

NATIONAL ENVIRONMENTAL EDUCATION & AWARENESS CAMPAIGN
MINISTRY OF ENVIRONMENT & LIVE AND LEARN ENVIRONMENTAL EDUCATION



CAMBODIA'S ENVIRONMENTAL EDUCATION STATUS REPORT 2005



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& LIVE AND LEARN ENVIRONMENTAL EDUCATION

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We look forward to continuing this cooperation and hope this document is a useful tool for all of us.



Education and learning are the key ingredients in becoming more sustainable.

EXECUTIVE SUMMARY

In the agreement, dated 6th June 2005 the Ministry of Environment (MoE) of the Royal Government of Cambodia appointed Live & Learn Environmental Education (L&L) to carry out the National Environmental Education & Awareness Campaign (NEEAC) under the Component One of the Tonle Sap Environmental Management Project (TSEMP), which is funded by the Asian Development Bank (ADB) under Loan 1939 CAM (SF). The campaign will build on the knowledge base and findings from the L&L, ADB funded, Rapid Assessment of Perceptions in 2004 and other relevant local environmental education efforts. This will be done to improve knowledge on environmental issues at various levels of Cambodian society, with a special focus on the whole ecosystem of the Tonle Sap.

Education and learning are the key ingredients in becoming more sustainable. In response to a growing understanding that the environment is being negatively impacted by human activities, a specific part of education has become focussed on how to reduce our impact on the environment, to promote a more sustainable future. This mode of education falls under many headings grouped under the term of environmental education.

Environmental Education (EE) has been actively promoted in a range of international conferences for the past thirty years. Significantly, the Millennium Development Goals also promote the use of education in moves toward sustainable development. Most recently, the United Nations General Assembly proclaimed the Decade of Education for Sustainable Development for the period 2005 – 2014, 'emphasizing that education

is an indispensable element for achieving sustainable development.'

Regionally there has been some specific activity regarding environmental education. The ASEAN member countries state that they envision a clean and green ASEAN, rich in cultural traditions (where the values and practices of the people are in accord with the rhythm and harmony of nature) with citizens who are environmentally literate, imbued with environmental ethic, willing and capable to ensure the sustainable development of the region through environmental education and public participation efforts.

Prior to the conflict Cambodia was a regional leader in literacy, higher education and in 1925 it was also the first to establish a protected area. Unfortunately, the years of conflict eroded this good base. Environmental education in Cambodia has had a relatively short history, firstly incorporated into Government policies with the establishment of the Ministry of Environment (MoE) in 1993. Since this time it has gained increasing support and acknowledgment as an important tool in reducing a variety of environmental problems that are currently affecting the country, especially from the donor community.

There is integration of environmental education into some formal education, however overall non-formal activities make up the bulk of environmental education in Cambodia. Technical and financial assistance for environmental education has been provided through the government and non-government organisation's (NGOs) since 1993.

NGOs, International organisation's and government staff do a range of environmental

The best way to change the behaviours of others is to lead by example.



education across the country. Environmental education initiatives in and around the Tonle Sap Biosphere Reserve are characteristically small in scale and target local communities, teachers and primary school students. Existing providers of Environmental Education initiatives include Osmose, the FAO in Siem Reap, Mlup Baitong, and Save Cambodia's Wildlife. Live & Learn has recently become a Cambodian NGO focussing on environmental education in the Tonle Sap region. A series of case studies from different organisations including: *Buddhism for Development Kampong Thom, Culture & Environment preservation Association, Mlup Baitong, Save Cambodia's Wildlife, Wildlife Conservation Society & World Wildlife Fund*, helps to highlight the diverse approaches and geographical coverage of environmental education in Cambodia.

A National Environmental Education Forum was held in November 2005 with the two-fold objectives of: 1. Gaining a better understanding of the status of environmental education in Cambodia, including how educators in Cambodia thought we could best move ahead, & 2. Providing an opportunity for educators to network and form links for future collaboration on EE activities.

Many challenges were highlighted by the forum groups, however the most commonly stated challenges were the limitations of: knowledge of people, human resources, cooperation, language, budget and materials. A limited environmental ethic among the people, low law enforcement and corruption were also considered significant challenges to effective environmental education.

The ways highlighted by the groups to make EE more effective included: more participation, livelihoods, cooperation, reducing corruption,

law enforcement, better use of media, training, demonstrations, enjoyment, incentives, and make for audience i.e. simpler language in villages.

Any strategic approach to environmental education will require work in several focus areas. The collection of information and the National Forum on Environmental Education served together to develop these recommendations:

Audience: When developing activities and materials we need to carefully consider the audience they are intended for.

Language: We cannot use language as a reason not to act but we must be more cautious with the information we use and how it is translated.

Meaning: We can move beyond approaches to simply increase awareness and knowledge and more actively focus on the pressing issue of behaviour change.

Expansion: We need to better utilise all available resources in the expansion of our messages and activities.

Outcomes: With a stronger vision of what we want to achieve in the long-term our activities and materials will be more effective.

Coordination: Rather than complain about the lack of cooperation let us lead by example and work together.

Evaluation: With increased evaluation, we will have the opportunity to make environmental education more effective.

Commitment: The best way to change the behaviours of others is to lead by example.

The longest journey starts with the first steps in the right direction. We hope this Status Report starts our journey in the right direction.



FOREWORD

H.E. DR. MOK MARETH



The Royal Government of Cambodia is a signatory to many international conventions and agreements related to development and the environment. Environmental education is a key tool that is mentioned within many

of these international approaches. The preparation of this Environmental Education Status Report will greatly assist Cambodia in better utilising environmental education as a tool for sustainable development. This report is also very timely as it comes at the beginning of the United Nations Decade of Education for Sustainable Development, (2005 – 2014). With the development of this report in 2005, Cambodia is in a strong position to utilize this decade to promote Education for Sustainable Development throughout the country.

The Ministry of Environment has enlisted the technical support of the NGO Live and Learn Environmental Education to compile this Status Report. The report is part of the National Environmental Education and Awareness Campaign that is being developed as part of Component One of the Tonle Sap Environmental Management Project.

The Tonle Sap Environmental Management Project is of extreme importance, as the Tonle Sap Lake is the largest freshwater lake in Southeast Asia. It is also one of the most productive fisheries in the world and directly provides livelihoods for around 11% of Cambodia's population. This fact alone, shows how much the future of Cambodian

people is dependent on the health and quality of the Lake. The designation of the Tonle Sap Lake as a Biosphere Reserve further highlights its place as a biodiversity reservoir of global significance. It also recognizes the considerable and unique environmental, ecological, social and cultural importance of the lake. Environmental education will play a vital role in securing the future state of the lake.

The emphasis this project places on environmental education is testimony to the Governments belief that environmental education is a very important tool in the management of the environment. The report brings together past and present information on environmental education in Cambodia. The report draws on past Ministry of Environment data collected for the ASEAN Environmental Education Inventory Database, meetings with environmental educators and a recent National Forum on Environmental Education (11th November 2005). These sources allow the collection of relevant data on the current status of environmental education in Cambodia. With a better understanding of who is involved in environmental education and what they are doing, we have an increased opportunity for effective cooperation and collaboration among all of the different implementers.

To the environmental educators that this report is designed for, I wish you success in your pursuits. I encourage you not only to aim to increase the environmental awareness, knowledge and attitudes of the people but to strive toward increased skills and practical application of this knowledge through positive environmental behaviour. I ask you to work together in a spirit of cooperation so that we may most effectively utilise our resources to effectively promote messages of the environment and sustainable development. My message to our



people is that the quality of our lives is ultimately based on the environment. We need to protect the environment to protect our future. We need to effectively utilise environmental education so that people not only understand how important the environment is but also act on this understanding – thereby making positive changes in behaviour.

The key to protecting the environment is based on public participation at all levels, promoting their ownership, sufficient capacity and a political will and commitment from the government in protection of the environment. This participation will only be effective when people have a true understanding and sense of just how important the environment is for our children and us. Environmental education can help to promote this understanding.



H.E. Dr. MOK MARETH,
Minister for Environment, Royal Government of Cambodia, Phnom Penh January 10, 2006



Report Overview

The Tonle Sap Environmental Management Project (TSEMP) is a \$20 million project jointly financed by the Asian Development Bank (ADB), United Nations agencies and the Royal Government of Cambodia. Approved in 2002, the overall project has three parts – strengthening the management of natural resources, organising communities and conserving biodiversity in the Tonle Sap Biosphere Reserve (TSBR). See Annex 1 for more detail on TSEMP & TSBR.

The project contains two key activities directly related to environmental education, one of which is the formulation and implementation of the National Environmental Education & Awareness Campaign (NEEAC). The main objective of the campaign is to support Component One of the TSEMP by means of a coordination framework and information dissemination mechanisms that build on the knowledge base and findings from the ADB funded Rapid Assessment of Perceptions in 2004 and other relevant local environmental education efforts. The second key environmental education activity of TSEMP is the Environmental Awareness and Education Outreach Program (EAEOP), contained within the Tonle Sap Conservation Project, Component Three.

In the agreement, dated 6th June 2005 the Ministry of Environment (MoE) of the Royal Government of Cambodia appointed Live & Learn Environmental Education to carry out the NEEAC under the Component One of the Tonle Sap Environmental Management Project (TSEMP). Asian Development Bank (ADB) under Loan 1939 CAM (SF) funds this project. This campaign will include a variety of environmental education approaches including: theatre, radio, television,



curriculum and best practices. National and local stakeholders will play a key role in the formulation and implementation of the NEEAC.

The campaign will improve knowledge on environmental issues at various levels of Cambodian society, with a special focus on the whole ecosystem of the Tonle Sap. The campaign will focus on the environmental, economic and social aspects of this diverse ecosystem; as provider of food, its special hydrology, as well as the threats it faces. The campaign will use the specific case of the Tonle Sap to demonstrate the necessity of sustainable use and management of natural resources in Cambodia.

A strategic component of the campaign is to start by better understanding the status of environmental education in Cambodia, this is reflected in Output 1: Review of Existing Information and Status. The purpose of the report is to firstly meet this output and secondly to serve as a reference document for environmental educators across Cambodia. This report is a direct result of the collection of information on past and existing environmental education initiatives in Cambodia. The results of this will be directly utilised in promoting effective implementation of the National Environmental Education & Awareness Campaign.

The potential benefits from the report also include: greater linkages between government and non-government organizations, increased cooperation, reduced overlap, increased efficiency in networking and most importantly more effective environmental education for Cambodia.

ENVIRONMENTAL EDUCATION

Background

Humans, like all other organisms, rely on the natural world for the necessary resources of life. Most significant human development has been about how to exploit resources of the environment: early stone tools, agriculture, industry etc. Over time humans have become very effective in exploiting resources. This is the major reason for the dominance of humans over all other species. This ability to exploit resources has been actively shared among people and further developed through education and learning. Unfortunately, our resource exploitation has become unsustainable by changing the environment we live in and reducing its productivity for the future. In realising that our practices have become unsustainable there is an international push toward sustainable development. We need education to now help us become more sustainable. Education and learning are the key ingredients in this move to become more sustainable.

In response to a growing understanding that the environment is being negatively impacted by human activities, a specific part of education has become focussed on how to reduce our impact on the environment, to promote a more sustainable future. This mode of education falls under many headings grouped under the term of environmental education. It is not clear exactly when the term environmental education was first used. However it is known that by 1978 it was becoming more commonly used. At this time

Environmental Education has been a key tool considered important for international moves to better manage the environment.



an international conference for environmental education was held in Tbilisi (1978), (then the Soviet Republic of Georgia). This conference was the world's first Intergovernmental Conference on Environmental Education, and produced a document that became known as the Tbilisi Declaration. See Annex 2 for a definition of environmental education.

International Developments in Environmental Education

Environmental Education has been a key tool considered important for international moves to better manage the environment. The UN Conference on Environment and Development in 1992, and the Earth Summit, notably gave high priority in its Agenda 21 to the role of education

in pursuing the kind of development that would respect and nurture the natural environment. It focussed on the process of orienting and re-orienting education in order to foster values and attitudes of respect for the environment – it also envisaged ways and means of doing so. By the time of the World Summit on Sustainable Development in Johannesburg in 2002 the definition of sustainable development had broadened to encompass social justice and poverty issues. The human and social aspects of sustainable development mean that solidarity, equity, partnership and co-operation are as crucial as scientific approaches to environmental protection. More recently the international community has joined together to meet the Millennium Development Goals.





Millennium Development Goals

Adopted by the international community in 2000, the Millennium Development Goals (MDGs) serve as an over-arching framework for humans to cooperate in working towards development goals. In particular the MDGs provide targets for international actions to assist overcoming poverty; improving child, maternal and sexual health; expanding educational provision and redressing gender inequalities in education; and developing national strategies for sustainable development. The Royal Government of Cambodia signed the Millennium Declaration and is committed to the MDGs process.

The Cambodian Millennium Development Goals Report of 2003 has a wealth of information and of relevance to environmental education. It emphasises that:

- despite economic growth during the past decade, poverty has not declined significantly.
- access to primary education has improved but access to lower-secondary education is still limited.
- the country's natural resources are degrading at an accelerating pace.
- monitoring and evaluation activities are uncoordinated.

In relation to the Cambodian MDGs, the Prime Minister Hun Sen stated that:

Cambodia's natural resources must remain the focus of our attention if we are to pass on this tremendous legacy of a rich environmental heritage to the next generation. (2003)

Decade of Education for Sustainable Development

In December 2002, the United Nations General Assembly proclaimed the Decade of Education for Sustainable Development for the period 2005 – 2014, 'emphasizing that education is an indispensable element for achieving sustainable development.' The initiative is an educational response to achieve the Millennium Development Goals. As highlighted by UNESCO below the expectations are high:

The UN Decade of Education for Sustainable Development aims to see Education for Sustainable Development implemented in thousands of local situations on the ground, involving the integration of Education for Sustainable Development into a multitude of different learning situations. (2003).

