organizations and various targets groups understand the role of EESD
2. An institutionalized structure to be set up
3. Collaboration and coordination between sectors to be established
4. Development and exchange of knowledge, attitudes and skills on EESD both inside/outside educational institute-EESD can be part of life-long learning
5. EESD is applied to support other policies , strategies on every levels

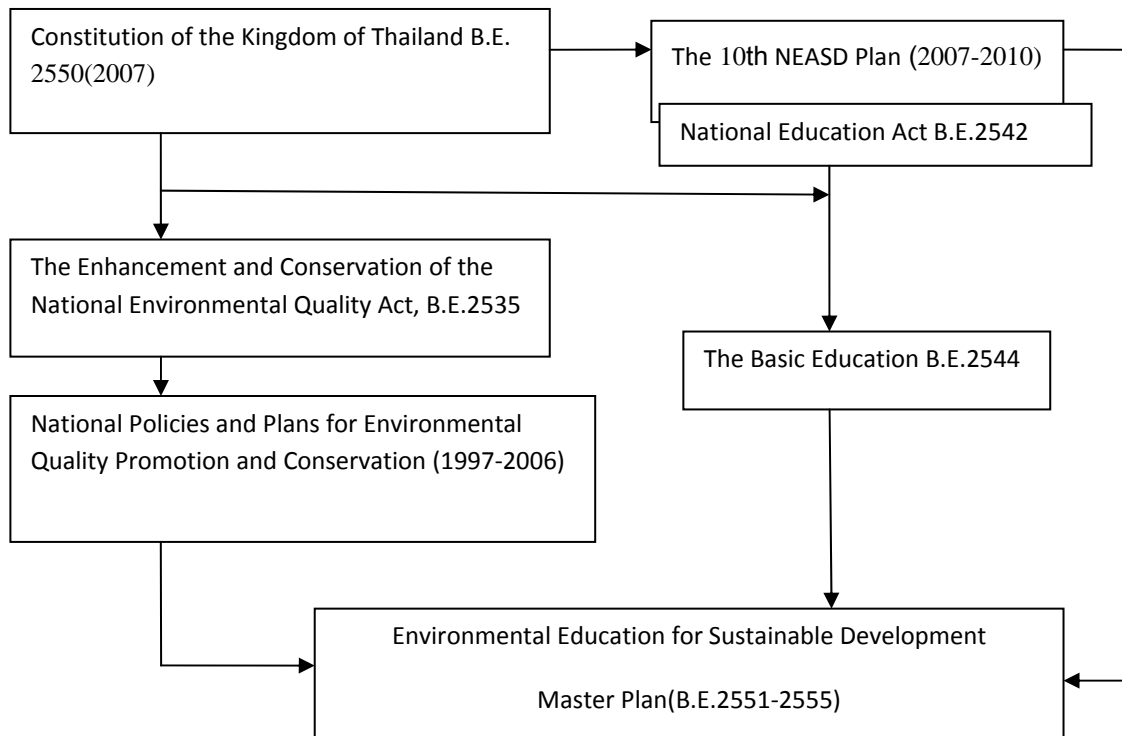
Principles of the EESD Master Plan

1. It is under the supervision of every sector in society
2. Focuses on the development based on existing knowledge and social capital
3. Giving equal attention on both formal and non-formal education sectors
4. Aware of the diverse communities , societies, cultures and ecological systems

EESD Strategy 2008-2012

1. Public Communication on
2. Establishment of Institutional Structure
3. Integration of EESD with natural resources management and other public policies
4. Strengthening EESD Network
5. Marketing for EESD
6. Linking EESD between inside-outside Educational Institutes
7. Knowledge management of EESD

Relationship of EESD Master Plan and National Policies, Strategies and Plans



IV: Session 3 - National Policy and Strategy (Group 2)

Chair: Professor Surichai Wun'geo, Chulaongkorn University, Thailand

Session Summary

The third session began with a presentation on Brunei Darussalam (by Ms. Sarimah Abu Bakar) which gave clear and succinct examples of the activities that have already been conducted in the short time period that Brunei Darussalam has been a member of UNESCO. The presentation gave emphasis on various means of allowing youth to participate through self-expression while the speaker emphasized sharing information across the region. The Lao PDR presentation (by Mrs. Chithanom Ounsida) gave a history of ESD and EE policies in the country, and stressed the need for teacher training and suitable resources despite the great achievements that have been made thus far in education, particularly at the primary level. The Philippine presentation (by Ms. Elenida Basug) gave a very nice overview of the comprehensive nature of environmental and sustainable development education in the country.

Education for Sustainable Development National Policy and Strategy for Brunei Darussalam

Presenter: Ms. Sarimah Abu Bakar, Ministry of Education , Brunei Darussalam

Ms. Bakar gave a concise presentation on ESD in Brunei Darussalam, reflecting the country's recent membership to UNESCO in 2005 and their work in progress of establishing an ESD focal point. Already Brunei Darussalam has embarked on a variety of youth-oriented initiatives. These initiatives share similarities with other programmes in the region, with emphasis on giving youth a medium to express themselves, such as drawing competitions and dance as a part of Energy Day which considered emissions production, engagement with other youth in the region while carrying out ESD activities, and recognition for accomplishments through awards and presentations. Overall each of Ms. Bakar's examples showed cooperation among industry, schools, and government, and the initiative and involvement of youth. Emphasis was given on developing key individuals and having a multi-method approach to youth with various short and long term projects under the national programmes and policies.

Education for Sustainable Development in Lao PDR

Presenter: *Mrs. Chithanom Ounsida, Department of Environment Water Resource and Environment Administration – Lao PDR*

Ms. Ounsida gave a brief country overview in terms of education in general and environmental education in particular, noting positive trends in development and education levels. Similar to Vietnam, in terms of the environment preservation and conservation are historically the predominant focus in Lao PDR, with environmental protection written into the Constitution. Recently though with the National Environment Strategy to 2020 and other legislation more emphasis is being placed locally on education and participation and involvement at the regional and international level. Locally, public awareness of environmental protection is being promoted along with participation in how to use resources in a sustainable and effective manner. As for climate change they are in the process of implementing a climate change strategy and action plan and are carrying out some activities under the Kyoto Protocol. A unique component of ESD in Lao PDR is the involvement of the Lao Youth Union in running activities and promoting awareness of environmental issues through the media targeted towards other youth and children.

Environmental Education for Sustainable Development, and Strategy for Campaigns on Climate Change for the Youth: Experiences in the Philippines

Presenter: Ms. Elenida Basug,
Environmental Management Bureau of the Department of Environment and Natural Resources

Ms. Basug described a very comprehensive and multi-level approach to ESD in the Philippines. With recognition of a very large number of youth in the Philippines, recent policy initiatives such as the Medium Term Youth Development Plan specifically includes the environment and natural resources as a component of economic growth and job development. As part of the comprehensive plan, Ms. Basug gave examples of national and local level workshops for engaging youth with local governments and civil society. In the Philippines there is much emphasis on developing a “critical mass” of environmental education and “Environmental

Champions”, with youth leaders and non-formal educators playing an important role along with a network for environmental education among higher education institutes. Along with formal education efforts, and similar to other presenters, non-formal action was highlighted with taking initiatives outside of the school and supporting youth lead activities in this situations. An interesting note in the comprehensive approach is distinguishing one-time activities and those done continuously and including both types into an overall plan. In closing academics were urged to take a look at and review existing policies.

ESD National Policy and Strategy for Brunei Darussalam

Ms. Sarimah Abu Bakar

Senior Education Officer

The Science, Technology and Environment Partnership (STEP) Centre,

Ministry of Education, Brunei Darussalam

1.0 Introduction

1.1 Physical features

Brunei Darussalam, which means “Brunei - The Abode of Peace” is a sultanate country, in which its capital city is Bandar Seri Begawan. It is located at the northeast of the Borneo island, along the shoreline of 161 km of the South China Sea and, its inland border with the Malaysian state of Sarawak. With the total land area of 5,765 kilometer squares, in which about 70% of that is covered with virgin forest. It has an equatorial climate throughout the year with the temperature ranges between 23°C to 32°C and an average rainfall of 320 cm.

1.2 Commitment of Brunei Darussalam on ESD

Brunei Darussalam has official became the 191th member of United Nations for Education, Science and Cultural Organisation (UNESCO) on 17 March 2005. With that membership, Brunei Darussalam has then established its UNESCO National Commission on 28 May 2007, which is the 193th member of National Commission of the organisation.

In principles, as a member, Brunei Darussalam is / will be committed to implement programmes / projects initiated or led by UNESCO. This includes the implementation of Education for Sustainable Development (ESD) which is one of the organisation’s key agenda. Considering the benefits of ESD and the national commitment towards international agenda and priorities, Brunei Darussalam believes on the need to develop a national policy framework on ESD. For that, Brunei Darussalam is still in the process of establishing a focal point or appointing a national co-ordinator. This focal point or national co-ordinator will play the roles to guide or to monitor the progress of the implementation of ESD national policy framework and provision of linkages with regional and international agencies.

An addition, it is also hope that the framework will guide on the expected roles in educating our people on sustainable development by all sectors; government departments and non-government sectors like business and industries or associations, when heir respective roles

2.0 National efforts which contribute to ESD/climate change issues that involve young generation

Though the term 'Education for Sustainable Development' may be considered a term which has been highlighted during this era, but there are lots of efforts or practices of our mankind globally that have contributed to sustainable development.

Nevertheless, it is everyone's commitment wherever they are, to enhance the efforts in the promotion of awareness on the importance of sustainable development especially to the young generation. In Brunei Darussalam, various government departments, business agencies and non-profit organisations have initiated programmes based to the respective core business which are directly or indirectly educating the young people especially students at schools levels on issues pertaining to sustainable development or climate change. Below are some of the programmes.

2.1 Energy Day

Brunei Darussalam commemorates its 'Energy Day' every 24 May. Since last year and this year, there had been activities initiated by Energy Division, Prime Minister's Office and with the collaboration with other agencies including the Ministry of Education.

In conjunction with Energy Week this year, the Science, Technology and Environment Partnership (STEP) Centre, Ministry of Education, in-collaboration with the Energy Division, Prime Minister's Office and supported by the Co-Curriculum Department, Ministry of Education have organised educational programmes namely Drawing and Drama competition. Drawing competition was opened to primary and secondary schools students, whereas drama competition was opened to upper secondary students. Both activities were given a theme : 'Moving Together Towards Energy Efficiency and Conservation'; which was also the national theme for the energy week celebration of the year.

2.2 Environment Workshops and Seminars for Students

Workshops and seminars have been conducted by government departments, business and industries sector and other non-government organisations.

An example of workshop conducted by the Science, Technology and Environment Partnership (STEP) centre, Ministry of Education was the Solid Waste Management Workshop for lower secondary students and their respective teachers. (Below are some photographs during the workshop)



2.3 Eco-Clubs in Schools

The Department of Environment, Parks and Recreation, Ministry of Development with the support of the Ministry of Education, have encouraged schools to set up an Eco-Club in their respective schools.

Activities of the clubs include the collection of segregated waste in schools, visits and cleaning campaign.

2.4 Princess Rashidah Young Nature Award (PRYNOSA)

Princess Rashidah Young Nature Award (PRYNOSA) is an annual project-based activity initiated by the Forestry Department, Ministry of Industry and Primary Resources.

In principle, this kind of activity will expose the students to the natural environment and inculcate the importance of conservation and protection of the flora and fauna and its habitats.

2.5 Other Programmes

There are many other programmes organised annually or in conjunction with special days like World Environment Days, International Polar Year and World Water Day.

The activities during those special day may include exhibition, tree planting and talks. Students of Brunei Darussalam are also exposed to the issues of environment / ESD organized locally like the Brunei Darussalam-UNESCO Science and Technology Camp or through participation to regional and international programmes such as the ASEAN + 3 Youth Environmental Forum held recently in Thailand.

3.0 CONCLUSION

Brunei Darussalam may be a new member of UNESCO but the country will always strive to ensure its commitment that the organisation has declared such as the education for sustainable development. The components of ESD are already within the system such as content of the curriculum, in which that may have not been identify as ESD content before, but now it can be highlighted as an important ESD content. An addition, programmes and activities have already been initiated by various organisations pertaining to ESD, long before the declaration of ESD was made in the year 2005. Therefore, to ensure that the sustainability of Brunei Darussalam development particularly in diversifying its economy and also in its commitment towards international agenda, ESD will continue to be implemented more systematically and guided.

Education for Sustainable Development in Lao PDR

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I. Introduction

1.1 Topography



Lao PDR is located in Indochina Peninsular (Mekong Region), bordered by China to the North, Vietnam to the East, Cambodia to the South and Thailand and Burma to the West and Northwest respectively. Lao PDR has the total land area of 236,800 km², 80% of which are mountainous, mainly in the Northern region, the mountains of the Annamite Chain form most of the eastern border and the mountains in the South, which poses the significant natural buffer from storms that occur in the region. However, the remaining 20% comprising mostly flat floodplains along the Mekong River with the lowest altitude of 200 meter and highest of 2.880 meter respectively.

1.2 Climate Condition

Lao PDR has the tropical climate, which is influenced by the Southeast monsoon causing the significant rainfall and moistures. The climate is divided into two distinct seasons: rainy season from May to mid-October, followed by a dry season from mid-October to April. The average annual rainfall is about 1.300 – 3.000 mm, for the year 2006 is 1.950 mm. While the average temperature for the northern and eastern mountainous areas and the plateaus is 20 Celsius degree, and 25-27 Celsius degree for the plain areas, for the year 2006 the average temperature is 26.5 Celsius degree (National Statistic Center 2006). On the basis of its altitude, Lao PDR climate is divided into three different zones as follow:

- (1) Northern mountainous areas above 1.000 m has a tropical temperature, which is quite moisture to dry and the average rainfall from 1.500 to 2.000 mm. The temperature is colder than the other parts of the country.
- (2) Central mountainous areas along the Annamite Chain and the South with the altitude of 500-1.000 meter (some mountains are above 2.000 m), with the tropical monsoon temperature and the average rainfall from 2.500-3.500 mm.

(3) The flat floodplains along the Mekong River and its main tributaries such as the plains of Vientiane, Borlikhamxay, Khammouan, Savannakhet, Champassack, Saravane and Attapue. More than 50% of the population lives in these plains with tropical weather and average rainfall of 1.500-2.000 mm.

1.3 Social Conditions

From the last census of 2005 (2006 statistics), Lao PDR has the population of 5,8 million, female is over 2,9 million, the average population density is about 24/km², which is the lowest density in Southeast Asia. The Human Development Index is 133, the population growth rate is about 2.4% per annum. Crude birth date is 33.7/1.000 people and the total fertility rate of 4.3/per woman. However, about 80% of Lao population lives in the rural areas, other 20% of which lives in the urban areas, the average urban population growth of 5,5% per year.

The results of official surveys in 1992/1993, 1997/1998 and 2002/2003 indicated that in the Lao PDR there was about 45% of poor households living under the poverty line. In 1992-1993, this figure dropped to 38.6% and continued to drop to 30% in 1997-1998. In addition, from 2002-2003 and at present, there is only 28.7% of poor households in the country (NGPES, 2004 and Resolution of the VIII Party Congress, 2006). This success reflected the Government and Party's utmost efforts for poverty reduction, which is the key policy directive of the Resolution of the VIII Party Congress. It was interpreted into National Growth and Poverty Eradication Strategy (NGPES) to be the basis for the government to formulate and implement the NGPES in the future to lift the country from LDC status by 2020. Up to now, the poverty in the mountainous and remote areas have been addressed gradually, in particular the northern provinces and the provinces along the Lao and Vietnamese's borders in which the large number of ethnic minorities mainly rely on slash and burnt activities for their livelihoods.

In general, educational development plans at different levels have been done quite well in the previous years and has the significant trend for future development both quantitative and qualitative as reflected in the aggregate figures: the primary enrolment rate increased from 79% in 2001 to 84.2% in 2005, lower school enrolment from 46.6% to 54.8%, upper secondary school from 22.6% to 34.4%. Vocational education and university, both public and private ones, are also increased. The adult literacy rate also increased up to 73% in 2005, the student ratio per one hundred thousand populations also went up to 845 (Source: NGPES, 2004). Because of such successes, the Human Development Index of the United Nations in 2008 for the Lao PDR to get a better ranking, as in the rank 130th out of 177 countries worldwide compared to the 1993 which used to be ranked in the 141st out of 173 countries.

In the last 5 years, the Government has paid closer attention to expand the health care networks in different levels both central and local, especially in the grassroots level, the health care network has increased significantly. Villages and village clusters are the central for health care services and curative centres for the people. At the same time, the private health care networks are also promoted and strongly enhanced, which greatly contributed to the health care services of people of all ethnics. At present, a supply of medication by domestic production could meet 48% of the domestic demand. Almost all of the villages throughout the country, about 96% of the villages in the country, could be equipped with village drug kits. There are still high incidence of birth rate and death rate in the Lao PDR, high rate of malnutrition for children up to 30-40% in 2005, and in 2006 the average life expectancy of the people increased to 61 years (National Statistics Center, 2006).

1.4 Environmental Status

As generally know that Lao PDR is considered as having abundant environment such as: forest resources, water resources, biodiversity, land and others. The government of the Lao PDR always pays close attention to manage the environment, as well as its natural resources which are illustrated in the Party's policies and resolution, socio-economic development strategy, priority programmes as well as the poverty reduction projects of the government. Meanwhile, it also expands the organizations to be responsible for the environmental tasks in the grassroots levels. Significant efforts are made for the development and enforcement of laws and regulations on environmental protection in parallel with socio-economic development progress to achieve the sustainable development goals to lift the country from the LDC status by 2020. The government adopted the National Environmental Strategy Management to 2020 and National and Provincial Environmental Action Plan 2006 – 2010, Environmental Education and Awareness Strategy to 2020, and Environmental Education and Awareness Action Plan year 2006-2010, National Biodiversity Strategy to 2020 and Action Plan to National Forestry Strategy, Water Resources Management Strategy, Land Resources and others, which will be a strong foundation for immediate and long term environmental activities in the Lao PDR.

