

**Training Mid-Career Professionals in Education for
Environment and Sustainability: The International Training Programme Education for
Environment and Sustainability In Southern Africa, Asia, China and Sweden**

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Panel discussion on curriculum development with Chinese and Swedish curriculum developers and researchers, 2004.

Abstract:

The training programme ‘Education for Environment and Sustainability’, supported by the Swedish International Development and Cooperation Agency (SIDA), has been held five times, with partner organisations hosting different parts of the programme. A total of 150 professionals from different sectors of formal education, from a number of countries participated in it.

The programme supports the implementation of international commitments made at the summits in Rio and Johannesburg, for example Agenda 21 on training of the workforce on matters of sustainability. Trends and processes in EE/Education for Sustainable Development (ESD) in the host countries feed into the programme, contributing case studies and lessons learned. The organisers believe that this type of mid-career training could be a useful approach in implementing the UN Decade on ESD, especially Strategy 4 on Capacity Building and Training.

The programme curriculum draws strongly on current orientations to adult professional development that emphasise a praxiological orientation that seeks to examine and critique our practices through review in action. In this programme links between the participants’ work contexts and the programme contexts in the course in Sweden and in China, India and South

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Africa are enhanced through the following curriculum principles: responsiveness, participation, flexibility, learning through doing, theory in practice, and assessment as learning.

One of the outcomes of the programme is the participants' Projects for Change. The projects contribute to many areas of EE and ESD in formal education. They can be in the form of educational policies and steering documents, curriculum or syllabus resources, teaching and learning materials, research projects, policies and support materials for whole school development, or the design of training courses or workshops.

Introduction

The international training programme Education for Environment and Sustainability is a mid-career capacity building opportunity for EE and ESD practitioners from Southern Africa and Asia. The programme is financed by the Swedish International Development and Cooperation Agency (SIDA), and implemented by a strong partnership of organisations from Southern Africa, China, India and Sweden, with the Swedish consultancy company Ramboll Natura in a coordinating and supporting role.

The organisers believe that this programme can be a good example and provide inspiration for similar initiatives during the Decade for ESD, putting into practice the ideas of life-long learning, and capacity building for ESD professionals. The following are some of the strengths of the programme:

- It is a practical example of how organisations working in the same field in so called 'developed' and 'developing' countries can enter into a fruitful and mutual working partnership.
- The partnership enables the programme to draw on and include a range of international examples and experiences.
- The programme puts theoretical ideas into practice, and believes in learning-by-doing. One of the very tangible outcomes is the Projects for Change that each participant brings to their work situation upon completion of the programme. These projects continuously locate learning in the participants' own work contexts.

Since 2001, the programme has been held five times with partner organisations hosting different parts of the programme: The Southern African Development Community (SADC) Regional EE Centre in South Africa, The Centre for EE (CEE) in India, the EE Centre (EEC) of the Eastern China Normal University (ECNU) in China, and Uppsala, Malmö and Lund Universities in Sweden. A total of 150 professionals have participated in the programme including policy and curriculum developers, school inspectors, headmasters, senior teachers, researchers, and NGO officers. Participants have been selected from the countries of the Southern African Development Community, from Bangladesh, Cambodia, China, Lao PDR, Philippines, Mongolia, Sri Lanka, Vietnam, and Sweden.

Links to International Commitments and National Processes

The training programme is a way of implementing international commitments made at the summits in Rio and in Johannesburg. The programme also draws on current national and regional processes within the field of EE and ESD.

- *Rio Agenda 21*

The training programme supports the implementation of Chapter 36 of Agenda 21 in a number of ways. It trains professionals, and promotes the idea of a “workforce of various ages equipped to meet growing environment and development problems and changes arising from the transition to a sustainable society”(36.13 b). The participants will strengthen their capacity to “promote integration of environment and development concepts... in all educational programmes” (36.4 d).

- *UN Decade on Education for Sustainable Development*

One of the seven strategies that UNESCO suggests for implementing the Decade for ESD—Capacity Building and Training (Strategy no. 4)—is clearly supported by international training programmes of this type. Also, the programme builds partnerships and networks at regional, national and international levels, as is emphasised in Strategy no. 3. Participants who complete the programme will contribute to research, innovation, revision of education systems, and development and contextualisation of curricula and policies, drawing on their newly acquired perspectives and skills.

