

# Stakeholder Analysis in Development of Environmental Education (EE) and Education for Sustainable Development (ESD) in Schools of Vietnam: New Approaches and Case Studies



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Vietnam, like so many other countries in the world has adopted Agenda 21 and adapted it to the local reality in a National Agenda 21 with its 10 years strategy for social economic development (2001-2010) and poverty reduction program. A set of Sustainable Development Indicators (SDI) is being constructed, in which the education development is as vital indicator for SD of the country. There are some activities to link the implementation of the resolution establishing a UN Decade of Education for Sustainable Development (DESD) from 2005 . 2015, which commences 1 January 2005 and UNESCO initiative of the decade of ESD through the development of EE national policies on school curriculum and /or teacher education programmes (MOET, 2003).

A new Government of Vietnam Project 'Introducing Environmental Protection into the National Education System' has been implemented during 2000-2005. The National EE project was developed by four Ministries . MOET, MOSTE, MPI and MOF . in response to Decree 36 (1998) of the Vietnamese Communist Party in relation to EE. Implementation of the project applies to all sections of the formal education system in Vietnam, from kindergarten to university and post graduate and it covers areas like curriculum development, training and the development of materials with responsibility of the Department of Science and Technology within MOET (MOET/MOSTE, 2000).

The ESD is based on the idea that communities and educational system within communities need to dovetail their sustainability efforts (McKeown and others, 2002). As community development goals, local educational systems can modify existing curriculum to reinforce those goals. However, it is not easy to modify the conservative system, an initiative to integrate the EE with more involvement of local environment into current curriculum and activities is encouraged (Tri N.H and others 2002). In this paper, the case of mangroves in coastal zones is presented as 'best practices' for achieving the SD at local level and national perspectives as a whole.

## Pressure-Change-Response in education system of the transition economy

As one of developing countries having the highest rate of economic growth in Southeast Asia, Vietnam has a growth rate of 5 . 7 % during the last decade. However it faces a combination of environmental problems and sustainable development. It is also associated with economic and population growth, accelerating industrialisation and urbanisation, trade liberation and rising real incomes. A long with economic development, there are a lot of problems rising from social issues, changes of values, culture and tradition.

Requirements from economic development, keeping and remaining traditional values and combating social issues, poverty reduction are pressing on the education system. There are at least three times 'Educational Reforms' during last five decades. The on-going reform is facing a big challenge in both philosophy and practice. Increased number of subjects is

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burdening school children with hard works and time.

Regarding the environmental problems and sustainable development, Vietnam's forest cover has fallen from 43 % of the total land area in 1943 to 30 % in 2000 for un-appropriate changes of land-use and patterns, especially mangrove forests of 400,00 ha in 1943 dropping 150,000 ha in present days because of shrimp farm development. In urban areas, only 23 % of the population is served by water-born sewerage waters. The general level of environmental awareness remains low and it also contributing the degradation of the environment, especially young generations, they are decision makers in the future.

The EE in the schools of Vietnam was developed late 1995. This was fundamentally a knowledge-base environmental study . simply building understanding about the environment and its problems. The UNDP-DANIDA EE project (1997-2004) and National EE project (2000-2005) are beyond this, to addressing the fundamental causes of this problems rooted in human value and behaviour . politics, economics, culture, tradition, history and the physical environment- the exploration and resolution of environmental issues in order to promote lifestyles that are compatible with the sustainable and equitable uses of resources the basic requirement for sustainable development.

Among these, EE, training and awareness are most important in providing people with about and changing their behaviour toward the environment. The development of environmental studies in Vietnam began in early 1980s, including the elaboration of curricula, textbook development, trial teaching and teacher training. By 1991 the Vietnam National Plan for Environment and SD was able to conclude that 'various aspects of the basic environmental sciences are already incorporated in the traditional education curricula in schools and colleges'.

A National Policy Statement on EE and National Implementation Strategy for EE were developed to provide a national framework and engender consensus for EE. The development process involved wide consultation nationally and internationally and the participation of a range of national cross-sectoral interests. Practical involvement in EE by providing students with opportunities for hand-on action through a 'School Greening' Program is producing immediate and highlight visible results for students, teachers and community. A national campaign 'Together for Green' 'World Environment Day' is aimed at raising general environmental awareness in schools.

EE for the ecosystem approach which is rather than simple about environment includes institutionalisation, capacity building and participatory educational methodologies to form the basis for ESD. They are practical and appropriate to the educational reality at all levels in Vietnam.

