

## Monitoring and Evaluation in the Context of UNDES D

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### ABSTRACT

This paper summarizes one of strategy for the implementation of UNDES D, i.e. monitoring and evaluation, and introduces the ESD Indicator Project initiated by UNESCO Asia and Pacific Bureau of Education (UNESCO Bangkok) and the Commission on Education and Communication (CEC) of the World Conservation Union (IUCN). Then some points are discussed for the implementation of monitoring and evaluation activities based on the evolving process of the concept of Environmental Education (EE) to Environment and Population and Information for Human Development (EPD) and Education for Sustainable Development (ESD).

#### International Implementation Scheme (IIS) and UNESCO-IUCN CEC DES D Indicators Project

According to the UNDES D International Implementation Scheme (IIS)<sup>1</sup>, seven strategies need to be considered for the implementation of the UNDES D: (1) vision building; (2) consultation and ownership; (3) partnership and networks; (4) capacity-building and training; (5) research and innovation; (6) use of information and communication technologies (ICTs); and (7) monitoring and evaluation. In particular, with regard to the "monitoring and evaluation", it is stated that:

*"Monitoring and evaluation will become key strategies to ascertain the changes and impact of the Decade. An initiative as long and as complex as a Decade must benefit from adequate process of monitoring and evaluation from the start. [...] A key aspect of monitoring and evaluation will be the identification of suitable and relevant indicators at every level – local, national, regional and international – and for each initiative and programme.*

*[...] As the Decade puts major emphasis on cooperation through the integration of ESD concerns into existing networks and alliances, each grouping should set up its own objectives, outcomes and indicators within the Decade framework. [...] Thus monitoring and evaluation will take place at many levels, [...] and will be an integral part of new initiatives and directions, which the Decade may stimulate. Both qualitative and quantitative evaluation methods will be necessary to track the DES D as well as longitudinal and community-wide studies.."*

(UNESCO, 2005a)

For the put of the strategy on monitoring and evaluation into practice, the following points were recommended: (1) develop indicators to assess the impact of the DES D; (2) gather baseline data and set up longitudinal studies; (3) use data from international educational initiatives, e.g. Education for All (EFA), to track the progress.

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<sup>1</sup> UNESCO (2005a) United Nations Decade of Education for Sustainable Development. *International Implementation Scheme*. UNESCO Paris, France

Under the situation, UNESCO Bangkok and the Commission on Education and Communication (CEC) of the World Conservation Union (IUCN), in conjunction with Macquarie University (MU), are undertaking "DESD Indicators Project" that will assist with the task of monitoring progress and achievements of the Decade in the Asia-Pacific. During the first stage of the project, members of the "Expert Team" will work together through the E-list to assist in the preparation of a set of Guidelines for developing ESD Indicators at the national level. This group will act as an advisory group for sharing experiences with the "Guidelines Development Team", to be adapted at the national level.

### ESD as the evolution from EE and EPD

As a member of the Expert Team, the author emphasises the importance of consideration of its evolution process from "Environmental Education (EE)" to "Environment and Population and Information for Human Development (EPD)" and "Education for Sustainable Development (ESD)." By referring to main documents discussed at international level, there are some changes of the concept thorough the historical development of EE to EPD and ESD in terms of: (1) thematic point of view; and (2) approach point of view.

### Historical Development – Thematic Areas

In focusing on thematic areas covered by EE, EPD and ESD, it can be seen some historical changes (see Figure 1). EE focuses on the improvement of environment and its quality, then EPD focuses on the three aspects: (1) environment (quality and quantity); (2) development (economic, education, social services, and capacity building); and (3) population (size, growth, distribution, and structure). ESD expanded further, according to draft Implementation Scheme (UNESCO, 2005b<sup>2</sup>), it includes three