Many countries have set up committees related to education for sustainable development but few have made much progress to date. There is an international trend with statements and guidelines in support of reorienting education towards sustainable development being issued by regional councils of Ministers of Education and/or Environment (Fein 2002). At this stage Cambodia's activities have focused on environmental education and at a country level they have not developed a committee to deal with education for sustainable development.



CASE STUDY

Buddhism for Development Kampong Thom

Buddhism for Development Kampong Thom utilises a variety of environmental education tools including: print media, audio visual, training and practical activities. Many of the materials they use are developed by other organisations. The following summarises some of their approaches:

Print media; Posters that have been developed by other organizations on topics including, health, resource management, wildlife and agriculture are utilised. They also have books on agriculture that were donated from the Church World Service.

Training; They conduct training activities on topics such as, community forestry importance, community forestry, land & commune council laws, morality, human rights, report writing, leadership and management.

Audio-visual media; They do not develop their own materials but use a CD from Mlup Baitong.

Practical Activities; Monthly meetings and Participatory Rural Assessment are conducted with the community forestry committees that they set-up. Developing local forestry by-laws, boundary demarcation and patrolling for community forestry sites is being done. They help to develop livelihood activities such as rice & vegetable gardening, animal raising, composting and rice banks. They also conduct primary health activities and assist with self-help groups.

Lessons Learnt: BDKT - Director Ly Khom:

To solve the problems in the community we need to train the local communities in how to effectively write letters that highlight their problems to relevant institutions is an important approach. Effective management of community forestry areas needs good division among responsible villages. We encourage local community to use community forestry by-laws so that the community understands what are illegal issues and how they can be dealt with. It is good to show the financial benefit of environmental initiatives. For example, if local people use natural fertilizer they can reduce their expenses, as it is cheaper than chemical fertilizer and better for the environment. Improving local community participation in livelihoods activities can reduce labour migration. When local people participate in community forestry, they understand the importance of forest and wildlife protection and community forestry laws. It is good to promote a basic understanding of the importance of natural resources.



Coordinating environmental education programmes in the ASEAN region is surely one of the longer lasting steps to address the problems of imbalance and uncertainty in the environment.

REGIONAL ENVIRONMENTAL EDUCATION

In December of 2002, members of the Association of Southeast Asian Nations (ASEAN) came together for the ASEAN Environmental Education Action Plan 2000-2005: Mid-Term Review and Partnerships for Implementation Meeting. The following summary from the review is used to highlight a regional context for environmental education. Further details can be found in the ASEAN Environmental Education Inventory Database, at HYPERLINK "<http://aeid.aseansec.org>" <http://aeid.aseansec.org>.

*The ASEAN member countries envision a clean and green ASEAN, rich in cultural traditions (where the values and practices of the people are in accord with the rhythm and harmony of nature) with citizens who are environmentally literate, imbued with environmental ethic, willing and capable to ensure the sustainable development of the region through **environmental education and public participation** efforts.*

The Environment Ministers of ASEAN adopted the ASEAN Environmental Education Action Plan (AEEAP) in October 2000. Environmental education is not new in the region, and ASEAN countries have developed their own programmes of action since the first International Conference on EE held in Belgrade in 1975. Member countries are already pursuing various efforts on EE; though this is very commendable, no specific plan of action on EE for ASEAN had been developed prior to the ASEAN Environmental Education Action Plan.

Coordinating environmental education programmes in the ASEAN region is surely one of the longer lasting steps to address the problems of imbalance and uncertainty in the environment. As the ASEAN Strategic Plan of Action on the Environment for 1996-1998 very succinctly put it, "Environmental education is very important in sensitising people, particularly students, as it helps in developing the right environmental ethic and building an environmentally responsive and responsible society." Ultimately, the most sound and solid basis for the protection of the environment and the conservation and rational exploitation of resources are people who are aware of the possible negative environmental implications of their actions, not only for the present generation but for future generations, hence, the importance of this area of cooperation.

State of Environmental Education in ASEAN

It can be said that, generally, the ASEAN member countries are actively engaged in promoting environmental education in the government and private sectors of society, in the formal and non-formal/informal sectors of education, and at all levels of formal education. Some countries started the campaign earlier and with bigger budgets and thus have accomplished more than the others. However, all are one in the desire to work for a safe and productive ASEAN environment. And all agree on the principle of regional/international cooperation including sharing of expertise and experiences in solving environmental problems, information on the environment, & EE materials & strategies.

Difficulties & Gaps in Country Projects on EE

Many of the ASEAN member countries realize the limited human resource for EE, referring to: (a) teachers knowledgeable in EE content; (b) teacher trainers; (c) instructional materials; and (d) community education on EE.

A few member countries cited the following constraints: insufficient training and reference materials; lack of public initiative and difficulty in encouraging participation; limited networking or

coordination; low interest in tertiary institutions; and difficulty teaching. On one hand, a few countries cited the limited baseline information on the local/regional environment for the preparation of textbooks and references for EE. On the other hand, was the existence of materials on the Asia-Pacific environment that need to be utilized for use in EE teaching and training. Lastly, all the member countries are of the opinion that the budget set-aside by the government for environmental education should be increased or additional funds solicited to support the EE efforts of the respective governments.





CASE STUDY

Culture & Environment Preservation Association

CEPA utilizes some environmental education including: print media, audio visual, training and practical activities. The following summarises some of these:

Print media; Posters have been developed on dams & fisheries resources, and a leaflet has been developed on dams. They have produced books on dams and the Mekong, and natural resource management research. News clippings about environmental news have been collected since 1998. An environment newsletter published every 3 months since 1998, related to environment problems from their research, from trainers and collect from their members, as their network.

Training; They conduct training activities on topics such as, environment, natural resource management, community resource management, advocacy, and sustainable livelihoods. They provide those topics mostly to the university students who are interested in environment issue. This training is launched ever year, with training periods of about three months.

Audio-visual media; They have had two video spots, one about Dams and Fisheries and another about the law & natural resource management.

Practical Activities; Patrolling of community forestry and fishery sites. Field trips are conducted to monitor and evaluate activities. Along with training of trainers, they also practise by conducting research to other areas, which they think, that are important and interesting. Network and monthly meetings are also conducted as is peer-to-peer EE in communities.

Lessons Learnt from CEPA – Deputy Director Luy Rasmeay

When educating people that have a low educational background or knowledge, it is helpful to use a variety of media such as; videos, posters, and pictures. Effective natural resource management requires a combination of environmental education and sustainable livelihoods. Local people should be trained on their rights and obligations in the use of resources as based on the law. Natural resource protection requires the involvement of diverse stakeholders including: local authorities, local community members (both male and female) and school children. These stakeholders should also get some form of environmental education. Before producing EE materials for the local community, it is important to collect information about their needs by using a participatory approach. It is best if participation is voluntary. It is important to build good relationships with local authorities to encourage support of environmental education activities.

ENVIRONMENTAL EDUCATION STATUS IN CAMBODIA

Prior to the conflict Cambodia was a regional leader in literacy and higher education.



ENVIRONMENTAL EDUCATION STATUS IN CAMBODIA

Background

More than twenty years of conflict in Cambodia enforced a period of minimal contact with the international community. This timing coincided with a growing international awareness of environmental issues and growing understanding of the concepts of environmental education and sustainable development. In recent years as Cambodia has become open to the international community, it has also become increasingly exposed to the role that sustainable development and environmental education can play in improving Cambodia's environmental problems.

Prior to the conflict Cambodia was a regional leader in literacy and higher education. Unfortunately, the years of conflict eroded this good base of education. A current priority of the Royal Government of Cambodia, which is in line with the United Nations 'Education For All' approach, is for school education. The current focus is on literacy with international assistance being directed towards education including support from: the Asian Development Bank, the World Bank and further assistance from Sweden, the Netherlands, Britain, Japan and Australia. Emerging economies in Asia have shown a direct relationship between education and economic growth where education and economic links have been institutionalised. It is hoped that with increased education Cambodia can also increase economic benefits.

Not only did Cambodia have a high standard of education and corresponding literacy rates, it was also the first country in South East Asia to designate a national park. In 1925 the forest around the Angkor temple complex was designated a protected area. As the development of national parks is linked to an increased awareness of the need for natural areas to be conserved, it is very likely that there was certain level of environmental awareness prior to the internal conflict.

A Khmer Legend: -

There is a very ancient cult in Cambodia, the one of the Neak Ta. They are the protective spirits of the Srok (District or Country), the earth of men. They are the first to have grubbed the Prey, thick wild forest where hostile forces rule. The Neak Tas live in trees where they usually are represented by a rock. They guarantee the harvest, thanks to the rain, and protect territories from evil spirits and illness. They are, for the Khmer people, along with Buddha, wardens of happiness and prosperity. (SIPAR)

The true extent of this awareness in Cambodia is not well known. The next section will highlight what is known from the more recent period of increasing stability in Cambodia since the early 1990s.

ASEAN Country Report on EE in Cambodia

This is summarised from the ASEAN Environmental Education Action Plan 2000-2005: Mid-Term Review & Partnerships For Implementation Meeting (2002). The following



summary from the review is to highlight a recent past context for environmental education in Cambodia from a Government and specifically Ministry of Environment perspective.

Overview of EE at the national level

The Ministry of Environment (MOE) is an institution under the Royal Government of Cambodia responsible for promoting environmental protection and conservation of natural resources throughout the Kingdom, thus contributing to improving environmental quality, public welfare, national culture and the economy. The Ministry has the role of motivating and supporting public participation in decision-making to resolve environmental and natural resource use issues. In carrying out its mission, the Ministry collaborates with other Ministries of the Royal Government, other institutions, national and international organizations, non-government, the private sector and the people of Cambodia.

In direct response to ensuring the environmental protection, natural resource conservation and environmental sustainable development, the MOE has provided technical capacity strengthening through training courses on nature protection and conservation, environmental policy and law, pollution control/monitoring and inspection, EIA, and environmental education.

Within the MOE, there are two Directorate Generals: General Technical Directorate and General Administrative Directorate. Under the General Technical Directorate, there are six main technical departments. The Department of Environmental Education and Communication (DEEC), <now known as the Department of Education, Information & Communication>, is of

most relevance to environmental education, and has been assigned to accomplish four main program areas: human resources development, environmental education and training, environmental information and dissemination, writing and research on environmental information.

DEEAC program areas and goals are:

Program 1: Human Resource Development

Goal 1: Strengthen capacity of the Dept. staffs and raise awareness of government institutions and people regarding environment.

Program 2: Environmental Education and Training

Goal 2: Promote environmental education and training to all parties concerned in order to seek their participation and support for environmental protection and conservation

Program 3: Environmental Information and Dissemination

Goal 3: Promote the dissemination of environmental information to all parties concerned in order to seek their participation and support the natural resource protection and conservation.

Program 4: Writing and Research on the Environmental Information

Goal 4: Encourage and improve standards of writing and research on the environmental information.

The above-mentioned goals seem to be achievable, but in fact, cannot be accomplished due to inadequate resources, i.e. finance, human resources and manpower, equipment etc. These problems have caused environmental education activities in Cambodia to be done ad-hoc, not

The longest journey starts with the first steps in the right direction.



as per the work plan. Since 2000 to 2002, the DEEC has implemented and achieved many activities related to environmental education and communication including formal education, non-formal education, capacity building development, public awareness raising and environmental campaigns. These activities have been done throughout the Kingdom. Those achievements are:

Formal Education: In collaboration (agreement) between the University of Fine Arts and DEEC, a regular environmental study was set-up for providing environmental knowledge to the university students. With this agreement, the DEEC ought to deliver lectures for ordinary class for 8 hours a month to about 30 students who have just completed their first academic year study. Furthermore, the DEEC has also made an agreement with the Ministry of Education, Youth and Sport for delivery of a three-day course for primary school teachers. Generally, about 300 teachers take this course every year.

Non-formal Education: Generally, non-formal education has been done through mass media: National Television and Radio. In collaboration with the Ministry of Information, the National TV has agreed to broadcast weekly segments about environmental issues, news, and other education-related issues. Furthermore, Quiz Show program with an aim to promote public awareness on environment is broadcasting quarterly. Similar to this, National Radio has also integrated environmental issues into their broadcasting program twice a week (on Monday and Thursday). In addition, from 2000 to 2002, the DEEC had organized environmental campaigns including National and the World Environmental Day (5 June); Cleanup the World Campaign (23

November); Tree Planting Day (9 July), etc. These campaigns have been carried out with an aim to encourage the general public to participate in the protection and preservation of Cambodia's environment.

Manpower Capacity Building: DEEC organized and conducted two training courses for provincial environment department staff. The aim of these courses is to provide and strengthen the capacity of MOE staff. Around 30 participants attended each training course.

EE opportunities and constraints

Opportunities for environmental education:

- The Ministry of Environment is a relatively young ministry but many officials have a bachelor or engineering degrees in various social and scientific fields.
- Environmental issues are a relatively new subject in Cambodia which makes people curious & willing to know more about it.
- DEEC is a governmental institution responsible for all means of EE activities.
- MOE has line technical departments for each province and municipality responsible for environmentally sound management within their territory.
- MOE has been cooperating with other governmental ministries whose works are related to environmental issues.
- Cambodia has political stability.
- Most Cambodian people do not know what the environment is and its importance in their daily life.
- Environmental education in Cambodia can



be applied via formal education (social and religious education systems), and non-formal education, and mass media (Radio, TV, Newspapers, etc.)

- EE can be conducted through communities, i.e. Commune Development Council (CDC), Forestry & Fisheries Community Associations, etc.
- More than 50% of Cambodian people have access to basic education.

Constraints to environmental education

- The implementation of environmental education in Cambodia faces many obstacles including:
- Limited human resources for environmental education
- Limited materials and facilitation equipment for EE
- Lack of financial support
- Lack of planning for EE
- Limited cooperation and commitment from the stakeholders
- People have limited knowledge on environment, so that their participation and commitment in environmental activities is still limited
- MOE is a relatively young institution
- Cambodia has limited environmental legislation, regulations and enforcement tools for managing its natural resources.

The following chapter will review recent developments in environmental education in Cambodia. The following chapter will also outline the current state of EE in Cambodia. Such an overview is envisaged to greatly assist in any future efforts to further develop and promote Education for Sustainable Development in Cambodia.