- *EE and ESD in India and South Asia*

At the formal level, most countries in Asia have incorporated environmental concepts into the school curriculum, generally as an area of study at the lower levels (as environmental studies) and through the infusion approach at the upper-primary or middle school levels. Of late many countries in the region are reforming curriculum in the context of re-orienting EE into ESD. These changes are currently being considered and discussed at policy levels and the training programme mentioned provides the much valued and required opportunity to mid-level professionals, especially from policy making bodies, to explore similar experiences and efforts being made across the three continents. Later, during the regional phase of the programme, the participants discuss the same to derive insights / learnings from the global experiences to be applied in the Asian situation and context

- *Trends in EE in Southern Africa*

The training programme draws on many important trends in Southern African EE. One of them is the concept of environment that encompasses political, social, economic and biophysical dimensions with particular emphasis on the interrelationships between these dimensions. In southern Africa, where environmental and development concerns are seen against the backdrop of the consequences of colonialism, and social and environmental inequality, concerns of environmental justice and sustainable livelihoods, together with conservation have shaped EE. South Africa contributes interesting case studies and lessons learned from the latest curriculum reform and more recently, the developments in the area of accreditation of learning in the workplace. The training programme draws largely on socially critical orientations to EE, and picks up on work done by integrating local and scientific knowledge systems.

- *Chinese Curriculum Reform and EE Guidelines* Adapting the training programme to Chinese conditions, and conducting the programme exclusively for Chinese participants in 2004 proved to be well timed and seized opportunities to strengthen the profiles of EE and ESD in formal education. It was well timed because China is undergoing radical curriculum reform on a large scale. The new curriculum is an outcome based national framework curriculum, which gives responsibility and freedom to local authorities and individual schools and teachers to develop their own curricula and work towards the outcomes. At the same time the Ministry of Education has given its support to the newly developed EE Guidelines, providing examples of how environment and sustainability can be integrated into curricula at all levels. This situation is a window of opportunity, and EE/ESD is seen as a useful medium for propelling curriculum reform. The ideas and approaches of EE/ESD adopted by this training programme have provided examples of good education, which are significant for the current reform and the great challenges faced in teacher training, curriculum development and policy implementation.

- *ASEAN EE Action Plan*
 Throughout Southeast Asia, EE initiatives are currently being implemented as part of the ASEAN EE Action Plan 2000–2005. The four target areas of the plan are formal education, non-formal education, manpower capacity building, and networking, collaboration and communication. Some countries, like Lao PDR, have developed their own national EE strategies to implement the plan; this in itself is a process of building capacity and partnerships that will be useful to the implementation of the Decade of ESD. Participants from the ASEAN countries contribute valuable lessons learned and case studies to the training programme, representing countries with great diversity in the types of challenges faced and locally specific ways of organising EE and ESD responses.

- *The Swedish commitment to ESD*
 After the WSSD in Johannesburg 2002, Sweden has developed a national strategy for Sustainable Development (SD), and a new unit in the Prime Minister's office is responsible for coordinating SD work with all the ministries. Education has a prominent role in the national strategy, and a committee on ESD has recently reviewed and analysed how education systems at all levels can promote SD. The committee organised an international consultation entitled Learning to Change our World: International Consultation on Education for Sustainable Development in Göteborg, Sweden, May 2004. Lessons learned from the consultation fed into the work of the committee, and resulted in the final report, *Learning for Sustainable Development*. In light of these efforts, this training programme is very relevant, and Sweden can offer lessons learned and challenges encountered when attempting to gear education systems towards ESD.

Developing the programme

The Education for Environment and Sustainability programme is built on strong partnerships, many of which Ramboll Natura has built over the last 15 years. Within Sweden, the Sida Advisory Committee on EE played a significant role in the initial development of the programme. More recently the Uppsala, Malmö and Lund Universities have contributed to the programme. Internationally the partnerships with the SADC Regional EE Programme (SADC REEP), CEE, India, and the EEC of ECNU, China, have ensured the foundations of the training programme in the participants' varied national and work contexts. The content of

the training programme is continuously revised and adapted to current trends. This is to a large extent based on dialogue with participants.

Programme objectives and selection criteria

The main objective of the training programme is:

“To provide an opportunity to exchange knowledge and experiences in environmental education processes and use the insights gained to enhance and develop environmental education in the participants’ work contexts.”