To realize the objectives of the above-mentioned policies and strategies, the main and focused task is to sustainably manage and use the natural resources, there must be a logical analysis for optimum benefits and actively contribute to the poverty reduction of all ethnic groups and equitable and sustained growth for socio-economic development. At the same time, it is also necessary to manage and address the urban environmental issues namely, pollution, wastes, sewage, POPs, greenhouse gases emission and likewise.

Even though these activities have been successfully implemented in many fronts, based on the Lao PDR Environmental Monitor 2005 (LEM), it is indicated that environment continue to change and degrade gradually especially the reduction of forestry covers, biodiversity, land degradation, water, land erosion and urban environmental issues, which has the potential to increase dramatically such as wastes, sewage, pollution, some hazardous clinical wastes from the hospitals and others.

Economic Conditions

Since the government of the Lao PDR set the new reform policy changing to a market mechanism from the end of 1980s, the country has been opened for investment, converted to a market-oriented economy and launched a decentralization policy. In this policy, it is defined province as a strategic unit, district as a financial and planning unit and village as an implementing unit. This is a basis for the construction of the national economy and set up the concrete foundation for gradual industrialization and modernization processes. It has stabilized the macro-economic conditions as well as maintained the sustained growth and macro-equilibrium, which keep good pace annually, average 5 years (2001-2005). The average gross domestic product (GDP) growth per head is about 6,2% per annum, which is about 0,3% more than the 5 years average growth (1996-2000). The average income is about \$ 511 per person per year (National Statistics Center, 2006). In this regard, due to the changes in the economic structure in the last 5 years, at present the ratio of agriculture in the GDP which is previously dominated has decreased from 51.9% in 2000 to 45.4% in 2005, the ratio of industry has increased from 22.4% in 2000 to 28.2% in 2005 and the service sector also increased from 25.7% in 2000 to 26.4% in 2005. These figures showed that the changes in the economic structures are positive and better-off.

Table 1: Environment and Socio-economic data of the Lao PDR

Social indicators	Year	Total numbers
Human Development Index	2005	133
Population Growth Rate (Percentage)	2005	2.4
-Crude Birth Rate per 1000 people	2006	33.7
Life expectancy (year) – male	2006	59
– male	2005	59
– female	2005	61
– total average	2005	60
Mother mortality rate (per 1000)	2006	9.4
Infant mortality rate (per 1000)	2006	57.2
Under 5 mortality rate (per 1000)	2006	93
Adult literacy rate (percentage)	2005	73
Access to water supply -(percentage of the total population)	2005-06	58
Number of people access to latrine (percentage)	2005-06	45
Environmental indicators	Year	Total numbers
Agricultural land (percentage of total land areas in Laos)	2003	8
Forest cover (percentage)	2004	41,5
Forest destruction ratio (ha/year)	2004	53.000
Ratio of NPA for the protection of biodiversity for the total land areas	2006	14
<i>Access to safe and clean drinking water (percentage of the population: rural, urban and total respectively) (percentage) figure of clean water</i>		<i>60.06, 75 -and 64</i>

Access to sanitation services (percentage of the population: rural, urban and total respectively) (percentage)	2004	35.66, 70, -and 44.25
Wastes produced in the urban areas (Kilo/person/day)	2004	0,75
Effective Household storage of waste in 5 major districts (percentage)	2003	45
Dry- irrigated land areas (ha)	2003	214.832 ha
Lao PDR supply water to the Mekong River Basin	2005-06	35%=170.000 million cubic meter
Economic Indicators	Year	Total numbers
GDP per capita of 2005 (US dollar/person/year)	2006-07	511
GDP as in agriculture sector of 2005 (%)	2006-07	45.4%
GDP as in industry sector of 2005 (%)	2006-07	28.2%
GDP as in service sector of 2005 (%)	2006-07	26.4%

Source: National Statistics Center 2006, Resolution of VIII Party Congress and Lao PDR Environmental Monitoring 2005

II. Current Policy on Environmental

a) Policy

Policies, laws and regulations on EEA are reflected in many different documents for instance, the Constitution of Lao PDR provides that “all entities and people shall protect the environment, conserve natural resources such as land, forest, wild-life, water-shed and air” (article 17, 1991 Constitution and article 19 of amended Constitution 2003). In addition to that many laws, decrees and regulations related to environmental protection and natural resource conservation have been promulgated. For instance: Forestry Law; Land law; Water and Water Resource law; Mining law; Electricity law; Road law; Industrial manufacturing law; Education law and others. Most importantly the law on environmental protection was promulgated in 1999.

b) Environmental Protection Law

The law on Environmental Protection provides reference for development of the EEA Strategy. Article 4 in part 1 of the law states that ‘the government directs and supports

environmental protection by providing relevant data and information, raising public awareness and providing education to the citizens to see the importance of the environment for their daily life, and supports a strict adherence to the environmental policy and legislation of Lao PDR.’

c) Decree on the Implementation of the EPL

The decree on the implementation of the environmental protection Law No. 102/PM, dated 04/06/2001, provides general principles on EEA and in Chapter VI Article 18 states that “The Ministry of Education has duties to develop a curriculum on the environment in cooperation with concerned agencies, and to include environmental education into educational systems at all levels in order to raise awareness to children, youths, young people and the public so as to make them love nature and protect the environment.” and Article 19 specifies that “the Ministry of Culture and Information is assigned to coordinate with concerned ministries, local administrative authorities, and other government agencies to disseminate information on environmental protection in varied manners such as magazine, newspaper, radio and television. Mass organizations are charged to participate in the promotion, raising of public awareness and providing training on environmental protection to their staff, members, and to the public to ensure their awareness and participation in environmental protection.”

d) Law on Education

Article 1 of Chapter I of the law also emphasizes environmental education by stating that one objective of education is to make people participate in the protection of natural resources and the environment in order to contribute to the protection and development of the nation.

e) National Environmental Strategy 2020

The National Environmental Strategy identifies 7 quality objectives. These objectives give direction and focus for EEA activities.

1. To implement policy in order to ensure a wealth of rich natural resources, of high value, for the socio-economical development of the country, and to protect environment on a sustainable basis to ensure good living condition for people.
2. To protect the rich and productive forest, conserve the natural environment, and ecological systems on a sustainable economic development.
3. To manage water and water resources in a sustainable manner in order to safe-guard its use for different purposes, to ensure equal and fair use for all, and to use the resources to support other sector’ development.
4. To promote sustainable land use and conserve biodiversity in order to facilitate the production of raw material to supply to local and foreign markets.
5. To promote the use of Envelopment Assessment in the development of all sectors including: agriculture, industry, mining, infrastructure and urban

development; to promote the use of clean technology; to encourage public participation in the development of the country into a clean, green nation that has fresh air; and to prevent and control natural disasters by establishing rescue units and advanced information systems in locations at risk.

6. To protect and restore natural, historical, and cultural sites to conserve natural resources, positive traditional practices of ethnic communities and to promote tourism.
7. To demonstrate commitment through; participation and involvement in sustainable development at regional and international level; through the implementation of national obligation under international convention on the environment and through implementation of environmental project in co-operation with international donor organization.

f) Institutional Arrangement

WREA, as the key agency responsible for the environment, has the responsibility for co-ordinating and supporting all environmental management activities, including EEA activities, across all sectors and local authorities. PWREO is equal to EMMU at Provincial level and responsible for supporting EEA activities at provincial level. WREA has two divisions responsible for EEA: the Division of Environmental Dissemination and promotion of DoE and the Environmental Training Centre of ERI. On March 2003 the EEA Working Group was established. Its mandate aims to facilitate, co-ordinate and co-operate with other sectors and international organizations in the implementation of EEA. The Working Group has representatives from STEA, Line Ministries, the NUoL, Lao Front for Construction, Mass organizations, Buddhists Authorities and other social organizations responsible for EEA promotion, dissemination and training.

g) Human Resources

In recent years STEA has organized Training of Trainers for EEA for 74 people at central and local level. The National University and formal and non-formal education centres have upgraded the qualifications of teachers and trainers in his area, in addition to the efforts of international organizations. NGOs and Donor Projects have organized environment practitioners.

2. Strategy for Environmental Education and Awareness 2020

a) Goal

The people will have environmental Knowledge and skills, positive attitudes and values for the Environment and by participating in sustainable environmental management and conservation of natural resources will improve of life for all and ensure sustainable development.

b) Overall Objectives

1. To have sufficient trained and qualified human resources in the area of environment throughout the country
2. To ensure that the public know and understand about environment
3. To ensure that the public is aware of the importance of environmental protection and change those practice which have negative impact on the environment
4. To ensure that the public actively participate in, and take responsibility for environmental protection, conservation of natural resources and positive traditional practices
5. To ensure that the public is aware of, participate actively in and take responsibility for environmental protection, rehabilitation and improvement
6. To ensure that the public know to use natural resources in a sustainable and effective manner
7. To integrate environmental protection activities into sectoral activities.

c) Strategy on EEA to the year 2020

The strategy during this period will focus on the following:

- Ensure the Integration of EEA into the formal Education System
- Ensure the Integration of EEA into the non- formal Education System
- Strengthen Public Awareness on Environment
- Strengthen Human Resource Development and Capacity Building
- Strengthen network, co-ordination and co-operation on EEA

III. Status of Climate Change in Lao PDR

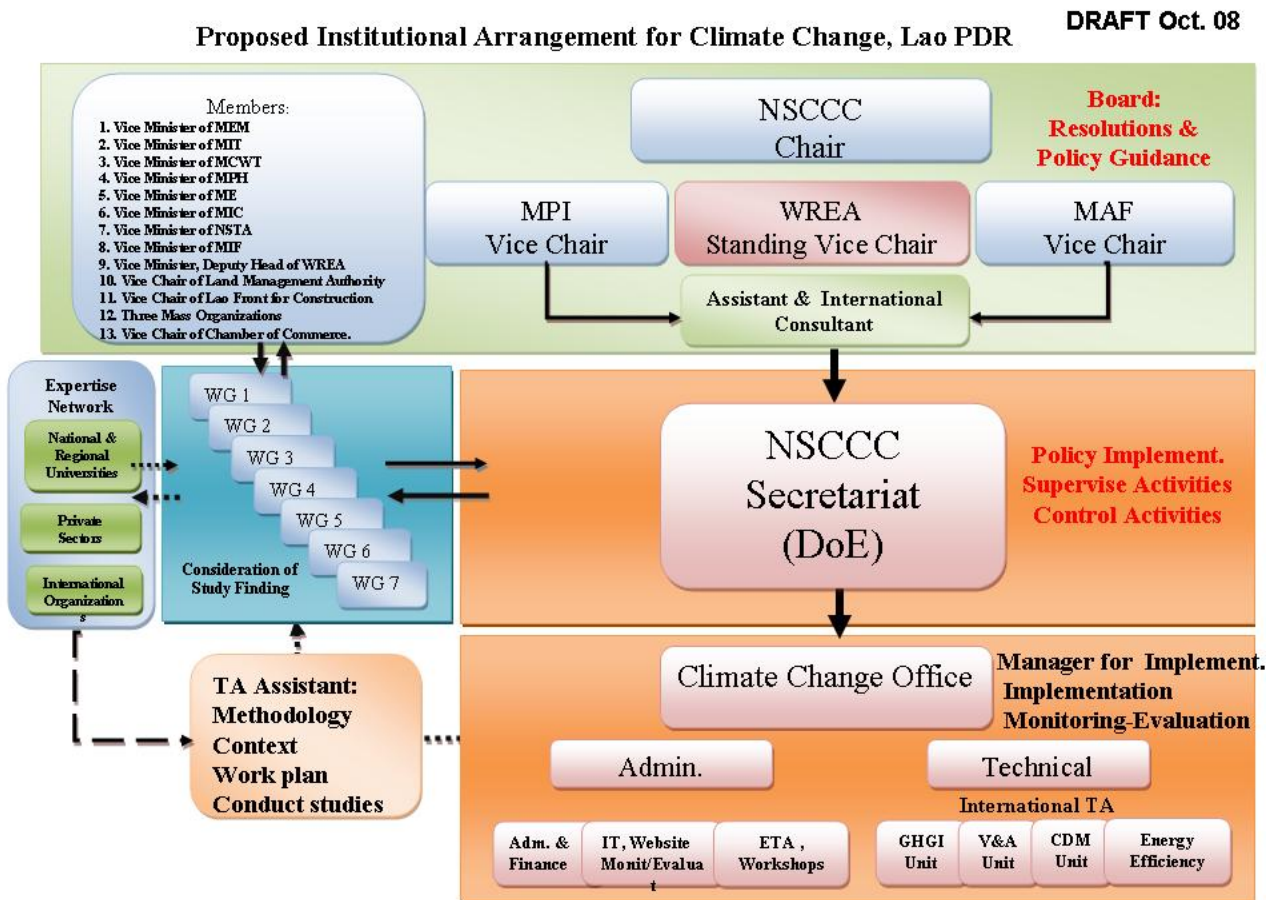
It is apparent that floods and droughts occurring almost every year and have created significant adverse effects on Lao PDR' socio-economic development, especially agriculture, forestry, water and water resources, public health, energy and people's livelihoods (income, employment, nutrition "food security"). In the agriculture sector, which is the country's main economic contributor, has been most affected by flood or drought.

In the past decades, climate change has exacerbated problems caused by natural changes and environment degradation in areas of the country resulting from both unintentional and intentional human activities, including environment degradation, forest conversion for cultivation, inappropriate exploitation of timber, illegal logging, slash and burn cultivation, uncontrolled

chemical use and etc. Combination of these has contributed to natural disasters that are increasingly affecting the population.

The Lao PDR accessed the United Nations Framework Convention on Climate Change (UNFCCC) on 4 January 1995. As a party to the UNFCCC, the Lao PDR is required to periodically report to the Conference of Parties (COP) on greenhouse gas inventories, national measures to mitigate and facilitate adequate adaptation to climate change, and any other information relevant to the achievement of the objectives of the Climate Change Convention. Lao PDR is also a signatory of the Kyoto Protocol, which it accessed on 6 January 2003. Water Resource and Environment Administration- WREA has assigned by the government as the Focal Point of the UNFCCC and Kyoto protocol.

The development and implementation of the National Climate Change Strategy and Action Plan is a key national priority for Lao PDR.



Currently Laos is working on a number of strategies that will allow us to more effectively and sustainably manage our natural resources. We have a Forestry Strategy which helps us to conserve our 20 protected areas 14% of our total land area and which is expected to establish

500,000 ha of new tree plantation in degraded areas by the year 2020. This Strategy aims to increase the ratio of green areas to 70% of all natural areas something that would have important implications for mitigating climate change, protecting biodiversity and reducing greenhouse gas emission worldwide.

Lao PDR has taken several steps towards the reduction of slash and burn cultivation, sustainable use of forest resources, promotion of renewable energy use, pollution control and waste management, and awareness building, as reflected by the launching of the three National Campaigns on attaining the MDGs targets on clean water and sanitation, reducing the use of plastic bags and planting one million trees per year in urban areas up to the year 2020 to achieve the target of building green and beautiful cities.

Under the UNFCCC and Kyoto protocol Lao PDR have completed and carry out some of the projects namely Initial National Communication (INC), the National Adaptation Program of Action (NAPA), National Capacity need Self Assessment (NCSA) and Nation Second Communication (NSC).

Through the Initial National Communication, we have assessed the technology needs and we are in the process of finalizing the National Adaptation Program of Action (NAPA) and the Clean Development Mechanism (CDM) Decree Draft. The main objective of the NAPA is to develop a country-driven program of action for adaptation to address immediate and urgent needs related to current and projected adverse effects of climate change in key sectors such as agriculture, forestry, water resources, and human health. The NAPA is one of the environmental projects that has cross-cutting issues embedded in national development policies and strategies for all sectors, particularly the most recent policies and strategies such as National Environment Strategy/National Environmental Action Plan (NES/NEAP), the National Biodiversity Strategy to 2020 and Action Plan to 2010 (NBSAP), National Growth Poverty Eradication Strategy (NGPES), National Forestry Strategy and Integrated Agriculture Development Strategy, as well as the Sixth National Socio-Economic Development Plan (NSED) from 2006-2010.

The NAPA preparation process for the Lao PDR, with involvement of concerned stakeholders, has been conducted based on the NAPA Guideline of Least Developed Countries Expert Group and is consistent with the sustainable development goals and aims of the Government of the Lao PDR (GoL) recognizing the need to address and protect environment and natural resources management. The participation of different sectors concerned and mass organizations from central to local levels resulted in the establishment of ministerial technical working group and jointly worked by providing relevant information/data from their respective organizations and organized a series of consultation workshops from the central to the regional levels, with the participation of sectors concerned ranging from technical and policy-maker levels

engaged with the impacts of climate change, with the objective of assessing capacity and identifying adaptation measures.

The NAPA preparation is a significant contribution in terms of providing the results assessed, capacity limitation and acknowledgement of different adaptation measures to climate change in Lao PDR.

