

Institute for Global Environmental Strategies (IGES), Japan
School of Environmental Management and Sustainable
Development (SchEMS), Nepal



Education for Sustainable Development in Nepal

Views and Visions

Compiled by: Dr. Bishnu B. Bhandari • Prof. Osamu Abe

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**Institute for Global Environmental Strategies (IGES)/Japan
School of Environmental Management and
Sustainable Development (SchEMS)/Nepal**
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**Environmental Education Project
Institute for Global Environmental Strategies (IGES)**

2108-11 Kamiyamaguchi

Hayama, Kanagawa

240-0115 Japan

Tel: +81-468-55-3842

Fax: +81-468-55-3809

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Introduction

A two-day “Seminar on Education for Sustainable Development (ESD) in Nepal” was organized by the Institute for Global Environmental Strategies (IGES) in collaboration with the School of Environmental Management and Sustainable Development (SchEMS) of Pokhara University at Kathmandu, Nepal from 27-28 August 2003. Approximately, 58 resource persons attended the Seminar.

The Seminar is the series of advocacy efforts initiated by IGES in cooperation with partners to raise the profile of ESD in the region. The main concern is not on sustainable development as such but on the role of education as a process to contribute meaningfully to achieve the goal of sustainable development in Nepal. Thus, its objective is to share experiences and then identify knowledge gaps and prospects on ESD in Nepal. In order to stimulate discussion, 20 papers were presented on different aspects of ESD, followed by bouts of questions and answers after each presentation and an intensive discussion at the end of the Seminar.

Octogenarian educationist Dr. Trailokya Nath Upraity kicked off the seminar by lightening the traditional Nepali Panas lamp, ensued by his thought-provoking opening remark on education and development in Nepal. The Seminar was closed with an open-ended discussion session on the topic “*What are the means and ways of promoting ESD in Nepal?*” The discussion boiled down to the point that if ESD is to succeed, then the stakeholder dialogue and their responsible participation should receive the topmost priority.



The report is the collection of these papers. The administrator, the academician, the researcher, the practitioner and the free-lance consultant each have written papers representing diverse fields such as hard-core science, education, sociology, political science, economics, etc. This diversity is reflected in the papers written in different styles representing the various fields. The styles range from technical to general to feature styles, hence also the different styles of citations and references, a diversity which is retained in the report to reiterate the point that ESD is interdisciplinary in nature and no single method or approach would possibly be appropriate to its wide scope. This also may be regarded as the uniqueness of the report.

The report also includes a special paper “*Emerging Issues in ESD*” by Dr. Daniella Tilbury, Chair in Education for Sustainable Development of the IUCN Commission on Education and Communication. With a view to gather comments and suggestions from around the world the compilers have also included the proposed “Framework for a Draft International Implementation Scheme” prepared by UNESCO for the United Nations Decade on Education for Sustainable Development (DESD) along with an annexation of the opening address of Mr. Koichiro Matsuura, Director of UNESCO given at the interagency meeting on the UN Decade on Education for Sustainable Development (2005-2014) on 5th September 2003. These two contributions provide the reader with the latest development and international efforts in advancing the cause of ESD globally.

We sincerely hope and believe that the report will be useful to raise the profile of ESD as well as to integrate the concept of ESD into the educational policy, action plan, and program of activities at the national, district and village levels in Nepal.

Lastly, we would like to offer our deepest gratitude to our co-organizer, SchEMS, authors, and resource persons of the workshop, particularly Dr. Trailokya Nath Upraity, ex-vice chancellor and ex-ambassador for his kind consent to deliver the opening remarks to this seminar. We also like to offer a big “thank you” to authors who rendered their kind help and assistance to the seminar.

Finally, it will be our remiss if we do not mention the names of Mr. P. C. Shrestha, Mr. Suman Piya and Mr. Binod Basnet of SchEMS; and Mr. M. Takahashi

and Mr. A. Nakahata of IGES. Without their untiring supports, this seminar would not have been possible at all. However, we are solely responsible for any errors and shortcomings in the report.

The compilers will appreciate receiving any comments or suggestions from the reader.

The compilers
Hayama
30 October 2003

Opening Remarks

Dr. Trailokya Nath Upraity¹

Dear Friends,

First of all I would like to thank the organizers of the seminar for inviting me to share my thinking on the subject, education for sustainable development. Before proceeding further, it is advisable to recall that in 1987 the United Nations Commission on Environment and Development (UNCED) concluded that today's generations need to "meet the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development, in a nutshell, is "living well within the means of nature" or, living in a way to create lasting economic prosperity, environmental health, and social justice for current and future generations. Hence, its goal is to develop a society in balance and improve the quality of human life. The focus of this seminar is not on development as such but the role that education has to play in making the development activities sustainable in terms of the resources available in the country.

The concept of sustainability, in short, envisages the use of resources that replenish themselves over a certain period of time. This term has a popular usage in environmental science; use of mineral, forest, other resources, etc. in that these be used in such a way that they may be available to coming generations. For example, the yield of a forest product i.e. the volume of wood used for development purpose would grow back to the normal level in due course of time.

¹ Ex-vice chancellor and ex- ambassador. Correspondence address: President, Society for the Promotion of Civic Education, 4-441-187 (O) and 4-413-080/4-412-259 (R); E-mail: dupraity@wlink.com.np; spce@htp.com.np

Environmental scientists made this term a catchword in advocating the sustainable use of resources. In the field of education, this suggests that education is to be treated as a means to gain this end and to make the development process a viable and feasible undertaking. The resources required for the development of countries have to be utilized in such a manner that over a period of time they would recover to the balanced level. In other words, undertaking the task of development of a country aiming to provide a better standard of living, providing better homes, roads, education and health facilities, recreation facilities, safe drinking water, etc. is a long-term affair, making heavy demand on its natural resources; physical, natural, environmental. In this process, such resources are usually over exploited, leaving behind a trail of suffering for our posterity and coming generation. This applies to the developed as well as to the developing countries, more so in the developing countries of Asia, Africa, and Latin America. As such, one needs to be careful to safe keeping of the natural resources for their benefit of the coming generations.

In search of a balanced and sustainable view of development in any country, education has to play a major role to impress the minds of growing generation that all efforts and measures undertaken for development are to be sustainable. This concept has to be deeply impressed in young minds through medium of education-curriculum, reading materials, teacher training and other related activities of the education sector of a country. Civic education has indeed an important role to play in this regard. Simply having legislations or bureaucratic directives cannot attain the protection against the undesirable model of development in any country. Some people may be concerned that this sustainable approach might slow down the pace of development, especially in the developing countries. It is perhaps true. However, having no easy alternative in sight, planners need to learn to go in a steady way.

Unfortunately, the role that education is supposed to play in this regard has not been effectively designed in several countries- especially in countries of South East Asia, Africa, and Latin America. Take Nepal as a test case. It is a country with a long history of education with the Hindu and Buddhist traditions. The people until recent past lived in isolated villages, leading a simple life within a framework of self-sufficient economic and sustainable development. Introduction of English education by Jung Bahadur in the middle of the eighteen century brought a turning

point in the lifestyle of Nepalese people. The education that was introduced by the first Rana Prime Minister was a copy of the education system that a colonial power- East India Company- had imposed on India. McCauley (1800-1859), the architect of this colonial system, advocated this system of education for upper classes in India and made a vigorous plea for spreading western learning through the medium of English. He said “*It was possible through English education to bring about a class of person, Indian in blood and color, English in test, in opinions, in morals and intellectuals*”. The introduction of this system of education in Nepal was definitely a wrong start. The negative impacts of this system have gradually surfaced in larger dimension as time passed by.

Politically speaking Nepal was never colonized but in terms of education development it has been bearing, all the dire consequences brought to India by the British colonial power. In India, however, towards the end of the nineteenth century, national leaders like Mahatma Gandhi, Bal Gungadhar Tilak, Jawahar Lal Nehru, Madan Mohan Malaviya, in the course of their struggle against the colonial British regime, raised voices against the prevailing system of education. They pointed the need for gradual replacement of it by a system, which would help to produce a new generation of young people with a more balanced view of development of the country. These initiatives gradually gained speed and contributed to bring a new face of development in India which has been acclaimed as one of the successful models of sustainable development for imparting, scientific, professional, technical education to younger generation to harness the resources of the country for betterment of the present generation as well as to meet the needs of the posterity.

Nepal, however, had to continue bearing the evils of colonized system of education until the middle of the twentieth century. Towards the end of the autocratic Rana regime feeble attempts were made to introduce the basic education “*Adhar Shikshya*” modeled after the Indian educational thoughts of Mahatma Gandhi. But it could not take roots and was gradually assimilated in the prevailing system of education of Nepal.

After the political change of 1950, which ushered a new chapter in the democratic movement in the country, there were opportunities to redress the ills of the earlier system of education. Late king Mahendra was aware of the need to bring reforms in the prevailing system of education and with this end in

view he formed the First National Commission on Education (1954). This august body had made a series of recommendations to help development in education as well as in other sectors. In successive years there were other opportunities - Nepal USA Joint Education Project (1954-60), the New Education plan (1972), the Commission on Higher Education (1987), Second National Commission on Education (1990) and a Higher Level Education Commission (1997). These efforts had made a series of recommendations to do away with the old system of education and replace it with progressive ideas on educational development. However, the political parties and its leaders of the country showed no intention to implement the recommendations; instead, they were mostly circumvented to meet their own narrow political ends. The idea of sustainable development did not get much strength; it is very sad indeed.

If Nepal is to make a headway in its effort for development, use of resources of the country needs to be given a new direction; development resources and eco-system, agriculture, forest, water resources, wild life, etc. should be used in a sustainable method. It may, however, be mentioned here the assertion of some people that all the development activities of the past five decades have been a total failure. This needs to be judged rather carefully. I do not subscribe fully to this view. If we look at the progress made in communication, construction of roads linking the remote parts of the country and, yields from horticultural orchards, poultry, fisheries etc. we have definitely posted some growth. Nepal has tremendous water resources and its landscape has attracted millions of tourists; we are lucky that these resources are self-sustaining. We have seen that our experiment in community forest development has been a show piece of success. We need to sustain such approaches in other areas of development too.

You are all aware that after a spell of three decades of “Panchayat” system a political movement resurfaced to revitalize democracy in Nepal. The political parties were allowed to function once again and form an elected government. This development, however, did not contribute much to bring changes in the behavior of the political leaders. The political evils of the past decades surfaced again and the situation turned from bad to worse making room for the rise of Maoist movement, which is now destabilizing the country and all development efforts including the education front. It has hit-hard at the very foundation of the

sustainable concept of development. The situation is so complex that no prediction as to its course in coming days is possible at present.

There are several causes, which contribute to bring the prevailing pitiable state of education in the country; one of these and perhaps the most important is the prevailing system of the School Leaving Certificate (SLC) examination. This system set up in 1934 has now become obsolete and gone out of gear. Every year in this examination system- labeled as 'Iron Gate'- more than 50% fail to pass the examination. This is a big loss to the nation and the country can no longer bear it. So the time has come to take out this examination system from the control of the government, combine it with a higher secondary education board, and decentralize it in such a way that private initiatives come forward to organize the examination system in a more flexible pattern. This definitely would help to bring improvement in the existing school level education bringing consequential changes in higher education by introducing courses in the system of higher education- to plan courses in support of the concept of sustainable development in the country.

In the foregoing paragraphs attempt has been made to portray a sad picture of educational development in Nepal. Nevertheless, the picture outlined here applies to many other countries aspiring for rapid development. If countries like Nepal aspire for better standard of living, they have to be very sure that this is not at the cost of blind use of our resources. At every step, it demands to be very judicious to make use of our existing resources and keep it sustainable.

Before concluding, I would like to add few words on humane aspects of development. The country is in need of growing number of technical and professional hands- doctors, engineers, scientists, technical hands and professionals. But just the production of such hands is not enough. In the process of their training and education it is important that they are imbued with humane spirit of truth, compassion, right conduct, peace, non-violence and love to humanity.

Thank you
August 28, 2003



1

**Education for
Sustainable Development
Meaning and Scope**

Education is our bridge from the past to the present and from the present to the future

Anonymous

Education for Sustainable Development: An Emerging Paradigm¹

Dr. Bishnu B. Bhandari² and Prof. Osamu Abe³

Introduction

A cursory glance at the literature of education points out the fact that three kinds of phrases are common in the field. These phrases are (1) education, (2) the adjectival educations, and (3) education for sustainable development (ESD). These phrases are dealt with under the three different paradigms.