The specific objectives are:

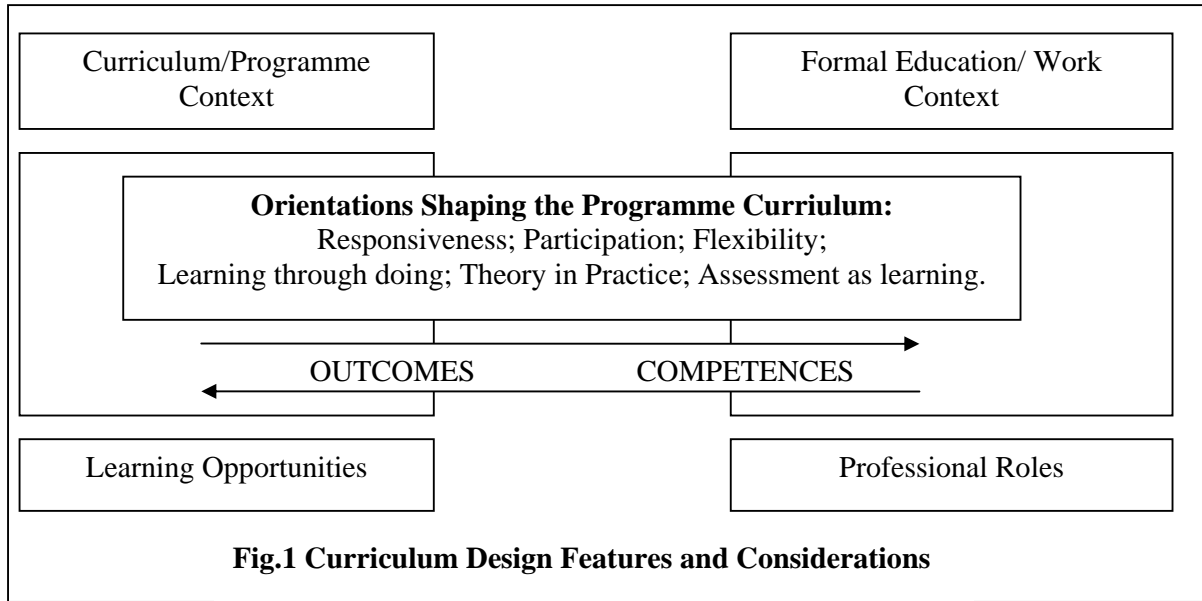
- To understand environmental issues and risks from a range of perspectives at the global, regional and local levels;
- To increase knowledge of current trends and international initiatives in EE and ESD;
- To develop a broad understanding of the institutional framework and the different structures needed for effective implementation of EE and ESD;
- To explore ways of integrating EE and ESD processes into formal school curricula and teacher training;
- To increase knowledge of different methods and processes in EE and ESD;
- To locate learning in the work contexts of the participants; and
- To develop a link between the EE and ESD policies and the work contexts of the participants.

Participants are selected on the basis of the following criteria:

- Applicants based in or directly supporting the formal education system;
- An appropriate tertiary qualification and substantial experience in education;
- Priority given to senior school managers, school inspectors, curriculum developers and policy makers;
- Educators in schools, field study centres or NGOs, with a high multiplier potential,
- Affiliation to training institutions;
- Gender; and
- Multiplier potential.

Curriculum principles

The programme curriculum draws strongly on current orientations to adult professional development that emphasise a praxiological orientation that seeks to examine and critique our practices through review in action. This orientation focuses on the possibilities offered by opening up new perspectives on the work that we do, while recognising the need to reflect on our practices and to adapt and relocate critical insights within our institutional contexts. This requires a course design that is responsive to participants’ often diverse contexts, which in turn require the meaningful involvement of participants in the shaping of the programme and learning within the programme.



In this programme, links between participants' work contexts and the programme contexts in the courses in Sweden, China, India and South Africa are enhanced in the following ways:

- *Responsiveness*

Course materials are adapted to reflect environmental and educational issues in the participants' countries. Participants' applications are analysed and used to shape the programme schedule. The programme, Projects for Change is focused on participants' work contexts. A number of sessions in Sweden link specifically to the work contexts of participants.

- *Participation*

Participants are asked to contribute to panel discussions focused on their work and pre-course assignments; presenters are asked to set aside time for discussion and to participate in panel discussions; discussions with resource persons and peers on the course around programme projects enhance participation.

- *Flexibility*

The panel discussions are prepared by participants, allowing them to focus on issues appropriate to their contexts. Participants are free to choose programme projects relevant to their work, and appropriate resource persons are found to support them.

- *Learning through Doing*

The three assignments in Sweden and the larger programme project are carefully structured in a way that requires participants to develop EE materials, curricula, policy, etc. These processes of doing are enhanced by peer reviews and critical comment from professionals in the field. The excursions on the course are also planned in such a way as to enhance learning opportunities.