In 2003, the Disaster Management Strategy Plan to 2020 and Action Plan to 2010, No 1139/LSW.03 was endorsed by GoL to mitigate associated negative impacts from different natural disasters and at the same time, also adopted the Sustainable Development Mechanism and this action plan has been developed as the urgent need for adaptation to climate change and identifying measures to minimize adverse impacts of climate change (flood and drought) based on past lessons learnt and the experiences of Lao PDR from different sectors which implemented a wide range of activities closely related to climate change adaptation namely the cooperation projects between the Lao National Mekong Committee, French NGO and the National Disaster Management Office to prepare against flooding by providing communication equipments, computers and setting up water level measurement gauges at the community level in Champassack District of Champassack Province; Project on Minimization of Drought Risks by Concern Worldwide operated in Khammouane and Savannakhet Provinces; as well as the Australian Oxfam in Saravane. Apart from that, it could withdraw some lessons from different countries in the regional and international levels which possess similar conditions to Lao PDR.

According to the most recent assessment of the IPCC (2007), it is found that, in the future, the extremes and frequencies of the floods and droughts will be increased, caused by the climate change. Therefore, even though our efforts in the past could considerably bear successes in many fronts, the challenges continuously progress. In order to deal with these issues, it is highly needed to improve the strategies on counteracting the disasters caused by climate change and to strengthen the capacities of the National Disaster Management Committee to deal with the adverse impacts which are likely occurred in the future, to establish the specific office responsible for climate change issues, install the warning system, in-depth study of the impacts of climate change especially concerning droughts and flood in Lao PDR as well as the formulation of strategy on climate change, mobilization of more reforestation and other activities which are found necessary.

IV. Some activities related to Green House Gas mitigation

1. The trees planting projects.

In order to mitigate climate change, protecting biodiversity and reducing greenhouse gas emission worldwide. Lao Youth Union is implementing the 1 million Trees Plantation project the theme “New generation contribute to Environment Protection” from now to the year 2020 which supported by UNDP by the cooperation with Water Resource and Environment Administration-WREA. This project is divided into to phases. Phase I started from September to November 2008 which include 20 primary schools and 20 villages in 4 districts in Vientiane capital city. Fro the phases II will start December 2008. This phase include 5 districts in Vientiane capital city. On the other hand this Lao Youth Union is also raise environmental education awareness focus on “Children Future for Our Planet” this activities is targeted to youth involvement both in formal and informal school in the society to know and understand deeply on environment education activities such as Environment mobile unit, develop TV clips and radio spots, writing newspaper articles, writing environment slogan, records VCD, cartoon on trees plantation throw mass media such as on television and radio program, newspaper etc.

PROJECT1: CONTINUING THE IMPLEMENTATION OF THE STABILIZATION OF SLASH AND BURN PRACTICE ACTION PLAN.

PROJECT 2: DEVELOPMENT OF FOREST AREAS TO SUPPORT SEED PRODUCTION.

**Education for Sustainable Development, and Strategy for Campaigns
on Climate Change for the Youth: Experiences in the Philippines**

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Youth in the Philippines

As stated in a law in the Philippines, specifically Republic Act No. 8044, otherwise called , “Youth in Nation-building,” youth is a critical point in a person’s growth and development from the onset of adolescence towards the peak of mature, self-reliant, and responsible adulthood comprising the considerable sector of the population from the age of 15 to 30 years.”

The 2003 census revealed 23 million youth in the Philippines. Twenty per cent of the population is 15 to 24 years old, or 16.5 million in absolute numbers. Thirty million youth are projected by the year 2030. From a report from the National Youth Commission, Environment is a major area of concern in the Philippines’ Medium-term Youth Development Plan. Meanwhile, Environmental Awareness ranks sixth among the youth developmental challenges and issues. Mobilizing youth in the preservation and protection of the environment is an issue for the National Youth Commission

Education for Sustainable Development

With the onset of the declaration of 2005 to 2014 as the United Nations Decade of Education for Sustainable Development (UNDESD), the Philippines, thru the Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources (DENR), which also serves as chair of the Sub-Committee on Information and Education of the Philippine Council for Sustainable Development (PCSD), began to support the UNDESD.

The process observed in the Philippines in preparing for the national response to the UNDESD goes back to 2003, when the EMB-DENR convened a multi-sectoral consultation towards the development of a National Environmental Education Action Plan (NEEAP) for Sustainable Development (SD) for 2005 to 2014. The said workshop discussed global and national imperatives and challenges in environmental education for sustainable development. The same workshop likewise reviewed and assessed initiatives for the NEEAP \for the earlier decade (1992 to 2002), based on sectoral perspectives (from government, civil society) in basic education, technical and vocational, and tertiary education, and non-formal education (particularly for civil society, local and national governments, media, business and youth).

Most recently, in 2008, Philippines’ law-making bodies, proposed bills on Environmental Awareness and Promotions Act, both approved at separate chambers of the country’s House of Representatives and Senate. This provides another policy boost to the implementation of environmental education for sustainable development in the Philippines.

As part of the initial promotional activities for the NEEAP for SD as the Philippines’ response to the UNDESD, brochures, write-ups, information sheets, taglines, were prepared about it, including website materials on the same that were uploaded at the

www.emb.gov.ph/eeid website. Several consultation and dissemination activities were also done for the following stakeholders: elementary, high school and university administrators and teachers nationwide, Community and Provincial Environment Officers of DENR nationwide, information officers and environmental quality personnel of the EMB nationwide, multi-stakeholder senior officials of the PCSD and member-institutions of its Sub-committee on Information and Education, youth leaders in a Youth for Sustainable Development Assembly training, non-formal educators from government and civil society.

Initiated by the Philippines' EMB-DENR, the Philippines' NEEAP for SD processes were also actively linked up with the Philippines' UNESCO National Commission. Since 2005, the Philippines, thru the EMB-DENR, were henceforth convening at least one national conference on the NEEAP for SD, every year thereafter.

The NEEAP for SD envisions "an environmentally literate and proactive citizenry, imbued with a sense of responsibility to care, protect and enhance environmental quality that is conducive to their well being and supportive of the nation's economic development and justified in the pursuit of peace, social justice and equity in the use of natural resources.

Enumerated under the mission of the NEEAP for SD are the following:

- To improve the institutional systems making them more relevant towards delivery of environmental education to all segments of society
- To mobilize resources and encourage more private / public sector investments and partnerships in supporting programs for environmental education.
- To establish a critical mass of committed environmental educators and practitioners who will spearhead the environmental education movement
- To promote environmental ethnics which will instill the right values and attitudes as a way of life among Filipinos.

As a concrete follow thru to the UNDESD and the ASEAN Environmental Education Action Plan for Sustainable Development which was launched in July 2008, for the Philippines, a National Search For Sustainable and Eco Friendly Schools with a private sector partner (Smart Communications, Inc.) was started in October 2008, to culminate with awards in November 2009.

The afore cited National Search will be seeking to mobilize the Philippine schools, in three levels- elementary, secondary and tertiary education, towards environmental sustainability in the whole school approach, anchored on the following main themes:

- Environmental sustainability dimensions of the schools (via schools' vision/ mission statements)

- Environmental sustainability dimensions in the physical operations in the schools
- Environmental sustainability dimensions in the in the curricular offerings of the schools – curricula and lessons, teacher preparedness and readiness via environmental sustainability trainings, etc.
- Presence of organization/s of environmental champions in the schools, particularly youth organizations and the level of financial support of schools to these

Campaign on Climate Change for Youth in the Philippines: Some Experiences

Inasmuch as climate change is an issue under education for sustainable development in the Philippines, some examples of programs for the youth on this matter will be herein described.

One such support campaign was the *Hangin' Around for Clean Air* that was done in November 2007, to coincide with the National Clean Air month celebration in the Philippines. *Hangin* is the vernacular word for Air, and therefore, the activity was a gathering of youth leaders of different organizations in various strategic parts of the country converging in a clean air youth alliance, in many ways, promoting, mitigation of greenhouse gases and adaptation to climate change. As a youth activity, strategies included its being activity filled, with components of a musical, light panel discussion/ interview, parade of creative customs, demonstration of electric car, commitment board, and networking among an international development community partner (USAID's Energy and Clean Air Project), the national government agency (EMB- DENR) and educational associations (Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management and Catholic Educational Association of the Philippines) for a national youth network (Clean Air Youth Alliance).

Another school-based program supportive of mitigating greenhouse gas emissions is the Muffler Watch for Clean Air Program in Schools (Bantay Tambutso sa Eskwela). This program has started since 2005 to date. Highlight activities are done by schools during November as part of the Clean Air Month celebration. Activities range from issuance of respective school memoranda urging school constituents' support activities for cleaner air, inclusion of clean air messages in the

curriculum at all levels, inclusion of clean air policies in school regulations and programs, encouragement of active participation of students in various air-related campaigns, conduct of smoke-free school campaigns, conduct of seminars, symposia and forums on different air-related concerns, working with Parents-Teachers Associations to conduct seminars for parents on vehicle engine preventive maintenance and alternative fuels, holding of youth activities for clean air (on –the-spot poster, jingle, essay, logo, or sticker design contest, student parades, bike for clean air, etc.), integration of compliance to emission standards under the Clean Air Act in the school’s policy in the issuance of car passes/stickers, among them.

Another program on youth and climate change campaign was a Battle of the Bands held last June 2008. This event was in support of World Environment Day , and therefore the theme was, “Not Cool to be CO2!”

Youth bands from various local governments of Metro Manila, had final competition, at a famous shopping mall in Metro Manila, with a high mall shopping population (about more than a thousand), as captive audience of the Battle on a Sunday. Interspersed with bend musical performances were short discussions with distinguished local experts on climate change (particularly on Health Impacts, Role of Media and Youth, among others). A local documentary on climate change, regarded as the local version of Inconvenient Truth, was also shown to the public, particularly on signs of climate change. Information materials on climate change are also developed, such as instructional poster- calendar used as flip charts by teachers, fact sheets and exhibit materials. A national climate change training initiative has also otherwise been rolled out to information officers of the EMB and DENR in 16 key sub- national regions of the country, and for educators too. With a national network of universities and colleges in the country, documentation of good practices and strategies on adaptation to climate change is currently underway, as aid to curricula enrichment.

A non-government organization in the Philippines, namely KLIMA or Climate Change Center, also pursues a low carbon diet program – energy efficiency and conservation program among selected schools in the country. To support and expand this campaign, as a clean air and addressing climate change campaign, a year long program among selected universities and colleges of PATLEPAM, also pursue a “Save Energy, Reduce your Carbon Footprint” Campaign. Among activities listed as menu list for participation of schools under this program are: conduct of energy audit, establishment of projects and campaign on energy efficiency and conservation, among them.

V: Session 4 – Group discussion for Recommendations for future activities

Chair: Professor Mario Tabucanon, UNU

Session Summary

Overview

The final session opened the floor to give the participants the opportunity to further address issues brought up during the presentations and to highlight their own feelings and experiences in relation to what was presented. Additionally the purpose of this session was to allow for input on the outcomes of the consultation meeting. The discussion frequently turned to the five recommendations from the ASEAN Environmental Education Action Plan Implementation Workshop in July and to the three themes of IGES research – climate change, youth, and ESD. The discussion covered a number of related topics, in particular-

Climate change and resources for schools;

ASEAN regional cohesion through structure and content of policy and projects,

Action on Education for Sustainable Development;

Engaging youth;

Educators and policy; and

Research and networks for information sharing

Climate Change

Regional relations

With concern for the diversity found across south-east Asia, climate change was recognized as an inclusive issue to all ASEAN member states. The issues of climate change, considered along with ESD, can cover social, economic, and environmental areas, can be addressed using various media and initiatives which fall under the guidelines put forward in the ASEAN Environmental Education Action Plan and the youth-focused activities from the five recommendations from the AEEAP Implementation Workshop. Also raised during discussion was that focusing on climate change does not mean ignoring other disciplines or environmental issues, rather as stated climate change is a topic that many stakeholders and nations can gather around.

Research conducted by IGES can contribute to the network among ASEAN member states and development of climate change materials by adding to the database of knowledge about existing materials, resources and activities.

Resources, capabilities, relevancy

A major point of concern, in particular among educators, was how to teach about climate change. This concern can be divided into two related issues – resources and capabilities, and local relevancy. From the educators perspective there was described a real demand for materials which can be used as a part of a climate change programme, as opposed to single projects without a strong connection to the rest of the curriculum. Together with a need for materials is a need for trained teachers, or training for teachers to be able to address what can often be the complicated components of climate change. This in turn would help to support localization, particularly in non-urban areas where educators expressed concern about how to see the linkage between climate change problems and local issues. There was encouragement for a combination of in-class learning and out of school experiential learning to see the local environment in the context of climate change.

ASEAN Region

During the final discussion session there were frequent suggestions for all manner of action and initiatives to be conducted with a concern for an inclusive ASEAN region. In terms of research and meetings many of the participants pushed for the inclusion of all ASEAN member states, as four countries were not able to attend the consultation meeting. The ASEAN Environmental Education Action Plan was often recommended as the main structure for guiding EE and ESD activities in the region, with the topics of the consultation meeting – climate change, youth, and ESD - suggested as appropriate for regional inclusiveness due to their relevancy across borders and cultures.

Education for Sustainable Development

Some felt secure in approaching the topic of ESD and carrying out activities under the banner of ESD, and suggested that ESD can be a useful channel for information sharing. However it was also felt that ESD needs a particular focus and to bring cohesion in the discussion of ESD among the different disciplines which are broadly covered by ESD. In relation to this, and in the context of learning about sustainability issues, ESD was seen as having strong potential as an entry point to sharing experiences among ASEAN member states, particularly when combined with climate change as a focal point for comparing and learning from projects.

However in some countries such as Vietnam it was pointed out that low-levels of recognition of ESD should be addressed through projects and training for ESD including guidebooks and teacher training to facilitate ESD mainstreaming.

During the discussion the following points were emphasized:

- Low levels of recognition of ESD;
- Direct interchanging of EE and ESD leading to;
- Some people uncomfortable with ESD due to a lack of knowledge and clarity;
- Materials and training required to localize and make ESD a part of mainstream discourse;
- System for teachers and practitioners about where ESD type ideas can be introduced in their curriculum and schools along with;
- Networks to share information across disciplines.

Engaging with Youth

While much of the final discussion comprised topics relating to youth, such as formal education and policy, the following points addressed youth per se.

- Engagement of youth should ideally be both direct in terms of participation and indirect, in terms of teacher training and appropriate resources materials.
- Along with the examples of best practice from the presentations, there were recommendations for approaches which include a combination of in and out of school programmes, continually run programmes and one-off projects.
- Recognition for achievements, particularly through awards and ceremonies was emphasized as important
- Be selective and then inclusive - Empowerment of youth is a way to tap into their energy, as if it's not harnessed it can go to waste or to unproductive endeavours. That being said, power to youth must be very selective - the right youth given the right power and responsibilities. Get student leaders to be involved in environmental programmes, even invite them to meetings such as the consultation meeting.

Educators

In general practitioners from the education sector expressed a need for better materials which could be used for projects created under broader programmes, and for a stronger connection to the policy level. The connection to policy level had two purposes. On the one hand it is to have a greater understanding of international and national issues, while also to be more connected with the policy process which can determine how to included topics in the curriculum and available resources.

From the educators viewpoint a number of related issues were raised. Central to these was the issue of just how to put ESD concepts into practice, and in particular how to infuse the curriculum with sustainable development. Other speakers, in particular from Vietnam and Lao PDR suggested having projects and training in ESD for teachers – in particular to have a shared repertoire of materials and ideas about ESD and EE in schools. While they may put concepts into practice on their own initiative, they are not always aware of how the issues relate on a policy level. It was suggested that by having better channels between grassroots and policy level that practitioners can use the policy to inform what they're doing and lead to better outcomes across the region.

Research, Networks and Information Sharing

In relation to network and information sharing there were two components to the purpose of these activities:

1. Engaging and learning from others in a similar vocation – i.e. teachers wanting to know how to create an eco-school learning from the experiences of other eco-schools in the region
2. Sharing ideas across disciplines and types of practice – i.e. encouragement to look at the structure of how a project was carried out rather than just the content.

Dr. Letchumanan of the ASEAN Secretariat encouraged the use of the ASEAN Environmental Education Information Database to be used as the central platform for disseminating and storing information on ESD in the region. As an existing resource using the AEEID is congruent with other recommendations to make use of existing networks and resources rather than forge new ones.

Research

Two main areas for research activity arose during the discussion.

1. To review the extent to which EE/ESD are incorporated in education institutions, including a baseline study on the extent to which EE/ESD has been incorporated into subjects and curricula in the region.

2. It was suggested by a number of participants that IGES can lead the way by continuing to research on climate change and youth, with the caveat that attention paid to climate change does not lessen the importance of other issues. Rather as was stated before that climate change is a trans-boundary topic that by focusing attention to the topic can contribute to the other recommendations – in particular regional inclusiveness and material and information sharing.

The session concluded with a brief summarization which covered the main topics of discussion by the Chairs' of each Session.

It was recommended to focus efforts by directing action towards the five areas recommended by ASEAN, including:

1. Eco schools – create ASEAN criteria for eco schools and link together to share information and resources regionally. Build upon existing models and active networks such as those in Singapore.
2. Film festival – include climate change as a main topic.
3. Youth – be mindful of how to capitalize on youth energy, with particular reference given to the Singapore presentation and the Blue Earth Greening project.
4. Leadership programme – youth included as part of the groups of focus for this programme along with different mechanisms of engagement such as climate change that can be undertaken.
5. ICT – two points can be seen in regards to ICT. Using new media and technology as a means of accessing youth. And employing ICT to help further regional policy aims through electronic networking and the ASEAN database.