Environmental Education in Cambodia

The above section provides a comprehensive review of environmental education from the Ministry of Environment's perspective. However this report is already dated and strongly oriented toward the ministry approach. It tends to overlook the overall status of environmental education. This section will therefore present an overview on environmental education in Cambodia incorporating both the role of the government and NGOs in developing and promoting environmental education in Cambodia. Some of the information will overlap but it is hoped that the reader will gain a better understanding of the status of environmental education in Cambodia from the combination of these perspectives.



Overview

Environmental education in Cambodia has had a relatively short history. A review of historical documents indicates that environmental education principles were first incorporated into Government policies with the establishment of the Ministry of Environment (MoE) in 1993. At this time a Department of Education & Communication and an Inter-Ministerial Steering Committee for Environmental Education (IMSCEE) were developed. The committee was responsible for environmental education within the formal sector including; primary, secondary and monk education. Technical and financial assistance for environmental education has been provided directly and indirectly for environmental education through the government and NGOs since 1993. The United Nations and a variety of other national, international and non-government organisations have all utilised components of environmental education in their activities. The IMSCEE was involved in the development of a Draft Primary School Environmental Education Guide for Teachers and a book on Environmental Education for Monks. The steering committee has not met since 1999 due to lack of funding.

The fact that Cambodia is a major recipient of donor funding for sustainable development projects and activities has ensured that sustainable development has remained a priority area. In theory, although not always in practice, education is a core component of sustainable development. Environmental education is still in its infancy in Cambodia but due to the strong donor influence it has gained increasing support and acknowledgment as an important tool in reducing a variety of environmental problems that are

currently affecting the country. The most focused project on environmental education in Cambodia has been the Environmental Technical Advisory Programme (ETAP). There are also NGO's that are focussed on environmental education – Mlup Baitong, Save Cambodia's Wildlife, Osmose and Live & Learn Environmental Education. A variety of institutions, organisations and agencies have delivered environmental education using varied approaches in Cambodia.

Formal Environmental Education

Activities directly or indirectly related to *formal* environmental education include: curriculum & schools activities, training and capacity building workshops. Many of these activities are most traditionally linked with formal education in schools and universities. The Ministry of Education Youth & Sport has been increasing the number of environmental topics in the curriculum. At present Grades 9-11 get specific environmental studies and other courses further develop environmental topics. The proposed Life Skills component of the curriculum for Cambodia provides more opportunities for environmental education to be integrated into the curriculum.

NGOs are working with the government on the integration of environmental education into the school curriculum. An Environmental Education Training manual has been developed and is being used cooperatively by the Food & Agriculture Organisation (FAO), Mlup Baitong, Save Cambodia's Wildlife & Osmose. Action Guide to School Eco-clubs has also been set up in schools, with special environmental training for supervising teachers and activities for the student participants.



The fact that Cambodia is a major recipient of donor funding for sustainable development projects and activities has ensured that sustainable development has remained a priority area.

Formal government training related to the environment, including activities at the technical and managerial level in forestry, agriculture, fisheries, wildlife and protected area management are predominantly conducted through the Royal University of Phnom Penh's Department of Environmental Sciences and the Environmental Education Training Office (EETO). The Department of Environmental Sciences undertakes some of the long overdue research on environmental issues. The research program is dependant on funding being made available for such research. The specific role of the department relates to the development of human resources for environmental management. The Environmental Education Training Office (EETO) recognises that within the foreseeable future the Royal Government of Cambodia will face significant challenges, in its pursuit of sustainable development, including a lack of technical and

financial resources to ensure adequate services delivery. Therefore there is a pressing need and high demand for environmental training from government and non-government projects staff.

Training is a major component of government and non-government activities alike, and as such there is an abundance of environmental training being given to participants by a large number of providers and with a great deal of variation in quality. Technical training aimed at developing environmentally sound practices contributes to improve the sustainability and productivity of resource based activities. However, for the interest of environmentally sound management and sustainability of natural resources it is vital that the quality of these trainings programs be assessed to ensure that the information provided and taught to participants is accurate and up-to-date.



The range of non-formal environmental education is diverse as the scope of environmental education is so broad.



Non-Formal Environmental Education

In addition to the above mentioned initiatives in the formal education sector, different ministries, international organisations, and international and local NGOs have carried out environmental activities in the *non-formal* education sector, including the use of radio broadcasts, monk speeches, posters, TV, CDs VCDs and special events. Up to 80% of what we learn is done outside of formal education so it is a very important consideration for environmental education. The range of non-formal environmental education is diverse as the scope of environmental education is so broad. Some practitioners may not call what that they are doing environmental education but it can still be considered as such.

These non-formal activities make up the bulk of environmental education in Cambodia. Non-formal environmental education initiatives

are diverse and include: an Integrated Pest Management Program that has been conducted at the community level with assistance from the FAO; a program for monks that was initiated by one of Cambodia's leading ecologist monks, to promote community-based environmental learning and activities through Pagodas. Other community-based management pilot projects have also developed non-formal educational tools promoting better forestry and agriculture practices.

Environmental Education around the Tonle Sap

EE initiatives in and around the Tonle Sap Biosphere Reserve are characteristically small in scale and target local communities, teachers and primary school students. Existing providers of Environmental Education initiatives include Osmose, the FAO in Siem Reap, Mlup Baitong,





and Save Cambodia's Wildlife. Live & Learn has recently become a Cambodian NGO focussing on environmental education. Non-government organisation's, International organisation's and government staff do a range of environmental education. So far no formal impact assessments have been conducted on these initiatives. This makes it difficult to assess and share lessons of what tools have been successful and effective and what tools have lacked the capacity to create real change. The UNDP/Capacity 21 CBTS report on the Implementation strategy for the Capacity Building for Sustainable Development in the Tonle Sap Region project states that environmental education in the Tonle Sap Biosphere Reserve is still in its infancy stage. A Rapid Assessment of Perceptions, conducted by Live & Learn, around the Tonle Sap found evidence that was consistent with this statement.

FAO Siem Reap in collaboration with Osmose, Save Cambodia's Wildlife and Mlup Baitong developed a curriculum manual and published 1000 copies in 2003. In November 2004 these partners reviewed the manual based on teacher feedback. The manual contains 14 environmental themes. To date Osmose has trained some 40 teachers in two-day workshops to enable them to utilise the manual. Mlup Baitong has trained a further approximately 32 teachers to utilise parts of the manuals in running extra-curricula 'Eco-clubs' for primary students in Kampong Speu province. Save Cambodia's Wildlife use extracts from the manual for their Environmental Education 3-day training courses and have trained more than 200 teachers in Kampot, Koh Kong, Pursat, Kratie, Mondolkiri, Ratanakiri and Stung Treng provinces. Mlup Baitong & Osmose pay the teachers a per diem to include education about the environment along-

side school lessons, which is intended to keep the teachers accountable to carry out the activities and to provide an incentive for feedback on revision of the manual. Mlup Baitong also broadcasts radio programs from the Women's Media Centre twice a week in a format that includes two 15-minute segments on environmental issues and a one-hour show that receives call-ins. So far the true impact of these programs has not been successfully measured.

The FAO's Participatory Natural Resource Management in the Tonle Sap Region project, established the GECKO Centre (Greater Environment Chong Khneas Office) in 1999. The GECKO centre is a fixed floating exhibition situated in Chong Khneas, Siem Reap province. GECKO exhibits the various fishing techniques and livelihoods used in the TSBR as well as some small exhibits on biodiversity. GECKO staff identified the intended audience to be local fishing communities, tourists and primary school students. However the dominant visitors are the local school students in close proximity to the centre. Currently groups of 16 primary students visit the GECKO once a week for a one-hour session that is adapted from the EE Manual. Reportedly about 5000 students have attended a session of some sort with or without the manual at GECKO. GECKO has stimulated the development of a video on flooded forest protection as well as posters and awareness signage.

FAO also conducts EE workshops for monks and has developed a manual of EE that centres on Buddhist themes. In each pagoda, five monks are trained and four Pagodas have undergone training so far. Mlup Baitong also carries out EE training through pagodas. FAO has also developed outreach for non-formal education in fishing communities. However funding is currently required to continue with the



program. During the program, two villages were involved in providing actors for a video production that resulted in a small degree of apparent behaviour change.

Major providers of EE are centred in Prek Toal and Siem Reap and are largely awareness focused and to a lesser degree, action orientated.

Cambodia Family Development Services (CFDS), Soutien a l'Initiative Pour l'Aide a la Reconstruction (SIPAR) and Forum NGO have created some smaller scale materials, mostly posters and stories for community use. The provincial environment departments in Battambang and Pursat have also produced posters in collaboration with the Department of Nature Conservation and Protection, the Department of Environment and the TCU (Technical Co-ordination Unit) in Prek Toal. Community Sanitation and Recycling Organisation (CSARO) works in Phnom Penh on recycling projects, while Japan International Cooperation Agency (JICA) has been involved with environmental awareness training at the government level. The Ministry of Environment has an Environmental, Communications and Information Unit that primarily focuses on organising community efforts toward 'Clean Up the World Day' and a quarterly newsletter.

The new Tonle Sap Environmental Management Project (TSEMP) contains two key activities related to environmental education - National Environmental Education & Awareness Campaign (NEEAC) and the second is the Environmental Awareness, Education and Outreach project (EAEO). The TSEMP has a core focus in the provinces, with each province having a Project Implementation Unit (PIU), with staff members assigned to environmental education activities.

At present the PIU staff have developed Local Environmental Education Teams in each province surrounding the Tonle Sap Lake. They have also initiated a range of activities including, trainings, video shows, posters, law extension, environment classes for schools, and a workshop on environment & sanitation.

The Ministry of Environment has also contracted Live & Learn to conduct the NEEAC on the Tonle Sap. This campaign will include a variety of environmental education approaches including: theatre, radio, television, curriculum and best practices. *National and local stakeholders will play a key role in the formulation and implementation of the NEEAC. The campaign will improve knowledge on environmental issues at various levels of Cambodian society, with a special focus on the whole ecosystem of Tonle Sap. The campaign will focus on environmental, economic and social aspects of this diverse ecosystem; as provider of food, its special hydrology, as well as the threats it faces, and use the specific case of the Tonle Sap to demonstrate more generally the necessity of sustainable use and management of natural resources in Cambodia.*

The Tonle Sap Conservation Project (TSCP) component of the TSEMP will also have a focus on environmental education. *The Project will develop and implement an Environmental Awareness, Education and Outreach Programme that build on previous, ongoing and planned activities of Government agencies and NGOs in the TSBP, with a focus on biodiversity conservation. Delivery will be through the existing schools system, and also via environmental education centres (Core Area Management Centres, floating centres in Kampong Chhnang and Pursat, the GECKO Centre in Siem Reap), which will provide bases for regular outreach to villages around the Tonle Sap.*



CASE STUDY

Mlup Baitong (Green Shade)

Mlup Baitong has a wide range of environmental education resources including: print media, audio visual, designing materials and training services as well as practical activities. The following summarises some of these:

Print media; Mlup Baitong collaborated with Save Cambodia's Wildlife, Osmose and FAO in the development of an Environmental Education Activity Manual for Schools. They have also developed an Action Guide to (School) Eco-clubs, Primary School Lesson Plans, My Environment-newsletters, Kirrirom teaching materials, Tree planting booklet, and Train the Trainer environment modules. Posters have been produced on Sdao Tree (Neem) colouring, Kirrirom, Buddhism, Animal Eyes, and the Irrawaddy Dolphin. In addition to an annual calendar, it produces pamphlets, brochures card games, stickers, T-shirts and masks from recycled paper.

Training; Topics include general environment concepts, environmental education, natural resource management, waste management, facilitation, wildlife conservation, drawing, silk screen printing, Buddhism & environment, monitoring & evaluation, training of trainers, participatory rural appraisal, bird & tree identification, micro project grafting and germination.

Audio-visual media; Videos have included community forestry establishment, Chambok eco-tourism, Kirrirom and a Khmer version of The Lorax etc. They produce weekly environmental radio programs, have audio-tapes on the 'voice of villagers' and CDs of environmental songs. They also have many resources on their website (HYPERLINK "<http://www.mlup.org>" www.mlup.org).

Practical Activities; World Wetlands Events & National Environment Days, environmental forums, educational tours and tree planting activities. Waste management activities in Kampong Speu, Kampong Thom have included the production of waste bins and plastic lunch boxes, and waste & environment problems research has been conducted in three provinces. They conduct field trips to monitor activities in target areas. They have study tours for the community and exposure visits for schools. Community forestry patrolling is also conducted. On Thursday's the teachers at eco-club schools conduct environmental activities.

Lessons Learnt - Resource Centre Project Officer (Seng Vanndeth): There should be training needs assessments prior to conducting any training. For training courses, groups should be divided based on the participants' background for effective group discussion. Using participatory approaches,



such as asking for comments from stakeholders, can be useful for the development of materials. Any monitoring approaches should be used within the existing structural system and it is also useful to have incentives for monitoring teams. Prior to implementing any project, you should have a good understanding of who the key people to work with in the local community are.

Lessons Learnt - Program Coordinator (Sim Kong): Decentralization of projects requires clear responsibility of staff for each project. Involving project staff in project planning can develop staff capacity and bring ownership in successful project implementation. Voluntary community participation in activities is the most successful approach for implementing projects. Site visits or field trips of target groups or beneficiaries are a good way of sharing experiences and improving knowledge. Monitoring and follow-up can assist staff in effectively implementing, promote project quality and can be useful in the preparation of clear reports for donors.