- *Theory in Practice*

The core texts used in this course seek to develop a theoretical framework for thinking about: environment and sustainability issues; educational orientations and methodology; and formal education structures. These theoretical frameworks help us to interrogate and understand the theory that underpins the practices in environmental management in schools and in the many different presentations made by Swedish EE practitioners.

- *Assessment as Learning*

The substantial investment in resource persons in Sweden, China, India and South Africa who work with participants on their programme projects is based on the idea that knowledge is developed and enhanced as we interact with others. In this course the assessment of the assignments and particularly the programme project is focused on enhancing the learning of the participants through critical discussion both with resource persons on the course and with fellow participants.



Participants from SADC and Swedish teachers sharing experiences on the Grocery Bag Project on consumption and agriculture, Norra Real High School, 2001.

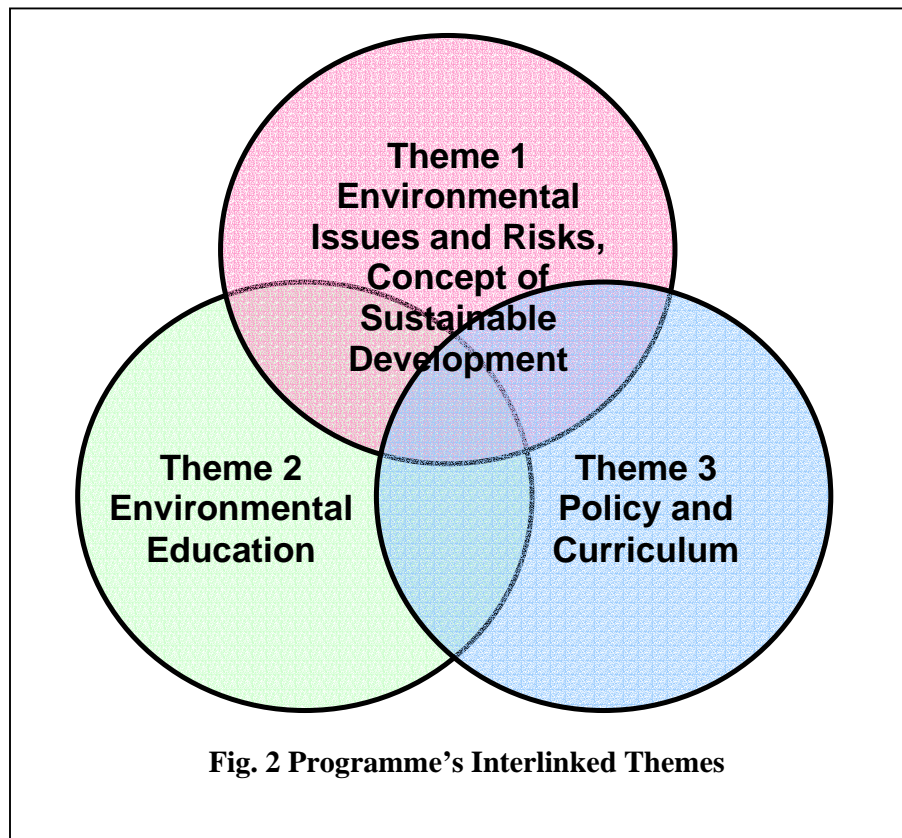
Course elements

The programme consists of four parts:

1. Preparing pre-course assignments and discussing ideas for Projects for Change with colleagues in the work place (in the participant's home country);
2. Three weeks training programme in Sweden, drawing on three themes (see below). The learning in Sweden and the three assignments feed into a complete plan for the Projects for Change;
3. Collecting data for projects and further discussions with colleagues in the work place (in the participant's home country); and
4. Two weeks in South Africa, India or China depending on the participant's home country developing the Projects for Change with support from other participants and tutors, and strengthening the linkage with the regional context.

Three key interlinked themes are explored. These are: a) environmental issues and questions of SD; b) education processes in relation to the environment and sustainability; and c) the

structures and resources associated with and supporting formal education. While developing each of these themes we focus explicitly on the relationships between them. Thus for example, the understanding of environmental issues as social constructs that often reflect the interests of competing groups, rather than simply a lack of information, requires education processes that move beyond simple awareness raising to critical processes of contextual action-taking. The relationships between the themes can be represented with the following diagram.



Throughout the programme the three themes are supported with the following resources:

- The course file with core texts and readings for each theme;
- Participants' pre-course assignments and panel discussions;
- Presentations on aspects of environment, SD, educational processes and supporting structures by a large number of resource persons from the networks of the partner institutions;
- Excursions which illustrate real case studies and point to challenges in the practical implementation of EE and ESD;
- Participants' Projects for Change, which bring all the learning in the programme into application in the participants' work practice.