Appendix 1: List of Consultation Meeting Participants

Regional Strategy Consultation Meeting on Education for Sustainable Development in South-East Asia Region 17-18 November, 2008					
UN Organisations					
1	Young Woo Park	Regional Director and Representative	UNEP, Regional Office for Asia and the Pacific, Bangkok	parky@un.org	66 2 288 1870
2	Mahesh Pradhan	Regional Environmental Affairs Officer	UNEP, Bangkok Office	pradhan@un.org	66 2 288 1801
3	Nujpanit Narkpitaks	Compliance Assistance Programme	OzonAction Programme, UNEP, Bangkok Office	narkpitaks@un.org	66 2 2882125
4	Satwant Kaur	Regional Information Officer	UNEP, Bangkok Office	kaur@un.org	66 2 2882127
5	Mikko Cantell	Associate Expert	UNESCO, Bangkok Office	m.cantell@unesco.org	66 2 3910577 Ext 209
6	Mario Tabucanon	Visiting Researcher	UNU, Japan	mttabucanon@ait.ac.th	66 2 503 2557
International Organisations					
7	Raman Letchumanan	Head	Environment and Disaster Management, ASEAN Secretariat	raman@aseansec.org	62 21 7243372
8	William Schaedla	Thailand Country Director,	WWF, Programme Office; WWF Greater Mekong Thailand Country Office	bill.schaedla@wwfgreatermekong.org	66 2 524 6128/9 Ext 103
9	Trivuth Koacharnseen	EE Unit Head	WWF, Programme Office; WWF Greater Mekong Thailand Country Office, Bang Pu Nature Education Center	thitivuthk@wwfgreatermekong.org	66 2 709-5005
10	Bhuvadol Namdokmai	Project Manager	Nature and Agriculture Education Centre, WWF Greater Mekong Thailand Country	bhuvadoln@wwfgreatermekong.org	66 2 520 4835
11	Wathana Onpanich	Programme Associate	The Japan Foundation Bangkok	wathana@jfbkk.or.th	66 2 2608560/3
International Institutions					
12	Mee Young Choi	Project Manager/Senior Policy Researcher	IGES, Hayama, Japan	mychoi@iges.or.jp	81 46 826 9572
13	Robert Kipp	Visiting Researcher	IGES, Hayama, Japan	kipp@iges.or.jp	81 46 855 3772
Brunei					

14	Sarimah Abu Bakar	Senior Education Officer	The Science, Technology & Environment Partnership Centre, Ministry of Education	shab98@hotmail.com	67 3 8722965
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16	Martinah Hj Tamit	Head, Environmental Planning and Management	Department of Environment, Parks & Recreation, Ministry of Development.	alaimama@hotmail.com	67 3 2383644
17	Hj Lukman Hj Adanan	Acting Environmental Officer	Department of Environment, Parks & Recreation, Ministry of Development.	kulikang@hotmail.com	67 3 2383644
Lao PDR					
18	Chithanom Ounsida	Director of Environment Promotion Division	Department of Environment Water Resource and Environment Administration	chithanom@hotmail.com	85 6 21 218712
Philippines					
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20	Puong Quag Ngoc	Educational Officer	Institute for Education Science about Environmental Education	duongquangngoc@gmail.com	84 4 8691400
Singapore					
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Thailand					
Ministries					
22	Savitree Srisuk	Head of Environmental Education Section	Department of Environmental Quality Promotion, Ministry Natural resources and Environment	savitree@deaq.go.th	66 2 298 5628

23	Orathai Moolkum	Director	Ministry of Education, Office of the Basic Education Commission, Bureau for Innovative Development in Education	oraood@hotmail.com	66 8 9201 5537
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Institute					
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University					
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29	Surichai Wun'gao	Director	Social Research Institute, Chulalongkorn University	surichai1984@yahoo.com	66 2 218 7398
International Centres and Schools					
30	Lynda Rolph	Head of Programs and Deputy Chief Operating Officer	Magic Eyes Barge Program, Prem Tinsulanonda Center for International Education	lyndar@premcenter.org	66 2 883 1701
31	Jennifer Anne Gaziula	Science Teacher	Ruanrudee International School	jenniferg@rism.ac.th	860011416
32	Edward Woodd	Director of Development	Ruanrudee International School	worldwidewoodds@yahoo.com	086 054 1763
33	Hiroshi Iimura	Environmental Class Teacher/Researcher	Environment and Resource Management Department, Roong Aroon School	hiimurajah@gmail.com	66 2 8707512 Ext 135

Appendix 2: PowerPoint Presentations

Order of presentations:

ASEAN

UNESCO

IGES

Singapore

Vietnam

Thailand

Brunei Darussalam

Lao PDR

Philippines



Regional Strategy Consultation Meeting on Education for Sustainable Development in South-East Asia

Compilation of PowerPoint presentations

Country/Organization:

- ASEAN
- UNESCO
- IGES
- Singapore
- Vietnam
- Thailand
- Brunei Darussalam
- Lao PDR
- Philippines

ASEAN COOPERATION ON ENVIRONMENTAL EDUCATION



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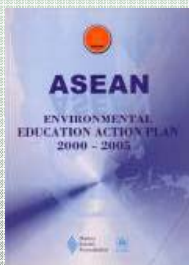
Institutional Framework - Environment



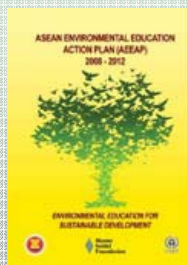
- Note:
- **AWGNCB:** ASEAN Working Group on Nature Conservation and Biodiversity
 - **AWGCME:** ASEAN Working Group on Coastal and Marine Environment
 - **AWGMEA:** ASEAN Working Group on Multilateral Environmental Agreements
 - **AWGWRM:** ASEAN Working Group on Water Resource Management
 - **AWGESC:** ASEAN Working Group on Environmentally Sustainable Cities
 - **AWGEE:** ASEAN Working Group on Environmental Education

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ASEAN Environmental Education Action Plan (AEEAP)



AEEAP 2000-2005



AEEAP 2008-2012

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AEEAP 2000-2005: Background

- AEEAP 2000-2005 was adopted by the Environment Ministers in October 2000.
- AEEAP 2000-2005 provided framework for coordinated action on EE in all AMS from 2000 to 2005, aiming to promote EE in AMS so that people of the region would be fully sensitised to care for the environment
- The AEEAP: Mid-Term Review and Partnerships for Implementation Meeting was held in Ho Chi Minh City, Viet Nam from 9-11 December 2002 to take stock of the implementation of the AEEAP and promote its further implementation.
- The Conference on Education for Sustainable Development: Formulating an Action Plan for ASEAN (2006-2010) was conducted from 11-13 July 2006 in Yangon, Myanmar.

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AEEAP 2008-2012: Background

- AEEAP 2008-2012 was adopted by the 10th Informal ASEAN Ministerial Meeting on the Environment held on 6 September 2007 in Bangkok, Thailand
- Serves as a framework for collaborative action in the development and implementation of EE activities in ASEAN whose aim is to enhance overall management of the environment in a sustainable manner.
- ASEAN's contribution towards the UN DESD, in particular the ASEA-Pacific Regional Strategy for Education for Sustainable Development
- ASEAN Environmental Education Action Plan 2008-2012: Implementation Workshop was recently held on 15-17 July 2008 in Thailand to discuss the mechanism and approach to implement the Action Plan.

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Target Areas of AEEAP

- **Target Area 1: Formal education**
- **Target Area 2: Non-formal education**
- **Target Area 3: Manpower capability building**
- **Target Area 4: Networking, collaboration and communication.**

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ASEAN Activities on Environmental Education

ASEAN Environmental Education Inventory Database (AEEID)

- a dynamic and interactive on-line resource for networking, collaboration, and exchange of information and experiences.
- The Database was commissioned by the ASEAN Secretariat with the support from UNEP and Hanns Seidel Foundation
- AEEID features information on:
 - programmes and courses
 - resource materials & resource persons
 - related organisations and partners
 - related web links
 - calendar of events.
- AEEID can be accessed at <http://asean11.ecs311.usc.edu>

ASEAN Youth Portal on Sustainable Development

- The portal was established as a follow-up to the resolutions made during the ASEAN Youth Forum on Environment 2007 held in Brunei Darussalam.
- The portal was commissioned by the ASEAN Secretariat with the support from Hanns Seidel Foundation.
- The portal enables youth to:
 - exchange information and share experiences
 - post blogs and photos relevant to SD issues
 - post messages in forum or group email
- The portal can be accessed at <http://youth4sd.asean.org/>

ASEAN Environment Year (AEY)

- Held every three years: 1997: 2000, 2003, 2006
- AEY aims to raise people awareness of the importance of protecting environment and to strengthen regional cooperation and implementation of actions on environment conservation.
- It supports ASEAN's commitment to achieve the goals of sustainable development envisaged in ASEAN Vision 2020 on the establishment of a 'clean and green ASEAN'
- Upcoming AEY: March 2009 in Lao PDR with the theme of "eco-tourism"

Recommendations of the Implementation Workshop

The Workshop agreed to propose 5 recommendations as the initial concrete steps in the implementation of the AEEAP 2008-2012:

- **ASEAN Green Schools:** to establish ASEAN Green / Sustainable / Eco-school Network, to promote sustainable schools (for example eco-schools / green schools) concept and practice throughout ASEAN
- **ASEAN Leadership Programme:** to conduct an ASEAN EE for Sustainable Development Leadership Training Programme for key target groups (for example, government officials, members of parliament and other elected officials, media and communication professionals, youth, women, etc.)

Recommendations of the Implementation Workshop (cont'd)

- **AEEID:** to strengthen the network of ASEAN Member States and partner organisations by actively promoting and managing AEEID as the central platform for information dissemination, exchange and learning for EE and ESD in ASEAN
- **ASEAN Youth Programme:** to initiate Youth Action for Sustainable Development Programme, to develop an ASEAN-wide 'Youth for a Sustainable Environment' Network
- **ASEAN ESD Film Festival:** to initiate a competition-based ASEAN ESD Film Festival, in order to build and strengthen existing networks of NGOs, universities and media throughout the region to be effective practitioners, promoters, communicators and agents of change for EE and ESD

Proposals & Lead Countries

Proposed Action	Champion Country
ASEAN ESD Film Festival	Thailand (Ms. Savitree Srisuk)
ASEAN Green / Sustainable / Eco-school Network	Brunei Darussalam (Ms. Martinah Binti Haji Tamit)
ASEAN Youth Programme	Brunei Darussalam (Ms. Martinah Binti Haji Tamit)
ASEAN Leadership Programme	Philippines (Ms. Elenida Basug)
Promotion of AEEID (ICT)	Thailand / Sustainability Asia (Mr. Robert Steele)

Thank You



ESD in the Asia-Pacific



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Asia & Pacific Regional Bureau
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United Nations
Educational, Scientific and
Cultural Organization

UNESCO Roles

- Standard setting
- Capacity building
- Research and development
- Information sharing and networking



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Domains of Education for Sustainable Development

- Basic Education
- Reorienting Existing Education Programmes
- Developing Public Awareness and Understanding Sustainability
- Training



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Domains of Education for Sustainable Development

- ESD is about learning rather than teaching, and therefore requires:
- Reforming the structure and nature of basic education
 - Reorienting existing education programmes
 - Developing public awareness about what sustainability means
 - Building capacity within education systems and across all other ESD partners



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Characteristics of ESD

- Interdisciplinary and holistic
- Values-driven
- Focused on critical inquiry, reflective thinking, and problem solving
- Multi-methodological
- Participatory and collaborative in decision-making
- Locally relevant



Key questions for ESD

- In what direction should ESD move at the national level? (how does implementation link to national development plans, ESD strategies/action plans, ...)
- Who is doing what kind of ESD at the national level?
- How are resources being allocated?
- What are national level needs?
- What will enable actors to engage in dialogue?
- How can progress be monitored and assessed?



National ESD Priorities

- **ESD priorities** are the range of sustainable development issues that countries focus on in terms of government policy, donor funding, etc.
- ESD priorities are based on themes and different for every country.
- From ESD priorities, countries establish their **national ESD goals**.



Asia-Pacific and ESD



UNESCO Asia-Pacific ESD Strategy

Vision: Every person in the Asia-Pacific region learns how to acquire and adapt their knowledge and behaviour to contribute to change for a sustainable future and take responsibility for their actions in consideration of others.

Mission: To develop partnerships and synergies with a variety of partners through all forms of quality learning to empower individuals to make informed, appropriate decisions for our future



DESD in the Asia-Pacific

Challenges

- Developing clear, brief and practical messages on the nature and scope of ESD and how education would be different if ESD were integrated into education sector plans
- Sharing successful experiences in intersectoral collaboration and delivery of services to members
- Identifying organizational structures and incentives for developing intersectoral ESD projects



Global Issues (examples)

Economic

- Poverty
- Corporate responsibility
- Rural development

Cultural

- Protecting diversity
- Indigenous knowledge
- Peace and non violence

Environmental

- Climate change
- Biodiversity
- Fresh water
- Urbanization
- Waste reduction
- Disaster reduction

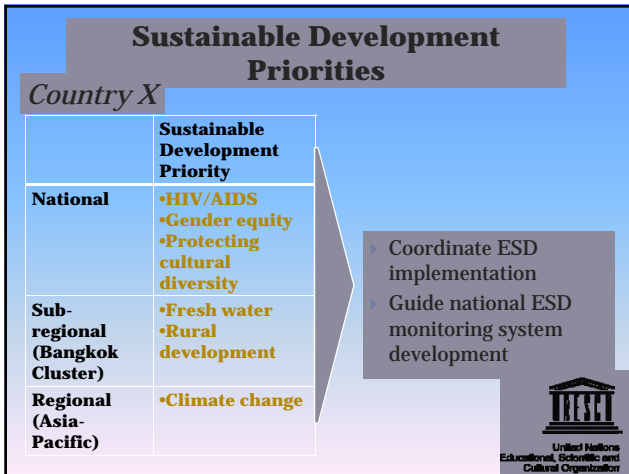
Social

- Disarmament
- Sanitation
- Drug addiction
- Trafficking
- HIV/AIDS
- Gender equity
- Food security

UNESCO Asia-Pacific ESD Strategy

Activity	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1. Raising awareness	X	X									
2. Engaging stakeholders	X	X	X	X							
3. Monitoring system development		X	X	X	X	X					
4. Strengthening leadership				X	X	X	X				
5. National coordination				X	X	X	X				
6. Reorienting curricula				X	X	X	X	X	X		
7. Teacher Education			X	X	X	X	X	X	X		
8. Technical support						X	X	X	X	X	X

Mid-Decade Review
(Germany, March/April 2009)



Asia-Pacific Regional Implementation

Asia-Pacific Regional UN Interagency Steering Committee on ESD
 UNESCO, UNEP, UNESCO, UNU-IAS, ACCU, ADB, APCEIU, IUCN, SEAMEO

- Shares information on current and future ESD related activities
- Coordinates ESD activities, enabling a partnership approach for the Decade

Asia-Pacific Regional Experts Group

- Liaises with the Regional Steering Committee
- Assists in activating regional networks and projects for ESD




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Framing an ESD Coordination Tool

A tool for...

- Providing direction for ESD coordination at the national and subregional level
- Mapping ongoing ESD-related programmes, resources, key actors and their scale and scope of involvement
- Linking key actors moving ESD forward at the national level.
- Identifying education needs and priorities in line with sustainable development at the national level
- Guiding and coordinating national ESD monitoring and assessment, including the development and identification of indicators and mechanisms for data collection and reporting



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Education for Sustainable Development: Core Workshop Questions

How does ESD link to ongoing initiatives such as EFA and the MDGs?

How does ESD link to national policies, strategies and development plans?

How can ESD guide education and learning to promote the change necessary to address sustainable development priorities?

What are the characteristics of education and learning needed to promote change?

ESD in the Asia-Pacific Consultation and Capacity-building Workshops

ESD Context (Learning objectives)

EXERCISE 1

Sustainable Development Priority	Knowledge (What knowledge is needed to address this priority?)	Skills		Values and Attitudes (What values and attitudes are needed to address this priority?)	Learning Characteristics (What learning characteristics are needed to facilitate action and change? Interdisciplinary, transdisciplinary, ...?)
		(cognitive / technical) (What cognitive and technical skills are needed to address this priority? (Literacy, ICTs, ...))	(social / emotional) (What social and emotional skills are needed to address this priority? (Cooperation, quality assessment, ...))		
					Learning that is...



Workshop outcomes so far

- ▶ Identify and disseminate national thematic sustainable development priorities (e.g. climate change, health, food security, rural development, gender equality, etc.) to focus ESD on national sustainable development needs, promote cross-sectoral collaboration and coordination, and establish targets for ESD monitoring;
- ▶ Establish inter-ministerial support for ESD;
- ▶ Incorporate ESD into national development plans and frameworks such as national sustainable development strategies, national poverty reduction strategies, UNDAFs, etc.;
- ▶ Internalize ESD within budget structures;
- ▶ Link ESD to EFA, the UNLD, the MDGs and ongoing national sustainable development initiatives;
- ▶ Establish capacity building support for policy makers from relevant line ministries, for educators to support ESD content integration and pedagogy and for national ESD monitoring.



Examples of AP developments

Box 1 The Chinese strategy to promote ESD at a national level.

Chinese national ESD policies aim to promote ESD by the following means:

- Each level of education should serve sustainable development;
- ESD should be carried out at different levels of education;
- Pre-service and in-service teacher training should include the contents of ESD;
- Curriculum of primary and secondary education should strengthen content of ESD;
- Local social and cultural resources should be fully used to put ESD into practice;
- International exchange and cooperation on ESD should be carried out extensively

Box 3 ESD in Sri Lanka: Life-Skills and the 5Es

In Sri Lanka the national school curriculum has been revised and refocused to develop life skills. The standardized examination oriented education system has further been changed to a school based assessment system and also used the 5E model (1. Engagement; 2. Exploration; 3. Explanation; 4. Elaboration; 5. Evaluation) in teaching and learning processes. Sri Lanka's National ESD Committee decided to implement ESD activities in schools, not as a separate subject, but as an integrated subject.