1) **Social development paradigm:** When we all say the word “education”, it means the mainstream education, which is under the banner of the “Social Development Paradigm”, where the parts (such as mountain, hills, rivers, forests, plains, snow, etc.) are studied to understand the whole (the Earth). It assumes that the sum of the parts is equal to the “whole”. Education takes place within the framework such as market philosophy, management culture, replicating modernists, or even entrenched modernists. Under this Paradigm, education carries on its traditional role of replicating a modernist society. Knowledge is

¹ Paper presented at the *Seminar on Education for Sustainable Development in Nepal*, Kathmandu, 27-28 August 2003.

² Senior Research Fellow, IGES/EE Project

³ Project Leader, IGES/EE Project; *Correspondence address:* Environmental Education Project, Institute for Global Environmental Strategies (IGES), 2108-11, Kamiyamaguchi, Hayama, Kanagawa, 240-0115 Japan. Tel: +81-46-855-3842, Fax: +81-46-855-3809; E-mail: bhandari@iges.or.jp

transmitted in specialist and atomistic ways so that learners can be prepared for their role in the machine – to learn how to control and be controlled, to produce and to consume. The red/green and the deep green thinkings seek to counter alternatives to this thinking.

2) **New environmental paradigm (NEP):** The paradigm supports the idea that “*matter is not mechanistic but contains aspects of wholeness and fundamental interconnectedness*”. Ecological insights including Gaia theory support the idea of interconnectedness of life and physical systems. According to this paradigm, “*society too is seen as a web of shared meanings than a collection of individual consumers. Things are coming together; becoming more dependent*”. In education, there has been the revival and extension of the old idea that learning is a dialogue, communication and creation of new meanings in a safe and cooperative environment”. Under this paradigm, there are many movements, which are libertarian, and community education, progressive education, adjectival educations and socially critical and holistic environmental education (EE) and development education (DE). The adjectival educations (such as environmental education, development education, peace education, global education, to name a few) have arrested common expressions such as progressive, learner-centered, socialist, community-based and ecological traditions. DE and EE have played a prominent role which has partly been embraced and partly marginalized by the mainstream education. These movements have attempted to influence the debate in favor of intrinsic values and transformational education. Education carries on the role and need of some special groups of people and philosophy. This paradigm is broadly democratic, more eco-centric, socially concerned and integrative.

3) **Education for sustainable development paradigm:** In order to fill up the vacuum created by these thinking, it is necessary and required to find new model and approach which builds a new model, while retaining continuity with existing good practices. A model is required to continue to distil many contributory elements from these paradigms. The new model looks at the whole to be more than the sum of its parts. The new model holds this potential and has shown some interesting convergences in recent years. Both DE and EE share “*increasingly common aims, objectives, goal, vocabulary and approach*”. And their defining elements should be “*woven into a core framework utilizing the concept*

of sustainability to produce an accessible, balanced and empowering education for sustainable development". This is what is to be called education for sustainable development (ESD). It differs from the other educations because it is radical in nature, and it does not subscribe to technocratic interpretation of sustainability. Rather, it is rooted in eco-centric view. To be different from EE and DE, it should be noted that the adjectival educations are their own cultural baggage and support only their interest groups. So ESD holds the prominence of a more coherent, far-reaching and integrated responses than other adjectival educations but it has to be manifested and meaningful.

Approaches and intentions of these paradigms are different. The contexts under which they emerged vary greatly. Their pedagogies differ from each other. Yet, their ultimate goal remains the same i.e. to develop the full potential of an individual so that he/she become competent in promoting sustainability in the society. Due to time and space constraints, it may not be possible to dwell on these paradigms and is left up to the reader to explore. Instead, ESD will be explored and discussed in detail.

The primary purpose of the paper is to outline the concept of ESD as a framework to refocus the education system to achieve the goal of a better future so that the present generation is engaged adequately for their own well-being while ensuring even better quality of life for the successive generations.

Sustainable development and ESD

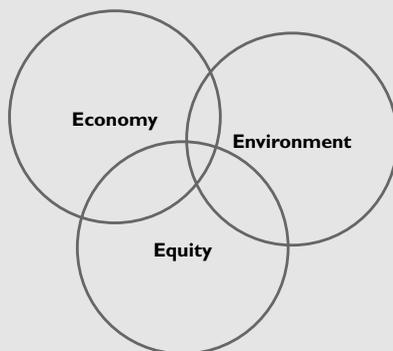
ESD is considerably broader in scope and complements the adjectival educations. In other words, ESD encompasses many aspects of these respected and established fields of study. The explanation of the phrase ESD, its concept, composition and intentions can be found in Bhandari & Abe (2003 a & b).

Sustainable development or sustainability is not a new idea; it is deeply embedded into the cultures of the Asia-Pacific region under different forms and names. It means caring not only for ourselves but also our children and their children. The world we live in, should be a better place (at least, not worse off), when we leave it for our children. So in a nutshell, sustainable development means "*living well within the means of nature*".

Let us talk briefly how the word “sustainable development” got its international prominence. The word, coined by Lester Brown (Thompson, 2001) was for the first time, used by ICUN-The World Conservation Union, in its famous document “*The World Conservation Strategy*” in the 1980’s. The world got its prominence in the Brundtland Commission’s report, which came out as “*Our Common Future*”. The Brundtland Commission has defined sustainable development as “*meeting the needs of the present without compromising the ability of the future generations to meet their own needs*”. Later, the Report was endorsed at the Earth Summit in 1992. In this way, sustainable development came into wide use and became synonymous with Agenda 21. This is internationally accepted as the most popular definition in the late 1980’s and 1990’s. It is still as valid as it was two decades ago. The recognition of this definition is well-reflected and well-informed in major international and national documents, plans, treaties and conventions.

Various efforts are underway to characterize sustainable development; some of the major ones are given below.

- It is an interface of the three “E’s” as in Figure 1. They are inter-connected and inter-dependent. They are not mutually exclusive. They should go together and cannot be separated and divided.
- It is an enlarged view of development that extends beyond simple measures of “growth”. It raises quality of life (happiness, satisfaction, secured and descent life, fair, equitable and accessible).



» Figure 1: Interconnection and interdependence among the three “E’s”

- It is a long-term thinking with a commitment to social equity and fair distribution of benefits and costs, both geographically and across current and future generations.
- It is about ecological equity (between human and non-human beings) on the Earth.
- Its vision is simple: a society in which people understand the world they live in; that possess rich biological diversities and cultural heritage; that has stable and well-informed population, and that has sustainable production and consumption within the carrying capacity of the Earth.
- It means living in a way to create lasting economic prosperity, environmental health, and social justice for current and future generations.
- It means humans would enjoy a secured, decent quality of life, and that has a fair, equitable access to the Earth's resources.
- Thus the society would enjoy universal equity among all living creatures.
- It means that we must reinvent the world socially, economically and environmentally, if we want to achieve this stage. This vision of a sustainable society requires a Herculean task.

But the greatest challenge we are facing today are the growing population, absolute poverty, environmental problems, conflict, violence, terrorism and inappropriate development, which are clasp together to weaken the ecological system on which we depend and live. Not only these forces, but also other forces (natural calamities, human actions and their combined effects) are in the loom. It is for these reasons that a huge shift in our thinking, values and action is required. To paraphrase Einstein, "*The significant problems we face cannot be solved by the same level of thinking we used when we created them*". The existing paradigms of education are yet to prove that they are adequate enough to address these burning issues. Results until now do not indicate any green signals. It is in this recognition that ESD is taken as a process to reach the apex of sustainable development.

Meaning and scope of ESD

Many scholars agree at the point that ESD is an extension of environmental education that would promote a sense of responsibility and active learner's

participation in resolving environmental problems (Tilbury 1995); a successor of environmental education (Hesselink et al., 2002); a basic understanding of the interrelationships among environmental, economic and social equity issues (PCSD, 1996); a dynamic extended environmental education, emphasizing critical thinking, problem solving skills and sensitivity (Huckle and Streling, 1997); a trick because it is a way of thinking as much as what we are thinking about (Wheeler and Bijur, 2000); and the recent version of environmental education (Bhandari, 2003 a & b). Its distinguishing features are presented in the next section. Here we present definitions only.

1. According to UNESCO, “ESD is an emerging but dynamic concept that encompasses a new vision of education that seeks to empower people of all ages to assume responsibility for creating a sustainable future.”
2. IUCN-The World Conservation Union articulates ESD “about how to stimulate and guide participation and learning in achieving a society that develops sustainability.”
3. “ESD means a lifelong learning process that leads to an informed and involved citizenry having the creative problem solving skill, scientific and social literacy, and commitment to engage in responsible individual and cooperative actions. These actions will help ensure an environmentally sound and economically prosperous future (PCSD, 1996).
4. According to CCES⁴, an US-based non-profit organization, “ESD is an approach to teaching and learning that meets the challenge of balancing the three “E’s” and intergenerational equity. It is a lifelong process of gaining the knowledge, skills and values needed to create lasting economic prosperity, environmental health, and social justice.”
5. Similarly, TCSF⁵ another US-based non-profit organization has defined ESD as “a new way of looking at the environment in which students (1) examine the network of dependant relationships that exist between the environment, the economy and the culture, and (2) come to understand that these interrelationships exist on the local, regional, national and global levels”.

⁴ CCES (Creative Change Educational Solutions): Ypsilanti: http://www.creativechange.net/se/what_is_se_what_is.htm

⁵ TCSF (Tahoe Center for a Sustainable Future), California: <http://ceres.ca.gov/tcsf/seg/page2.htm>

6. According to Agenda 21 ESD should “deal with the dynamics of the physical, biological, social, economic and spiritual environment” (United Nations, 1992).

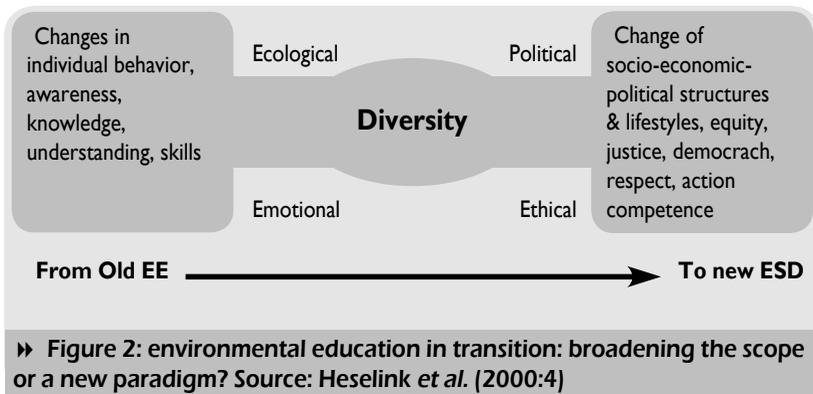
It can be elicited from these definitions that ESD is an empowering process in which the individual and community learn the connectivity among the three “E’s” together with three “R’s” (reading, writing and doing arithmetic skills) and use this knowledge to improve the quality of life of humans. The core strands of ESD embrace the following.

1. ESD is considerably broader in scope and complements the adjectival educations.
2. ESD is a new model of education that builds on the existing good practices.
3. ESD puts emphasis on practical skills that are good for self-employment and are increasingly sought by employers.
4. ESD involves learner until their behaviors are changed and new values and ethics, formed.
5. ESD goes beyond knowledge, skills and attitudes and blends them together.
6. ESD is context-oriented and puts emphasis on learning, action, reflection and action research to respond to the local issues.
7. ESD is student-centered⁶ and (2) activity-based⁷ (Janse van Rensburg, 2000).

Figure 2 shows how the focal point of EE is shifting towards ESD and how it is becoming broader and more inclusive in content. ESD is a stage in the evolution of environmental education and has a strong link with social, political and development educations (Hesselink et. al, 2002).

⁶ Learner-centered teaching is a shift away from an authoritarian approach (where teacher’s authority and the authority of the textbook prevail; learners are to be “seen and not heard”). It emphasizes on “starting teaching with the student, rather than the subject matter, and guiding the student to his/her discoveries, rather than teaching them the subject-matter”. Learner-centeredness is, therefore, often interpreted as a change in the teacher’s role, from authoritarian dispenser of knowledge to a mediator of learning.