Impacts of the programme

The Projects for Change contribute to many areas of EE and ESD in formal education, as for example:

- *Educational policies and steering documents* at the national or local level;
- *Curriculum or syllabus resources* for national, provincial or school/college/university levels;
- *Teaching and learning materials* for teacher training, resource kits for teachers or students, websites with educational resources and environment information;
- *Research projects* contributing to the development of curricula, methods and content of EE and ESD in formal education;
- Policies and support materials for *whole school development* with a focus on environment and SD in both curricula and school management; and
- Designing of *training courses or workshops*.

Participants	Resource Developed
<p>Wu Gangping China: National Institute of Curriculum and Instruction, East China Normal University,</p> <p>Zhang Wenjun China: –Associate Professor of National Centre of Curriculum Studies, Zhejiang University, and</p> <p>Wang Yaocun China: Teaching Researcher of Research Department of Zhejiang Provincial Department of Education</p>	<p>A manual for high-school teachers to develop a school-based EE curriculum, using an action research approach involving teachers and students.</p>
<p>Abraham Sebeso Botswana: Department of Secondary Education</p>	<p>A booklet including a comprehensive set of questions to help school inspectors guide schools in improving their EE programme and environment policy.</p>
<p>Hastings Maloya Malawi: Mulanje Mountain Conservation Trust (MMCT)</p>	<p>A handbook for teachers and students, aimed at initiating debate among pupils and the local community regarding the causes and importance of forest fires.</p>
<p>Keovivone Outhachak, Lao PDR: National Research Institute for Educational Sciences, Ministry of Education.</p>	<p>Resource material that gives a background on policies, laws and regulations relevant to EE in formal education and based on these, derives a work plan towards training curriculum writers, trainers and teachers with an aim to strengthen the infusion of EE in the school curriculum.</p>
<p>Charles Makuwerere Zimbabwe: Environment Africa</p>	<p>A school guide and sourcebook in support of the Policies on Environmental Management for Schools (POEMS) Project.</p>

Fig. 3 Examples of participants' Projects for Change—the resources developed.

In a recent follow-up of the training programmes 2001–2003, all of the respondents answering the questionnaire (35) said that they used their projects in one way or another although some

(3) mentioned that they were still battling within their institutions to get substantial support for their initiatives. The following two quotes, one from China and one from Namibia, are outstanding examples of what can be achieved: *“My project of provincial based EE subject entitled ‘Our Common Homeland’ got the certification at the end of June 2003 and has been issued in Shangdong Province in China in September, 2003. The publishing house told me more than 200,000 textbooks had been sold in Shangdong Province.”* (Tian Qing, 2003). The Namibian quote reads: *“The material I produced is awaiting for a bulk printing for distribution to schools when the new localized IGCSE Geography syllabus will be introduced. The material was aimed to backup and provide for the need on a newly introduced theme on Sustainable Fishing in Namibia.”* (Patrick Simalumba, 2003).

The professional networks created through this kind of initiatives are a valuable outcome, which EE and ESD practitioners can draw on throughout their careers. Links are established between participants, resource persons, schools and organisations in the countries involved. Zeng Hongying (2003) provides an example of the kinds of opportunities that the programme and the contacts established, can open up: *“I visited Sweden last December as the vice leader and escort of the Chinese EE Delegation of 27 participants. I designed the schedule after my international EE course experience. I introduced the two teachers to make presentation about food safety from that Stockholm high school [Norra Real]. And visited the Eco- School in Lund where we visited during the international course ... Finally we co-organized a China-Sweden Green School Seminar at IIIIE at Lund University ...So I mean my international course experience gave basis of this visit successfully.”* In southern Africa two former participants have gone on to tutor on other international courses on EE while a third has been asked to make a number of international presentations based on the network that was built during the programme in Sweden.

Implications and possibilities for the Decade of ESD and beyond

The organisers of this programme believe that other initiatives during the Decade for ESD could draw upon some of our experiences to develop similar capacity building initiatives for mid-career professionals.

- This kind of training focussing on ESD is needed for professionals working not only in education, but also in, for example, industrial production, natural resource management and governmental planning.
- The curriculum principles guiding the training programme give an opportunity to link the learning to applications in the work context. Participants and resource persons are all learners and educators working together to explore better ways of integrating theory and practice in our daily tasks.

The approaches to training, and the range of educational methods and processes dealt with in this programme, are useful not only to EE and ESD professionals, but to anyone working with teaching, learning or processes of social change.