Examples of AP developments

Box 1 The Australian Sustainable Schools Initiative to further educators' professional development regarding ESD.

The Australian Sustainable Schools Initiative (AuSSI) provides support through professional development, facilitators and curriculum resources, to enable teachers to build their capacity to implement ESD within schools.

Professional development is available to teachers at a number of tertiary institutions offering Masters Programs in sustainability, environmental education, and ESD.

Professional development is also provided through professional associations (eg the Australian Association for Environmental Education and its state/territory branches).



ESD in the Asia-Pacific Region


- ▶ Regional cooperation is increasingly important for moving ESD forward
- ▶ It is important to incorporate ESD into National Sustainable Development Strategies, Poverty Reduction Strategies (PRS), UN Development Assistance Frameworks (UNDAF) and other important development instruments
- ▶ ESD should not be pushed forward as a new programme but better strategized through mainstreaming into existing education processes and activities such as those of EFA
- ▶ A process is needed to help identify and capture "non-esd-branded activities in order to build on regional processes already underway and stimulating educational change



For more information on ESD in the Asia-Pacific region:

Visit our website
www.unescobkk.org/esd

Or email us
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**ESD, youth, and climate change:
 Selected case studies in
 Singapore, Thailand, and
 Vietnam**

Regional Strategy Consultation Meeting on Education for Sustainable Development in South-East Asia Region
 Bangkok, Thailand 17-18 November 2008

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Education for Sustainable Development and Environmental Education

- "ESD...calls for giving people knowledge and skills for **lifelong learning** to help them find new solutions to their **environmental, economic, and social issues**." ESD Toolkit ¹
- Three documents which outline **goals, principles and intent** in the context of the time written – consider EE and ESD in terms of focus ²

Plight of the people/plight of the environment

- **Belgrade Charter** 1975 "goal of EE: to develop a world population that is aware of, and concerned about the environment..." – **no mention of society, economics, development**
- **Tbilisi Declaration** 1977 – grew from goals, objectives, principles of Belgrade Charter, revised to suit regional needs; broad approach to EE – awareness, knowledge, skills, values, participation; reference to society, but mainly impact of humans on the natural **environment**, little mention of quality of life in regards to society and economics.

Society, economy, environment

- **Agenda 21** 1992 – education in every chapter; **environment and development**, four major thrusts – basic education, reorienting education, public awareness and understanding, training. Evolved since 1992 with greater emphasis on social elements
- "ESD is not likely to subsume EE any more than it will swallow up peace education, economic education, or human rights education."

1. <http://www.mpervis.nic.in/drip/esdtoolkit.htm>
2. McKeown, R., Hopkins, C. EE =/ ESD: Defusing the worry. *Environmental Education Research*, Vol 9, No 1, 2003

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Decade of Education for Sustainable Development

- "Education is critical for promoting sustainable development and improving the capacity of the people to address sustainable development issues" Agenda 21
- UNESCO – Lead agency
- International Implementation Scheme (UNESCO, 2005)
 - **Overall goal** of the DESD: to integrate the *principles, values, and practices* of sustainable development into all aspects of education and learning.
 - Emphasis on changes in behaviour and approaches to education and living, and partnerships

*"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."*

Situational Analysis of ESD in the Asia Pacific Region (UNESCO, 2005)

Explicit emphasis on three perspectives, *socio-cultural, environmental, economic*, in order to achieve sustainability with cultural context as the underlying condition which defines ESD locally.

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Case study background

1. Ultimate goal and key target group of the DESD
 - Director-General of UNESCO, Koichiro Matsuura "the ultimate goal of the Decade is that education for sustainable development [must] be a concrete reality for all of us" ¹
 - Emphasis on **youth** as playing an important role in furthering ESD ²
2. Urgent environmental issue
 - G8 Summit Declaration of Leaders Meeting of Major Economies on Energy Security and Climate Change
 - "Climate change is one of the great global challenges of our time...requiring long-term cooperative action"³
3. ESD challenges in South-East Asia
 - Conceptualizing ESD as distinct from EE - cross-cutting themes, holistic ²
 - Context – diversity in ASEAN – economic development, local context, underlying cultural context

1. Introductory speech for the DESD.
2. Situational Analysis of the Asia Pacific Region, p 17
3. http://www.g8summit.gsa.int/eng/press/0000000706_10_en.html

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Case selection

- World Bank Classification
 - Low income – Vietnam, Laos, Myanmar, Cambodia
 - Middle income – Indonesia, Philippines, Malaysia, Thailand
 - High income – Singapore, Brunei Darussalam
- Economic development and climate change
 - SEA countries – near or above average economic growth rates compared to other developing countries
 - Result – greatly increased energy consumption and environmental pressure ¹
 - Singapore, Vietnam, Thailand – **rapid growth** in GDP 1990-2003,
 - Vietnam and Thailand – more than **doubled emissions**, much higher rate than other Asian nations ¹
 - Common calamities – sea level, haze, weather patterns
- Comparable education levels for urban youth in the three countries

1. UNESCAP (2005) State of the Environment in Asia and the Pacific 2005: Economic Growth and Sustainability. UNESCAP, Bangkok, Thailand

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 2008-2018

Case overview

General criteria

- Educational settings
 - Both formal and in-/non-formal education
- Programme focus
 - Climate Change
- Target group
 - Youth Group (14/15-19/20 yrs)
- Geographical area
 - Urban area
- Period
 - 25 August – 11 September 2008

Main research question guiding the inquiry

- What are the critical factors for promoting and contributing to the implementation of ESD programmes at the local level?

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Case overview

Interview respondents

Government	<ul style="list-style-type: none"> • Ministry of Education • Ministry of Natural Resources and Environment • Implementing agencies • UNESCO National Commission
Schools	<ul style="list-style-type: none"> • Secondary school • Science and technical trade school • University – EE and SD programmes
NGO/Institutes	<ul style="list-style-type: none"> • Environmental education and teacher training • Academic/research institutes – sustainable development/environmental issues • International NGOs

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Theoretical basis

Communities of Practice

- *Communities of practice are groups of people who share a concern or an interest, or an area of expertise, for something they do and they learn how to do it better as they interact regularly in their common ongoing efforts.*^{1,2}

Key elements

- **What they do** - Identity defined by a shared *domain* of interest and key issues. Implies a commitment to the domain, and a shared competence that distinguishes members from other people in their pursuit of a **joint enterprise**.
- **How they interact** – in the *community* of those involved in pursuing their interest in the domain, **mutual engagement** occurs for the benefit of gaining knowledge and competence. Key features are building relationships for interaction and learning, and to share information which helps each other – a sense of belonging.
- **What they have** – **shared repertoire** of resources and capabilities developed from their interactions through the course of their engagement – experiences, tools, problem solving methods, documents.

1. <http://www.ewenger.com/theory/>
 2. http://www.infed.org/biblio/communities_of_practice.htm

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Theoretical basis

Communities of Practice

- Reification – solidifying abstract terms
- Participation – active involvement in context
 - Essential for overcoming ambiguity of reification
- Alignment – connect local to broader discourse, coordinate various perspectives to direct focus to a common purpose
- Can be formal/informal, inter/intra-organizational, cross-disciplinary
 - Key component is a shared interest and motivation in a common practice that involves exchanges of information or knowledge that helps make them better at what they do as they regularly engage with each other
- Slight difference in terminology across cases – reflects local context and practice

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Singapore case study



ESD = Entrepreneurship for Sustainable Development

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Available at: <http://kps.cocciog-fmy.com/02/images/singapore1.jpg>

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Case overview

- Broad campaigns for developing **awareness and action**
- Programmes targeted at individuals or small groups
- Infusing curriculum in academic institutions with sustainable development and environmental topics.
 - Climate change – relatively straightforward – reduce **contributions**, find alternatives
 - Youth
 - Circa 2000-2003 – generally 'aware' youth
 - 2004-present – 'active' youth – government programmes, internet, NGOs
 - Major concerns – exams and career, while quite aware of SD
- Nationally - Clean and Green Singapore campaign - a *shift in focus from raising environmental awareness to targeting genuine attitude change*.¹
- Academically – shift from aware/critical to active/engaged² Climate change issue a major driver of activity.

¹ www.mew.gov.sg
² Haggitt, D. Finding space for ESD in the enterprise economy
 The entity from which ERIC acquires the content, including journal, organization, and conference names, or by means of online submission from the author. Journal of Geography in Higher Education, vol. 12, no. 2, 2008, pp. 161-166.

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Singapore policy context

- Singapore Green Plan 2012 (2002)
 - Intent - Build on "environmentally conscious nation" developed with first Green Plan 1993-2002
 - Conservation and Green Technology** plus greater innovation and collaboration among partners – public and private
- "We aim for the environmental consciousness that was born out of the first Green Plan to mature into personal responsibility for and civic commitment to the environment"
- SGP 2012-06
 - Major focus on **partnerships**
 - Clarified focus areas – Clean Air and Climate Change, with specific targets and action
- National Climate Change Strategy - 2008
 - Adaptation and mitigation through efficiency

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Partnerships

- Public**
 - Ministry of Environment and Water Resources – facilitation through National Environment Agency and 3P Partnership
- People**
 - NGOs – access to communities
 - Schools – integrate environmental issues into curriculum
- Private**
 - Industry – contribute through processes and innovation with funding from the government

Began as an implementation department within the NEA – awareness and action. Now moving back from implementation to supporting **community initiated activities** – financial and training

3P Partnership <http://app.nea.gov.sg/cms/htdocs/article.asp?pid=2160>

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Engaging and empowering youth

Implementing organization

- National Environmental Agency – 3P Partnership
- Youth Awards Council
- Singapore Polytechnic

Developing key individuals

- Environmental Education Advisor
 - Students or staff
- Youth Environment Envoy Programme
 - Former EEAs, leadership training, networking
- Blue Earth Greening programme
 - ICT, marketing, sustainability
 - Corporate and government support

Key components – recognition and incentive

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Entrepreneurship: awareness to action

National University of Singapore

- Student run campus wide climate change campaign
- Baseline of emissions
- Networking globally on SD issues



ECO-Singapore – Civil society

- “ECO Singapore’s mission is to encourage youths to take initiative and choose to live environmentally sustainable lifestyles.”¹
- Congruence with government in approach to SD
 - making changes to **action** and **behaviours** and building on *existing awareness*
- Promotion of environmental issues in a holistic manner
- Since 2004, many smaller NGOs created and information shared via internet - Facebook
- Conduit between smaller topic-specific NGOs and government

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1. <http://www.eco-singapore.org>
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Singapore Polytechnic – engagement and incentive

- School of the Built Environment -Infusing the curriculum
 - Engaging with:
 - Industry – market demand for green image/green buildings
 - Government - “green” requirements in design
 - Students/Staff – two fold interest – personally in SD, professionally for marketable skills
 - Setting a standard
 - ISO 14001 - indirectly bringing industry to youth
 - Incentive
 - Greening of the programme partly social responsibility, partly promotional, and in parts an internal development initiative
- Practical education with a green component: youth have the opportunity to take **action** on their **awareness** while also learning **practical** job skills.

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Critical factors for promoting ESD programmes

Structural Components	Categories	Critical Elements
Joint enterprise	Partnership	Entrepreneurial mindset
		Togetherness - congruence
	Entrepreneurship	Policy focus
		Engaging and empowering
Mutual engagement	Stakeholder discourse	Fundamentals first
		(Pro) Active and engaged
	Shared identity	Human capital development
		Inclusiveness – structure of network and society conducive to inclusion
Shared repertoire	Documents	Equality
		Incentive
	Related Experiences	Relative to other organizations and countries
		Well defined structure for youth
		Government policy publications
		Reporting on activities – Sustainability report
		Lessons learned from government supported youth programmes

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Thailand case

ESD
Environmental Education for Sustainable Development



Available from: http://www.moveandstay.com/picture_cities/bangkok.jpg

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Case overview

- Very strong emphasis on community – engagement and participation
- Environmental Education predominance, socio/cultural aspects gaining significance in curriculum
- Formal education – increasing role as a hub in the community – parents-youth-locals-government
- Informal education – strong NGO role (government – policy, NGO – implementation)
- Mix of locally significant issues (mangroves) together with international concerns (climate change)
- Empowerment and capacity development fundamental to EE for SD initiatives

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Thailand policy context

- National Environmental Quality Promotion and Conservation Act 2535 (1992) ¹
 - reform and improve the law on enhancement and conservation of national environmental quality
 - Section 6- **public participation** in the enhancement and conservation of national environmental quality
- National Policy and Plan for the Promotion and Conservation of Environmental Quality (1997-2016)
- National Education Act of B.E. 2542 (1999)
- Basic Education Curricula of B.E. 2544 (2001)
 - Integrate EE into various subjects, along with “environmental science” courses as compulsory, **environmental awareness** and ethics

Source: Thailand Status Report – ASEAN EEAP 2008-2010 Implementation Workshop

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Thailand policy context

- Constitution of B.E. 2550 (2007)
 - Emphasized community participation in conservation and preservation. Provides a platform for non-school based non-formal EESD programmes
- 10th National Economic and Social Development Plan (2007-2011)
 - Social harmony -Green and Happiness Society
 - Holistic socio-economic and environmental focus
- Thailand Master Plan on Environmental Education for Sustainable Development (2008-2012)
 1. Belongs to no specific agency – “government’s programme”
 2. EESD – based on existing knowledge and local wisdom
 3. Balance between in-school and in-community EESD activities
 4. Different emphases and approaches for EESD – social, cultural, ecological Network and partnership tool – common framework

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Participatory Activities

Community membership

- A sense of membership are essential to encourage people to participate voluntarily
- Human resource development is a fundamental factor of the programme's success

Social/community responsibility

- Clear common activity goals which let participants increase a sense of social/community responsibilities are essential
- Life-skill teaching approach based on social/cultural knowledge is critical

E.g. **Magic Eyes Barge Program***, Prem Cener:

- Began since 1995 and continues to grow steadily.
- Are participated by a greater number of local schools, students, teachers and other participants.
- To provide an opportunity to students & teachers to discover the environmental and cultural values of local communities which unfold along the banks of the Chao Phraya River
- The programme provides:
 - "an opportunity to live and work as a caring community"
 - "Teacher Training and Ranger trainings" (in a programme leaflet, 2008)




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Magic Eyes Barge Program*: www.premcenter.org/MagicEyes

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Active Cooperation



Cooperation

- Building cooperative environments and networks are the key of active cooperation
- Diverse stakeholders' involvements are one of critical factors
- Co-benefit partnerships amongst participants and even organisations

Motivation

- Self-contentment facilitates individual participants' learning processes which significantly help active cooperation with others
- Organisational/personal incentives are necessary to sustain cooperation
- Community/society recognition enhances individuals & organisations' continuous participations

E.g. **Pleampattana School***:

- Aims at encourage not only students but also a local community, students' parents, universities, local factories.
- Has been taking a role as the hub of a environmental educational programme to encourage all community members to cooperate with each other
- Has been providing highly advanced level of environmental programmes including climate change issue and many numbers of students are awarded from many numbers of the national competitions

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Pleampattana School*: www.peampattana.com

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Sharing Experiences



Communication


- Communicative skills are a facilitator for sharing experiences
- Building a resource pool which provides valuable & up-dated knowledge and information to individuals, schools and organisations

Environmental empowerment

- Awareness of environmental empowerment are the most powerful factors promoting individuals and organisations' participation, cooperation and sharing experiences
- Strengthening organisational/personal self-problem-solving capacity is critical to sustain good practice in environmental programmes

E.g. **Mangrove Planting Programme, Pang Poo Natural Education Center***:

- Aims at educating students, teachers and local people to be aware of climate change issue via a local approach
- Provides an opportunity to contribute to mangrove reforestation programme for a coastal community issue
- Demonstrates how students, teachers and local people can engage in the process of solving environmental problems by actions



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Pang Poo Natural Education Center*: www.wvthai.org

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Critical factors for promoting ESD programmes

Structural Components	Categories	Critical Elements
Joint enterprise	Community membership	A sense of membership
		Human resource development
	Social/community responsibility	Clear common activity goals
		Life-skill teaching approach
Mutual engagement	Cooperation	Local/cultural knowledge-based approach
		Cooperative environment
		Active stakeholder involvement
	Motivation	Co-benefit partnerships
		Self-contentment
		Organisational/personal incentives
Shared repertoire	Communication	Community/society recognition
		Communicative skills
	Environmental empowerment	Building a resource pool
		Awareness of environmental empowerment
		Organisational/personal self-problem-solving capacity

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Vietnamese case

ESD (Quality of) Education for Sustainable Development



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Available from: <http://www.sustainabledevelopment.un.org/content/uploads/2007/12/nature-from-the-south-east-asia.jpg>

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Case overview

- Environmental education has a strong existence in policy and practice
- EE quite oriented towards environmental protection – orientation towards socio-economic considerations relatively recent
- Quality of education
 - Quality of teaching and quality of curriculum major entry points for EE into formal and informal education
- ESD – awareness, but unsure about what it is for
 - “Education for what?”
- High-level recognition, not so much at the local level
- Climate change – mitigation of effects rather than contribution
- Youth – urban becoming very sophisticated and connected
- Using the internet to create their “community of choice”

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Vietnam policy context

Congruent and numerous

- Ministry of Science, Technology and Environment (MOSTE)
 - *National Strategy for Environmental Protection, 2001-2010* - protect and improve environment, raise the living standard and health of society, and ensure sustainable development
- Ministry of Natural Resources and Environment (MONRE)
 - Five-Year Plan 2006-2010 for Natural Resources and Environment Sector – *sustainable development and “environment protection will be given the same level of attention as other socio-economic development issues”*
- Ministry of Foreign Affairs (MOFA)
 - Vietnam National Commission for UNESCO – promotion of DESD (2006)
- Ministry of Education and Training (MOET)
 - Environmental Education in the Schools of Vietnam Project (1996 – 2005) – raise awareness
 - Environmental Education in General Education Schools (2001-2010) – environmental protection
- Ministry of Investment and Planning (MOIP)
 - Coordinating body for implementation of the Strategic Orientation for Sustainable Development in Vietnam (Vietnam Agenda 21) (2004)

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Compiled on: http://www.ap-net.org/efforts/K02_vietnam.html

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Strategy for socio-economic development 2001-2010

- Regarding education in period covered by the previous Strategy
- *“The quality of education and training is still poor, the training structure inappropriate, and the teaching, learning and examination processes are fraught with negative practices, etc...”* p.3
- Weaknesses and inadequacies...in leadership, guidance and regulation, laws and policies lacked rigor, effectiveness and efficiency
- Government's leadership role and managerial function unclear/unrealized
- *“To ensure rapid, efficient and sustainable development, economic growth is to go along with social progress and equity, and environmental protection.”* p.6
- *“Socio-economic development is to be closely associated with environmental protection and improvement...To proactively prevent and mitigate the negative impact of natural calamities and adverse climatic changes...”* p. 7

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Strategic Orientation for Sustainable Development in Vietnam – Agenda 21 (2004)

- Wide ranging strategy framework – broad orientation, sets out policies, legal instruments and priority activities for government and other stakeholders. p5
- Purpose – to make other existing strategies and plans more concrete – Socio-Economic Development Strategy, National Strategy for Environmental Protection etc.
- Five parts with the view of combining economic/social/environmental considerations for Vietnam’s sustainable development
 - 1: Sustainable development, Vietnam’s anticipated path.
 - 2: Priority **economic areas** for sustainable development.
 - 3: Priority **social areas** for sustainable development.
 - 4: Priority areas in natural resource utilisation, **environmental protection** and pollution control for sustainable development.
 - 5: Sustainable development implementation arrangements.