## **Environmental Education in Schools**

We accept that the introduction of EE into the conservative system of formal education is not easy because of involving the recognition, changes of curriculum, materials, training courses and monitoring processes. The EE can be sustainable when it is integrated into both formal system of education and community awareness. The stakeholder analysis is a tool for looking at 'who is who' in a logical framework and implementation plan, especially decision making process relating the introduction of EE into the educational system.

In the management sciences, a stakeholder is a person, organization or group with an interest in a decision. Stakeholder analysis is a system for collecting information about groups or individuals who are affected by decisions, categorizing that information and explaining the possible conflicts that may exist between important groups and areas where trade-offs may be possible. By iterating the analysis over time, stakeholders may move from one category to another and vary in the degree of influence and important they have. Thus, the stakeholder analysis may be a tool to monitor the changes and related community-base education (see Table 1).

Table 1: Possession and importance of stakeholders in the integration of EE into educational system

Stakeholders	Degree of stakeholders' possession			Relative important and influence to decisions	
	Power	Legitimacy	Urgency	Influence	Important
Decision makers of national policy and strategy	Always high			Extreme high	Extreme high
School textbook developers		Always high		Very high	Very high
Material developers	Increasing			Very high	High
National /Provincial EE supervisors		High		High	High
School principals		Increasing		Extreme high	Extreme high
Teachers			Always	High	High
School students			Extreme high	High	Very high
Local associations	Medium	Increasing		High	Medium
Education groups		Increasing		High	Medium
Local communities			Increasing	Medium	Medium
Family			Increasing	Medium	High
Mass Media		Always		Very high	Very high
Equipment supply		Increasing		Medium	Low

During the implementation of the EE in schools project (1997-2004), it comprised interlinked interventions at three levels within education system.

At national/provincial level, to assist the Government in developing a national policy and implementation strategy for EE in the country as whole: The National Policy and Strategy document, Policy and EE action plan program for schools: 2001-2010 to provide the guidelines for all EE initiatives approved by MOET. A system of 38 pilot provinces covering 8 geographical regions, three EE Resources Developing Centres and National EE Certificate Courses for Teachers (6 courses with 126 teachers) have been developed for assisting the idea. A team of Provincial EE supervisors representing DOET, DOSTE and the Youth Union has been established in each of the 61 provinces and training teachers, school greening and EE campaigns.

In formal education system, at the intermediate level, especially within the teacher education sector, it develops the EE guideline and materials and building capacity for EE within teacher training institutions throughout the country. Building capacity in EE has been focussed in the teacher training sector, including EE Guidelines for Teacher Trainers and Users' Guides (Patterns for Integrating EE Modules into the General Education System) for training teachers at the Primary, Lower and Upper-Secondary levels in several subjects.

A training VCDs based on the Teaching Modules for Chemistry, Geography, Biology, Nature and Society, Moral Education, a team of Teacher Training EE Supervisors, a project Training Support Unit (TSU) of key facilitators, a system of 9 Teacher Training 'Nodes' ( each with their 'cluster' of Teacher Training Institutions to support) and a comprehensive Project Training Strategy have been developed to build the EE capacity of the education system including School Textbook Developers, Material Developers, Training Provincial EE Supervisors, Education Decision makers, School Principals and teachers as long-term activities.

At the grassroots level, school and community greening programs together with the EE campaigns to promote practical experiences to students and teachers in improving local environments in every province in the country. Two School Greening Guides for Teachers, a book of photo from Environmental Photographic Competition, 12 issues of Newsletter and a Training DVD on the use of practical activities in EE . drama, pantomime, folksong and music for school activities and a network of 3,145 pilot

schools at grassroots levels have been developed to link indoor and outdoor EE activities. Besides there are annual EE campaigns for schools for World Environmental Day (5th June) with variety themes: 'Together for Green' 'Summer Thunder' 'Green Rain' 'To live economically' 'Sharing and Saving' to raise environmental awareness for people.

There are some issues during the implementation of the project. It should be given supplements on different regions and habitat of the country to give teachers to assess to materials which relate more specifically to their local environment (i.e. mountain, coastal, urban and other typical environments) and the importance of school principals to the effectiveness of EE in schools should be focussed during the implementation.

## Education for Sustainable Development

The ESD carries with the inherent idea of implementing program that is locally relevant and culturally appropriate. All SD programs including ESD must take into consideration the local environment, economic and societal conditions. As a result, ESD will take many forms around the world.