⁷ Activity-based teaching is an attempt to improve on rote learning. It encourages “interactive” teaching and learning environments. This draws on Jean Piaget’s observation that young children develop new understandings through the active manipulation of objects. Piaget’s work also promoted “discovery learning” and the importance of exploration. This was also called “experiential learning”. These theories assume that “to engage learners in active meaning-making is to encourage better learning”. Active learning and activity-based learning are many times synonymous.



Distinctive features of ESD

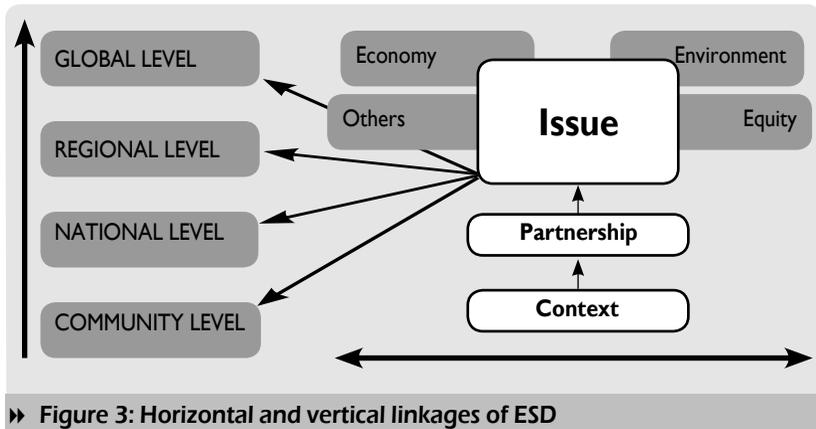
The goal of ESD is simple: *to prepare responsible and caring citizens for a rapidly changing society*. It empowers the student to fuse a sense of connection, purpose, relevance and meaning across academic disciplines as well as ability to think critically. It seeks to find out collaborative solutions to complex issues. ESD supports the integration of these skills, knowledge, and values. From the reviews of works and definition of ESD, it can be said that ESD is a new way (lifelong learning process) of looking at the issue in which the individual and community learn the three “Es” and their connectivity - along with the traditional three “R’s”; explain the understanding of their connectivity and use this knowledge as resource to improve the quality of the present and future generations.

ESD is an innovative and constructivist approach to education (or teaching and learning). It is not the subject, or discipline of its own rights. Nor can the teaching be relegated to a single course. Its themes must come to permeate all subject areas at all educational levels (Munson, 1997).

Sitarz (1998) mentioned that ESD is not a new course of study or new content, but rather *"it involves an understanding of how each subject relates to environmental, economic, and social issues"* (p. 202). Developing the content of this new educational dimension will require *"educators at all levels to reach beyond school walls to involve parents, industry, communities, and government in the educational process"* (p. 200).

From Figure 3 below, some of the distinctive features of ESD can be drawn.

1. ESD is context and issue-based, and locally relevant
2. ESD seeks partnership across the society.
3. ESD adopts an inter-disciplinary or trans-disciplinary approach. The issue comes before the discipline.
4. ESD explores links between students' personal lives and wider environment and development concerns (both horizontally and vertically).
5. The pedagogy combines the best practices of content integration (the economy, the environment and equity), inquiry-based learning⁸; and authentic assessment⁹. It takes the deep ecology approach¹⁰.



► Figure 3: Horizontal and vertical linkages of ESD

⁸ Instruction begins with meaningful questions relevant to students' lives. Teachers act as facilitators of in-depth investigations. Students investigate issues that matter through active analysis, research, reflection, interpretation, and problem-solving. This helps students move beyond acquiring facts to developing a deep understanding of complex ideas.

⁹ Students apply their learning in authentic situations through purposeful and positive actions. Powerful learning is framed by defining meaningful outcomes and providing authentic opportunities for students to demonstrate their learning.

¹⁰ The deep ecology approach sees humans as "stewards seeking to live in harmony with the Earth on a local scale; technology is used when it is considered "appropriate" by using renewable resources such as solar." However, a deep ecologist would choose a native tree species to plant that supports the habitat of a locally endangered animal. In addition, a deep ecologist would plant the tree in the northern hemisphere on the south side of a building if it was deciduous to provide summer shade or on the north if it was evergreen to provide winter wind breaking. All approaches are needed in solving our environmental problems, but the deep ecology approach may well offer the more holistic approach.

How can we begin ESD? Because the topic “sustainability or sustainable development does not appear in the curriculum framework. But the reality is that sustainable development offers multiple entry points across the curriculum. Practically any topic can be used as a starting point to investigate the related social, economic, and environmental factors. A teacher can begin with a topic on economy and then broaden the scope to include environmental and social aspects. Some educators have begun to use the topics such as resource use, the future, quality of life, consumption patterns, equity, and energy use. Thus the concepts and spirits of SD can be found across the existing curriculum.

Contrasts from EE

Some educationists argue that if ESD is the extension of EE, then why do not we call it EE? Why do we need this new vocabulary? If it differs from EE, then what is the main difference? This is what is discussed in the following section:

Firstly, EE as mentioned earlier belongs to the category of the adjectival educations. It is argued that the adjectival educations are not broad enough to include concerns other than the ones designated by their adjectives because they tend to meet the concerns of some selected interest groups only. In this regard EE is no exception. Secondly, EE views the environment within the context of human influences i.e., in terms of economics, social equity, culture, political structures, etc. In other words, EE is environment-based and attaches its values on the environment. Thirdly, the Tbilisi principles focus on values related to “*environmental sensitivity*” and demands the active involvement of learners in “*planning their learning process*”. Participation and equity values are meant only for students, but not for society or community in general. The three E’s are presented as a series of necessary trades off, i.e. one can be had at the loss of other.

On the contrary ESD demands that the three “E’s” are considered a whole and should be promoted together, never one at the cost of other. Thus, ESD goes beyond EE to grapple the more complex issue of how to promote all three “E’s” together. This is how the phrase ESD became the consensus word in WSSD and other international meetings.

Conceptually, no significant difference exists between EE and ESD. However, at the operational level, there are some differences, especially in their approach and methodology (see Table 1 for details). Despite these differences, environmental education experts such as Fien (1993), Tilbury (1995), Huckle and Sterling (1997), Wheeler *et al.* (2002), Heselink (2000) and many others are of consensus that ESD and EE are synonyms. In other words, ESD is the advanced form of EE.

Table 1: Difference between EE and ESD

Description	EE	ESD
1. Content	Knowledge and understanding of the natural environment and impact of social and political systems	Environment in the context of social, political, economic. Focus on local to global issues and their solutions. <i>Add more content equity and technology.</i>
2. Context	Formal and non formal mode	Lifelong learning process (any time, any where)
3. Method	Interdisciplinary, learner-centered, experiential and inquiry-based.	Interdisciplinary, learner-centered, experiential and inquiry-based. <i>Stresses on partnership and systemic thinking.</i>
4. Action	Environmentally sound skills and behaviors for decision making and citizen action.	Focus on citizen action skills
5. Values	Environmental protection in social and economic context	Environmental sensitivity. <i>Inseparability of three E's.</i>

Source: Wheeler *et al.* (2002)

The focus of ESD

ESD gets beyond the reduction and analysis approach to the synthesis and integration approach of what we know and can know. In other words, the understanding of interconnections between environmental, economic and social systems is core to ESD. ESD develops in learners the critical thinking skills, political knowledge and values required to analyze the complex interdependence of social, cultural, economic and political aspects of sustainable development. In other words, ESD cultivates in learners the habit of system thinking, interconnections

and multiple perspectives (Wheeler *et al*, 2000). The three examples presented below show some core themes included in ESD.

- i) The North American Association for Environmental Education (1998) has suggested the four themes for K-12 education.
 - Questioning and analysis skills.
 - Knowledge of environmental processes and systems.
 - Skills for understanding and addressing environmental issues.
 - Personal and civic responsibility.
- ii) According to the Tahoe Center for a Sustainable Future¹¹ ESD should embrace the following.

Focus: The complex relationships between ecological systems, economic structures, and community dynamics.

Process: Community and project-based process that supports student investigation and participation.

Approach: Integrating existing and new curriculum vertically as well as horizontally.

Method: Discussion and dialogue methods to address diverse issues both complex and controversial.

Materials: Use of local resources, tools and techniques.

- iii) Sterling (21997:34-36) suggests five indicators of ESD which cut across the themes of environment, the economy and social quality of life of all. These indicators are;

Sustainability values: Values that need to be reflected in education are intergenerational equity, conserving biodiversity and ecological integrity, qualitative development, community development, etc.

Personal and community values: Values such as a sense of responsibility to the environment and other people, abilities to translate this responsibility into action in both personal and public life, the ability to respond positively to change and uncertainty; the capacity to see the links between individual and group actions,

¹¹ Lake Tahoe. Tahoe Center for a Sustainable Future: <http://ceres.ca.gov/tcsf/seg/page2.html>

external events and other factors; an interdisciplinary and holistic outlook; and a sense of self-worth combined with a respect for other individuals and cultures.

Pedagogy: Pedagogy should be based on meaningful, rather than token, empowerment, participation and ownership. Action research and experiential and cooperative learning should be part of pedagogy. And it should aim at developing ecoliteracy and political literacy for full and active citizenship. Methodology includes experiential learning.

Curriculum: Values that should be reflected in the curriculum are vertical progression and horizontal integration (inter and trans-disciplinary); development of process, not content; establishing relation between areas more important than the de-contextualized studies.

Structures: The structure and organization focus on democratic decision making process; greening the physical and management of institutions; using institutions as learning center for the whole community; establishing networks and links; teachers and leaders being facilitators rather than authorities and education for life.

Major issues

As has been mentioned elsewhere that ESD is a new “constrictivist” approach. It is an emerging body of values, content and methodology that need to be “sown and grown”. A balance between “top-down” and “bottom-up” approaches needs to be maintained if ESD is to realize its full potential and thereby developing a new skill and approach. Sterling (1997) reiterates that the educational system needs the wholesale reorientation if ESD is to succeed. This is possible when we understand that “... *all issues connect and impact on each other and should be seen as an advantage rather than a problem. By working in one issue in one area, it is often possible to show links with and make a positive impact on other connected issues - to promote positive synergies intentionally*”.

ESD is purposive and indicative but not prescriptive. It needs to be negotiated according to local conditions, needs and perceptions. ESD has to go a long way to clarify some of the burning issues such as the following.

- Is ESD a convergence of all the adjectival educations oriented towards social change?

- Is ESD as the next step in the development of EE?
- Is ESD more than the sum of its parts?
- How can we motivate the establishment (the education community) to change their policy and program in favor of ESD, or to shift readily from specific, discrete educational topics to a more integrated system approach?
- What are the local sets of goals and indicators? What does ESD mean for a community?
- How do we develop guidelines for integrating ESD across the curricula?

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Emerging Issues in Education for Sustainable Development

Dr Daniella Tilbury¹

Education for sustainable development

“Education is (...) the key to sustainable development and peace and stability within and among countries, and thus an indispensable means for effective participation in the societies and economies of the twenty-first century (Dakar Framework for Action, April 2000).”

Since Agenda 21, education has been increasingly recognised as critical to the attainment of sustainable development globally. United Nations agreements and resolutions, of major conferences held since 1992, acknowledge that education is the key to a sustainable future and have attested to its importance as a tool to initiate and sustain social change processes towards sustainable development (Tilbury and IUCN CEC 2001).

Education is seen as vital to enable public engagement in sustainability issues, to enhance people’s abilities to find solutions to unsustainable practice as well as to envision sustainable futures. It is also critical to strengthening governance and global partnerships which build institutional support allocate rights and enforce responsibilities towards sustainable development.

¹ Macquarie University, Sydney; Chair in Education for Sustainable Development, IUCN Commission on Education and Communication.

Intergovernmental meetings, such as the World Education Forum (2000) recognise that there is a need for substantial reorientation of formal curriculum structures and increased support for life-long learning for sustainability. Growing recognition of the need to prioritise actions in this area has led the Trondheim Youth Group, amongst others, to call for education to be identified as a major group within the UN CSD and the Japanese Forum for Johannesburg to push for a UN Decade in Education for Sustainable Development.

Progress since the Rio Summit

Ten years after Rio, there has been some, although not substantial, progress towards advancing the role of education in sustainable development. There were warning signs in 1996 in the Secretary General's Report to the Commission on Sustainable Development that identified education as the 'forgotten priority of Rio'. Since then, however, there has been growing momentum in education for sustainable development.