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Approaching climate change Localization and mitigation

- High level recognition
 - “To proactively prevent and mitigate the negative impact of natural calamities and adverse **climatic changes**...” Strategy for socio-economic development 2001-2010
- Locally
 - localized in terms of other issues, in particular conservation/preservation
 - NGOs – no real demand from teachers/schools to have modules or textbooks with climate change as a priority
 - Addressed in relation to other topics, not really given the spotlight
 - Lesson plans which include section on “global warming” – NGOs
 - Nationally – WWF – no climate change education yet

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EE and Quality of education

- Three phases of EE
 - Pre-1996 - educators not systematically trained in EE
 - 1996-1999 – introduction of EE for teacher training – pilot schools “greening”
 - 1999-2004-2005
 - Greater demand for extra-curricular materials and teacher training in EE/SD
 - 2005 – extra year as a “bridge” to the DESD
 - Funding allocated away from third phase
- Increased interaction in education and EE community
- EE knowledge + curriculum development

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Critical factors for promoting ESD programmes

Structural Components	Categories	Critical Elements
Joint enterprise	Quality of education	Clear examples of pilot projects Fundamentals first – EE/SD as a subcomponent/vehicle to quality Alignment with policy and stakeholder demand
	Localization	A gradual process of inclusiveness and communication Environmental Education in policy at all levels Create a local implementer Vietnamese context
	Interaction	Inclusiveness of stakeholders Gather around topics that matter to each stakeholder
Mutual engagement	Shared perception	Recognition of expertise relative to others – strengths/weaknesses Vision and purpose towards awareness, empowerment, and action Acceptance and flexibility
	Contextual Experiences	Organizational growth towards greater relevancy to policy process Awareness of contextual influencing factors and shared commitment to working with context to achieve goals
Shared repertoire	Knowledge and capabilities	Verbal/informal sharing of experiences Collaboration in making textbooks/materials

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**Comparison across cases
Regarding promotion of ESD**

- Singapore
 - Very strong home-grown "ESD in nature" structure and goals
 - ESD/DESD – pride in what has been accomplished and of Singapore identity
 - Uncertainty about role of UNESCO
 - "What do we need UNESCO for? We're developed"
- Thailand
 - Role of formal education as a hub in community
 - Informal – NGOs with more leeway for implementation
 - Interchange between government and NGOs predominant factor related to ESD
 - Constant back-and-forth between community at large as part of the ESD enterprise
- Vietnam
 - Strong element of conservation/preservation from EE-centric education
 - Necessity of "Vietnam case", scarcity of translations/trained ESD experts
 - Unclear knowledge of what ESD will do
 - "Education for what? What's it for?"
 - Concern of it being a buzzword that will fade

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**Comparison across cases
Regarding key components**

<p>Role of government</p> <ul style="list-style-type: none"> • Singapore/Vietnam <ul style="list-style-type: none"> – Strongly attuned to the direction set by government • Thailand <ul style="list-style-type: none"> – Greater implementation by NGO by design <p>Engaging multiple stakeholders</p> <ul style="list-style-type: none"> – Singapore – mandated for support – Vietnam – out of necessity – Thailand – differing extent relative to other cases 	<p>Approaching climate change</p> <ul style="list-style-type: none"> • Thailand/Vietnam <ul style="list-style-type: none"> – In conjunction with "local" topics, mitigation of effects, still unclear • Singapore <ul style="list-style-type: none"> – Straight-on – mitigate contribution <hr/> <p>Approaching youth</p> <p>Education as a gateway</p> <ul style="list-style-type: none"> – Singapore- expectation of practical outcomes - industry – Vietnam/Thailand – connecting education to community and family
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Critical factors across the cases

Structural Components	Categories	Critical Elements
Joint enterprise	Community oriented	Shared membership and purpose Working with the local cultural context, be it entrepreneurial spirit or education inclusive of family
	Shared interest	Progressing and defining what they do over time Each stakeholder has their clear interest, with the relationship defined through meeting of interests
Mutual engagement	Collaboration	Understanding of the benefits to collaborators and to outcomes of their joint enterprise Flexibility in regards to focus and individual outcomes
	Discourse	Inclusiveness of stakeholders relative to the particular enterprise Benefits of engagement clear
Shared repertoire	Documents/Symbols	Publication of outputs, recording of outcomes; building up the evidence and stock of the practice; "having something to show"
	Experiences	Similar experiences in local context, with the development of locally relevant terms and meaning

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Conclusions

- ESD still ambiguous for many
 - Attach to specific examples – reify "ESD"
 - Education for Education for Sustainable Development
- ICT incredibly important for *keeping up with* and *engaging* urban youth
 - Gives options to choose their "community" and take ownership of projects
 - Opportunity for fusion of local knowledge and international wisdom
- High-level recognition, low local awareness
Lack of promotion of ESD
Key questions
 - » 1. How to promote ESD?
 - » 2. How to make the case for doing so?
- Consideration of mitigating contextual factors on outcomes - corruption

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Towards A Sustainable Asia-Pacific IGES

Suggestions

- Formal regional network for ESD
 - Database of ESD projects and practitioners
 - Show benefits and outcomes of an ESD-based approach
 - Attach to specifics
- Create opportunities
 - Engage networks of NGOs in particular- Thai case
 - Approaches to youth – Blue Earth Greening
 - Engage those without a specific interest in the environment
 - Clarify
 - Promoting the concepts of ESD?
 - Promoting the concept of ESD?
- Patience – “it takes a generation”
 - EE growth in Asia mid-1990’s
 - Approximately 10 years for mainstreaming and related outputs

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Thank you for listening!

Please feel free to contact the Capacity Development and Education Project at IGES at: cde-iges@iges.or.jp

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Using New Media to Engage Our Youths
 (Case Study: Blue Earth Greening Project)

by
 Howard Yap
 School of Business
 Singapore Polytechnic

SINGAPORE POLYTECHNIC SP ESD National Policy and Strategy for Singapore
Powered by Qinet



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ONLINE
TO THE WALL


A growing collection of local content that is most often created and shared online.

Overview

1. Understanding the Youths of Today & Tomorrow
2. New Media as a Propagation Platform
3. Key Strategies for Outreach
4. Case Study: Blue Earth Greening Project
5. Future Direction

Using New Media to Engage Our Youths

SINGAPORE POLYTECHNIC **SP**
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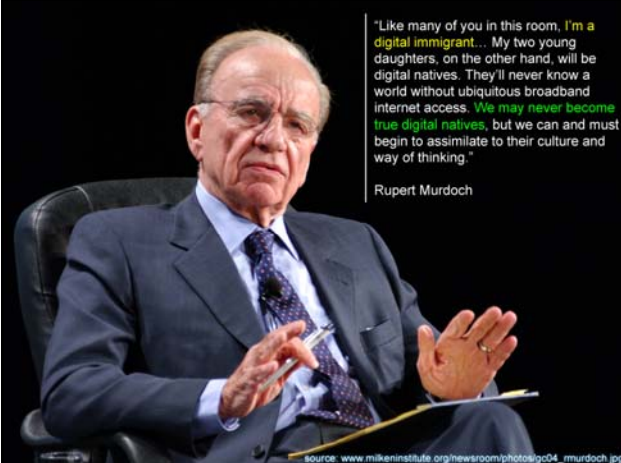
Angeline Tan
3rd Year SP Student
Industrial Training Programme (ITP) at eBay

Characteristics of Youth Today

- ❖ Desire to be involved and have a voice
- ❖ Have short attention span
- ❖ Strong ability to multitask
- ❖ Constantly finding new trends to define themselves
- ❖ Can be easily influenced by opinion leaders

1. Understanding Youths of Today

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"Like many of you in this room, I'm a digital immigrant... My two young daughters, on the other hand, will be digital natives. They'll never know a world without ubiquitous broadband internet access. We may never become true digital natives, but we can and must begin to assimilate to their culture and way of thinking."

Rupert Murdoch

source: www.milkeninstitute.org/newsroom/photos/go04_murdoch.jpg

DIGITAL NATIVES vs DIGITAL IMMIGRANTS

1. Understanding Youths of Today

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DIGITAL NATIVES

1. Understanding Youths of Today

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DIGITAL IMMIGRANT

1. Understanding Youths of Today

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BLOGS

(example: Blogspot.com)

2. New Media as a Propagation Platform

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VIRAL

(example: YouTube.com)

2. New Media as a Propagation Platform



SOCIAL NETWORKING

(example: Facebook.com)

2. New Media as a Propagation Platform



Relationship Between Singaporeans and the Media



Diagram 1: Media Exposure per day for an Average Singaporean
Source: Synovate Asia Bas. Jun / Jul 2007, 15-64 years

2. New Media as a Propagation Platform



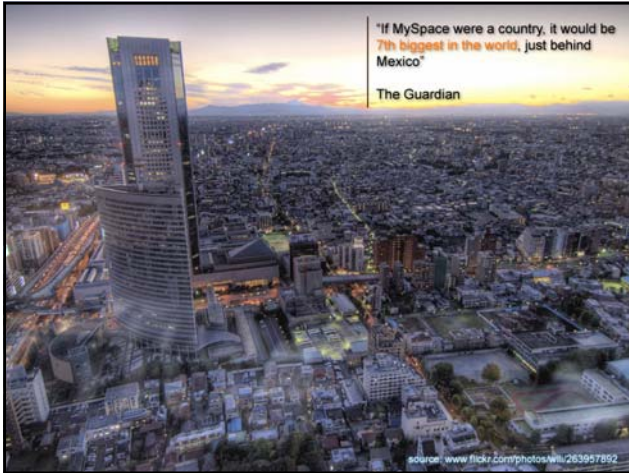
Counting the Numbers

- ❖ 1.6 billion email addresses vs 253 million in 1998
- ❖ 60 million visit eBay monthly
- ❖ 200 million visit Google and Yahoo daily
- ❖ 100 million users of MySpace
- ❖ 100 million daily video streams on YouTube
- ❖ 1 billion shared songs daily
- ❖ 2010: 70% of all digital information will be consumer-created

Source: Synovate Media Research, 2007

2. New Media as a Propagation Platform





TAPPING ON GOVERNMENT AGENCIES NETWORK

3. Key Strategies for Outreach

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EMPOWERMENT OF YOUTHS

2nd Year, News Production Class
Communication, Arts and Social Sciences (C.A.S.S.)

3. Key Strategies for Outreach

SINGAPORE POLYTECHNIC **SP** powered by **QNTM**

BLUE EARTH GREENING TRILOGY



Picture Courtesy of Vestas Wind Systems A/S

Key Activities in the Programme

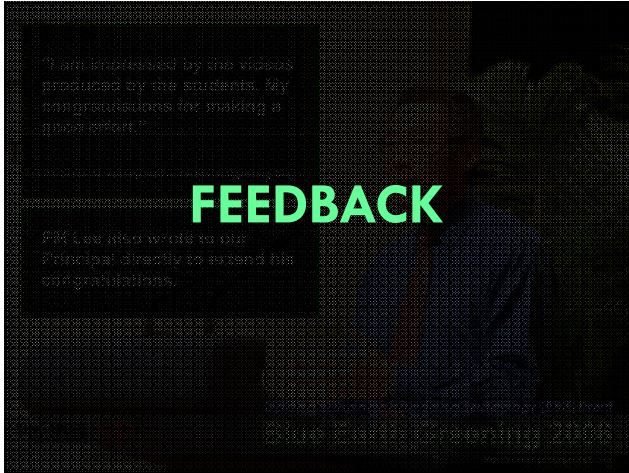
- ❖ Event Announcement and Invitations to Schools
- ❖ Deadline for Registration (2 mths after announcement)
- ❖ JumpStart Workshop for Participants (3 hrs per session)
- ❖ Deadline for Submission (1 mth after JumpStart Workshop)
- ❖ Electronic Voting Period (1 wk)
- ❖ Announcement of Finalists (2 wks before finals)
- ❖ Event Finale

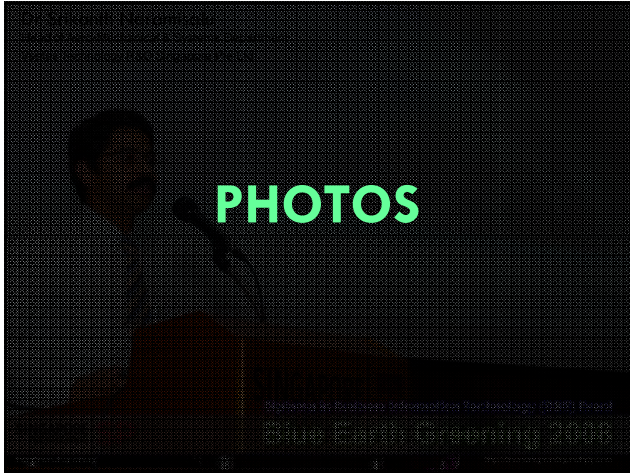
4. Case Study: Blue Earth Greening Project

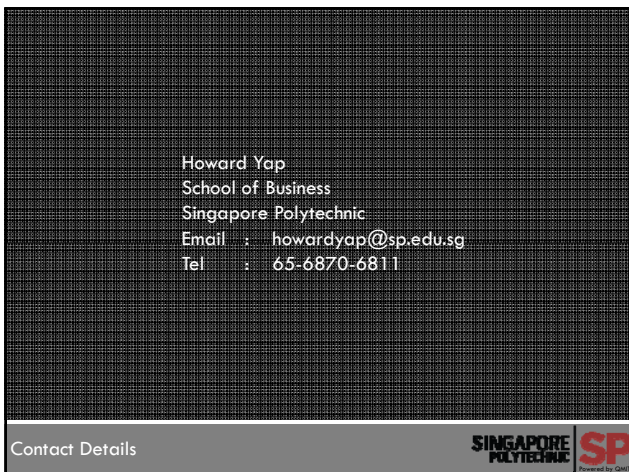
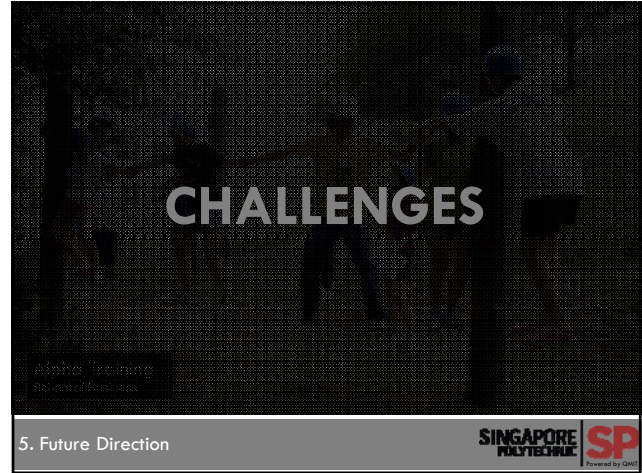


4. Case Study: Blue Earth Greening Project









Environmental education FOR SUSTAINABLE DEVELOPMENT in Vietnam

Presented by
DUONG QUANG NGOC
Vietnam Institute for Educational Sciences
E-mail: duongquangngoc@gmail.com

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REPORT OUTLINES

- 1 Introduction
- 2 National policy and strategy for ESD/EE for SD
- 3 Education System
- 4 Implimentation of EE for SD
- 5 Target group with EE
- 6 Challenges and difficulties in promoting EE for SD
- 7 Current and near-future in EE
- 8 Future Perspectives

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2 National policy and strategy for *ESD/EE* for *SD*

4 Strategic environmental protection countries by 2010 and towards the year 2020, with 36 programs, for example:

- Bringing the project content of environmental protection in the education system nationally
- “Whole population participate in the environmental protection” programme.
- “The socialization of environmental protection activities” programme.
- The program to design and implement new route change in the direction of technology-friendly environment

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2 National policy and strategy for *ESD/EE* for *SD*

4 Resolution No. 41 of the Political Bureau on environmental protection in the period in order speeding up industrialization and modernization of the country.