### Evolution from EE, EPD, Efs to ESD

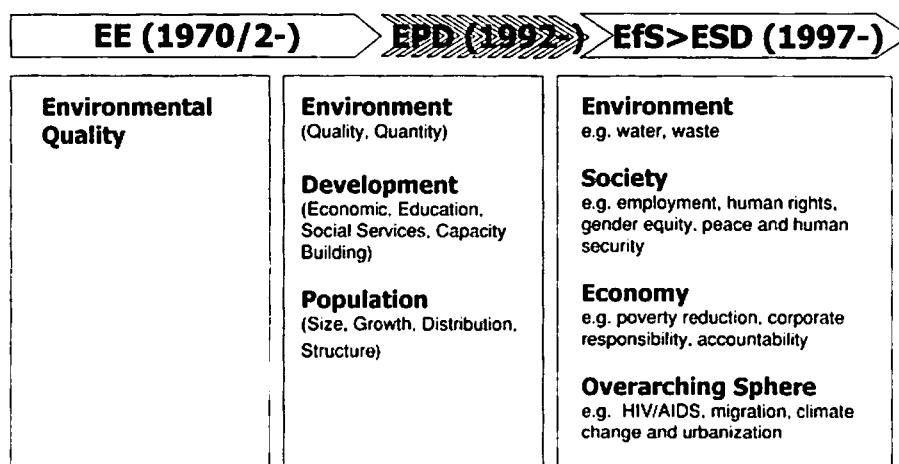


Figure 1: Historical Changes – Thematic Areas Covered

<sup>2</sup> UNESCO. (2005b) United Nations Decade of Education for Sustainable Development 2005-2014. *Draft International Implementation Scheme*. UNESCO, Paris, France

perspectives with diversified thematic areas: (1) environment<sup>3</sup>, e.g. natural resources, climate change, rural development, sustainable urbanisation, and disaster prevention and mitigation; (2) socio-culture<sup>4</sup>, e.g. human rights, peace and human security, gender equality, cultural diversity and inter cultural understanding, health, HIV/AIDS, and governance; and (3) economy<sup>5</sup>, e.g. poverty reduction, corporate responsibility and accountability, and market economy. However, International Implementation Scheme (IIS) categories three “spheres” (environment, society and economy) and an overarching sphere which includes HIV/AIDS, migration, climate change and urbanization (UNESCO, 2005a). It can be said that the thematic areas of ESD are comparatively diversified than the conventional thematic areas of EE.

### Historical Development – Approaches

With regard to the approaches employed, Figure 2 shows the historical development. Special focus for EE was given to top down approach for solving environmental issues, quantity focused, knowledge transfer, formal education (FE) as major focus, cause-effect relationship and problem solving, which were emphasised under the theory of RDDA (Research, Development, Dissemination, Adoption). The RDDA approach is characterised by a managerial-hierarchical system, technocracy,

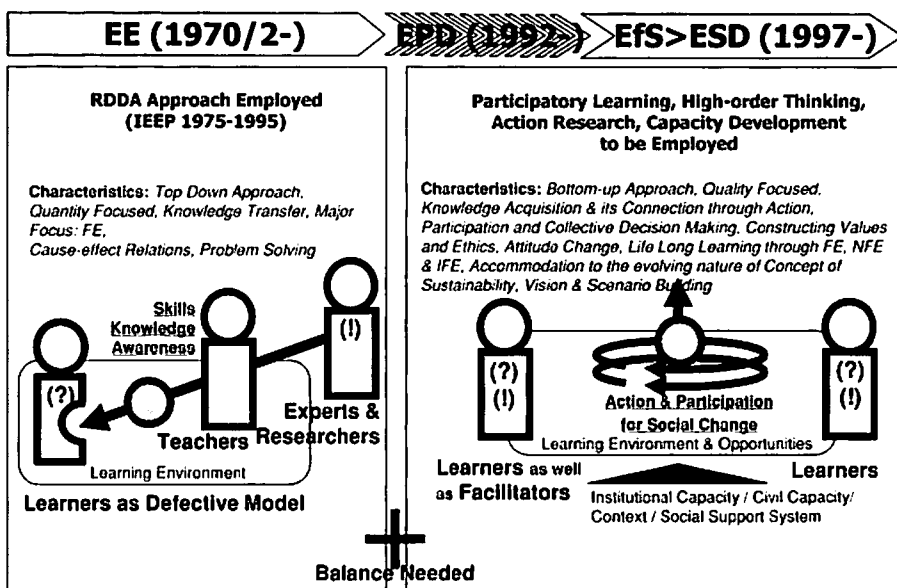


Figure 2: Historical Changes – Approaches Employed

<sup>3</sup> **Environmental Perspective:** an awareness of the resources and fragility of the physical environment and the affects on it of human activity and decisions, with a commitment to factoring environmental concerns into social and economic policy development (UNESCO, 2005b).