CASE STUDY

Sangkrohs Satprey (Save Cambodia's Wildlife)

Save Cambodia's Wildlife has a wide range of environmental education including: print media, audio visual, training and practical activities. The following summarises some of these:

Print media: They have produced a series of high quality, bilingual, colour illustrated story-books with environmental themes and messages. These publications include a teacher's guide and informative facts about wildlife and related issues and are endorsed by the Ministry of Education, Youth and Sport. The titles include "Will You Hear My Song", "A Walk Through the Forest", "Touching the Clouds", "Jayk and Joch", "Tiger! Tiger! Why Do You Hide?", "The Little White Elephant", "Samnang and the Giant Catfish", "The Little Sun Bear", "Ta Kry Story book", "Cardamom Tale" and "Cambodian Wildlife Colouring Book." A cartoon book on resources rights is also available in Khmer & Pnong dialect. Training materials and a curriculum has been developed for Phnom Samkos Wildlife Sanctuary, Bokor National Park and Central Cardamom protected Forest. Posters and brochures have been developed on the Protected Area Law and the Forestry Law and they have also developed the Boom Card game, which combines conservation messages with mine risk awareness.



Training; Environmental education, training of trainers, teachers & local authorities, forestry & protected area laws, non-formal education teacher training and Samkos Wildlife Sanctuary.

Audio-visual; Daily radio programs on rights and responsibilities will start in 2006, use of videos on wildlife conservation from different sources and a website ([HYPERLINK "http://www.cambodiaswildlife.org"](http://www.cambodiaswildlife.org) www.cambodiaswildlife.org).

Practical Activities; Workshop meetings & presentations, study tours, facilitate the development of local by laws, resource mapping & boundary demarcation, coordination and assistance for community management committees and womens' associations, They have also assisted with environmental livelihood activities through tree nursery/reforestation, system of rice Intensification, rice & animal banks, village livestock agents, and volunteers for crop planting.

Lessons Learnt - Environmental Awareness Program Officer (Sun Youra):

For major events such as World Environment Day, it is very good to invite high-ranking officers to participate and show their support for environmental conservation. Prior to implementing project activities in the community, it is important to clearly explain the objectives of the project, and to involve the local authorities such as commune councils, district officers or influential people. It is important to build these relationships with people that have influence, especially the district governors. Cooperation is a key tool for all environmental education activities as it helps to increase information sharing among NGOs and between NGOs and government. Training needs assessments should be conducted before training is developed. Evaluation of activities should be conducted as this feedback can help to update or improve EE (tools or materials). Develop more materials such as teaching and visual aids, to assist with teaching local communities, especially for illiterate people.

NATIONAL ENVIRONMENTAL EDUCATION FORUM 2005



The objective of the National Environmental Education Forum was two-fold. As a priority it sought to gain a better understanding of the status of environmental education in Cambodia. We also wanted to know how environmental educators in Cambodia thought we could best move ahead. The forum also served as an opportunity for educators to network and hopefully form links for future collaboration on environmental education activities.

Opening: MoE Under-Secretary of State Sin Khandy

It is a pleasure to be here with you today for this National Forum on Environmental Education, prepared by Live and Learn Environmental Education organization in collaboration with Tonle Sap Environmental Management Project and Ministry of Environment funded by ADB. On behalf of the Ministry of Environment I would like to welcome you all and express my appreciation for the work you are all doing toward promoting the environment.

We are delighted to see how many people are actively involved in environmental education in Cambodia. Today you have the opportunity to learn more about what each other are doing and discuss how we can work together to make environmental education in Cambodia more effective in meeting the many environmental challenges for Cambodia. I would especially like to emphasise the importance of having so many Government and Non-Government organizations here to participate and hopefully in the future more closely collaborate. Environmental management, like sustainable development, is not only the government's responsibility but requires

the active participation of everybody in Cambodia.

This meeting is very timely as from 2005 to 2014 it is the United Nations Decade of Education for Sustainable Development. It is important that Cambodia uses environmental education to effectively meet the Millennium Development Goals. Education for awareness alone is not enough; people need to have practical alternatives so that their behaviour can become more sustainable.

Caring for the environment in Cambodia has existed since the ancient time, for example the Dragon is represented as the owner of natural water sources. Moreover, Cambodian's consider water as the symbol of happiness and success. They have also cared for and protected the nature around them such as forests and animals.

In 1993 Environmental Education gained use with the establishment of the Ministry of Environment. This approach is of paramount importance for the sustainable management of the environment in Cambodia. Environmental Education will also assist Cambodia in meeting the Millennium Development Goals. Specifically for sustainable livelihoods we need to offer people alternatives so that they have sustainable choices in order to act on their knowledge. The primary goal of environmental education is to enable Cambodian citizens to be aware of, and appreciate, the complex nature of the environment, as well as the roles played by a properly managed environment, in social and economic development of the Kingdom of Cambodia. For instance, through the Mekong River, which flows a long distance among Mekong countries, it provides us many benefits. But consuming with the wrong manner without caring about pollution will cause the water quality to



become lower, so we hope that the environmental education will help promote better activities.

Once again, I would like to express my pleasure in seeing you all here today. We look forward to constructive and fruitful discussions as well as the creation of good working partnerships from this national forum. Finally, on behalf of the Ministry of Environment, may I declare the workshop open and wish you all every success. Thank you very much.

Environmental Education

Presented by Mr. Nop Nimol
Deputy-director of Department of Education,
Information & Communication Ministry of
Environment

1.The necessity of environmental education

Environmental education is very important because without it, we cannot provide environment's conscience to public people as well we cannot lead people to become involved in protecting, supporting and conserving the environment.

Environmental educations have to ensure that people will understand about the benefit of environment for human life and socio-economic development. Also it can lead people to act good behaviours for environment and help to change bad behaviour so far.



Live and Learn Environmental Education members: Chum Somonn, Keat Bunthan and Pich Sokdany with His Excellency, Sin Khandy

2. Tbilisi Convention on environmental education

Environmental education (EE) is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, motivation, commitment, and skills to work individually and collectively toward solutions to current problems and the prevention of new ones. (UNESCO-UNEP 1978).

Categories of Environmental Education

The Tbilisi declaration gave categories of environmental education objectives;

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

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

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

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

Participation: to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems, (UNESCO-UNEP 1978 p3).

3. Asian Environmental Education's Plan

Environmental education is a means that can enhance the human knowledge, awareness and motivation on environment. Also it helps to get to know about the value of environment and situation of environment.

Environmental education is object to make people to use their knowledge from education into practice to protect, conserve and consume the environmental resources in sustainable manner, which can provide benefits to both present and next generations.

Along with that, environmental education also created to provide knowledge, skill, self-confidence, and determination on individual and community practice to solve the existing environmental problems and to avoid the others.

Concerning on Environmental education is the priority of Asian countries.

How to provide local and national environmental education through school and student outside the classroom, also to adult who is working as government staff and to all level of people in society to acquire more environmental knowledge.

Asian environmental education's plan is used as a model to enhance the environment practical activities for all Asian countries. This plan hops to provide the sacred fulfil with power and collaborating in environmental education program for all Asian countries.



4. Environmental Education in Cambodia

Key Environmental education practitioners:

- Ministry of Environment
- Ministry of Education, Youth and Sport
- Ministry of Agriculture, Forestry and Fisheries
- Relevant ministries and institutions
- Environmental Non-Government Organizations
- Environmental International Organizations

Challenges:

- Lack of funds for educational work
- Lack of teachers who have environmental background
- Lack of documents in Khmer language

Suggestion:

To make environmental education in Cambodia more efficient please actively participate and discuss the seven questions contained in this national forum.

Formal Education

Presented by Ms. Thach Thi Saran
Deputy-director Department of Pedagogy: Ministry of Education, Youth and Sport

1. Education for All

- Situation of education after the war
- Strategy of Education for All
- Formal Education
- Informal Education
- Policy for Curriculum Development

2. National Program

- Knowledge-able in Khmer Language and Mathematics.
- Knowledge-able in the national identity.
- Well-developed understanding about morality and civic responsibilities.

- Daily life skills that enable participation in their local community life and Cambodian society
- Basic understanding of the natural world and of scientific principles
- High competence in foreign language communication.

3. Local life skills program

Conserve the local skills village (Phum Phanha) and students have capacity to improve their livelihood.

Example:

- Provide skills related to living activities
- Environmental Education is linked to life skills program

1. Text book

Mainstreaming environmental relevant contents through Khmer studies, Mathematic, Social studies and Science courses. Specific Courses:

- Earth Science (Grades 7-9)
- Earth & Environment (Grades 10-12)

2. Additional reading

- Environmental education activity Manual
- Research documents
- Environmental storybooks (collaborate with Mlup Baitong, Save Cambodia Wildlife, SIPAR, etc)
- Posters which talk about environment—produce by UNESCO for teaching aids and leaflets

3. Teaching Methodology

- Student centre approach
- Teaching materials
- Apply the idea of Friend for Friend
- Information sharing system
- Role play on acting and telling the story, singing and recite the poem

4. Practical activities

- Child friendly school
- Clean up the class, school, public areas, etc

Mr. Keat Bunthan
 Environmental Education Specialist
 Live and Learn Environmental Education



- Celebrate the National and International Environment's day and plant the tree

5. Other: Informal community education & University of Environmental Science

4. Conclusion

In recent years, environmental education in schools and in public has helped people get to know more about the environment issues. But we have not reached the Ministry of Education Youth and Sport's goal yet. Example:

- Lack of human resource
- Shortage of time and teaching materials
- Teacher's capacity/level of living standard still low

Environmental Education Materials and Activities

Presented by Mr. Keat Bunthan
 Environmental Education Specialist
 Live & Learn Environmental Education

1. Education Categories

- Awareness
- Knowledge
- Attitude
- Skill
- Participation

2. Materials & Examples

- Newsletters: Catch and Culture - MRC (Mekong River Committee)
- Banners and Signs: Wild Life, Forest - MoE
- Children Story Books: Jayk and Jock - Save Cambodia's Wildlife
- Textbooks: Earth and Environmental Science - MoEYs, Dept of Pedagogical Research
- Manuals: EE Manual - FAO
- Posters: Fish Species in Cambodia - MAFF,

- Dept of Fisheries
- Songs: Concert of Nature - MoE
- Radio: Voice of Villagers - Mlup Baitong
- TV: Environmental Quiz show - MoE
- Video: The Two Brothers - WWF
- Theatre: National Fish Protection - Dept of Performing Arts

3. Activities:

- Training: Environmental Science - Royal University of Phnom Penh
- Mobile Library -Wild Aid
- Composting: Warm Compost, Water
- Compost - Sre Khmer
- Floating garden: Crops and Vegetables - Osmose
- Eco-clubs: Seedlings - Mlup Baitong
- Tree planting - Buddhism for Development
- Waste Management: Reduce, Reuse and Recycle - CSARO
- Special Events: Tonle Sap Fair - FACT
- Networking: Pesticide Network meeting - NGO Forum
- Advocacy: Forestry Law - CLEC
- Sustainable Livelihood Activities: Organic farming - Buddhism for Development Kampong Thom

4. Summary of Lessons Learnt in Cambodia

Capacity: Governance & rights
 Diversity: Audience & approach
 Action: Need sustainable alternatives
 Participation: Audience & objectives
 Evaluation: Activities & Materials

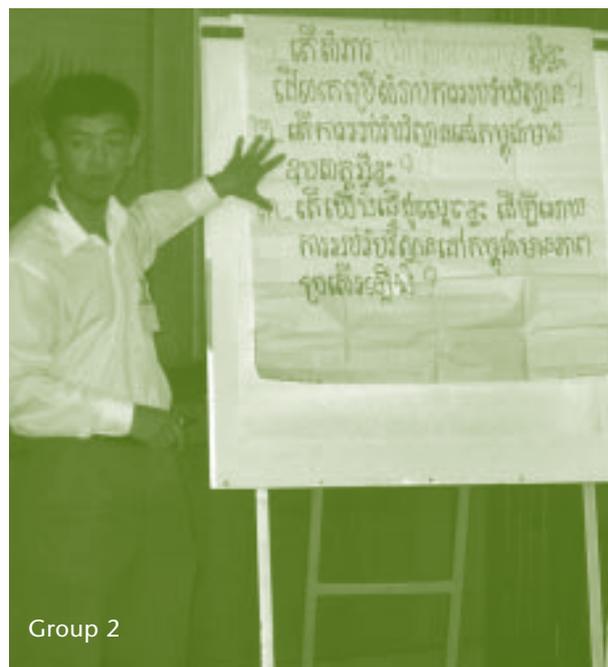
Group 1. Involvement in Environmental Education

The following information highlighted the view of who was most involved in environmental education. Interestingly, the emphasis of the

Group 1



group was on the specific role and responsibility of government ministries. Little was said about the involvement of specific non-government organisation's, generally emphasising that they do non-formal environmental education and also provide technical support and materials to the government. A great deal of detail was given on the role of government, with directly involved ministries including: Environment; Education Youth & Sport; Agriculture, Forestry & Fisheries; Information; and Interior. While indirectly involved ministries include: Rural Development; Health; Water resources & Meteorology; Industry Mines & Energy, Commerce; Cults & Religious Affairs; Land Management Urban Planning & Construction; and Tourism. Significantly, this list of direct and indirectly involved ministries displays a very broad understanding of the all-encompassing nature of environmental education.



Group 2

Group 2. EE & Print Media

Selections of materials linked to environmental education were highlighted below as an indicator of the extensive role print media plays in environmental education in Cambodia. Books, manuals, newsletters and posters make up a bulk of this but the group did not consider newspapers and magazines. Perhaps this is because another group was specifically working on media.

Group 3. EE used in the community

There are a range of environmental education activities and materials being used directly with communities. The following highlights some of the activities that are being conducted related to environmental education in communities around Cambodia. There is a strong emphasis on the involvement of NGOs in promoting environmental



Group 3



Group 4



Group 5

education directly with the communities. Multiple approaches used with video seems to be one of the most widely mentioned tools for spreading the environmental education message into the communities.

Group 4. Environmental Education and Media Use

The media can be a significant tool in getting environmental education messages to a wide audience. The following section highlights some of the ways that different types of media are currently showing environmental topics. The main forms of media mentioned include: television, video, newspaper, music and radio.

Group 5. Action-based Environmental Education

It is significant that there is far more than just talk about the environment – there is a range of environmental actions that are being conducted. The following highlights a sample of these activities. Specifically, there are national days that have the support of the government – many of these special events include some specific activities related to the environment including tree planting, litter collection and promotion of best practices such as compost or fuel-efficient stoves.