Group with 7 solutions:

- + The first group: Promote the propaganda, education and raising awareness and responsibility to protect the environment. “Bringing the contents environmental education into the curriculum, textbooks of the education system nationally, increasing duration and subject formed to study the courses for junior level”.
- + The second group : Enhancing the management of the State Environment Protection

...

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2 National policy and strategy for ESD/EE for SD

Agenda 21 of Viet Nam:

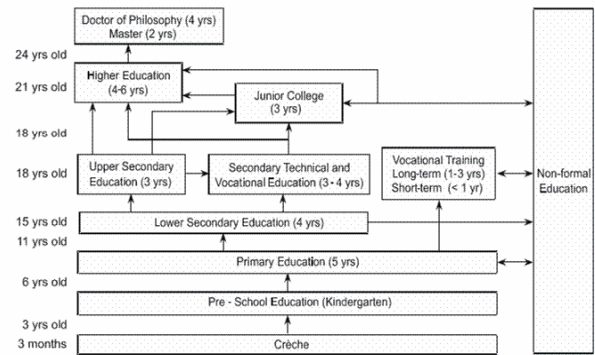
- ✚ Part 1: Sustainable development, Vietnam's inevitable path
- ✚ Part 2: Priority economic areas for the sustainable development
- ✚ Part 3: The priority social areas for the sustainable development: Improve the education system and strengthening awareness about sustainable development for all citizens, communities, enterprises, organizations and institutions Office of the State at all levels.
- ✚ Part 4: Priority areas in utilization and protection of natural resources and pollution monitoring essential for the sustainable development
- ✚ Part 5: Sustainable development implementation arrangements

Founded National Committee of decades of Education for the Sustainable Development of Viet Nam.

Sustainable Development has become one of the content of education and education is considered to be the key to implementation of Sustainable Development

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3 Education System



3 Education System

Organized and managed by the State which makes investment in its physical facilities and provides for current expenditures

Public school

Organized by social organizations having judicial standing; the social organizations are responsible for management, make investment in physical material facilities and see by themselves to all receipts and expenses

Community-founded school

Types of schools

Organized and managed by individuals and financial mechanism is similar to community-founded schools

Private school

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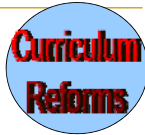
3 Education System

Directed Policies

Education Act (2000): "Forming and fostering the personality, quality and ability of citizens; training working people who; are faithful to the ideal of national independence and building of a fair and civilized society; are moral, dynamic and creative; know how to preserve and promote the cultural values of the nation; are receptive and open to all cultures; and have the necessary sense of discipline, organization and industrious behaviour to meet the requirements for building and defending the nation".

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3 Education System



- A focus on basic, practical content which can be applied in everyday life
- An update content based on scientific, technological and other development in modern society
- Development of each student's ability, especially the ability and methods of self-learning
- Due consideration for humanistic and international education
- Preservation of national identity of Viet Nam, while participating in the world community
- Focus on international curriculum goals for *learning to know, learning to do, learning to be, learning to live together*

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4 Implementation of ENVIRONMENTAL EDUCATION

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4 Formal Education

- Key player:
 - National level: MONRE, MOET
 - Local level: DOSTE, DOET
- Activities:
 - Integrating environmental protection issues into the curricula and compiled some EE teaching materials/textbook for each level of education (from kindergarten to tertiary levels)
 - Collaboration among schools, universities and organizations in EE and training.
 - Local plans for implementing EE and training have been developed at the provincial level (many EE programs have been succeeded in applying in some schools)

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4 Non- Formal Education

- Key player:
 - NGOs, Local authorities, environmental institutes, environmental centres,...
- Activities:
 - Environmental campaign: World Environment Day; Earth Day; International Biodiversity Day; Week of Clean Water and Environmental Sanitation; etc.,
 - EE programs on national channel, VN Radio, newspapers,...
 - Contests related to environment conducted for children and adults (painting, poster-making, photography, essay writing, singing, etc..)
 - Conducted environmental forums and exhibitions
 - Many projects on EE

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4 Manpower capacity building

- Conducted many training courses/ workshops/ seminars about EE
- Exposure to new methods of training and research through international programs and EE study tours.
- Exchanges of students and expertise/ teachers among schools and universities to enhance the study, research and teaching on environmental issues

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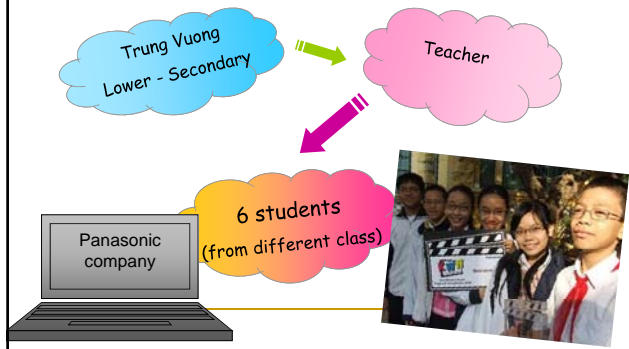
4 Networking, collaboration and communication

- The 1st National EE workshop to popularize the ASEAN Environmental Education Action Plan 2008 – 2012 in March, 2008
- Many cooperation projects on environmental education and training

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5 Target group with EE

One small action – one big harmful effect



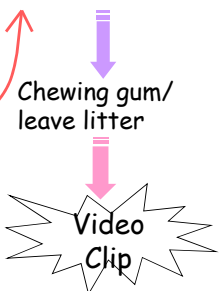
How does the idea take shape?

Art?

Sport?

Environment?

- Learning in the classroom
- Learning from text book
- Learning from life
- Discuss in the group



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6 CHALLENGES AND DIFFICULTIES IN PROMOTION Environmental Education FOR SUSTAINABLE DEVELOPMENT

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DIFFICULTIES

- Insufficient knowledge of EE among teachers, trainers and facilitators, teachers of EE in Education universities have mainly held concurrently
- Limited infrastructure for promoting EE and lack of educational tools/ publications materials/ facilitaton equipment
- Lack of public awareness and understanding of EE
- Lack of financial support

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Challenges

- EE for SD activities are conducted in a fragmented and incoherent way so that EE for SD programs lack of effective integration and consistency
- EE for SD as other learning areas remains being adopted with a content-based-approach in implementation process.

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Challenges

- Current curriculum is seen overload; instructional time plan is rigid so that teachers do not have space to integrate EE for SD themes plus the lack of specific guidelines on EE for SD in curriculum.
- Teachers are not yet provided with adequate initiatives of anchoring in real-world problems to learning EE for SD practices and authentic assessment

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7 Current and near-future

- Teachers of all disciplines in general education schools must be trained regularly
- Investments in new equipment
- Cooperation with other relevant government ministries in promoting EE
- Organizing survey to evaluating EE for Sustainable Development demand
- Organizing national workshops on EE for Sustainable Development

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8 Future Perspectives

■ Policy making:

- A document targeting policy makers, to help them understand the need for creating policy guidelines for the integration of EE for SD into the national curriculum.
- A document targeting teachers, providing guidelines for the integration of EE for SD into specific subjects of the national curriculum.

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Future Perspectives

■ School settings:

An early initiative towards more effectiveness of EE for SD in general school system in Vietnam

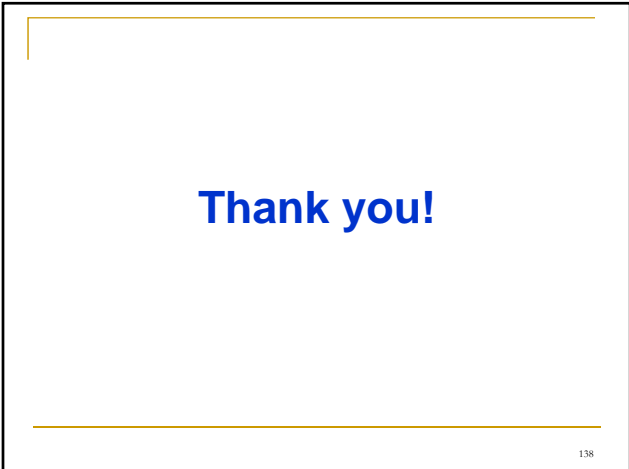
■ Teaching and learning approach:

Develop an instructional guidelines towards the action-oriented-learning approach which can be streamlined in general education, not only in the field of EE for SD.

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**ESD NATIONAL POLICY
AND STRATEGY FOR
THAILAND**

Department of Environmental Quality Promotion: MONRE

**EE for Sustainable Development :
Master Plan (2008-2012)**

EESD - learning process that raise awareness and promote attitudes/behaviors in a way which nurtures sustainable development for both this and next generations

- life-long learning which links all kinds of learning
- concerns management of civic education for social development

Prepare “envi citizen”

EESD fundamental concept related to:

- ⦿ sustainable development
- ⦿ environmental education
- ⦿ continual, life-long learning
- ⦿ civic education



Goal of EESD

- ⦿ Thai people from all walk of life and from every sectors understand the cause of environmental problems and their effects
- ⦿ Thai people have positive attitudes towards environment, and are equipped with the necessary skills

EESD Master Plan Objectives :

- ⦿ To determine clear principles, guidelines , directions, goals and strategies in developing the EESD which involves major stakeholders in advancing EESD
- ⦿ To encourage the development of EESD in Thailand

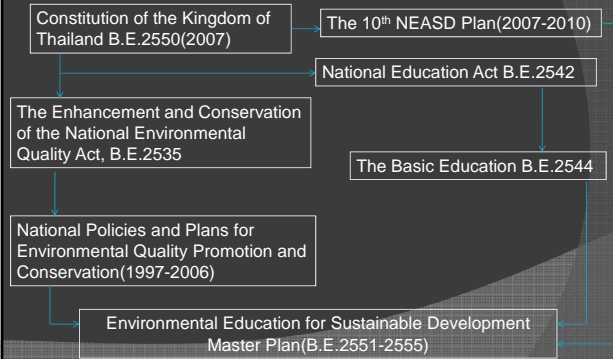
Process of developing the EESD Master Plan

- ⦿ Document studies/ expert meetings
- ⦿ Research studies on EESD situation/ interview
- ⦿ Determining the principle and characteristics of Thailand's EESD
- ⦿ SWOT analysis of EESD and identifying key success factors
- ⦿ Determining strategies and major/minor alliances

(continue)

- Determining the procedures of operation/ evaluation of EESD master plan
- Meeting for analysing /improving of EESD master plan

Relationship of EESD Master Plan and National Policies, Strategies and Plans



Mission of EESD Master Plan

- To act **as a mirror**: reflect problems and roles of EESD in Thai society
- To act **as a compass** and road map : identify common issues, objectives and guidelines for development

Targets of EESD Development : 2008-2012

1. Agencies, organizations and various targets groups understand the role of EESD
2. An institutionalized structure to be set up
3. Collaboration and coordination between sectors to be established
4. Development and exchange of knowledge, attitudes and skills on EESD both inside/outside educational institute-EESD can be part of life-long learning
5. EESD is applied to support other policies , strategies on every levels

Principles of the EESD Master Plan

1. It is under the supervision of every sector in society
2. Focuses on the development based on existing knowledge and social capital
3. Giving equal attention on both formal and non-formal education sectors
4. Aware of the diverse communities , societies, cultures and ecological systems

EESD Strategy 2008-2012

1. Public Communication on
2. Establishment of Institutional Structure
3. Integration of EESD with natural resources management and other public policies
4. Strengthening EESD Network
5. Marketing for EESD
6. Linking EESD between inside-outside Educational Institutes
7. Knowledge management of EESD

Education for Sustainable Development (ESD)/ Environment Education for Sustainable Development (EE for ESD)

Brunei Darussalam Current Status

Presentation :
Regional Strategy Consultation Meeting on Education for Sustainable Development in South-East Asia
Bangkok, Thailand
(18 November 2008)

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The Green Heart of Borneo



A Kingdom of Unexpected Treasures



Total area : 5,765 km²
Population : Almost 400,000
Climate : Equatorial climate year round, (temperature : 23 to 32 degrees Celsius and an average annual rainfall of 320 cm.)

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Education for Sustainable Development (ESD)
is one the global key agenda
lead by UNESCO

As member UNESCO,
**Brunei Darussalam is committed to
implement programmes related to
ESD.**

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Membership to UNESCO

- 2005 • Member of UNESCO
- 2007 • Establishment of National Commission
- 2008 • In Process of Establishment of ESD focal point

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**National Efforts
which contributes to ESD /
Climate Change issue
that involve Young Generation**

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Energy Day

Initiated by Energy Division,
Prime Minister's Officer

Examples of Educational Programmes :
Drawing Competition
Drama

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Environmental Workshop for Students

Initiated by The Science, Technology & Environment Partnership (STEP) Centre, Ministry of Education



Eco Club in Schools

Initiated by Department of Environment, Parks & Recreation, Ministry of Development and Ministry of Education



Example of Activities of Club : Segregated Collection of Waste, Visits & Cleaning Campaign



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Princess Rashidah Young Nature Award (PRYNOSA)

Initiated by Forestry Department, Ministry of Industry & Primary Resources



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Discovery Camp

Collaborative initiative between STEP Centre, Ministry of Education and Oil & Gas Discovery Centre, BSP Sdn. Bhd.



Activities include environment & conservation project work and cleaning campaign

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International Polar Year Exhibition (IPY)

Initiative of
Oil & Gas Discovery Centre (OGDC), BSP Co. Sdn. Bhd.



Activities which had been conducted for students included demonstration of simple experiment and quiz!

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Tree Planting



Initiated by various agencies including the involvement of students.

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Brunei Darussalam – UNESCO Science & Technology Camp

The Science, Technology and Environment Partnership (STEP) Centre, Ministry of Education, Brunei Darussalam in-Collaboration with United Nation Education, Science and Cultural Organization (UNESCO) office, Jakarta and Universiti Brunei Darussalam (UBD)



One of the main activities : lecture & workshop on “Science and Technology for Sustainable Development”

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Opportunities for Regional & International Participation



Eg. ASEAN + 3 Youth Environmental Forum, Thailand

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Clean Water!
Intact Forest!
That's our
wealth for our
future
generation!

Thank You!

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**Education for Sustainable Development
(ESD)/ Environment Education for
Sustainable Development (EE for ESD)**

**Brunei Darussalam
Current Status**

**By
Ms. Sarimah Abu Bakar**

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**Environmental Education For
Sustainable Development
Lao People's Democratic Republic**

Mrs. Chithanom OUNSIDA
Director of Environment Promotion Division
Department of Environment
Water Resource and Environment Administration-WREA
Email: chithanom@hotmail.com

Outline

- I. Introduction
- III. Current Policy on Environmental
- II. Status of Climate Change in Lao PDR
- IV. Some activities related to Green House Gas mitigation

I. Introduction

- **1.1 Topography**
- Location: southeast Asia, landlocked country, shares border with China, Vietnam, Thailand, Myanmar and Cambodia
- Area: 236.800 km², 17 provinces include one municipality.



I. Introduction (cont.)

- **1.2 Climate Condition**
- The average temperature for the northern and eastern mountainous areas and the plateaus is 20 Celsius degree, and 25-27 Celsius degree for the plain areas,
- 2006 the average temperature is 26.5 Celsius degree

I. Introduction (cont.)

- **1.3 Social Conditions**
- Population: More than 5,8 million, female over 2,9 million (2006).
- The average population density: 24/km²,
- Population living in rural area: 80%
- The results of official surveys of poor households living under the poverty line
 - 1992/1993: 45%
 - 1997/1998: 38.6% - 30%
 - 2002/2003: 28.7%

I. Introduction (cont.)

- **Education:**
- educational development plans at different levels have been done quite well in the previous years and has the significant trend for future development both quantitative and qualitative as reflected in the aggregate figures:
 - 2001-2005: primary enrollment is 79% to 84.2%
 - lower school enrollment from 46.6% to 54.8%,
 - upper secondary school from 22.6% to 34.4%.
- Vocational education and university, both public and private ones, are also increased.

I. Introduction (cont.)

- **Health Care:**
- In the last 5 years, the Government has paid closer attention to expand the health care networks in different levels both central and local, especially in the grassroots level
- a supply of medication by domestic production could meet 48% of the domestic demand. Almost all of the villages throughout the country, about 96% of the villages in the country, could be equipped with village drug kits.

I. Introduction (cont.)

- **1.4 Environmental Status**
- Lao PDR government is considered as having abundant environment such as: forest resources, water resources, biodiversity, land and others. The government of the Lao PDR always pays close attention to manage the environment, as well as its natural resources which are illustrated in the Party's policies and resolution, socio-economic development strategy, priority programmes as well as the poverty reduction projects of the government

I. Introduction (cont.)

- **1.5. Economic Conditions**
- Since the government of the Lao PDR set the new reform policy changing to a market mechanism from the end of 1980s, the country has been opened for investment, converted to a market-oriented economy and launched a decentralization policy. In this policy, it is defined province as a strategic unit, district as a financial and planning unit and village as an implementing unit. This is a basis for the construction of the national economy and set up the concrete foundation for gradual industrialization and modernization processes.

II. Current Policy on Environmental

- the Constitution of Lao PDR provides that "all entities and people shall protect the environment, conserve natural resources such as land, forest, wild-life, water-shed and air" (article 17, 1991 Constitution and article 19 of amended Constitution 2003).
- Environment Protection Law (EPL)
- Decree on the Implementation of the EPL
- National Environment Strategy to the year 2020
- Environmental Education and Awareness Strategy to the year 2020 and the Action Plan 2006-2010

II. Current Policy on Environmental (cont.)

- Beside this we also have many laws related to environment such as Forestry Law; Land law; Water and Water Resource law; Mining law; Electricity law; Road law; Industrial manufacturing law; Education law and others. Most importantly the law on environmental protection was promulgated in 1999.