At one level, the Environment Conventions, arising out of the Rio Summit, are now addressing the articles on education and public awareness. The parties to the Convention on Biological Diversity approved a work programme on CEPA – communication, education and public awareness in April 2002. The Climatic Change Convention is currently discussing the development of a work programme on Article 6 on education, awareness and training and the Desertification Convention has embarked on a 'bottom-up approach' to involve people in seeking solutions (Tilbury, Hamu and Goldstein 2002).

At another level, there are examples of how formal and higher education institutions and a limited number of government agencies, social groups and individuals have embraced education for sustainable development as a tool for change (see Tilbury and IUCN CEC 2001).

However, as the process of implementing Chapter 36 of Agenda 21 unravels, a number of key issues are emerging which are worth reflecting upon. The following section contains some brief reflections which provide a preliminary assessment of progress in education for sustainable development and help identify key areas in need of attention.

Formal education—the focus of attention

Since Rio, formal education (including higher education) has received much of the attention with teacher education initiatives and resources mobilising most of the support in education for sustainable development (Tilbury and IUCN CEC 2001). This is, perhaps, to be expected, given that teacher education was earlier identified as the 'Priority of Priorities' (UNESCO 1990). Major initiatives in this area include: the production of international guidelines to reorient teacher education; the establishment of an international network of teacher education; and, the development of resources including a multimedia teacher education programme entitled 'Teaching and Learning for a Sustainable Future' (UNESCO 2001a) as well as 'Learning to Live Together' (UNESCO PROAP 1998).

Partnerships such as the UNESCO International Associations of Universities, the 'Global Higher Education for Sustainability Partnership', 'Cre-Copernicus' and 'University Leaders for a Sustainable Future' are recognising the importance of educating for sustainable human development with many Universities moving to become sustainably managed institutions (UNESCO 2001b).

A recent needs assessment in education for sustainable development found that few programmes are targeted at government or corporate organisations, indigenous peoples or the scientific and technological communities (IUCN CEC 2001a). Many initiatives focused on greening curricula, schools or higher education campuses, placing a strong emphasis on formal approaches to professional development and training. Handbooks and workshops were the preferred media, whilst informal and traditional approaches to community development and learning (through story telling, religious and cultural festivals, etc.) were infrequently used.

Targeting key multipliers

Targeting key multipliers is a strategic and effective approach to improving provision and access to education for sustainable development. However, key multipliers in government agencies or within indigenous, women, religious or other community groups have not received much attention over the past ten years (Tilbury and IUCN CEC 2001). As mentioned previously, key multipliers in formal education have been the focus of activity in this area. The result of this

has been that many associate education for sustainable development as solely a curriculum rather than a social process.

Progress at the policy level

Much of the progress in education for sustainable development has occurred at the policy level, with many countries (including Australia, Canada, China, England, Hungary, Jamaica, The Netherlands, El Salvador, Scotland, Spain, Norway, Poland) developing national strategies in education for sustainable development and some financial mechanisms to encourage implementation both in and out of formal schooling. These developments have been recent and demonstrate national recognition of the critical role that education plays in the attainment of sustainable development. However, most countries are still in the early stages of implementing the goals identified by these strategies and have only just begun to establish frameworks that support changes at the practical level.

Education for sustainable development is more than basic education

Whilst recognising that meeting basic education needs is critical to sustainable development, concerns arise when education for sustainable development is interpreted solely as basic education. To reach the Millennium Development Goals, recent efforts in education for sustainable development have been focused mostly on improving literacy in developing countries and often fail to address unsustainable consumption and lifestyle patterns in developed nations. They omit consideration of content and approaches, which are necessary to assist people to make changes towards sustainable development and often give the impression that developed nations, do not need education for sustainable development.

Other emerging issues

As well as presenting an overview of progress in the field, this paper attempts to review current trends in practice. The following section identified a few issues and assumptions underpinning practice in educating for sustainable development.

Avoiding conceptual maps

In an attempt to assess progress towards sustainability, 'The Wellbeing of Nations 2002 reported that: *"at present no country is sustainable or even closer... Nobody knows how to meet these new demands. There is no proven recipe for success. In fact, no one has a clear sense of what success what be. Making progress towards ways of living that are desirable, equitable and sustainable is like going to a country we have never been to before with a sense of geography and the principles of navigation but without a map or compass. We do not know what the destination will be like, we cannot tell how to get there, we are not even sure which direction to take* (Prescott Allen 2002 pp.1-2)."

The question is, therefore, how do we educate for a concept that is difficult to conceptualise and define? The conceptual pathway to sustainable development is not clear and this has implications for how we educate for sustainable development. The quest for sustainability demands new approaches to involve people in futures thinking and stakeholder dialogue rather than in conveying a body of knowledge or a conceptual map of how to get to sustainable development. Education for sustainable development should provide opportunities for people to engage in reflecting upon preferred futures and defining their vision for sustainable development. This process of envisioning is critical for individuals and groups to determine their own relevant and realistic pathway to sustainable development. However, sharing these visions, experiencing other's visions and constructing dialogues on sustainable development are also critical to this process.

Educators could interpret the ambiguity associated with sustainable development as a strength - a context that permits an inclusive and active approach to engaging stakeholders in conceptualising sustainable development. However, there seems to be a preoccupation with defining 'sustainable development' as well as arriving at a concrete definition of 'education for sustainable development'. This has lead to 'paralysis by analysis' and detracts from the goal of achieving sustainable development in practice (Fien and Tilbury 2002 p.3). It could also be argued that an agreed universal definition of sustainable development contradicts the key premise which will make it work. It is the fuzziness associated with this terms that has proven useful in arriving at consensus that sustainable development is important and relevant to all (Pezzey 1989; Fien and Tilbury 2002).

Educating about and for the future

“Visioning means imaging, at first generally and then with increasing specificity, what you really want. That is, what your really want, not what someone has taught you to want, and not what you have learned to be willing to settle for. Visioning means taking off all the constraints assumed ‘feasibility’ of disbelief and past disappointments, and letting your mind dwell upon its most noble, uplifting, treasured dreams (Meadows et al. 1993 p.3).”

Hicks and Holden (1995) believe that we need to explore the origins and consequences of current unsustainable practices but more importantly “establish the need for, and nature of, a more sustainable society (p.17).” Despite the futures rhetoric associated with education for sustainable development, current practice is focused on trying to problem-solve our way out of unsustainable development rather than on creating alternative futures.

Educating about and for the future is critical to education for sustainable development. This can be achieved through ‘envisioning’ - a powerful futures education tool which can help drive changes towards a better world. It assists people in defining where they want to be and think through how to get there. Using approaches, such as futures scenario planning, motivates and empowers people to make changes as they begin to appreciate the relevance and importance of the ill-defined concept of sustainable development. It also help people focus on the positive, as images of the future can offer hope and direction.

Hicks and Holden (1995) argue that vision offers direction and energy because it harnesses deep aspirations. The test of any vision, they argue, is whether “it speaks to people’s hearts, to their sense of compassion and justice, for both people and planet (p.138).” This process enhances participation in decision-making and helps people to deal with change more effectively. For these reasons, it is critical that education for sustainable development programs and resources begin to address the futures dimension within its content and approach.

There are programs and resources which do offer a particular view of the future, but Hicks and Holden (1995) point out, the ‘virtues or likelihood [of these futures] are not questioned in any way...or offered as one amongst several alternative possible futures’ (p.61). A characteristic of these ‘taken-for-granted

futures' are that they assume increased economic growth or developments in science and technology will resolve all problems (Hicks and Holden 1995).

The Johannesburg Summit (UN 2002a and UN 2002b) reminded the world community of the important choices that need to be made. Many side events at the Summit have helped scope the cultural territory that has to be explored and marked out some critical questions we need to ask when making these profound choices. This is critical to progress, but progress, for the reasons identified above, also depends on the ability to envision a better society. As Duane Elgin (1991) reminds us, "We cannot build a future we cannot imagine'. A first requirement, then, is to create for ourselves a realistic, compelling and engaging vision of the future that can be simply told (Elgin 1991 p.6)."

This vision he argues will provide a strong sense of future and meaningful orientation of our actions.

Poverty alleviation and not just biodiversity

Education for sustainability is about learning to prevent the destruction of ecosystems, biodiversity threats, loss of forests and fisheries, air and water pollution but also addresses issues of intellectual property rights, over-consumption, increasing poverty inequality, exclusion and alienation, social conflicts and violence, aids, health, trade and aid as well as cultural erosion. In order to improve our quality of life we need to reflect not only upon human-environment relationships but also on human-human relationships.

At the Rio Summit, there was a realisation that issues of biological diversity could not be separated from issues of sustainable use and equitable benefit sharing. The Convention of Biological Diversity (1992) enshrines this logic and commits its signatories to take steps to link conservation with sustainable development. However, the reality at Rio was that poverty was overshadowed by the attention given to conservation and protection of natural resources. This nature conservation and environmental protection focus has been reflected in the programs and resources which have emerged since 1992 (IUCN CEC 2001a). In recent years, single species campaigns overshadow the core issues underpinning threats to biodiversity. Few links are made between the social reasons why biodiversity is under threat and strategies developed to resolve this critical issue.

In 2002, the Johannesburg Declaration (UN 2002a) and the Implementation Plan (UN 2002b) placed a strong emphasis on the need to alleviate poverty for progress to be made towards sustainable development. One of the objectives of Implementation Plan is to eradicate poverty. Education is to be included in country-owned poverty reduction strategies and national programmes for sustainable development and local and community development. The intent is to promote the empowerment of people living in poverty and their organizations and increase access to “productive resources, public services and institutions, in particular land, water, employment opportunities, credit, education and health. Poverty reduction strategies are to promote women’s equal access to and full participation, on the basis of equality with men, in decision-making at all levels, and improving the status, health and economic welfare of women and girls through full and equal access to economic opportunity, land, credit, education and health-care services. Education for sustainable development is to play a key role in attaining these goals. However, once again transforming this rhetoric into practice will be challenging, as higher profile issues begin to steal the agenda. This was evident at the Johannesburg Summit where poverty alleviation could have once again been overshadowed, not by conservation, but by anti-colonialism and anti-terrorism discourses. Poverty did emerge as a key component of the Summit’s Implementation Plan (UN 2002b), however, educators working in the field of sustainable development will need to keep poverty eradication and issues of improvement of quality of life at the core of their work and explicitly identify how these themes underpin the issues which attract social and political concern.

Culturally Critical not just Socially Critical

“To be empowered is not only to speak with one’s own voice and to tell one’s own story, but to apply the understanding arrived at to action in accord with one’s own interests (Mishler 1986 p.119).”

The socially critical education approaches of critical reflective thinking and action research promote critical praxis - a pedagogy that integrates reflection and action. Critical praxis provides opportunities for people; to engage in critically reflecting upon the basis of their socio-cultural values and assumptions; to identify how they are conditioned and confined by the socio-cultural structures they are operating in and, more significantly, to build their capacity as agents of change

(Huckle and Sterling 1996; Huckle 1997). It is essential to build social capacity for sustainable development through education.

Critical praxis was developed by Freire (1972) to raise the consciousness of learners to dominant ideological interests present in their socio-cultural environment and to engage them in reflective action (praxis) to transform it (Fien 1993). It is the process of reflective action that empowers citizens to embrace the possibilities of action and work towards a more sustainable world.

There are, however, concerns on how socially critical education is practiced. Saul (2000) argues that models of critical rationality currently used blinds learners to cultural complexities. Teaching critical rationality, he argues is not enough, we need to teach learners that often conflicts are not only about rational arguments, but about the clash of cultural values and perspectives: “Environmental problems result from environmental practices and environmental practices are cultural activities.....we need to teach how culture works, because cultural differences frame what are seen as rational arguments (Saul 2000 p.7).”

To achieve sustainable development we need critical reflective models which will help learners ‘not only think critically but also culturally’ (Saul 2000 p.8). Values clarification is a process that can help learners uncover the layers of assumptions and deconstruct socialised views. It can help them engage in a critical review of their own environmental and political values as well as help them comprehend that other complex cultural perceptions exist (Tilbury 1995; 2002). It has been used extensively in environmental education but originates from the global studies and development education movement of the 1970s that developed alternative and interactive approaches for teaching for a better world. Values clarification resists the reduction of complex situations into simplified binary oppositions that often develops when controversy arises. It can develop learners who are aware and critical of cultural perceptions and processes that lead us to unsustainable development.