Challenges Implementing EE

There were many challenges highlighted by the groups, however the most commonly stated challenges were the limitations of: knowledge of people, human resources, budget and materials. A lack of cooperation, information sharing and effective participation were also highlighted by most groups, as was the challenge of poverty.

Language was considered a challenge, firstly as a limitation on what has been translated into Khmer and made it into the curriculum and secondly that the language used may be too high for much of the audience as illiteracy is a significant issue. A limited environmental ethic among the people, low law enforcement and corruption were also considered challenges to effective environmental education.

Making EE More Effective

As with the broad nature of environmental education, the ways highlighted by the groups to make it more effective were also varied. Encouraging more participation from local people was a key consideration, as was the establishment of new jobs/businesses for local and poorer people. Increasing cooperation and collaboration between all those working on the environment is needed, whilst also decreasing corruption, with strengthened law enforcement and increased respect for law. Emphasis was also placed on the need to better integrate environmental information through the media (TV, radio etc) the need for more action-oriented approaches such as; training local people on natural resource management – by developing vocational programs, having role models, demonstration activities, and ‘learning by doing’. The groups also mentioned that it is important to: make it more fun, produce more documents in Khmer and in simpler language, promote incentive-based activities for people working on environment, target activities for the audience more, seek other sources of funding and to potentially set up environment plans for each village.

CLOSING

Education without action is like knife without using!

Discussion & Summary

- Many NGOs & Institutions do EE
- All have different approaches
- EE is all around us e.g. every day we see EE in TV, Radio etc
- There are many books on EE, as well as newsletters and reports
- Practical examples of EE include, animal raising, tree planting, home gardens, releasing fish, waste management and efficient storage.
- Many challenges in EE lie ahead – but the biggest challenge is lack of evaluation. Without evaluation we don't know the MOST important.
- We are all committed to making EE better in Cambodia.
- To make EE better in Cambodia we must: work together, look for alternatives e.g. more volunteers do more actions; and change behaviours.

Closing: MoE Under-Secretary of State Sin Khandy

It is a pleasure to hear the work that has been achieved today at this National Forum on Environmental Education. On behalf of the Ministry of Environment I express my appreciation to you all for coming together to share your thoughts on how to more effectively promote the environment.

After the presentations of Mr. Nop Nimol, Mrs. Thach Thi Saran and Mr. Keat Bunthan, I am very satisfied and interested in the ideas related to environmental education in Cambodia such as: life-skills, preservation of village-skill (Phoum Phanha) and local attitudes. Along with that, I would like to talk more about the luck of Cambodia that has both treasures--Angkor Wat from the ancient people and the Tonle Sap from the great nature. Also we

have Tonle Mekong, which means the "mother of water". I would also like to add more about the existence of environmental education in Cambodia since the ancient times. For example, the Buddha considered the nature, forests and wildlife as objects to study before achieving enlightenment.

However, through the human attitude, they have driven the natural resources to become less than, rather than more than, enough to fulfil the human need. We can't change the past but we can make the future a better place. As educators you all have a role to play in making Cambodia a better place both now and in the future. I look forward to hearing more about positive environmental education actions in Cambodia and hope this National Forum on Environmental Education will contribute toward this.

I would like to emphasise that with so many Government and Non-Government organizations and people from the city and the provinces here to participate I hope that many strong and mutually beneficial connections have been made between the participants. I remind you that we all need to work together to promote environmental management in Cambodia. By better collaboration we can reduce the inefficiency of duplication. I encourage you all to move forth with a spirit of collaboration in developing environmental education by following the idea stated - "please do not follow the palm tree which grows alone". It represents the people who do not have unity.

Today you have learnt more about what each other are doing and discussed how to make environmental education more effective in meeting the many environmental challenges for Cambodia. I hope you have all learnt from these discussions & most importantly I hope that you will all be able

*Education without action is like
a fish without water!*



to utilize some of what you have learnt to make future environmental education activities more effective. Importantly, I repeat the fact that we need more than just awareness to help manage environmental issues. We need to promote behaviours & actions that will help to manage and protect the environment for now & the future.

Once again, I would like to express my pleasure in having you all actively participate in this

National Forum on Environmental Education. We look forward to seeing the constructive and fruitful discussions from national forum written up in the forthcoming Environmental Education Status Report to be developed by the Ministry of Environment in collaboration with Live & Learn. Finally, on behalf of the Ministry of Environment, I declare the workshop closed, but may I wish you all every success in pursuing your environmental education activities. Thank you very much



CASE STUDY

Wildlife Conservation Society

The Wildlife Conservation Society has a wide range of activities, with those related to environmental education including: print media, audio visual, training and practical activities. The following summarises some of these:

Print media; They have produced a series of high quality, bilingual, colour illustrated field guides on the Tonle Sap, birds, mammals, turtles and key sites for conservation in Cambodia. Wildlife Identification guides are also produced for law enforcement. These publications are also used in their ranger training manual & activities. They have also sponsored a range of posters with wildlife themes including Mekong River dolphins. They produce a monthly newsletter specific to bird conservation called "Cambodia Bird News."

Training; A focus of their training is on developing core competencies for protected area rangers to be able to fulfil their role effectively and enforce conservation. They also work with and train village conservation teams.

Audio-visual; They have developed documentaries and short films focussing on wildlife conservation for communities. They also have a website ([HYPERLINK "http://www.wcs.org/international/Asia/Cambodia"](http://www.wcs.org/international/Asia/Cambodia) www.wcs.org/international/Asia/).

Practical Activities; Much of their work focuses on collecting data to assist in management and conservation of wildlife in Cambodia. They are actively involved in mapping of land use, wildlife and resource trends and spread this information through reports, workshops, meetings & presentations, study tours, conservation plans and assistance with related policy development. At a more local level they work on the development of participatory natural resource agreements.



REVIEW & RECOMMENDATION

Lessons Learnt - Prek Toal Conservation Officer: (Sun Visal) For effective implementation of a project, it is important to build relationships with the local communities. It is better to advertise and explain the purpose of any signage to the community before actually putting the signage into the area. A good approach is to conduct training for local communities to ensure they have the knowledge to participate in project activities. The methodology of learning by doing (including learning by showing the pictures and materials for practising) is very effective when working with the local community. After implementing activities, it is important to have evaluation through field visits, meetings and discussions. Involving and encouraging the hunters to be active stakeholders and/or part time staff in project can be very good for project implementation.

REVIEW

Some of the most notable findings from the environmental education national forum and collecting information for this status report are reviewed in this section in order to propose some recommendations.

Cambodia has a very positive history in both education and environment. Past events conspired to isolate Cambodia from other countries of the world as the environment was being debated at the highest levels. Cambodia is now going through a period of rapid development and change, which is leading to some negative environmental issues. There is a move to try to reduce the negative environmental issues and environmental education is playing a strong role in this process.

Firstly, it is important to note just how many people are doing environmental education in Cambodia. It is encouraging to see how many government ministries, NGOs and other institutions do some form of environmental education. All of these groups have different approaches, as there is no standard approach and limited national coordination for environmental education.

Environmental Education is all around us: it is being integrated into the lives of everyone. There are national media programs on the environment in the media, in television and radio. Newspapers are increasing their coverage of environmental issues. There are also books, reports and posters with a range of messages related to the environment. Communities are receiving and in some cases developing their own environmental education. The government is utilising national events such as: Environment Day, Harbour day, Fish Day and even Labour Day to promote environmental messages. Practical examples of Environmental Education include; raising animals, planting trees, home gardens, releasing fish, waste management and fuel-efficient stoves.

Every day we see environmental messages, but unfortunately this alone is not proving enough to change negative behaviours. We need to find more effective approaches and importantly we need more action.

REVIEW & RECOMMENDATION



Recommendations

To overcome the above problems, particularly to enhance the environmental education in Cambodia, it is necessary to develop a Strategic Direction on Environmental Education. ASEAN (2003)

Any strategic approach to environmental education will require work in several focus areas. The following recommendations are based around: audience, language, meaning, expansion, outcomes, cooperation and evaluation.

Audience

Few activities are designed for specific audiences as most seek a more general audience. The majority of environmental education organisations, be they government or non-government, are in Phnom Penh, but 80% of the population is outside Phnom Penh. There is also an emphasis on the use of print media for environmental education. However the literacy rates outside of Phnom Penh are low meaning that the messages are not effectively reaching the audience. One of the reasons that this approach has continued may be the lack of evaluation of environmental education activities and materials. When developing activities and materials we need to carefully consider the audience they are intended for.

Language

Some say there isn't enough technical environmental information in the local language (Khmer), while others mention that there are documents that sit in offices or people's houses and are not utilised. There is also comment about how to ensure the quality of the information – some documents have conflicting information. Overall one of the major obstacles is due to a lack of standards for the translation of environmental

concepts and terms. Until there are standards for translation of technical data in Cambodia there will be some problems in getting high quality local-language materials. We cannot use language as a reason not to act but we must be more cautious with the information we use and how it is translated.

Meaning

The meaning of 'environmental education' varies across delivery organisations and should be expected to evolve over time. A shared acceptance of the different concepts between stakeholders is required to identify commonalities to open up dialogue. Diversity needs to be seen as an opportunity rather than weakness but at the same time we need to ensure that a more holistic understanding of environmental education is developed. We can move beyond approaches to simply increase awareness and knowledge and more actively focus on the pressing issue of behaviour change.

Expansion

So far, these environmental education initiatives have reached only a limited proportion of the population. These efforts need to be expanded to cover all regions of the country and reach everyone. There is already use of the media however, a more strategic approach to mass media will greatly improve the strength of national environmental education. Expansion needs to be done with a more strategic approach but such an approach relies on resources. We cannot just wait for increased capacity and financial resources we need to move ahead with whatever resources we have. At the National Forum on Environmental Education, the monks asked us to use the pagodas as resources of people willing to volunteer to assist in the promotion of environmental education. We need to better utilise all available resources in the expansion of our messages and activities.



Outcomes

Most of the environmental education activities are focussed on outputs through 'awareness', 'knowledge', and 'attitudes', with some 'skills' focus through training and limited approaches for 'participation'. Environmental education is not being used as a strategic tool for an outcome as it is often simply used as a visible output. We need to really think about why we are doing environmental education. What is the long-term outcome that we are seeking to achieve? With a stronger vision of what we want to achieve in the long-term our activities and materials will be more effective.

Coordination

There is a growing need for more active coordination of environmental education activities in Cambodia. Ministries, institutions and NGOs alike have multiple opportunities to more actively cooperate with each other to make environmental education more effective for Cambodia. It is the intention of this document to promote, facilitate and better coordinate the development of such activities by documenting what we already know. The next step is for all environmental educators to actively seek cooperation with each other on linked activities. Rather than complain about the lack of cooperation let us lead by example and work together.

Evaluation

Many challenges for Environmental Education lie ahead – but one of the biggest and most critical challenges is the lack of evaluation. In order to make it more effective, it is important for environmental education to be evaluated. During the discussion many people asked about how effective the environmental education approaches were. Without evaluation we don't know which challenges are the MOST important. Environmental education is difficult to evaluate and it will require

a concerted effort to have evaluation of different materials and activities that can be comparatively evaluated. With increased evaluation, we will have the opportunity to make environmental education more effective.

Commitment

We are committed to making environmental education better in Cambodia. However, in order to make it better in Cambodia we must: work together in a spirit of co-operation and promote positive alternatives. Most importantly we must not just talk about it but we must do it ourselves. The best way to change the behaviours of others is to lead by example.

The longest journey starts with the first steps in the right direction.

Education for Sustainable Development in Cambodia; a way forward

The concept of sustainable development is far-reaching and complex. Our actions have socio-economic, environmental and cultural implications. As such, sustainable development is an undertaking that requires sustained commitment, innovation and cultural understanding. Environmental education is a strategic tool in our moves toward sustainable development.

Taking a strategic and collaborative approach to environmental education will assist in maximizing impact. During 2004, ADB supported the development of an Environmental Education Strategy¹ for the Tonle Sap Region by Live & Learn Environmental Education. The strategy recognises the power of environmental education to enhance sustainable development and reduce poverty. It also acknowledges that a society committed to achieving sustainability in a short time needs to reappraise practice at all levels.

The longest journey starts with the first steps in the right direction.



This Environmental Education strategy is shaped by the universal challenges of sustainability and the specific challenges facing the Tonle Sap and its people. It seeks balance in the preservation of the physical environment with the preservation of human rights and peace, the continued provision of sustenance, health care and security, and the continued growth of diversity, good governance and the local economy. The sheer scope of this challenge means it is important to implement the strategy on a small scale initially, with a focus on using both existing and new knowledge to shape practice conducive to sustainable development.

The main purpose of the strategy is to promote environmental education as central to the common pursuit of sustainable development in the Tonle Sap region. A Formative Research Inquiry into local perceptions of environmental issues concluded this purpose could be realised through five objectives:

1. Create links and networks, exchange and dialogue among stakeholders in environmental education;
2. Provide a space and opportunity to formulate and promote actions towards sustainable development – through public forums,

community and formal education;

3. Cultivate increased quality and capacity of teaching and learning in environmental education;
4. Tailor environmental education towards the development of sustainable economies and livelihoods;
5. Enhance opportunities and skills of public participation in civil society.

This strategy aims to complement and link with the many positive initiatives and priorities of the Cambodian Government and non-government organisations, and will specifically link with the Tonle Sap Environmental Management Project and the Tonle Sap Basin Strategy. Five important approaches, are proposed in the strategy, that could assist in achieving the afore-mentioned objectives. These focus on (i) creating good will and partnerships (ii) critical thinking and innovation (iii) public awareness and vision-building (iv) formal education and training and (v) linking of practice to policy. These approaches aim to create a pathway and a vision for environmental education. In regards to education for sustainable development in Cambodia, we propose this as ‘a way forward’.