II. Current Policy on Environmental (cont.)

National Environmental Strategy 2020

- The National Environmental Strategy identifies 7 quality objectives. These objectives give direction and focus for EEA activities.
- 1. To implement policy in order to ensure a wealth of rich natural resources, of high value, for the socio-economical development of the country, and to protect environment on a sustainable basis to ensure good living condition for people.
- 2. To protect the rich and productive forest, conserve the natural environment, and ecological systems on a sustainable economic development.

II. Current Policy on Environmental (cont.)

National Environmental Strategy 2020

3. To manage water and water resources in a sustainable manner in order to safe-guard its use for different purposes, to ensure equal and fair use for all, and to use the resources to support other sector' development.
4. To promote sustainable land use and conserve biodiversity in order to facilitate the production of raw material to supply to local and foreign markets.

II. Current Policy on Environmental (cont.)

National Environmental Strategy 2020

5. To promote the use of Envelopment Assessment in the development of all sectors including: agriculture, industry, mining, infrastructure and urban development; to promote the use of clean technology; to encourage public participation in the development of the country into a clean, green nation that has fresh air; and to prevent and control natural disasters by establishing rescue units and advanced information systems in locations at risk.

II. Current Policy on Environmental (cont.)

National Environmental Strategy 2020

6. To protect and restore natural, historical, and cultural sites to conserve natural resources, positive traditional practices of ethnic communities and to promote tourism.
9. To demonstrate commitment through; participation and involvement in sustainable development at regional and international level; through the implementation of national obligation under international convention on the environment and through implementation of environmental project in co-operation with international donor organization.

II. Current Policy on Environmental (cont.)

Strategy for Environmental Education and Awareness 2020

A. Goal

- The people will have environmental Knowledge and skills, positive attitudes and values for the Environment and by participating in sustainable environmental management and conservation of natural resources will improve of life for all and ensure sustainable development.

II. Current Policy on Environmental (cont.)

Strategy for Environmental Education and Awareness 2020

B. Overall Objectives

1. To have sufficient trained and qualified human resources in the area of environment throughout the country
2. To ensure that the public know and understand about environment
3. To ensure that the public is aware of the importance of environmental protection and change those practice which have negative impact on the environment
4. To ensure that the public actively participate in, and take responsibility for environmental protection, conservation of natural resources and positive traditional practices

II. Current Policy on Environmental (cont.)

B. Strategy for Environmental Education and Awareness 2020

5. To ensure that the public is aware of, participate actively in and take responsibility for environmental protection, rehabilitation and improvement
6. To ensure that the public know to use natural resources in a sustainable and effective manner
7. To integrate environmental protection activities into sectoral activities.

II. Current Policy on Environmental (cont.)

C. Strategy on EEA to the year 2020

The strategy during this period will focus on the following:

- Ensure the Integration of EEA into the formal Education System
- Ensure the Integration of EEA into the non-formal Education System
- Strengthen Public Awareness on Environment
- Strengthen Human Resource Development and Capacity Building
- Strengthen network, co-ordination and co-operation on EEA

II. Status of Climate Change in Lao PDR

- It is apparent that floods and droughts occurring almost every year and have created significant adverse effects on Lao PDR' socio-economic development, especially agriculture, forestry, water and water resources, public health, energy and people's livelihoods (income, employment, nutrition "food security"). In the agriculture sector, which is the country's main economic contributor, has been most affected by flood or drought.

III. Status of Climate Change in Lao PDR (cont.)

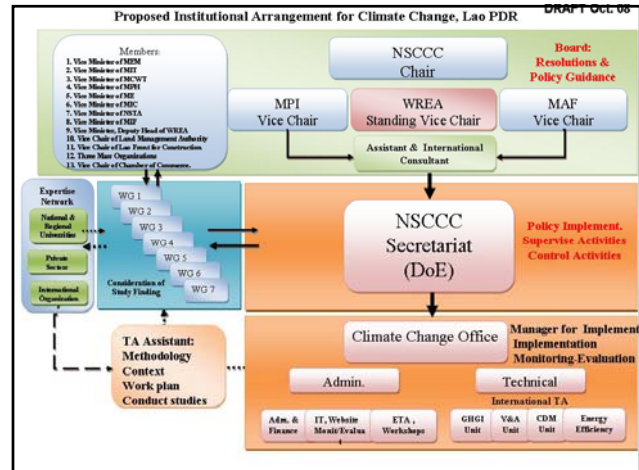
- In the past decades, climate change has exacerbated problems caused by natural changes and environment degradation in areas of the country resulting from both unintentional and intentional human activities, including environment degradation, forest conversion for cultivation, inappropriate exploitation of timber, illegal logging, slash and burn cultivation, uncontrolled chemical use and etc. Combination of these has contributed to natural disasters that are increasingly affecting the population.

III. Status of Climate Change in Lao PDR (Cont.)

- The Lao PDR accessed the United Nations Framework Convention on Climate Change (UNFCCC) on 4 January 1995. As a party to the UNFCCC, the Lao PDR is required to periodically report to the Conference of Parties (COP) on greenhouse gas inventories, national measures to mitigate and facilitate adequate adaptation to climate change, and any other information relevant to the achievement of the objectives of the Climate Change Convention.
- signatory of the Kyoto Protocol on 6 January 2003.
- WREA has assigned by the government as the Focal Point of the UNFCCC and Kyoto protocol.

III. Status of Climate Change in Lao PDR (cont.)

- Laos is on processing of the development and implementation of the National Climate Change Strategy and Action Plan



III. Status of Climate Change in Lao PDR (cont.)

- Under the UNFCCC and Kyoto protocol Lao PDR have completed and carry out some of the projects namely
 - Initial National Communication (INC),
 - the National Adaptation Program of Action (NAPA),
 - National Capacity need Self Assessment (NCSA)
 - Nation Second Communication (NSC).

III. Status of Climate Change in Lao PDR (cont.)

- Now we are finalizing the National Adaptation Program of Action (NAPA) and A Draft. Decree on the Clean Development Mechanism (CDM).
- The main objective of the NAPA is to develop a country-driven program of action for adaptation to address immediate and urgent needs related to current and projected adverse effects of climate change in key sectors such as agriculture, forestry, water resources, and human health.

III. Status of Climate Change in Lao PDR (cont.)

- The NAPA is one of the environmental projects that has cross-cutting issues embedded in national development policies and strategies for all sectors, particularly the most recent policies and strategies such as National Environment Strategy/National Environmental Action Plan (NES/NEAP), the National Biodiversity Strategy to 2020 and Action Plan to 2010 (NBSAP), National Growth Poverty Eradication Strategy (NGPES), National Forestry Strategy and Integrated Agriculture Development Strategy, as well as the Sixth National Socio-Economic Development Plan (NSEDP) from 2006-2010.

IV. Some activities related to Green House Gas mitigation

- **The trees planting projects.**
- In order to mitigate climate change, protecting biodiversity and reducing greenhouse gas emission worldwide. Lao Youth Union is implementing the 1 million Trees Plantation project the theme "New generation contribute to Environment Protection" from now to the year 2020 which supported by UNDP by the cooperation with Water Resource and Environment Administration-WREA.

IV. Some activities related to Green House Gas mitigation

- This project is divided into to phases. Phase I started from September to November 2008 which include 20 primary schools and 20 villages in 4 districts in Vientiane capital city. Fro the phases II will start December 2008. This phase include 5 districts in Vientiane capital city.



IV. Some activities related to Green House Gas mitigation (cont.)

- On the other hand this Lao Youth Union is also raise environmental education awareness focus on "Children Future for Our Planet" this activities is targeted to youth involvement both in formal and informal school in the society to know and understand deeply on environment education activities such as Environment mobile unit,



IV. Some activities related to Green House Gas mitigation (cont.)

- develop TV clips and radio spots, writing newspaper articles, writing environment slogan, records VCD, cartoon on trees plantation throw mass media such as on television and radio program, newspaper etc.



IV. Some activities related to Green House Gas mitigation (cont.)

- Beside this project there are many project will be carried out soon as follow:
- **Project 1:** Continuing the Implementation of the Stabilization of Slash and Burn Practice Action Plan.
- **Project 2:** Development of Forest Areas to Support Seed Production.



Thank you
for your kind
Attention



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Environmental Education for Sustainable Development (ESD):

The Philippine Experience

Environmental Management Bureau
Department of Environment and Natural Resources
www.emb.gov.ph

Youth in the Philippines



Photo Credit: National Youth Commission

“Youth is a critical period in a person’s growth and development from the onset of adolescence towards the peak of mature, self-reliant, and responsible adulthood comprising the considerable sector of the population from the age of fifteen (15) to thirty (30) years.”

- Republic Act 8044: Youth in Nation Building Act

Youth in the Philippines



Photo Credit: National Youth Commission

23 million in 2003 (latest Census)

- 1/5 of the population are 15 to 24 years old
- 16.5 million (in absolute numbers)

30 million in 2030 (projection)

Youth in the Philippines



Photo Credit: National Youth Commission

Environment - major area of concern (Medium term Youth Development Plan)

Environmental Awareness ranks 6th among the youth developmental challenges and issues

Issue - Mobilizing the youth in the preservation and protection of the environment.

Source: National Youth Commission

2005 to 2014 has been declared as the United Nations Decade of Education for Sustainable Development.



I. The National Environmental Education Action Plan for Sustainable Development

II. Programs

III. Climate Change in the Philippines

IV. The Youth and Climate Change

The National Environmental Education Action Plan (NEEAP) for Sustainable Development

Multi-Sectoral Consultative Workshop (November 2003, Sulo Hotel, Manila)



- Discussion of global and national imperatives and challenges in environmental education

- Review and assessment of initiatives for the NEEAP 1992-2002, based on sectoral perspectives (from government, civil society) in basic education; technical and vocational and tertiary education; and non-formal education (civil society, local governments, media, business, youth)

Updated National Environmental Education Action Plan (NEEAP) for Sustainable Development for 2005 to 2014

As part of the Philippine contributions to the United Nations Decade of Education for Sustainable Development (2005-2014)

- Developed a brochure on the UN Decade of Education for Sustainable Development and uploaded in the EMB website
- Developed an expanded write-up on the NEEAP for Sustainable Development (2005-2014)
- Produced Environmental Information Sheet on the NEEAP for Sustainable Development (2005-2014)



- Disseminated and further consulted on the updated NEEAP for Sustainable Development to:

- elementary, high school and university teachers nationwide
- Community and Provincial Environment Officers (CENROs and PENROs) of DENR nationwide
- information officers and environmental quality personnel of the EMB nationwide
- multi-stakeholder senior officials of the Philippine Council for Sustainable Development, and members of its Sub-Committee on Information and Education
- Youth leaders to the YSDA training
- Non-formal environmental educators from government and civil society

Developed a tagline on the UN Decade of Education for Sustainable Development (DESD): uploaded in the EMB website, and included in EMB publications (central and regional offices), and the various member-institutions of the PCSD Sub-Committee on Information and Education.

UNDESD and Moving the Tertiary Education Sector for the DESD for the Senior Educators' Annual National Conference (September 29-30, 2004), with Ambassador Preciosa Soliven, UNESCO Secretary-General for the Philippines, as one of the speakers.

Regional Action Plans on Tertiary Environmental Education for Sustainable Development for 2005-2014 were likewise drawn up with universities and colleges nationwide.



EMB, PATLEPAM officials with UNESCO Secretary-General Ambassador Preciosa Soliven

National Environmental Education Action Plan for Sustainable Development (2005-2014)

Vision

An environmentally literate and proactive citizenry imbued with a sense of responsibility to care, protect and enhance environmental quality that is conducive to their well being and supportive of the nation's economic development and unified in its pursuit of peace, social justice and equity in the use of natural resources.



National Environmental Education Action Plan for Sustainable Development (2005-2014)

Mission

- To improve the institutional systems, making them more relevant towards delivery of environmental education to all segments of society.
- To mobilize resources and encourage more private/public investments and partnerships in supporting programs for environmental education.
- To establish a critical mass of committed environmental educators and practitioners who will spearhead the environmental education movement.
- To promote environmental ethics which will instill the right values and attitudes as a way of life among the Filipinos.

Program: Hangin' Around for Clean Air



Initiated by EMB-DENR, in cooperation with:

- Energy and Clean Air Project (ECAP) of the USAID
- University of Santo Tomas
- Philippine Association of Tertiary Level Educational Institutions in Environmental Protection and Management
- Catholic Educational Association of the Philippines

Program: Hangin' Around for Clean Air



Activities

- Climate Change Symposium for the Youth (by Atty. Ibay of KLIMA, Manila Observatory)
- Bantay Tambutso sa Eskwela
- Clean Air Youth Alliance (CAYA) and the Partnership for Clean Air (with Miss Teen Philippines and the Students' Action and Voice for the Environment)
- Discussion on Local Youth Initiatives

Program: Hangin' Around for Clean Air



Program: Bantay Tambutso sa Eskwela (Muffler Watch in Schools)



- Launched in November 2005 (in time with November as Clean Air Month by virtue of Proclamation No. 1109)
- Started as a collaboration between EMB-DENR, PATLEPAM, MMAQISDP, and the USAID-Energy and Clean Air Project
- Fifty (50) schools participated in the orchestrated day of banning entry of smoke-belching vehicles (10-24-05). Around 100 schools nationwide vowed to support and heighten cleaner air initiatives.

Program: Bantay Tambutso sa Eskwela (Muffler Watch in Schools)



100 participating schools nationwide expressed support to heighten cleaner air initiatives of some or a combination of the following forms in response to the government's call to clean the air:

- Issuance of respective school memorandum or circular for its constituents (faculty, administrative staff, students) in adopting and supporting various clean air initiatives.
- Inclusion of Clean Air messages in the curriculum at all levels

Program: Bantay Tambutso sa Eskwela (Muffler Watch in Schools)

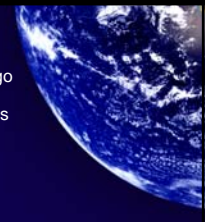
3. Inclusion of clean air policies in school regulation and programs
4. Encouragement of active participation of students in various air-related campaigns
5. Conduct of Smoke-free School Campaign
6. Conduct of Smoke-free Malls Campaign
7. Conduct of Exhibit and Fair about clean air initiatives
8. Conduct of seminars, symposium, and forum on various air-related concerns and activities
9. Posting of air-related collaterals and dissemination of information materials
10. Feature of clean air initiatives in newsletters and campus papers
11. Working with Parents'-Teachers' Associations to conduct seminars for parents on vehicle engine maintenance and alternative fuels



Program: Bantay Tambutso sa Eskwela (Muffler Watch in Schools)



12. Encouraging student leaders/ organizations to include clean air programs and projects in their platforms.
13. Holding of on-the-spot poster, jingle, essay, logo or sticker design contests.
14. Integration of compliance to emission standards under the Clean Air Act in the schools' policy in the issuance of car pass/stickers.
15. Encouragement of faculty and students to be involved in research projects for clean air.



Program: Bantay Tambutso sa Eskwela (Muffler Watch in Schools)



16. Coordination among various schools and institutions in their respective areas for policy implementation.
17. Designation of areas in the campus that are smoke-free.
18. Room-to-room campaign on clean air initiatives
19. Encouragement of parents, faculty members and students to organize carpooling
20. Setting up of clean air information centers in school campuses
21. Car-less Day campaign, Bike for Clean Air
22. Community Air Watch
23. Bantay Sunog-Basura, No smoking campaign
24. Tree Planting
25. Film showing



Program: Not Cool to be CO₂! Battle of the Bands



- Partnership between EMB-DENR, Lung Center of the Philippines, ECAP-USAID, Dimitri Productions, and GMA Network

- Theme is "Not Cool to be CO₂!", based on the World Environment Day theme, "CO₂: Kick the Habit! Towards a Low Carbon Economy" set by the United Nations Environment Program.



Program: Not Cool to be CO₂!
Battle of the Bands



- Eight bands (pre-screened) from Metro Manila rendered environmental songs onstage – for clean air, better climate, and a healthier environment.

Program: Not Cool to be CO₂!
Battle of the Bands



- Distinguished speakers on the following topics: Climate Change, Health, Media, Youth, among others. A free climate change documentary was also shown courtesy of GMA Network.

Climate Change Instructional Posters



Instructional posters have been distributed to stakeholders, and are also used as exhibit materials.

Program: Climate Change Workshops



- Regional Environmental Education and Information Section Chiefs, and DENR Regional Public Affairs Officers underwent a workshop-training on Climate Change.
- PATLEPAM 13th Assembly focused on Climate Change.
 - "Adapting to, and Mitigating Climate Change: The Challenges to Academe"

Program: Energy Efficiency for Colleges and Universities



- Energy Audit and Energy Efficiency for Schools Program, to heighten the Academic Sector's Participation on Local Climate Change Initiatives
- Issuance of respective schools' memorandum or circular, for its own constituents adopting its policy of supporting the Philippine climate change and clean air program

Program: Energy Efficiency for Colleges and Universities



- Briefing with respective school personnel who would be best in the position to disseminate the Climate Change and School Energy Efficiency program
- Orchestrated energy audit for schools on November 28, 2008, and establishment of projects and campaigns on energy efficiency
- Execute a "Memorandum of Agreement", and similar local schemes with concerned local institutions (EMB-DENR, DoE), to implement action plans and achieve concerned community-based outputs

We can make a difference as we urge the Academe to:

- Review the school's current policies and programs that may work as either mitigation or adaptation strategies and measures in addressing climate change
- Encourage cooperation and partnerships among other schools in programs and activities that would help fight global warming.
- Strengthen environmental awareness and action among students and the academe by initiating innovative and creative information and education campaigns.

Thank you very much.

For more information, contact:

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