Uncovering the layers of assumptions which inform our actions, is a critical first step to educating for sustainable development. Critical reflective thinking and values clarification must, therefore, be key components of learning for change towards sustainable development in the next decade.

The next decade

Ten years after Rio, no nation has yet made significant advances towards sustainable development (Prescott Allen 2002). It is within this context, that the world leaders gathered in Johannesburg reaffirmed their commitment to protecting environments and improving the quality of life of people around the world (UN 2002a/b). The question is, 'will there be anything to report at the next Summit?' or more critically 'when and how will progress occur?'

A review of the Johannesburg Implementation Plan seems to suggest that education is key to meeting the commitments made in this document (Goldstein 2002), and thus, to answering the questions identified above. The Implementation Plan demands communication of the issues and engagement of people in action and informed decision-making for an improved environment and quality of life. It positions education as a critical tool for social change and places high expectations upon education.

However, offering a preliminary assessment of progress in education for sustainable development, this paper has indicated that the process of implementing international commitments in education has been slow and limited. The UN Decade of Education for Sustainable Development, which was adopted at the World Summit on Sustainable Development and then at the UN General Assembly in December 2002, could provide the impetus for addressing these emerging issues in education for sustainable development. Ideally, the Decade would bring together those working in education for sustainable development and consolidate partnerships to implement international commitments in education. The next three years will be critical, as plans for the UN Decade are drawn. They hold the answers to the questions: 'Will there be anything to report at the next Summit?', 'Will there be another World Summit?'

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IUCN CEC: The IUCN Commission on Education and Communication (CEC) strives towards raising the profile of Education for Sustainable Development (ESD)

at the international, regional and national level; to persuade key decision-makers to value and support ESD; to promote and support quality work in EFSD; and to help develop tools, partnerships and strategies for addressing ESD needs at the strategic, institutional and program level (IUCN 2001b). CEC has played a role in promoting ESD to achieve the objectives of Agenda 21. It has offered international workshops at Rio and Johannesburg and has been active in supporting the development of the Convention of Biological Diversity work program on education. For more information about the CEC's work see <http://iucn.org/cec>.

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Sustainable Development Education: Need for Ethical Approach

Dr. Ratna SJB Rana¹

Current scenario: A cursory look

- Today, the rich one-fifth of the world's people consumes some 75-80 percent of world resources and generate the most pollution, both absolute and in relative terms.
- If all people alive to-day were to have rich world's per capita oil consumption, the world oil production would have to be about 5 times more. If this increases exponentially with the increase in population, oil reserves will run out by 2050.
- It is estimated that up to 100 species become extinct every day. One estimate indicates that about 40,000 species were lost by the year 2000 (a rate far exceeding any in the last several centuries).
- In one example using the 'footprint' analysis, "it has been estimated that to provide one person living in Sydney with water, settlement area, energy and food requires at least 4 to 5 hectares of productive land. Therefore, if 9 billion people were to live as they do in Sydney, we would need about 40

¹ Ex-vice chairman, National Planning Commission; ex-vice chancellor, Royal Nepal Academy for Science and Technology and presently associated with the Institute for Sustainable Development (Lalitpur, Nepal).

billion hectares of productive land. However, this is approximately 6 times all the productive land area of the planet.”

- Another estimate suggests that, if the world pushes ahead to the consumption levels reached in the US today, we would need about 5 or 6 more earths.

Though certainly not exhaustive, the figures cited above are indicative of the direction human society is moving. The essential elements of the current scenario is that, despite substantial progress in various areas, (a) population continues to grow, (b) poverty has not diminished, but increasing, (c) inequalities between the rich and the poor are widening, and (d) the environment is being pushed beyond its limits. This situation becomes even more pronounced with the rising tide of globalization. It also indicates that the consumption and production patterns of the present generation are endangering the survival of future generations, both human and non-human life forms. Such a situation has created much concern locally, nationally and globally. Rio (1992) and Johannesburg (2002) World Summits are some of the key examples of these concerns.

Why sustainable development?

Whereas the poor people and poor countries need to increase their consumption levels even to meet the basic minimum requirements, the resource and environmental situation has already given clear signals that this may not be possible. Global warming, ozone shield ruptures, land degradation, decrease in biodiversity and so forth, are mentioned as clear evidence that the Earth has reached its limits to carrying capacity.²

While ecologists and environmentalists have long known that the existing economic system is unsustainable, economists have yet to fully appreciate the negative implications of relentless pursuit of growth, which accompanies increased consumption, to our environment. As early as in late 1960's, the Club of Rome had already mooted the idea that we might be reaching the limits to economic growth.³ We now have a situation that while the economy continues to expand, the ecosystem

² Robert Goodland, The Case That the World Has Reached Limits in Robert Goodland, Herman E. Daly and Salah El Serafy (eds.), Population, Technology and Lifestyle, Washington, D.C.: Island Press, 1992, pp. 3-22.

³ See, D. H. Meadows, et. al., The Limits to Growth, New York: Potomac Associates, 1972.

or the environment on which it depends does not create an increasingly stressed relationship.

The endless pursuit of more is becoming too costly. It is now apparent that “business as usual” cannot go on for much longer, and we have to consider doing things differently and leading a life, which seeks happiness not in increased material consumption but in other ways. Hence the need to pursue “sustainable development” in every possible way.

What is sustainable development?

In simple term, sustainable development may be understood to mean the capacity for the current state or condition of development to be continued more or less indefinitely. According to the Brundtland Report, which detailed the urgent need for achieving global sustainable development, sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.⁴

This definition contains within it two key concepts: (a) the concept of “needs,” in particular the essential needs of the world’s poor, to which the overriding priority should be given; and (b) the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs.⁵ It should be emphasized that the concept of sustainability concerns itself with maintaining development on some steady state for the future. It is against this background that the Rio de Janeiro Accord, known as Agenda 21, of the UN Conference on Environment and Development (UNCED) came into being.⁶ The Agenda 21 action plan for sustainable development concluded that the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialized countries.

⁴ World Commission on Environment and Development, *Our Common Future (The Brundtland Report)*, New York and Oxford: Oxford University Press, 1987, p. 43.

⁵ Salah El Serafy, *Sustainability, Income Measurement, and Growth* in Robert Goodland, Herman E. Daly and Salah El Serafy (eds.), op. cit., pp. 63-89.

⁶ The Agenda 21 final document was signed by virtually all States participating in the UN Conference on Environment and Development, held in Brazil in June 1992.

Agenda 21 highlighted the deep divide in consumption and pollution between the industrialized and developing countries. It pointed out that the 20 per cent of the world's population in the rich "North" account for 50-90 per cent of consumption and pollution. To remedy this, the Agenda 21 action program for sustainable development agreed at the UNCED highlighted special responsibility of the industrialized countries to take the lead in making the necessary shift towards sustainable consumption and production patterns.

Since UNCED, the urgency of the need for change has been recognized and some promising signs of progress have emerged. Several governments and business have recognized the need to change consumption and productions patterns in ways to improve environmental conditions. Most efforts, however, have been limited to cleaning up the production process, particularly in the industrialized countries, but the overall perspectives may be grimmer today than in 1992.

Sustainable development calls for some basic changes. The first is with regard to policies and practices that perpetuate growth in material consumption and in population. The second is regarding drastic increase in the efficiency with which energy and materials are used and recycled.⁷ Just tackling the various problems of production process in increasing the efficiency of energy and raw materials use will not be sufficient to achieve sustainability. Even if the idea of resource productivity of "factor four", or even "factor ten",⁸ are technologically and economically achieved, all the people of the developing countries will still not have a fair chance of meeting their basic needs if the current consumption patterns remains unchanged.

Continuing growth in material consumption will eventually overwhelm gains from efficiency, causing total resource use and all the corresponding environmental damage to rise.⁹ The Independent Commission on Population and Quality of Life observes: The poor increase their consumption in order to escape poverty, while the non-poor aspires to even greater material prosperity. All governments

⁷ D. H. Meadows and J. Randers, op. cit., p. xiv.

⁸ Factor Four refers to the idea that resource productivity should be quadrupled so that wealth is doubled, and resource use is halved. The concept has been summed up as "doing more with less". Likewise, Factor Ten is the idea that per capita material flows should be reduced by a factor of ten.

⁹ Lester R. Brown, Sandra Postel and Christopher Flavin, *From Growth to Sustainable Development* in Robert Goodland, Herman E. Daly and Salah El Serafy (eds.), op. cit., pp.119-127.

advocate higher consumption as a means of stimulating the economy and reducing unemployment. Yet higher consumption, under present conditions, is bound to result in an unsustainable level of energy use--energy coming from fossil sources and poisoning the air and water.¹⁰

Consumerism and lifestyles

One of the fundamental issues that has to be properly addressed for sustainable development is the issue of human consumption. Our present consumption patterns are characterized by direct and indirect use of fossil fuels, indiscriminate use of natural resources in the manufacture and food production, short life-cycle of products and rising levels of waste and pollution.

Perhaps only population growth rivals high consumption as a cause of environmental problems. The sad thing is that whereas population growth is now viewed as a problem, consumption is almost universally seen as good and desirable and remains one of the primary goals of national economic policy. Thus, rethinking of core moral and ethical values in terms of changing consumption pattern and lifestyles is crucial for attaining sustainable development.

Today, the consumer class, some 1.1 billion people, lives mostly in North America, Western Europe, Japan, Australia, Hong Kong, Singapore, and the oil sheikdoms of the Middle East. Some members of this consumer class also live in Eastern Europe, the former Soviet block countries, and in the urban pockets of almost all countries of Latin America, Africa and Asia.

They enjoy a lifestyle unknown in earlier periods. They dine on meat and processed or packaged foods, and drink soda pops and other beverages from disposable containers. They spend much of their time in climate-controlled and electrically lighted buildings equipped with refrigerators, clothe washers and dryers, running hot water, dishwashers, microwave ovens, TVs, and various other electric gadgets. They travel mostly in private automobiles and airplanes, and surround themselves with a wide variety of short-lived, throwaway goods.

¹⁰ Independent Commission on Population and Quality of Life, *Caring for Future: Report of the Independent Commission on Population and Quality of Life*, New York & Oxford: Oxford University Press, 1996, p. 57.

Consumerism, in the sense of possession and use of an increasing number and variety of goods and services, now seems to represent the principal aspiration and the surest perceived route to personal happiness, social status and success. In industrialized societies consumerism now permeates social values. The emergence of consumerism or consumer society has been the hallmark of our time, and consumerist attitudes are spreading far and wide due to economic liberalization, advertising and globalization.¹¹

For many of the poor around the world, the lifestyles in what appears in the land of milk and honey—the western world—are becoming visible on TV sets. Beside this, the lifestyles made in the US, usually as exported by its entertainment industry such as the motion pictures, videos, TV programs, etc. have become the model to emulate for those who can afford it. Globalization is further increasing this trend.¹² As a result, aspirations for lifestyles are set forth by the current norm in the western countries, particularly the US, and expectations have gone global but not the riches.

Our global environment cannot support this kind of lifestyles. It is already becoming clear that the present consumer class of some 1.1 billion people, living like American consumers, might not be able to do so without jeopardizing the carrying capacity of our planet Earth. Under such circumstance, it is unthinkable that the rest of the world's population shall ever be able to enjoy a consumer lifestyles of the western countries aspired by them. If the life-support ecosystems of our planet are to survive for future generations, the only option seems to be to change our consumption patterns and lifestyle. Even this may not be sufficient and we may have no choice but to restrain our consumption.¹³

¹¹ According to economic theory, no market can function without information, and advertising serves this purpose. However, the danger posed by advertising is that it not only uses lots of paper and thereby impacts on environment but, more importantly, it does so by raising consumerism and human desire. Advertising creates “needs” and makes the allure of consumerism, which is already powerful, even more irresistible.

¹² Globalization should be viewed not only in economic terms, that is, trade, investment and technology flows, but as a process in which ideas and behaviors are disseminated, effecting cultural homogenization, on a worldwide basis, or at least encompassing large geographical areas.

¹³ The 1998 Human Development Report has admirably highlighted the various issues involved in sustainable consumption and pointed out that the current consumption patterns are unacceptable. James Speth, Administrator of UNDP, remarks: When consumption erodes renewable resources, pollutes the local and global environment, panders to manufactured needs for conspicuous display and detracts from the legitimate needs of life in modern society, there is justifiable cause for concern.