CASE STUDY

World Wildlife Fund

WWF utilises some environmental education including: print media, audio visual, training and practical activities. The following summarises some of these:

Print media; Posters have been developed specifically by WWF and in collaboration with other organisations on topics including ranger activities. In cooperation with Oxfam America and the Regional Community Forestry Training Centre, it has produced the Community-based Natural



Resource Management Learning Initiative. Reports and case studies have been developed to highlight research data from projects, develop eco-regions and provide a basis for evaluation and useful information on community-based management of resources. WWF has also collaborated with Mlup Baitong, Save Cambodia's Wildlife and FAO in the development of an Environmental Education Activity Manual for Schools.

Training; Conduct activities with staff, government officials, rangers, local communities & relevant groups on topics such as, good management, law enforcement, alternative livelihoods, forest management, resource mapping & assessment, research, analysis & documentation skills.

Audio-visual media; WWF has produced some documentaries and they also have a website ([HYPERLINK "http://www.wwfindochina.org/cambodia/cambodia-programme.htm"](http://www.wwfindochina.org/cambodia/cambodia-programme.htm) www.wwfindochina.org/cambodia/cambodia-programme.htm). Quite famously WWF-USA also developed a motion picture movie called 'Two Brothers', about two tigers.

Practical Activities; Rangers are trained and equipped for involvement in assessment, patrolling & enforcement, forest management, and mapping of biodiversity resources. Community activities include co-management agreements, alternative & sustainable livelihoods activities, participatory land use planning, traditional ecological knowledge (customary livelihoods), non-timber forest product use. Work with influential groups such as monks. community management & community forestry action plans are also developed. Forestry law extension teams translate and simplify the Forestry Law so local people understand their rights and obligations. WWF is also working with the Indigenous Land-use Network to assist in gaining community tenure of lands.

Lessons Learnt - Tiger & Elephant Conservation Technical Staff: (Ou Ratanak & Duong Kong)
Effective project implementation is based on the involvement of local communities, provincial and communal counterparts. The capacity of some local communities is still low so it is important to simplify words and techniques. All activities should be evaluated in order to learn how they progressed and their strengths and weaknesses. Good relationships need to be developed with the local communities, and this can be done by staying with them, eating with them, and having discussions with them. It is very important to ensure that project staff don't discriminate against the local community. Where possible, opportunities should be given for the rangers and counterparts to implement the activities and the technical staff to give advice, monitor the activities and assist. The methodology of learning by doing is a very effective approach when working with the local community. Good facilitation skills are necessary for anybody that is working with the local community.

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ANNEX 1 - PROJECT BACKGROUND - TSEMP & TSBR

Tonle Sap Environmental Management Project (TSEMP)

The Tonle Sap Environmental Management Project is a \$20 million project jointly financed by the Asian Development Bank (ADB), United Nations agencies and the Royal Government of Cambodia. Approved in 2002, the overall project has three parts – strengthening the management of natural resources, organising communities and conserving biodiversity in the Tonle Sap Biosphere Reserve.

Most of the Tonle Sap project is being financed by an ADB loan for \$10.9 million, with the Cambodian government providing the equivalent of \$3.9 million in local currency (about 1.6 billion Riel). The Global Environment Facility of the United Nations has offered a separate \$3.9 million grant and the United Nations Development Program (UNDP) is providing a grant of \$623,000. To improve the regulation and management of inland fisheries, the ADB is offering a further \$540,000 in the form of a technical assistance grant.

Like the Tonle Sap Biosphere Reserve, the project falls under the Cambodian National Mekong Committee, which represents 10 different ministries. Kol Vathana who is also deputy secretary general of the National Mekong Committee heads the general secretariat of the project. The three deputies are Neou Bonheur, deputy director of the Natural Resource Protection and Conservation Department of the Ministry of Environment; Sam Neou, deputy director of the Fisheries Department of the Ministry of Agriculture, Forestry and Fisheries; and Ang Norin, deputy director of the Water Resources Management and Conservation Department of the Ministry of Water Resources and Meteorology.

The Tonle Sap Biosphere Reserve (TSBR)

Under a program launched in 1970, the United Nations Educational, Scientific and Cultural Organization (UNESCO) designated the Tonle Sap Lake and its flood plain as a biosphere reserve in 1997. The reserve spans almost 1.5 million hectares

and covers the lake and most of the surrounding area bordered by National Routes 5 and 6. By 2005, it was one of 482 biosphere reserves in 102 countries. The Tonle Sap Biosphere Reserve is administered by a secretary from the Cambodia National Mekong Committee and three deputy secretaries from the Ministry of Environment, the Fisheries Department of the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Water Resources and Meteorology. The three ministries also administer the Tonle Sap Environmental Management Project (TSEMP) jointly financed by the Asian Development Bank (ADB), the Royal Government of Cambodia and United Nations agencies.

The reserve comprises the lake itself, flooded forest and flooded grasslands, mainly on the eastern shore. During the rainy season, the lake swells to as much as 1.6 million hectares, more than six times its dry season area which can be as little as 250,000 hectares. Almost two-thirds of the water comes from the Mekong River with more a third originating from the basin, notably the Steung Sen and the Steung Pursat tributaries. About 10 percent of the area is covered by tall-tree forest, mainly along streams and wetter places.

The flooded forest of the Tonle Sap is the biggest continuous area of savannah swamp forest and flooded forest in the whole of Asia. By 1997, it was estimated to have shrunk to 350,000 hectares, about a third of its original area. The flooded forest is crucial for fish, water birds and reptiles.

The biosphere has three “core areas”– in Prek Toal in Battambang province and Boeung Chhma and Steung Sen in Kampong Thom province. Almost 100 species of water birds are found in these three areas, which cover an area of more than 42,000 hectares. More than 400 species of fish have been identified in these areas, which are also known for crocodiles, turtles, macaques, otters and water snakes. The core areas comprise 21,342 hectares in Prek Toal and 14,560 hectares in Boeung Chhma, which is also an internationally recognised wetland under the Ramsar Convention (see below). Both are important breeding and feeding grounds for endangered species of large water birds. Steung Sen spans 6,355 hectares and features trees rare to the flood plain. The Ministry of Environment estimates less than 20,000 people live in or near these areas – about 10,000 in Prek Toal, about 2000 in Boeung Chhma and almost 7,000 in Steung Sen.

A “buffer zone” covers the entire lake and extends to the outer limits of the flooded forest. It stretches deep into Battambang province and also covers large areas of Kampong Thom and Pursat provinces and smaller areas of Kampong Chhnang and Siem Reap. Excluding the three cores areas, the buffer zone covers 541,482 hectares and is the same area designated by

Royal Decree as a “multi-purpose protected area” in 1993. The zone includes about 60 floating villages and a population estimated at almost 70,000 people.

A “transition zone” bordered by National Routes 5 and 6 in Battambang, Pursat and Siem Reap provinces surrounds the buffer zone. It extends to limited stretches of the two highways in Kampong Chhnang and Kampong Thom provinces, stretching from south of Kampong Chhnang to Sisophon in the north. Covering 899,600 hectares, the transition zone includes parts of the towns of Pursat & Siem Reap. The population is estimated at 1.6 million.

Fishing is the main activity but the flood plain is also used to produce rice and vegetables. The main goal of the reserve is to study and promote indigenous ecological knowledge.

Cambodia is part of the Southeast Asia Biosphere Reserve Network launched in 1998. Other members are China, Indonesia, Japan, Laos, Malaysia Myanmar, the Philippines, Thailand and Vietnam. The UNESCO office in Jakarta hosts a website for the network, also known as SeaBRnet. Cambodia and UNESCO organized the third meeting of the regional network in Siem Reap in 2003 with assistance from Japan. Laos hosted the fourth meeting in 2005.

Overall responsibility for the Tonle Sap Biosphere Reserve and the Tonle Sap Environmental Management Project rests with the Cambodian National Mekong Committee. The committee advises the Council of Ministers on developing, managing and preserving water and related resources of the Mekong River in cooperation with provincial and municipal authorities as well as central government agencies. The committee represents 10 ministries. These are the ministries for water resources and meteorology; environment; agriculture, forestry and fisheries’ foreign affairs and international cooperation; industry, mines and energy; planning; land management, urbanisation and construction; rural development and tourism.

Biosphere reserves date back to 1968 when a UNESCO conference called for a program to set up land and coastal areas representing the world’s main ecosystems. The UNESCO initiative took shape in 1970 when the Paris-based agency launched its “Man and the Biosphere” program establishing protected areas known as biosphere reserves. An international conference agreed on a strategy for biosphere reserves & a framework for a global network. UNESCO approved the Seville Strategy & Statutory Framework of the World Network of Biosphere Reserves in 1996.

Nominated by governments, the reserves are internationally recognised but are controlled by the countries where they are located. UNESCO

describes the reserves as “living laboratories” for testing integrated management of land, water and biodiversity. Each reserve is supposed to help conserve landscapes, ecosystems, species and genetic variation while fostering sustainable economic and human development. A third function is to support research, monitoring, education and the exchange of information.

Each reserve has a core area, a buffer zone and a transition area. The core areas of biosphere reserves have to be legally established and provide long-term protection to the landscapes, ecosystems and species it contains. Normally, the core area is not subject to human activity, except research and monitoring and traditional use by local people. Buffer zones surrounding core areas might have research into managing natural vegetation, croplands, forests and fisheries to improve production while conserving nature and biodiversity – including soil – as much as possible. These zones may also be used for education, training, tourism and recreation. Transition areas extend outwards from buffer zones, may contain human settlements, agriculture & other activities.

Several biosphere reserves encompass national parks, nature reserves and other internationally recognised sites under the World Heritage and Ramsar conventions. Local communities and those involved in agriculture, forestry and fisheries are seen by UNESCO as the main beneficiaries of biosphere reserves along with scientists, governments and the world at large.

To be designated as a biosphere reserve, an area should normally be “representative of a major biogeographic region” with landscapes, ecosystems or animal and plant species or varieties that need to be conserved. The area should be big enough to have a legally-defined core area devoted to long-term protection, a clearly-identified buffer zone and an outer transition area. Public authorities, local communities and private interests should be involved in planning and managing the reserve.

A UNESCO Advisory Committee examines all nominations for biospheres and makes recommendations to an International Coordinating Council which usually meets every two years. Set up in Paris in 2000, the council has 34 members who elect a chairman and five vice-chairmen. UNESCO member states not represented on the council can send observers to the meetings, as can other UN agencies such as the United Nations Environment Program (UNEP) the Food and Agriculture Organization (FAO), the World Maritime Organization (WMO) and the World Health Organization (WHO). The International Council of Scientific Unions (ICSU), the International Social Sciences Council (ISSC) and the World Conservation Union (IUCN) may act as advisory bodies to the council.

Sources: Asian Development Bank, Cambodia National Mekong Committee and United Nations Educational, Scientific and Cultural Organization.

ANNEX 2 - CONCEPT OF ENVIRONMENTAL EDUCATION

Defining Environmental Education

It is better to think of education as an ideal, which no one can fully achieve, since no one can know everything. On the other end of the continuum it is clear that very few normal people know nothing. So almost everyone is partially educated since we all have some knowledge (Hamm 1989).

The Tbilisi Declaration still serves as a benchmark for the concept of environmental education and gives the following definition, goals and categories for environmental education:

Environmental education (EE) is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, motivation, commitment, and skills to work individually and collectively toward solutions of current problems and the prevention of new ones. (UNESCO-UNEP 1978).

Furthermore, Tbilisi gave five categories of environmental education objectives;

- Awareness: to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.
- Knowledge: to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.
- Attitudes: to help social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.
- Skills: to help social groups and individuals acquire the skills for identifying and solving environmental problems.
- Participation: to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems, (UNESCO-UNEP 1978).

Even in light of the framework provided by the Tbilisi Declaration, the lack of agreement on an environmental education definition has been a concern for some time.

Indeed, another way of categorizing environmental education activities is termed as education “about, in and for”, or alternately ‘about, from and for’ the environment and these are described as follows:

- Education **about** the environment provides learners with practical knowledge about the environment and the impact humans have on it.
- Education **from (in)** the environment uses the natural environment as a teaching tool – a natural laboratory to provide knowledge and hone skills to protect it. This component helps develop values and creates positive attitudes.
- Education **for** the environment develops a consciousness and deep concern about the living environment and promotes responsibility for taking care of and protecting it. The objective of this component is to develop attitudes and levels of understanding, which influence people to take collective action that will positively benefit the Earth.

Given the variety of meanings attached to the term in general usage and the proliferation of terminology relating to Environmental Education, it is necessary when using this term, or other terms, to find common ground with other organisations and individuals. With or without a clear definition there is still a need for this new ethic so for the purpose of this report we are happy to use the term environmental education. The goals and objectives set down in the Tbilisi Declaration serve as a guideline for the concept of environmental education that allow for flexibility, and with this flexibility environmental education continues to evolve. Environmental Education is diverse and concerned with the following: Enhancement of economic capabilities or opportunities and the sustainable use of natural resources, Improvement of practice in curriculum development and educational participation rates, Development of opportunities for, and skills of, participation in civil society, Provision of basic services to local communities, and Facilitating the recognition and utilisation of traditional skills and practices.”

Environmental Education and Poverty Reduction

Poverty and quality of life are the two issues central to all environmental education. Quality of life means different things to different people and in different contexts: all human beings have a hierarchy of needs they seek to fulfil. At the most basic level, this might include safe drinking water and nutritious food, basic sanitation and health services, and a safe and secure living environment. Many of these needs can be met with a regular income. In principle, the issue of need links environmental education and poverty.

Addressing immediate short-term needs is of primary importance, therefore the threat to long-term needs is considered secondary, since those who starve today will not see tomorrow. For impoverished populations, it can be argued that the generation of a stream of income (either monetary or in kind) is the only way to truly meet their needs. It is a key consideration of environmental education to find and promote ways for people to gain the resources they need in a sustainable way. Otherwise, processes of generating income that cause environmental degradation will be used as the only other alternative is to go without which could mean starvation or worse.

Assumptions that environmental awareness leads to change and that people choose to live in sustainable ways based on their knowledge are very problematic. It's well known that many communities and governments, for various reasons, choose to clear fell their forests, despite knowing it will have devastating consequences. This is why environmental education must do much more than just inform people about the environment and environmental values. It must also show that by building environmental assets, communities can produce a stream of income both now and for the future, to meet short and long-term needs. Long-term poverty is often a result of poor short-term decisions.