In our projects, the ESD idea is to promote the SD and management of resources, through influencing people's values, attitudes and behaviours toward the environment leading ultimately to greater environmental protection. This will be done by means of engaging the formal education system at all levels to deliver a comprehensive, learner-centred, problem solving, cross curricular and practical program of ESD as an integral part of all activities, to children in every primary and secondary schools in the country.

At school and community levels, the ESD strengthen and expand school greening, develop materials to promote a sustainable management and development agenda locally link to the implementation of outdoor EE activities at all school levels and in the community by the provincial EE action plans. This is done through the curriculum, extra-curricular activities and school/community links. All educational institutions are mobilised to follow the lead of the schools in this area.

The example of selected subjects for integration EE into the current lectures at primary schools in coastal zones of mangroves is showing a 'Best Practices' in school education and the link between school and local community, especially involving community stakeholders. The current EE programme and its contribution to national and local development is promoting the ESD approach by widening the existing EE agenda to intensify the SD content.

Table 2: Selected subjects for integration EE into the current lectures at primary schools in coastal zones

Local environment	Selected subjects for integration					
	Nature & Society	Maths	Vietnamese language	History	Art & drawing	Moral education
Mangrove identification	+		+		+	
Mangrove area & distribution	+	+		+	+	+
Direct values of mangroves	+	+		+	+	+
Indirect values of mangroves	+	+		+	+	+
Root causes of mangrove degradation		+		+		+
Mangrove plantation and conservation	+	+	+	+	+	+

For achieving the effectiveness, the EE should promote and expand the professional development in ESD at all levels within the formal education system through training programs for education professionals (Education department staff, University teachers, teacher trainers, provincial EE supervisors, school principals) through an expanded network of National EE/ESD courses, and through intensive programs of pre-service and in-service training for classroom teachers throughout the country.

Lessons learned from practices show that intensification of institutionalisation and capacity building of whole the formal education system taking on the responsibility of delivering EE/ESD as a normal part of its activities to achieve the sustainability is critical. This includes EE/ESD in curriculum development, text book development, national examination system and the use of e-learning technology in developing a network of region-characterised EE/ESD Resource Development Centres.

Otherwise, linking EE/ESD contributes the achievement of National Agenda 21 strategy for social development and poverty reduction through contributing to changing the social context and it will enable SD can take place. The activity engages the formal education system at three levels in integrated processes of awareness raising, consensus building, institutionalisation, capacity building and practical activities. ESD component should be fully infused into the curriculum and textbooks of all subject areas at primary, secondary, high school and teacher training levels and the implementation of current EE programmes both at school and other levels of education for the UN DESD.

## Conclusion

The relationship between education and sustainable development is complex. The education can improve agricultural productivity, enhance the status of women, reduce population growth rates, enhance environmental protection and generally raise the standard of living. The EE/ESD will contribute the reality of the expectation. It requires almost stakeholders to involve the activity, especially decision making process. The stakeholder analysis is tools for implementing effectively the idea by providing prioritization in relation with responsibility and needs for every people in the SD required.

The achievement of Education for Sustainable Development (ESD) contributes the realization of a sustainable society, it is an urgent subject for people all over the world, and it has been recognized that this cannot be achieved without ESD in the long term. During a decade the country has been evolving, first with the introduction of environmental education (EE) in schools and then it should continue to focus in the promotion of EE to achieve ESD in order to enjoy the achievement of a sustainable world and to overcome new challenges and problems taking place.

## References

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### **Annex 1: Abbreviations /Acronyms**

DANIDA:	Danish Government Department Agency
DOSTE:	Department of Science, Technology and Environment
DOET:	Department of Education and Training
DESD:	Decade of Education for Sustainable Development
EE:	Environmental Education
ESD:	Education for Sustainable Development
MOET:	Ministry of Education and Training
MOSTE:	Ministry of Science, Technology and Environment
MPI:	Ministry of Planning and Investment
MOF:	Ministry of Finance
TSU:	Training Support Unit
UN:	United Nations
UNESCO:	United Nations Educational, Scientific and Cultural Organisation
UNDP:	United Nations Development Program



Fig 1: School children in mangrove areas of Can Gio, Ho Chi Minh City, Vietnam



Fig 2: School students attending the 'World Environmental Day' in Hoa Binh Province



Fig 3: School students enjoying the water supply coming to their village in Lai Chau Province



Fig 4: Living with mangroves and enjoying the forests after schooling