<sup>4</sup> **Socio-Cultural Perspective:** an understanding of social institutions and their role in change and development, as well as the democratic and participatory systems which give opportunity for the expression of opinion, the selection of governments, the forgoing of consensus and the resolution of differences (UNESCO, 2005b).

<sup>5</sup> **Economical Perspective:** a sensitivity to the limits and potential of economic growth and their impact on society and on the environment, with a commitment to assess personal and societal levels of consumption out of concern for the environment and for social justice (UNESCO, 2005b).

and positivistic epistemology, that learners were regarded as defective model, that experts and researchers take a role of knowledge/skills/awareness providers (see Figure 2).

While, in case of ESD, special focus is given to participatory learning, high-order thinking and action research which enable to promote bottom-up approach, quality focused, knowledge acquisition and its connection, construction of values and ethics, attitude change, life long learning through formal education (FE), non-formal education (NFE) and in-formal education (IFE). It also respects the accommodation to the evolving nature of concept of sustainability.

By implementing with participatory learning, high-order thinking and action research, "teachers" (school teachers, non-formal mobile teachers, NGO facilitators, etc.) are able to take initiative in organising and improving their educational activities. Further, the "teachers" are expected to be learners as well as facilitators, and to share the learning opportunities and implement collective actions and decision making. In this approach, (1) individual capacity (value, ethics, cognition, high-order thinking, attitude), (2) institutional capacity (project management, institutional arrangement, e.g. partnership, networking and inter-linkages), (3) civil capacity (participation and collective decision making), (4) participatory teaching/learning methods and its process, (5) decision making process and (6) social support system, are the points to be considered for the promotion of quality education. The points described above need to be inter-linked to the conventional points which encompass: educational content, teaching/learning methods and well balanced and its process, teachers' capacity, learning environment and its access.

### **Consideration for the Implementation of Monitoring and Evaluation**

In this connection, it is important to consider the implication of "Monitoring and Evaluation". The follows are some points to be considered for the implementation of monitoring and evaluation in the context of ESD.

#### **Why evaluate?**

- Promotes ownership and commitment
- Makes understand knowledge-action gap
- Makes understand current situation-vision gap
- Improves individual system thinking and management skills
- Improves the quality of an educational activities through constant feedback and real-time understanding
- Improves the skills of the staff facilitating or managing the project through a continual process of self-testing and refining,
- Improves the strategic focus of the educational activities, increasing impact and effectiveness of an educational activity
- Improves accountability
- Documents the vale of investing in an educational activities
- Promotes identity of the individuals, institutions and/or communities

#### **What evaluate?**

- Quality and Quantity
- Individual (cognition, skills, behaviour, thinking, value and ethics, etc.)
- Project Management (effectiveness, efficiency, social impact, project sustainability, project relevance, etc.)
- Institutional Capacity (institutional arrangements, incentives, learning environment, decision making etc.)

- Civil Capacity
- Social support system
- Consideration of the context
- Process (decision making, communication, etc.)

**How evaluate?**

- Qualitative and Quantitative manner
- Evaluation Methods (self evaluation, external evaluation, joint evaluation, participatory evaluation, etc.)

**When evaluate?**

- Evaluation Type (diagnostic evaluation, formative evaluation, summative evaluation, follow-up evaluation, etc.)

**Evaluation, as a Part of Learning Cycle.**

Evaluation is often viewed as providing "success" or "failure" about an educational activity. While, it can be considered a threat or disruption to the successful implementation of an educational activity. However, the approach to evaluation is changing rapidly. Rather than final judgement (summative evaluation), it provides the needs identification & feasibility studies (diagnostic evaluation), process documentation and improvement (formative evaluation), dialogue and collective decision-making. According to the UNDES International Implementation Scheme (IIS), it is described as one of characteristics of ESD that ESD accommodates the evolving nature of the concept of sustainability. This implies that it needs to be linked between changing approach of evaluation and educational activities based on evolving nature of the concept of sustainability. Further, evaluation needs to be used as a tool for learning as well as management and decision-making in the day-to-day running of the educational activities. Therefore, it needs to be regarded as a part of learning cycle. It can still have the character of final judgement (formative evaluation), but if incorporated in the educational activities and planned, evaluation makes for better learning and decisions as well as better educational practices.