This is a considerable challenge, but it is not impossible. It requires starting from where the learner is, with versatile environmental education design driven by existing structures, assets and good will – all set within a new context of thought and behaviour. Most critically, environmental education needs to start from wherever different communities are at. Introducing unfamiliar approaches that people can't identify with is likely to have a very limited impact. Traditional knowledge may lack the capacity to deal with current problems, but it is the starting point for the construction of new knowledge. This new knowledge should be passed on through an action-based learning process, or learning by doing.

ANNEX 3 - RELEVANT ORGANISATIONS

The following section highlights some of the organizations working in Cambodia that we consider have relevance to environmental education. This list is compiled from meetings and external data. Specific data has been collected from the Cooperation Committee for Cambodia. Some of the information may not be current and as such not accurate, there may also be other organizations of relevance that we have not come across. We apologize for any lapses in accuracy or organizations that may have been missed but hope that this compilation of information may serve as a catalyst for further collection of information on the status of environmental education in Cambodia.

ACAPE - Association Cambodgienne d'Approvisionnement en Eau

ACAPE has been implementing water projects in Cambodia since 1988 and developed a professional training team in 1991. It was established as a local NGO in 1995 and has experience in the field of community water supply and sanitation. ACAPE's project with most relevance to environment is Water and Sanitation. The objective of project is *"to supply drinking water to rural population which include water point's construction, facilities installation, operation and maintenance training including sanitation as well as to provide water supply services"*. They currently focus their work in Banteay Meanchey, Kampong Thom, Kampong Speu, Pursat, Kampot and Kandal Provinces.

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AJA - Association de la Jeunesse pour L'Amination

AJA was authorised by the Ministry of Interior in 1988. AJA and have been authorized to coordinate plans for academic education as part of Accueil Cambodgien. AJA has further developed its work plans with youth and have built one more branch in Kampot that is called the branch Maison des Jeunes (MJC). The MJC provides programs of foreign language education extra classes for school subjects, computing, sports, travel/visiting /exchanging, culture art, and other programs to focus on youth education. Their project with most relevance to environmental education is Health and Environmental Education. The objective of the project is *"to provide education and training on health and environment"*. They currently focus their work in Kampot and Phnom Penh.

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APDO - Angkor Participatory Development Organization

APDO was established in May 2000, by a team of former national and international United Nations Volunteers (UNV), to continue coordination of community activities. This organization was localized from the project of UNV program, entitled Sustainable Community Participation in Angkor Park Cambodia. APDO's project with most relevance to environmental education is Sustainable Human Resource Development. The objective of the project is *"to enhance rural capacity to alleviate the poverty and support village self-reliance for socio-economic, cultural, and environmental development"*. They currently focus their work in Siem Reap Province.

Tek Sakan Savuth, Director

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apdo@camintel.com

Website: www.apdoangkor.org

0630, Group 12, Wat Bo village, Salar Kamroek

Commune, Siem Reap

Bondos Komar

Bondos Komar was initiated by a French NGO called Partage, and has been operational since August 1999. Bondos Komar works to support government primary and pre-schools. Bondos Komar has a range of education projects, such as: School construction, rehabilitation of school's building and fences, sanitation (latrines, ponds, water tanks), Hygiene, health education training for teachers and pupils with a large range of activities, vegetable gardens and improvement of school environment. They currently focus their work in Pursat, Kandal, Kampong Speu, and Takeo provinces.

Kong Sarom, Director

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BFD - Buddhism for Development

BFD was founded by Indapanno Bhikhu, Heng Mony Chenda and a group of monks in 1990 at Site 2 refugee camp, Cambodian-Thai border. These people could see the value of Buddhism as a tool for peace restoration and national reintegration, economic development, social development, mental development,

wisdom development, and sustaining the balance of individual, society, and the nature. The Anlongvil office in Battambang has become the Central office of BFD. Their goal is *“to achieve through training, advice, and participatory projects the sustainable socio-economic development of the population of Northwest Cambodia.”* BFD’s project with most relevance to environmental education is Human Rights and Environment. They currently focus their work in Battambang, Banteay Meanchey, PP, Pailin, Siem Reap, Kampong Thom and Preah Vihear.

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Wat Anlong Vil, Srok Sangke, Battambang

BFDK - Buddhism for Development Kampong Thom

Buddhism for Development Kampong Thom was established in 1997 and was registered as an NGO in 2000. Their mission is *“to facilitate activities that lead to poverty reduction in target areas”*. Their target areas are communes within Kampong Thom and head office is located in Kampong Thom Town, and the current projects with most relevance to environmental education include: Community Forestry and Organic farming. Venerable Ly Khom started the activities at Vor Yeav in 1997 with the establishment of the saving group in 3 villages, 2 rice banks and a pagoda based tree nursery. BFD’s projects with most relevance to environmental education include: Community Forestry, Agriculture, Primary Health, Self Help Group, Decentralization, Youth Group and Monk Association. They currently focus their work in Kampong Thom.

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National Road 6, Kampong Thom

CED - Community Economic Development

CED is a local NGO based in Kratie province. It was registered with the Ministry of Interior in 2003. Currently, it covers a target area of 67 villages, 16 communes and 4 districts of Kratie. Their objective is *“to improve the capacity building of natural preservation and educating about forest, wildlife, fishing and community forestry support and natural preservation”*. CED has developed three main programs including Education (Non-formal), Health education and integrated agriculture/animal husbandry. Other programs include natural resource preservation and capacity building to commune councils and community people. They currently focus their work in Kratie province.

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CEPA - Culture and Environment Preservation Association

The Culture & Environment Preservation Association was established in 1995 and was registered as an NGO in 1996. Their mission is *“to provide training courses on environmental and natural resource management concepts for participants from university, NGOs and the Government”*. Their target areas are Phnom Penh & Stung Treng with the head office located in Phnom Penh. The current projects with most relevance to environmental education include: Community Forestry, Community Fisheries, Sesan Protection Network, Advocacy for River based Management Program, Environmental Activist Training Project and Sustainable Livelihood Project. They currently focus their work in Phnom Penh and Stung Treng.

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“http://www.cepta-cambodia.org/”
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CLEC - Community Legal Education Centre

CLEC is a local NGO that provides a variety of legal services such as education, advocacy and other legal services to the people of Cambodia. It was created in 1996 as legal resource centre, promoting the rule of law, justice, and democracy in Cambodia. From 1996 to 2001, CLEC operated as an arm of the University of San Francisco Law School, funded by USAID. In 2002 it became a local registered NGO. CLEC has recently embarked on a major project to undertake public interest legal advocacy, particularly in the area of land and natural resources. Their objective is *“to build the capacity of legal land and natural resources use for the people of Cambodia”*. CLEC’s project with most relevant to environmental education is Land and Natural Resources. They currently focus their work in Ratanakiri and Mondulakiri Provinces.

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#56, St.306, Boeung Kang Kang1, Phnom Penh

CSARO - Community Sanitation and Recycling Organization

CSARO was founded in 1997 in PP by a group concerned with the poor living and environmental conditions of urban residents. Their objective is *"to improve the living conditions of Cambodian families residing in Phnom Penh by raising sanitary health and environmental standard and by generating new social and economic opportunities for those engaged in solid waste management"*. CSARO's project with most relevance to environmental education is Environment/Natural Resources. They currently focus their work in Phnom Penh.

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DAC - Development Association of Cambodia

A committee consisting of 5 members started DAC in 1994 and the Ministry of Interior registered it in 1999. DAC has signed an agreement with the Ministry of Education Youth & Sport on cooperation for non-formal education. Their objective is *"to provide education vocational training on environment, democracy and human rights"*. DAC's projects with most relevance to environmental education include: Environment and Natural Resource. They currently focus their work in Pursat province.

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DPKS - Development Program for Khmer Students

DPKS was established by a group of professionals with backgrounds in: education, training, dissemination, health education and child rights. They are interested in supporting children and youth who have limited access to their rights. It was registered with the provincial authority and Ministry of Interior in 2000. Their objective is *"to participate in education and environmental protection"*. DPKS's projects with most relevance to environmental education include: Community Forestry and Environment Protection.

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444, Phsar Chas, Peal Neak1, Sampao Meas, Pursat Province

EPDO - Environment Protection and Development Organization

EPDO was founded in 1998 with the support of national and international organizations in Pursat province and like-minded people that share the objective of encouraging participation of community members in natural resources and environmental management and contributing to reducing the poverty of vulnerable people in rural areas. In the past 5 years, EPDO has gained experience in development work related reducing poverty. Their objective is *"to promote the program in other areas of Pursat province and Cambodia as a whole through sharing knowledge and experiences with local players and other development players who are interested in working for good governance and poverty reduction"*. EPDO's projects with most relevance to environmental education include: Community development forestry, secure development livelihoods and People's participation in democracy. They currently focus their work in Pursat province.

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FACT - Fisheries Action Coalition Team

FACT was established in 2003 by a group of NGO members working on fisheries and environmental issues around the Tonle Sap Lake. It was established as part of an NGO Forum sub-working group on Fisheries, and gained support from different international NGOs such as Oxfam, the NGO Forum on Cambodia, and the Environmental Justice Foundation. In January 2004, FACT separated from the NGO Forum on Cambodia. FACT focuses its work on fisheries issues that affect Cambodian community's livelihoods. Their objective is *"to conduct advocacy in fisheries issues and monitoring policy reform"*. FACT's projects with most relevance to environmental education include: Tonle Sap Watch and other projects (Environment/Natural Resource). They currently focus their work in around Tonle Sap Lake and in coastal provinces.

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FAO - United Nations Food & Agriculture Organization

FAO is a specialized UN agency for Food and Agriculture. FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. Many of FAO's projects have relevance to environmental education including: World Food Day, integrated pest management and resource management. Of specific relevance are the FAO- Siem Reap activities, these are discussed in more detail in the Environmental Education & the Tonle Sap section. They focus their work nationally with specific target areas.

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Phnom Penh

FCC - Future for Cambodian Children

FCC was created in January 2000 in Siem Reap province, and was registered by the Ministry of Interior in September 2000. It was created with the purpose to review and publish the leather art, using ancient Khmer art and especially, providing education to children. Their objective is "to provide education training to children on Art and Culture". FCC's projects with most relevant to education include: Small Shadow Puppet and Education, Small Arms and Education through Puppet Theatre. They currently focus their work in Siem Reap province.

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Brasat Bakong, Siem Reap

IUCN - The World Conservation Union

IUCN began its work in 1948, with a global mission to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. IUCN has been working in Cambodia since 1992. Their objectives are

"to develop a sustainable wetlands program for the Stung Treng province, to conserve mangrove forest in Cambodia, to raise National interpretation and awareness of the findings of the World Commission on Dams, and to review of the Protected Areas and socio-economic development in the four countries of the Lower Mekong Region".

IUCN's project with most relevant to environmental education is: Environmental Conservation. Their work is Nation-wide and they also have regional activities.

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JICA - Japan International Cooperation Agency

JICA established its office in Cambodia in 1993 and since then has positively carried out a number of technical cooperation and grant aid related activities. One of their key objectives is "to participate in environmental resource management". JICA's project with most relevant to environment is: Environmental Resource Management. They currently focus their work in Nationwide.

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L&L - Live and Learn Environmental Education

Live and Learn Environmental Education is a non-profit, non-government organisation which promotes greater understanding and action toward human and environmental sustainability through education and dialogue building. It only recently became a local NGO in 2005. Their mission is "to increase environmental awareness and conservation through education, training, advocacy and other environmental services to support the sustainable and equitable use of natural resources for the benefit of Cambodia". Live and Learn currently focuses its work on the development of a National Environmental Education & Awareness Campaign. This campaign is being developed from the ministry of Environment as a section of the Tonle Sap Environmental management project. Within this campaign there are seven programs: 1) Review of existing information and status of environmental education, 2) Delineation of Target Stakeholder Groups, 3) Community Education & Awareness, 4) Formal Education, 5) Publicizing the Tonle Sap's Environmental Importance, 6) Monitoring and Evaluation, and 7) National Forums.

Their head office is based in Phnom Penh, and they have a very good collection of international EE materials and environmental documents, especially relating to their activities in other countries. They currently focus their

work in 5 provinces around the Tonle Sap (Kp. Chhnang, Kp. Thom, Pursat, Battambang & Siem Reap) and they also have national activities.

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MAFF - Ministry of Agriculture, Forestry & Fisheries

The Ministry of Agriculture, Forestry & Fisheries, is along with the Ministry of Environment, one of the most important agencies for any actions related to the environment. Of specific relevance to environmental education is the Department of Agricultural Extension there are also extension staff in the departments of Forestry and Fisheries. Combined, this is the largest group of government staff oriented toward environmental education, however they are currently under-utilized to this end.

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MoE - Department of Environmental Education, Information and Communication

The Department of Environmental Education, Information and Communication is under the Ministry of Environment (MoE). The role of this Department is *"to provide environmental knowledge and awareness to all Cambodian people particularly to the students and teachers, official and non-official, monks, employers and employees and general people through various means of educational system including formal and non-formal education, which is to secure that the natural resource have been carefully managed and conserved in sustainable way to meet environmentally sound management and policy."* They have a national focus for their work.

Mr. Sou Savuth Director
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MoE - Environmental Education and Training Office

The Environmental Education & Training Office was established in 1994 and is part of the Department of Environmental Education, Information and Communication within the Ministry of Environment (MoE). Its main function is *"to initiate, coordinate and implement environmental education (EE) programs and initiatives."* It aims to integrate EE concepts into both the formal and non-formal education systems by cooperating with relevant government institutions, national and international organizations, business sectors and religious and local communities. Their work is national.