Values and ethics

The difficulty of transforming present consumer society into something sustainable by changing our value systems can hardly be overestimated. The momentum of history and the structure of the global economy lie on the side of increasing consumption. Our economies have become such that in order for growth to continue, more and more goods and services will have to be produced, which in turn will have to be consumed to keep the wheel of production turning. Only this will allow maintaining high employment level so that earned wages and incomes could be spent to sustain continuous production. As such, consumption is viewed as the engine of growth.

The global economy is structured primarily to feed the consumer lifestyle of the world's affluent, and shifting it from high to low consumption would shake that structure to the core.¹⁴ We may be, therefore, in a situation for which a satisfactory solution may be difficult. Nevertheless, some efforts need to be made to seek acceptable solutions, for we do not have much choice left.

Already in 1973, Schumacher, a German economist and intellectual, in his famous book *Small is Beautiful*, had concluded that the biggest problem facing humankind was the disappearance of a comprehensive set of values and attitudes that would prevent economic activity from becoming all-consuming.¹⁵ He had argued that Western civilization had already reached a point in history where a value-based worldview was regarded with diminishing importance.

It is difficult to imagine how the goals of sustainable development could be attained without a set of comprehensive values and ethical standards.¹⁶ After all, values and ethical standards are individual and social creations, which influence our choice and actions, and can direct our behavior. I think it is absolutely necessary

¹⁴ See Durning, *op. cit.*, p. 107.

¹⁵ E. F. Schumacher, *Small is Beautiful: Economics as if People Mattered*, New York: Harper Collins, 1973.

¹⁶ The term "values" can have different meanings. In anthropology and sociology, this term is used to denote shared cultural standards. In economics, it refers to exchange value (price), or value in use (utility). Here the term "values" is understood in terms of common attitudes and standards that have evolved as a result of common experience and understanding. Values when applied to certain area may be called as the ethics of that particular area, for instance medical ethics, business ethics, etc. In general, ethics is that part of philosophy of value concerned with questions of human moral judgement of right and wrong with respect to human actions.

to rekindle the questions of values and ethical standards if we want to pursue the course of sustainable development seriously.

The basic question of value involved in sustainable development is quite simple. This is stated thus in the Brundtland Report: each generation should meet its needs without jeopardizing the prospects for future generation to meet their own needs. That is, consumption of some does not compromise the wellbeing of others. However, when we consider the ramifications of these statements when put into practice, then these simple sounding principles translate into radical demands for changes.

In short, it implies that we as consumers have an ethical obligation to curb our consumption. Unless we do so, our children will inherit this planet impoverished by our affluence--a planet whose climate has been drastically altered, whose air and water are badly polluted, whose fertile soils have been non-productive, whose living species have been considerably reduced, and whose wild habitats have been shrunken and fragmented.

For many, sustainable consumption is not a scientific or a technical question, but is first and foremost a new “ethic of living sustainably”.¹⁷ The basic question of ethics is, “What should I do? Or how should I act?” Ethics is supposed to provide us with “moral principles” or universal rules that tell us what to do. So far no universal rules seem to have evolved and there are different approaches to ethics each based on certain value and belief systems. Basically, these are the (a) virtue approach, (b) utilitarian approach, (c) rights approach, (d) fairness or justice approach, and (e) the common good approach.¹⁸ In addition, there are

¹⁷ See Nick Robins and Sarah Roberts (eds.), *Unlocking Trade Opportunities: Case Studies of Export Success from Developing Countries* (conducted in connection with implementation of the International Work Program on Changing Consumption and Production Patterns of the UN Commission on Sustainable Development), London: International Institute for Environment and Development, 1998, p. 9.

¹⁸ The virtue approach focuses on such aspects like honesty, courage, trustworthiness, integrity, etc and its main principle states: “What is ethical is what develops moral virtues in ourselves and our communities.” The utilitarian approach focuses on the consequences that actions or policies have on the “utility” of all persons directly or indirectly affected by the action or policy. Its principle states: “Of any two actions, the most ethical one will produce the greatest balance of benefits over harms.”

The rights approach identifies certain interests or activities that our behavior must respect, especially those areas of our lives that are of such value to us that they merit protection from others. Each person has a fundamental right to be respected and treated as a free and equal ▶▶

such other ethics related to different professions like business ethics, legal ethics, medical ethics, etc.

None of these will singularly work for sustainable development. For example, the basic ethics of utilitarianism underlying economics will have to be re-examined because it fails to take into account the consideration of justice as well as future. The common good approach, which simply means “what is ethical is what advances the common good” is appealing because it considers social responsibilities and may take into account various issues such as environment, lifestyles, education, etc. which a society perceives as important. However, some philosophers argue that the very idea of a common good is inconsistent with a pluralistic society like ours.¹⁹ Ethical relativism, which holds that morality is relative to the norms of one’s culture, also poses another problem. So there are several difficult issues involved but we should still try to evolve ethics of sustainable consumption for human survival nonetheless.²⁰

Keeping the poor frozen in their poverty and making the rich poor is inconceivable. First of all, from an ethical perspective, how could we limit the consumer lifestyles of those who have already attained it? Likewise, how could we ask the rest of the third world not to aspire for the consumer lifestyle, which has been made the “model” for them to pursue? Obviously, this will be neither

▶▶ person capable of making his or her own decisions. This implies other rights (e.g., privacy, free, consent, freedom of conscience, etc.) that must be protected if a person is to have the freedom to direct his or her own life. Its principle states: “An action or policy is morally right only if those persons affected by decision are not used merely as instruments for advancing some goal, but are fully informed and treated only as they have freely and knowingly consented to be treated.”

The fairness or justice approach focuses on how fairly or unfairly our actions distribute benefits and burdens among the members of a group. There should also be consistency in the way people are treated. In short, this principle states: “Treat people the same unless there are morally relevant differences between them.”

See the home page of Markkula Center for Applied Ethics at <<http://www.scu.edu/Ethics/practiing/decision/approach.shtml>>

¹⁹ Ethics requires consistency in the sense that our actions and values should not be contradictory. Consistency is regarded so central in ethics that some moralists have held that it is the whole of ethics.

²⁰ There appears to have been considerable discussions on the ethical dimensions of relations between the industrialized and developing countries. (See, for example, Moorhead Wright (ed.), *Rights and Obligations in North-South Relations*, London: The Macmillan, 1986). Similarly, ethical issues involved in aid programs and armaments have also been the subjects of discussions. (See, for instance, *Proceedings of the Tokyo Forum: Ethics of Human Survival*, International Conference Report Series 1, Tokyo: National Institute for Research Advancement, 1986). However, an attempt to provide an overall survey of moral and ethical issues presented by sustainable development seems to be lacking so far.

politically feasible nor morally defensible. Yet we should come up with some acceptable solution because our choice is getting limited if the life-support systems of this planet are to survive for future generations.

It appears that most of the fundamental problems we are facing today may have to find recourse to it for the simple reason that our value and belief systems and morality are so much shaped by religion. Should our choice be guided only by the principle of “rationality”? Could not there be some moral and ethical principles whereby choice could be made on an agreed basis of cooperation, rather than according to what would give an individual the greatest expectation of value (or utility)?²¹ This essentially implies that we look into our core values. How do we look at life, and living? What is our worldview, and how we seek happiness?

Why is it that no one seems to think that he/she has had enough money? What is the basic purpose or motive, which drives our actions? Is it to pursue different ends such as satisfying hunger and thirst, living a healthy and long life, enriching and amusing ourselves with diverse forms of entertainment, or finding some other self-fulfillment? More importantly, what is it that we ultimately seek in life? In most cases, we may never think about it and just go on doing whatever we might think is “right” at the moment.

Need for new ethical education

New values and ethical standards never arrive in abstract. They arise in view of new realities and new understanding of the world. We should realize that our society has become an accumulation of self-centered desires that threaten the life-support system of Mother Earth. We should also realize that our lifestyles based on ever increasing materialistic consumption could be changed gradually by inculcating or embracing new values and ethics.

As education is basic to recognizing new values, acquiring and clarifying new concepts and relieving these in our individual and social behavior, our response to the need for sustainable development must be based on new kind of education. In

²¹ Gauthier has argued for such a case in which he has tried to show that this approach will ensure not only mutual benefit and fairness, thus satisfying standards of morality, but also that each person may actually expect greater utility by adhering to morality. (David Gauthier, *Morals by Agreement*, Oxford, UK: Oxford University Press, 1986).

short, new values and ethics should be ingrained in our educational system; thinking and acting for sustainable development must stem from mass education.

Perhaps “cure-all” for sustainable development could be an educational system that would combine environmental education and ethics for changing our consumption patterns and behavior, not just raising new awareness. It should go beyond acquiring knowledge and “skills” as such but in embracing new values and ethics, or simply a new morality and attitude, influencing people’s thoughts and actions. It must search for old values that are conducive to sustainability and try to balance economic “greed” on ethical paths. Our education must instill in us a new morality and respect for sustainable development.

In short, our educational systems will need to reform, innovate and focus towards sustainability. Conventional methods of teaching and learning will not meet the needs for sustainable development. Only through re-orienting towards new ethical education will human society be able to achieve sustainable development.

In the final analysis though, it depends upon us all as consumers and stakeholders. One simple way, among others, we could support sustainable development may be by acquiring and using things, preferably environmentally friendly, only if we need, not because we like, or because someone else we know has it.

Let us hope educational reform and innovation will bring sustainable development to its track and give us all an opportunity to be creative and useful, loved and appreciated, secure and happy.

United Nations Decade on Education for Sustainable Development

Framework for a Draft International Implementation
Scheme (UNESCO, 2003)¹

Preamble

The United Nations resolution on the decade of education for sustainable development 2005-2014.

The United Nations General Assembly proclaimed the ten-year period from 2005 to 2014 as the United Nations Decade of Education for Sustainable Development.² Governments around the world are invited to use the Decade to integrate education for sustainable development into their national educational strategies and action plans at all appropriate levels.

As Lead Agency in the promotion of the Decade, UNESCO is required to consult with the United Nations and other relevant international organizations, governments, non-governmental organizations and other stakeholders to develop a draft international implementation scheme for the Decade, bearing in mind

¹ The compilers are thankful to Dr. Malika Ladjali for her kind approval to include this draft framework in this report. Since this framework is in a draft form, UNESCO would appreciate comments and suggestions for its further improvement. Please send your comments to Dr Malika Ladjali (Chief of Section a. i. Education for Sustainable Development, Division for the Promotion of Quality Education, UNESCO, 7, Place de Fontenoy, 75352, Paris 07. Tel: 33 1 45 68 01 24; Fax: 33 1 45 68 56 35; E-mail: m.ladjali@unesco.org

² United Nations General Assembly, draft rResolution A/C.2/57/L.71254, December 9, 2002.

the relationships between education for sustainable development and current international educational priorities, especially the Dakar Framework for Action adopted at the World Education Forum and the UN Literacy Decade (UNLD).

The Executive Board of UNESCO ratified the Decade of Education for Sustainable Development at its 166th Session in April 2003 with the activities to support the Decade incorporated into UNESCO's operational plans of the next biennium

This paper presents a framework upon and from which a draft international implementation scheme for the United Nations Decade of Education for Sustainable Development can be prepared through consultations with UN and other partners-.

Section I elaborates the nature of education for sustainable development and clarifies its links with other major international educational processes and priorities. This serves to highlight the synergistic nature of sustainable development and education and the priority areas of poverty alleviation, gender equality, health promotion, the conservation and protection of the natural resource base upon which social and economic development depends, rural transformation, human rights, peace, international understanding, cultural and linguistic diversity and the potential of ICTs.

Section II describes a partnership approach to the development of a draft international implementation scheme for the DESD. This identifies a range of partners at the sub-national, national, regional and international levels who will need to be involved to ensure the successful implementation of Decade activities and that these activities have maximum impact upon education policy, programmes and practice around the world. It also outlines a range of possible strategies for enhancing participation, ownership and commitment by partners in the Decade. Emphasis is placed upon supporting initiatives at the local level and ensuring that structures at the national, regional and international level provide direction and guidance for local initiatives.

Section III concludes the paper with a proposed schedule of activities aimed at to catalyzing world society in preparation for the DESD over the period July 2003 – December 2005. These are organized in the two areas of (i) communication

and advocacy and (ii) building momentum, partnerships and support for the Decade.

Section I: Education for sustainable development

The Rio Declaration from the World Conference on Environmental and Development 1992 began by stating: *“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”*

The Johannesburg Declaration at the World Summit on Sustainable Development in 2002 built on this aspiration and expressed the commitment of world leaders “to build a humane, equitable and caring global society cognizant of the need for human dignity for all.”

Meeting millennium development goals

The Millennium Development Goals provide a pathway to attaining sustainable development. Sustainable development is a dynamic and evolving concept with many dimensions and interpretations and reflects locally relevant and culturally appropriate visions for a world in which development “meets the needs of the present without comprising the ability of future generations to meet their own needs”.³ The Millennium Development Goals provide targets for international actions to bring such visions into reality by: overcoming poverty; improving child, maternal and sexual health; expanding educational provision and redressing gender inequalities in education; and developing national strategies for sustainable development.

While considerable progress has been made around the world, it has been uneven, with regions such as sub-Saharan Africa, South Asia and many small island states yet to see the benefits promised by globalisation. Thus, despite many notable achievements in improving health, new problems such as HIV/AIDS have reversed hard-won gains in infant survival and life expectancy in a growing number

³ World Commission on Sustainable Development (1987) *Our Common Future*, Oxford University Press, p. 43.

of countries and communities worldwide. And around the world, unsustainable processes of development maintain pressure on natural resources while unsustainable patterns of production and consumption, especially in developed countries, threaten the fragility of the natural environment and intensify poverty elsewhere.

Thus, the Secretary General of the United Nations, Mr Kofi Annan, has argued that: “Our biggest challenge in this new century is to take an idea that sounds abstract — sustainable development — and turn it into reality for all the world’s people.”

Education: making the abstract real

Making the abstract real, and developing the capacities of individuals and societies to work for a sustainable future is, essentially, an educational enterprise. Indeed, the four principles for achieving sustainable human development enunciated at the World Summit for Sustainable Development in 2002 reflect the four pillars of education described in the Delors Report⁵:

Achieving sustainable development requires:	Education provides the skills for:
Recognition of the challenge	Learning to know
Collective responsibility and constructive partnership	Learning to live together
Acting with determination	Learning to do
The indivisibility of human dignity	Learning to be

Thus, education is the primary agent of transformation towards sustainable development, increasing people’s capacities to transform their visions for society into reality. Education not only provides scientific and technical skills, it also provides the motivation, justification, and social support for pursuing and applying them. The international community now strongly believes that we need to foster—through education—the values, behaviour and lifestyles required for a sustainable future. Education for sustainable development has come to be seen as

⁴ United Nations press Release: SC/SM/7739 “Secretary General Calls for Break in Political Stalemate over Environmental Issues”, 15/03/01.

⁵ Learning: The Treasure Within. Report of the Independent Commission on Education for the 21st Century, UNESCO, 1996.

a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities. Building the capacity for such futures-oriented thinking is a key task of education.

This represents a new vision of education, a vision that helps people of all ages better understand the world in which they live, addressing the complexity and interconnectedness of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, health, conflict and the violation of human rights that threaten our future. This vision of education emphasises a holistic, interdisciplinary approach to developing the knowledge and skills needed for a sustainable future as well as changes in values, behaviour, and lifestyles. This requires us to reorient education systems, policies and practices in order to empower everyone, young and old, to make decisions and act in culturally appropriate and locally relevant ways to redress the problems that threaten our common future. In this way, people of all ages can become empowered to develop and evaluate alternative visions of a sustainable future and to fulfil these visions through working creatively with others.

The four domains of education for sustainable development

Education for Sustainable Development has four major domains, reflecting diverse goals and audiences: promotion and improvement of basic education, reorienting existing education at all levels to address sustainable development, developing public understanding and awareness of sustainability, and training.

Basic Education: The content and duration of basic education differ greatly around the world. Access to basic education remains a problem for many, especially girls and illiterate adults, the majority of whom are women. However, simply increasing basic literacy and numeracy as currently taught will not significantly advance sustainable development. Instead, basic education needs to focus on sharing knowledge, skills, values and perspectives throughout a lifetime of learning in such a way that it encourages sustainable livelihoods and supports citizens to live sustainable lives. This approach to basic education also supports public participation and community decision-making, which in turn, help communities to achieve their sustainability goals.

Reorienting Existing Education Programs: Rethinking and revising education from nursery school through university to include a clear focus on the development of the knowledge, skills, perspectives and values related to sustainability is important to current and future societies. This implies a review of existing curricula in terms of their objectives and content to develop transdisciplinary understandings of social, economic and environmental sustainability. It also requires a review of recommended and mandated approaches to teaching, learning and assessment so that lifelong learning skills are fostered. These include skills for creative and critical thinking, oral and written communication, collaboration and cooperation, conflict management, decision-making, problem-solving and planning, using appropriate ICTs, and practical citizenship.

Developing Public Awareness and Understanding of Sustainability: Progress towards sustainability requires that the growing global awareness of social, economic and environmental issues is transformed into understanding of root causes and that local, national and global visions of what it means to live and work sustainably are developed. Thus, achieving the goals of sustainable development requires widespread community education and a responsible media committed to encouraging an informed and active citizenry.

Training: All sectors of the workforce can contribute to local, regional and national sustainability. Business and industry are thus key sites for on-going vocational and professional training so that all sectors of the workforce have the knowledge and skills necessary to make decisions and perform their work in a sustainable manner.

Linking DESD to other international educational priorities

The plan of implementation of the WSSD focuses largely on policies, programmes, resource mobilisation and institutional frameworks. The United Nations Decade of Education for Sustainable Development is an opportunity to put the human element at the forefront of efforts to facilitate the plan. The understandings, values, commitments and skills outlined above, that only education can provide, will support the more technical elements of the plan, reminding everyone – children, youth, adults – that the sustainable development agenda is in fact an agenda for all of us. It is about the way we live our lives, the way we

respect the lives of others – far and near, present and future – and our attitudes to the world around us.

Sustainable development requires a holistic approach: Education for sustainable development has connections with other programmes and concerns in education. It is not a new programme but a call for a process to re-orientate educational policies, programmes and practices so that education plays its part in building the capacities of all members of society to work together to build a sustainable future.

Thus, the focus of DESD activities will be advocacy, communication and networking directed at facilitating all educators to include sustainable development concerns and goals in their own programmes. are key activities of the Decade.

UNESCO currently has the responsibility for coordinating two major world initiatives in education: Education for All (EFA) and the United Nations Literacy Decade (UNLD). Coordination of EFA was established at the World Education Forum in 2000, but has roots in the previous decade, following Jomtien (1990). The UNLD started in 2003 and is in the initial stages of implementation. Thus, in terms of efficient management and maximizing impacts, it is essential that the DESD is coordinated in conjunction with both EFA and the UNLD.

There is clear basis in the WSSD Plan of Implementation for linking the aims and strategies of these initiatives with the DESD. Firstly, the WSSD Plan of Implementation endorses the EFA goals and cites the Dakar Framework for Action as the point of reference for educational development. Secondly, it endorses the two education-related goals of the Millennium Declaration.

The Dakar Framework for Action sees education as ‘the key’ to sustainable development, especially in the areas of poverty reduction or alleviation. Citing the role of education as the key to equitable and sustainable development, the International Strategy to put the Dakar Framework for Action on Education for All into Operation, published in 2002, sees education as part of the basic economic and social infrastructure for sustainable development” (p.8). It also called for broad-based co-operation between all concerned partners so that educational strategies build peace, hope, stability, tolerance and mutual understanding as a platform for sustainable development” (p.25).

Similarly, the UN General Assembly resolution and plan for the UNLD both state that “literacy for all is at the heart ... of ensuring sustainable development, peace and democracy.”

These references establish clear common ground. Whether from the point of view of sustainable development, or from that of EFA and the UNLD, education is a central strategy for sustainable development.

Key Themes in Education for Sustainable Development

Common ground also exists in the critical issues that underpin ESD, EFA and UNLD. These issues constitute the priorities for planning programmes and activities that will support the objectives of DESD, and include:

Overcoming Poverty: It is axiomatic in all three initiatives that poverty alleviation is key in development efforts. However, there is an important distinction to be made. While EFA and UNLD see poverty alleviation as the framework within which action for development is undertaken, the DESD sees it as one of the key pillars (appropriate economic development) by which sustainable development will be supported. There is room therefore for ESD to work with EFA and UNLD so that this broader view of development becomes the norm. All three initiatives should advocate for education that recognises the complexity of poverty and its alleviation and refute a view of education as merely a means to increase income.

Beyond that, poverty alleviation is central to all Millennium Development Goals that recognize the importance of gender issues, education, health and environmental protection to sustainable human development. This makes gender equality, health and protecting the resources base upon which social and economic development depends important educational concerns.

Gender Equality: This forms the basis for one of the EFA goals, and is elaborated in one of the twelve EFA strategies. The General Assembly also identified it as one of the motivating reasons for establishing the UNLD. In the WSSD Plan of Implementation gender equality is seen as both an aim and a pre-condition of sustainable development. Gender equality in formal education is also the main objective of the UN Girls' Education Initiative (UNGEI). All these initiatives

emphasise the need for gender-sensitive approaches and materials, and for the integration of gender perspectives into all educational activities.

Health Promotion: The issues of development, environment and health are closely entwined, reflecting the complex links between the social, economic, ecological and political factors that determine standards of living and other aspects of social well-being that influence human health. A healthy population and safe environments are important pre-conditions for sustainable development. However, the education of many children and young people around the world is compromised by conditions and behaviours that undermine the physical and emotional well-being that makes learning possible. Hunger, malnutrition, malaria, polio and intestinal infections, drug and alcohol abuse, violence and injury, unplanned pregnancy, HIV/AIDS and other sexually transmitted infections are just some of the health problems we face that have enormous implications for health. The WSSD Plan of Implementation, EFA and UNLD embrace health education activities to achieve their goals, with schools acting not only centres for academic learning, but also as supportive venues for the provision of essential health education and services.

Environmental Conservation and Protection: There can be no long-term economic or social development on a depleted planet. Education to develop widespread understanding of the interdependence and fragility of planetary life support systems and the natural resource base upon human well-being depends lies at the core of education for sustainable development. Key resource priorities identified by the World Summit on Sustainable Development include: water, energy, housing, agriculture and biodiversity – the issues that came to be known at Johannesburg as the WEHAB Agenda. ‘Environmental literacy’ depends upon such understandings – and EFA and UNLD are central to developing the capacity for such learning. It also entails the capacity to identify root causes of threats to sustainable development and the values, motivations and skills to address them.

Rural Transformation: The challenge of education to serve rural transformation is one of the main themes of the Education for All effort. The problems of poverty and deprivation in rural areas, and their spill-over into urban areas, cannot be solved by preventing urbanisation and keeping rural people confined to rural areas. Rather, many, if not all, of the EFA and Millennium Development Goals require special attention to the situation of rural populations. In spite of rapid urbanization,

three billion or 60 per cent of the people in developing countries, and half of the people of the world, still live in rural areas. Three quarters of the world's poor, those earning less than a dollar a day, live in rural areas. One in five children in the South still does not attend primary school and, while rural-urban statistics on education are scarce, many countries report that non-attendance in school, early dropout of students, adult illiteracy and gender inequality in education are disproportionately high in rural areas, as is poverty. Urban-rural disparities in educational investment and in the quality of teaching and learning are widespread and need to be redressed. Rural people and rural areas are not homogeneous, and so for education to be relevant, it needs to respond to the diversity of rural situations. Educational activities have to be linked to the specific needs of the rural community for skills and capacities to seize economic opportunities, improve livelihood and enhance the quality of life. A multi-sectorial educational approach involving all ages and formal, non-formal and informal education is necessary.

Human Rights: Without respect for human rights there will be no sustainable development – this view emerges in the WSSD Plan of Implementation, and one of those rights is the right to a quality basic education, of which literacy is a part. Both EFA and UNLD underline the rights-based nature of their agendas. It is not just a matter of exercising an individual right, as an adult or child, to be educated, but of arriving at a point where societies see fulfilment of that right as a sine qua non of sustainable development. This common approach should inform policy formulation at national level with particular attention to the implications for educational systems of a rights-based approach.

Intercultural Understanding and Peace: Many opportunities for education and sustainable human development are being undermined by the lack of tolerance and intercultural understanding, upon which peace is made founded. The resulting aggression and conflict causes significant human tragedies, overwhelms health systems, destroys homes, schools and often whole communities, and has led to increasing numbers of displaced people and refugees. The goals of literacy and EFA cannot be met under such circumstances. Education for sustainable development therefore seeks to build skills and values for peace in the minds of humankind, as enshrined in the UNESCO charter.