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Chamcar Mon, Phnom Penh

MoEYS - Pedagogy Faculty

The Pedagogy Faculty is a government institution under direct supervision of the Ministry of Education, Youth and Sport (MOEYS). This faculty has a mission *"to provide training on teaching methodology to students who just graduated so that they can become official teachers."* Environmental issues are integrated into a yearly curriculum to provide basic knowledge on environment to the students in order to integrate this knowledge into their professional teaching subjects. The integration of environmental education programs into curriculum of the Pedagogy Faculty contributes to the development of human resources and the protection and conservation of the environment. They have a national focus for their work.

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MoWRAM - Ministry of Water Resources & Meteorology

The Ministry of Water Resources & Meteorology is along with the Ministry of Environment & Ministry of Agriculture, Forestry & Fisheries, one of the most important agencies for any actions related to the environment. Of specific relevance to environmental education are the extension activities that they are conducting around the country.

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MLUP BAITONG – Green Shade

Mlup Baitong, or as translated 'Green Shade', is one of the few NGOs in Cambodia with a specific focus on environmental education. It was first established as a project of a British NGO in 1998 and became a local NGO in 2001. Their mission is "to increase environmental awareness and conservation through education, training, advocacy and other environmental services to support the sustainable and equitable use of natural resources for the benefit of Cambodia". Mlup Baitong works on three programs: 1) Community Based natural Resource Management program; 2) Community Environmental Education and Training program; and 3) Community Environment program. Their current projects with most relevance to environmental education include: Community Forestry Project in Kampong Speu, Community Based Eco-tourism, Gender and Environment Project, Buddhism and Environment Project, Planting Tree & Home Gardening Project, School Environment (Eco Club) Project, Environmental Education Resource Centre, Environment Radio and Advocacy Project, Community Forestry in Kampong Thom and a natural Resource Management Advocacy Project. Their head office and resource centre is based in Phnom Penh, and they have a very good collection of EE materials and environmental documents. They currently focus their work in Kampong Speu, Kampong Thom and also have some national activities.

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NGO Forum - Non Government Organisation's Forum Cambodia

The NGO Forum evolved from an international campaign, which began in 1986 to end the aid embargo of Cambodia. The focus has since shifted from international to national issues, concerning development policy and sustainable management of natural resources. Their objective is "to NGOs cooperate to influence the conservation and sustainable use of natural resources to benefit of people's livelihoods". NGO FORUM's projects with most relevant to environmental education include: Environmental Awareness, Forest livelihoods and Sesan project. They have a national focus for their work.

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PNKA - Phnom Neang Kangrei Association

From 1997 to 2004, PNKA has partnered ACR, Oxfam GB, WBWR, EU-ASAC, Concern, SST, GAD, and CCSP. The projects funded include: organizational strengthening and building up management skills, pre-school children to school, library, literacy vocational training, boarding school for girls, vegetable growing, animal raising, income generation, credit loans, community fisheries, community forest, decimialization self-help group and gender. PNKA's projects with most relevant to natural resource management include: Community fishery and Community forestry. They currently focus their work in Kg Chhnang province.

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PVT - Promvihearthor Organization

PVT was created in January 2000 in Kandieng District, Pursat Province. PVT increases the living standards of citizens through the making of sculptures, raising animals, and plants/vegetables. Their objective is "to participate in natural resource management and community development." PVT's projects with most relevance to natural resource management include: Community Forestry (environment), Agriculture, Human Rights, HIV/AIDS and Youth Club. They currently focus their work in Pursat province.

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Peal Nhek 2, Phtas Prey Commune, Sam Poa Meas District, Pursat province

RCEDO - Rural Community Development and Environment Development Organization

RCEDO was registered with the Ministry of Interior in 1998 and registered with Ministry of Rural Development and Cambodian Development Cooperation in 2003. RCEDO was working as a partner of rural communication in both remote and urban areas in North-West province in Cambodia. The objective is

ANNEX 3 - RELEVANT ORGANISATIONS

“to provide well construction in Siem Reap and Oddor Meanchey.” RCEDO’s projects with most relevance to education include: Well construction (Water and Sanitation in Siemreap), Integrated Safe Drinking Skill, Health Education. They currently focus their work in Siem Reap and Oddor Meanchey provinces.

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Banteay Meanchey

Room to Read

Room to Read’s mission is to provide under-privileged children with an opportunity to gain the lifelong gift of education. In order to address the lack of educational infrastructure faced by many of Cambodia’s six million children, Room to Read began establishing libraries and computer labs in 2002. Room to Read establishes bi-lingual libraries in existing schools and community centers. We publish books in the Khmer language, purchase Khmer language content, and ship donated children’s books from U.S. publishers. Our libraries are concentrated in Phnom Penh, Battambang and Siem Reap. We also build schools, establish computer and language labs in secondary schools, and provide long-term scholarships to girls. One of their titles integrating environmental messages into learning to read is: ‘Forest...Your Life!...

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RUPP - Royal University of Phnom Penh

The Royal University of Phnom Penh (RUPP) has a Department of Environmental Science that is an environmental education institute in Cambodia. This department was established in late 1999 and later on it was authorised by the official declaration issued by Ministry of Education, Youth and Sports in 2001. It offers the undergraduate degree, which is a four years program. The program mainly emphasizes on environmental management. Experience gained from the five-year implementation of the program, RUPP is planning to specialise the program into streams: Natural Resource Management and Urban Environmental Study. In addition, the department aims to improve faculty capacity in teaching, research, conducting outreach activities with government agencies and NGOs. With support from Danida, Roskilde University (Denmark) and AIT (Asian Institute of Technology in Thailand), the department has developed a comprehensive environmental curriculum consisting of 33 courses.

Beside development of curriculum, the department has conducted several training courses such as solid waste management, fundamental of environment and environmental management planning for government environmental officials in the country. Moreover, the department has undertaken several research projects, in particular dealing with fishery resource management systems in Boeng Tonle Chhmar Lake (part of Tonle Sap Great Lake).

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SCW - Save Cambodia’s Wildlife

Save Cambodia’s Wildlife, or as translated ‘Sangkrohs Satprey’, is one of the few NGOs in Cambodia with a specific focus on environmental education. It was first established and became a local NGO in January 2000. Their mission is “to protect and conserve wildlife and their habitats through environmental education programs”. Save Cambodia’s Wildlife, projects include; Environmental Awareness, Publications, Land Mine & Environmental Awareness, Resource Rights and Rights to Livelihood Pilot Outreach Training, and the Integrated Livelihood Approach - Community Based Natural Resource Management Program. Their head office is based in Phnom Penh, and they have a very good collection of EE materials and environmental documents. They currently focus their work in Kampot, Koh Kong, Pursat, Stung Treng, Ratanakiri, Mondulkiri, Oddar Meanchey and also have some national activities.

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SEA - Samanak Service Endlessness Association

SEA was created in 2003 at Sangker pagoda in the centre of Battambang Province. It was registered by the Ministry of Interior in 2004. This association was invented for sharing, improving, and restoring security and peace to Cambodia, by changing thoughts, behaviour and providing charitable services, in unity and by spreading loving kindness to the old and new generations who mental illness by donating property, ideas, spirits, labours to serve to each other and resolve problems. The objective is “to reduce and prevent pollution and destroying the environment and then improving knowledge of environmental protection.”

SEA's project with most relevant to environmental education is Monks and Youth for Caring Environment in the Community. They currently focus their work in Battambang Province.

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3 Sangke Pagoda, Rattanak, Battambang

SIPAR

SIPAR is a private fund to assist in rebuilding Southeast Asian countries. Since 1991, the SIPAR has created 70 libraries. Three mobile libraries travel in the Phnom Penh surroundings. Librarians have been being trained since 2000. A program for book publishing in the Khmer language has been created, aiming to offer low budget quality educational books. Titles in the "I want to know.." series include: The life around the Tonle Sap Lake, The Nature in our Country, The journey along the Mekong upstream, The South and Coastal areas in Cambodia, & Space a Journey without limits. In February 2003, the SIPAR published the Little Prince in KHMER, with the participation of the French Department of Studies of Phnom Penh University. This is aimed at promoting reading in Cambodia.

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Srer Khmer

SRER KHMER, in recognition of the farmers' right to learn, use and manage their own community resources and participate in any decision making related to their livelihoods, is committed providing farmer opportunities to gain knowledge and strengthen their capacity to lead and manage their lives through participatory learning approaches which build on understanding the fundamental relationship between agriculture, environment and rural societies. SRER KHMER works in close cooperation with relevant farmers groups, government institutions and other NGOs based on the value of honesty, equity, positive encouragement, gender equity and responsibility.

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SSP - Strey Santepheap Deiombeiy Parethan

SSP was formed in July 2000 and registered with the Mol in 2002. It began by educating community members living in forest concession areas through Kratie, Monduliri, and Stung Treng provinces about forest law, in particular about their rights and the obligations of concessionaire as defined by the law. The objective is "to educate community members about the importance of the forest and forest law." SSP's project with most relevance to environmental education is Community Forestry Development. They currently focus their work in Kratie, Monduliri, and Stung Treng provinces.

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UNESCO - United Nations Educational, Scientific and Cultural Organization

UNESCO is a specialized UN agency for Education, Culture, Science and Communication. UNESCO was created in 1945; "to promote international cooperation among its 190 Member States in the fields of education, science, culture and communication", Cambodia joined UNESCO in 1951. UNESCO has an interdisciplinary approach to environmental education (EE), whereby EE embraces all disciplines, and covers all levels and types of education including life-long learning. It is planned and implemented through several programmes and Sectors within the organization, notably the Science Sector and the Education Sector. Many of UNESCO's projects have relevance to environmental education. They focus their work nationally with specific targets areas.

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UNICEF - United Nations Children's Fund

UNICEF is a specialized UN agency for Children. UNICEF was created to promote health, education, equality and protection for every child. The UNICEF Programme in Cambodia addresses the most serious threats to the fulfilment of children's and women's rights. The major priorities of the Country Programme include: ensuring the right of every child to a quality

ANNEX 3 - RELEVANT ORGANISATIONS

education by increasing access to learning opportunities and reducing disparities and gender gaps. They have active involvement in formal education in Cambodia and the health education approach is very relevant to environmental education.

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VSG - Village Support Group

VSG was registered with the government of Cambodia and Cooperation Committee for Cambodia (CCC) in 1995. From 1994 to 1996, VSG it operated a Food Security and Relief program in Battambang province, from 1997 to 2000, it expanded to include an integrated community development program. The objective is *"to promote widely knowledge/skills including initiatives the focus on environmental protection at community levels."* At present its activities include: integrated community development project (rice bank, credit, dry rice season, home gardening and nutrition, and cow raising on fisheries issues has been proceeding and VSG worked together with network NGOs, especially, Fisheries Action Coalition Team (FACT). VSG's project with most relevant to environment is: Community Fisheries Development. They currently focus their work in Battambang & Banteay Meanchey Provinces. SSP's project with most relevance to environmental education is Community Forestry Development.

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Wetlands International

The Wetlands International program was established in 1992 and subsequently relocated to PP in 1996. Activities in Cambodia began with development of the wetland concept and assistance to the government in its accession to the Ramsar Convention. The lower Mekong Basin program of Wetlands International had been working on a demonstration project for the development of management zones, legal framework and operational guidelines for Ream National Park, development and demonstration of a process of community participation in the management of Ream National Park. The objective is *"to promote and support the wetlands conservation."* Wetland International's projects with most relevant to wetland conservation include: Local and Institutional framework and valuation

of environmental resource in the Mekong, Production of the Asian Wetland Inventory Manual. They currently focus their work on national and regional wetlands of significance.

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WCS - Wildlife Conservation Society

The Wildlife Conservation Society, is an active International organization that has been working toward wildlife conservation in Cambodia since 1999. It was first established and became a local NGO in January 2000. Their mission is *"Humans are yearning to connect to wildlife, and the Wildlife Conservation Society provides that connection in a meaningful way"*. Their education vision is *"to bring conservation education to the forefront of science education, affirming that a solid understanding of how nature works is the right of each high school graduate and an obligation of every citizen in a democracy."*

The Wildlife Conservation Society currently has three major projects in Cambodia, Northern Plains, SEIMA Biodiversity Conservation Area and the Tonle Sap Great Lake, it is also linked with other conservation related activities around the country. Their head office is based in Phnom Penh, and they have a very good collection of wildlife and environmental documents. They currently focus their work in the northern plains, eastern forests, around the Tonle Sap Lake and they also have some national activities.

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WEC - World Education Cambodia

WEC has been active in the training and human resource development field in Cambodia since 1992. In the early 1990's WEC mainly provided training services to adults, but since 1998, their focus has shifted to basic education and teacher training. WEC's work in the primary education sector includes teacher training and curriculum and materials development in the general field of life skills education. Their objective is *"to build life skills, develop teachers' skills and content knowledge and agriculture and environmental science, especially*

to support IPM in schools project.” WEC’s projects with most relevant to wetland conservation include: Life Skills and Environmental Education (IPM in schools). They currently focus their work in Kg Cham and Prey Veng.

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WWF – World Wide Fund for Nature - Cambodia

The World Wide Fund for Nature is an International conservation organization that has been working in Cambodia since 1993 and officially opened an office in Phnom Penh in 1998. Their goal in Indochina is “to ensure that biological diversity in Cambodia, Lao and Vietnam is valued and concerned by present and future generations”. Their conservation activities focus on four major areas: 1. Forest landscapes; 2. Freshwater ecosystems; 3. Coastal and marine ecosystems and 4. Species of special concern. Their projects in Cambodia include: Protection of Flagship Species in the Eastern Plains; Management of Strategic Areas for Integrated Conservation (MOSAIC); Promotion of Sustainable Forest Management; Community-Based Natural Resource Management Learning Initiative; and Wildlife Conservation by Sustainable Use. They currently focus their work on: Ratanakiri, Mondulakiri, Kampong Speu, Stung Treng and Kratie.

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(Footnotes)

¹ Building a Sustainable Future; A Strategic Approach to Environmental Education in the Tonle Sap Region – Cambodia and the Formative Research Inquiry can be downloaded from www.adb.org/projects/tonle_sap

ការអប់រំដោយគ្មានការអនុវត្ត
ដូចជាត្រីដែលគ្មានទឹក

*Education without action
is like a fish without water*