Sustainable Production and Consumption: Sustainable lifestyles and ways of working are central to overcoming poverty and conserving and protecting the

natural resource base for all life. Sustainable methods of production are needed in agriculture, forestry, fishing, and manufacturing. Use of resources need to be minimized, and pollution and waste reduced. and city and office services are needed to need to minimize resource use and reduce pollution and waste. Likewise, there is a needa need to reduce the social and resource impacts of lifestyle consumption habits to ensure the equitable availability of resources for all around the world. Education and training for sustainable production and consumption depends upon literacy and basic education, and education for the world of work and responsible citizenship, are key goals of both EFA and UNLD.

Cultural Diversity: “Our rich diversity... is our collective strength” was the way that the Johannesburg Declaration trumpeted stressed the importance of this concept. The WSSD Plan of Implementation focuses on the protection of biodiversity as an essential component and indicator of sustainable development, within the broader context of cultural diversity. For the UNLD, the recognition and analysis of cultural and linguistic diversity is a premise on which the design of literacy programmes is built – the ‘literacies’ approach is defined, in part, by differences in cultural patterns of learning and in the use of languages. A key aspect of diversity is respect for indigenous and other forms of traditional knowledge, the use of indigenous languages in education, and the integration of indigenous worldviews and perspectives on sustainability into education programmes at all levels.

Information and Communication Technologies (ICTs): All three initiatives see ICTs as a useful tool of learning and expression. The common problem is expanding access to ICTs and developing their use to enhance basic education. The Dakar Framework for Action articulates the dilemma that their increasing use ‘may tend to increase disparities, weaken social bonds and threaten cultural cohesion’. This dilemma applies also to the promotion of literacy and of context-sensitive education for sustainable development, and includes the question of how use of ICTs relates to traditional learning tools (paper and pen, chalk and talk, for example). This is an area where common cause should be made by advocating strongly for local input into how ICTs should be used.

These many areas of overlap and common interest, both in approaches to education and in areas of substantive objectives, suggest that joint initiatives

across DESD, EFA and UNLD can add value to the common effort of each individually.

Section II: A partnership approach to the DESD

As the agency designated to take the lead in coordinating the DESD, UNESCO has the role of working to strengthen the vision and commitment of partners over the ten-year period. It is particularly important to build broad ownership at the start of the Decade, through a clear articulation of the value added by each partner.

This section identifies key principles upon which a partnership approach can underpin the development of an international implementation scheme for the Decade.

Partners

Partners in the DESD include all those organisations, networks, bodies and alliances that share the conviction that sustainable development depends to a large extent on broad-based awareness through educational and learning processes. As Table 1 shows, there are partners at all levels – sub-national (local, community) level, national, regional and international levels, and from all spheres – governmental, civil society and NGOs, and private.

Table 1: A sample list of potential partners in DESD

	Governmental	Civil society and NGOs	Private
Sub-national	<ul style="list-style-type: none"> • provincial/state/district departments of education and development sectors • municipal authorities • schools, adult learning programmes 	<ul style="list-style-type: none"> • Community-based organisations • local sections of NGOs • faith-based groups • village development committees • adult learning groups 	<ul style="list-style-type: none"> • local business • clans and families • individuals

	Governmental	Civil society and NGOs	Private
National	<ul style="list-style-type: none"> • national government departments of education and development sectors • universities and research institutes • EFA networks 	<ul style="list-style-type: none"> • national NGOs and NGO coalitions • branches of international NGOs • faith-based organisations • teachers' associations and trade unions 	<ul style="list-style-type: none"> • private sector businesses • business associations
Regional	<ul style="list-style-type: none"> • regional inter-governmental groupings • regional EFA networks 	<ul style="list-style-type: none"> • regional CS and NGO groupings and networks 	<ul style="list-style-type: none"> • regional business associations
International	<ul style="list-style-type: none"> • CSD • EFA High-Level and Working Groups • UNDG member agencies • Millennium Project Task Forces • official/semi-official watchdog bodies 	<ul style="list-style-type: none"> • sustainable development education networks • NGO UNESCO Liaison Committee • CCNGO/EFA • Global Campaign for Education • international environmental NGOs 	<ul style="list-style-type: none"> • international associations of businesses (eg in the extractive sector) • TNCs (eg media corporations)

Principles for developing partnerships

With such an enormous and diverse group of potential partners, there is a need to focus on networks and alliances. Three key principles are: (i) vision, (ii) demonstration programs and (iii) networking.

Vision: If each partner is to play its role within the DESD, it is essential that they are able to articulate clearly what the vision of ESD is in two ways: first, the overall vision of ESD to which all partners subscribe, and second, the particular vision for ESD within the parameters of their own aims, concerns and programmes.

To facilitate this, it is essential that UNESCO develop a general statement of vision before the commencement of the DESD on the basis of extensive consultations. This should be widely distributed and then revised in partner-specific adaptations. The key to this will be ownership of the general statement. Further

guidance may be useful for ways of sharing the vision with partners' own networks and contacts, based on a plan of advocacy and communication.

Demonstration activities: Ultimately the DESD aims to see ESD implemented in thousands of local situations on the ground. This will not involve ESD as a stand-alone programme, but the integration of ESD into a multitude of different learning situations. Therefore, no standardised programme can or should be proposed. However, demonstration activities and programmes for adaptation in locally relevant and culturally appropriate ways can be developed and disseminated as catalysts for action. Each demonstration activity should include, among other things and for the situation it addresses:

- ways to discover what the key local issues of sustainable development are
- adaptive processes to accord with relevant teaching and learning strategies
- ways of fostering links between the learning situation (school, adult programme, etc) and the community
- ways of integrating local knowledge and culture
- curriculum development processes enabling content to be decided locally relevant (imp. change)

Such demonstration activities can serve as a resource for local discussion of how ESD can best be put into effect.

Networking: As has been mentioned, sustainable development links with most aspects of life and development. Education for sustainable development concerns all kinds of educational structures and learning situations. From the outset, therefore, the orientation of DESD partners must be outward-looking, seeking to make connections with initiatives, programmes, groupings and networks through whom ESD will be further promoted and implemented. Particular attention must be paid to connecting with both national governments because of their central coordinating role and resources and with civil society networks, because their grassroots connections can enable DESD messages to fan out and down to local levels. To facilitate these processes it will be useful to spell out the why and how of building partnerships, and to model these processes at international level in preparation for the Decade.

These partnership processes are designed to build participation, ownership and commitment to catalyze momentum for the DESD.

How can this be promoted? What mechanisms can be identified to structure the necessary communication and dialogue? This section makes several proposals in response to these questions, beginning with a focus on mechanisms which will give voice to the local level – a ‘bottom-up approach’.

Community-based processes

One indicator of the success of the DESD will be the extent to which ESD becomes part of the development dialogue at community level. Spaces for dialogue generally exist at community level – associations, school support groups, cooperatives, faith-based groupings, self-help groups, development committees, and many more.

Giving maximum voice to local community level raises two significant challenges:

- What kind of support is needed to stimulate and sustain the process?
- How can community voices be heard beyond the local level?

These questions concern the way in which different levels are, or can be, linked with each other. As earlier sections of this paper have indicated, these links will be most effective if they provide space for local action, a supportive and positive policy environment, opportunities for exchange, as well as capacity-building.

In other words, a fundamental approach of the DESD should be to foster cooperation at all levels with the aim of strengthening local-level effectiveness. This implies that any organisation involved in ESD will also be part of a larger cooperative effort at the relevant level. Table 2 illustrates examples and for this in terms of individual action and broader cooperation.

Table 2: Community-level cooperation

Community-based institutions and organisations such as:	Working individually to:	Cooperating in ad hoc or formal local groupings to:
<ul style="list-style-type: none"> • schools, school support groups, cultural associations, youth organisations, cooperatives, faith-based groupings, self-help groups, development committees 	<ul style="list-style-type: none"> • integrate ESD into regular learning activities and programmes • identify and implement learning strategies 	<ul style="list-style-type: none"> • identify local sustainable development challenges • integrate local knowledge and skills into ESD • exchange ESD experiences and learn lessons for better practice

National, provincial and local government processes

It is clear that input and leadership will be required to establish and initiate such processes. Input can be provided as governments and civil society networks distribute, in appropriately modified form for national circumstances, the guidance materials produced internationally – their principal emphasis will be how to generate local debate and identify locally relevant issues. Government departments at local level as well as civil society organisations could give leadership in forming ad hoc groupings.

Table 3 illustrates many ways in which such important input and leadership can be provided. However, the importance of locally relevant action in ESD means that no one pattern can or should be mandated.

Such activities can be catalyzed and coordinated by the establishment of an open ESD Task Force, constituted at national level, to provide a forum for all the actors to engage with each other. In addition, ESD should be an integral part of the agenda of national EFA forums, as must be as the UNLD.

Table 3: National-level cooperation

Actors at national level	Working individually to:	Working together as a national ESD task force to:
Education ministry and other relevant ministries	<ul style="list-style-type: none"> • provide a national policy framework for ESD • budget and mobilise resources • support sub-national departments • foster public awareness on ESD and SD 	<ul style="list-style-type: none"> • debate and recommend ESD policy options which reflect local-level experience and challenges • integrate ESD into EFA and UNLD planning in the context of the EFA forum
NGOs, NGO and civil society networks and alliances	<ul style="list-style-type: none"> • facilitate exchange and information sharing among their members about ESD practices and experiences 	<ul style="list-style-type: none"> • provide a forum for exchange of experience, positive and negative, in ESD • identify research issues in ESD and plan cooperative research projects
Media groups and agencies	<ul style="list-style-type: none"> • integrate ESD and SD awareness building into media strategies 	<ul style="list-style-type: none"> • identify capacity-building needs and the actor best placed to meet them
Private sector companies and trade associations	<ul style="list-style-type: none"> • provide a forum to identify SD challenges they face, and identify necessary learning needs 	<ul style="list-style-type: none"> • develop relevant monitoring indicators for ESD

Regional processes

Examples of regional processes are illustrated in Table 4.

Wider regional grouping for ESD will be useful coordinating bodies also. However, since EFA regional forums exist (or at least EFA regional meetings take place), it would be best to organise ESD regional groups in conjunction with them. Since ESD draws potentially on a wider range of actors/sectors, this would have the advantage of including such participants in the EFA meeting. (Indeed, cross-sectoral links are a key concern of EFA).

In the Timeline (Section III), a series of special regional or sub-regional workshops are suggested for 2004 as part of preparation for the DESD. Attended by governmental and non-governmental representatives of the region, these will focus on how countries can structure a process of consultation and awareness raising at the local level. The aim is to follow these meetings with in-country local-level consultations over the first year of the Decade, thus providing input into provincial and national ESD planning for following years. It is important to start

the Decade with an emphasis on contextualised planning and to emphasise local voices in that process.

Table 4: Regional cooperation

Actors at regional level	Working individually to:	Working together as a regional ESD group to:
National government representatives	(see national level)	<ul style="list-style-type: none"> • conduct regional consultations on priorities for DESD
Regional intergovernmental organisations	<ul style="list-style-type: none"> • support national-level policy-making • foster exchange of experience and information 	<ul style="list-style-type: none"> • share policies, practices, knowledge and progress • identify common challenges
Regional civil society and NGO networks, coalitions and alliances	<ul style="list-style-type: none"> • foster exchange and learning among member networks and organisations 	<ul style="list-style-type: none"> • learn from diverse strategies • forge consensus on regional challenges and action
Regional media groupings	<ul style="list-style-type: none"> • share media strategies for SD and ESD 	<ul style="list-style-type: none"> • organise cross-national training and capacity-building
Regional private sector associations	<ul style="list-style-type: none"> • promote cooperation of private sector with other actors in ESD 	
Regional representatives of international agencies	<ul style="list-style-type: none"> • learn and communicate common lessons from cross-national experience • facilitate cross-national exchange on ESD 	
Regional representatives of bilateral cooperation	<ul style="list-style-type: none"> • assess ways to support national and regional ESD initiatives 	

International processes

There are already several fora where ESD issues can and should be prominently and regularly on the agenda: the Commission for Sustainable Development (CSD) relevant conferences of all UN agencies, programmes and organisations; NGO networks, and various EFA and UNLD meetings. These are depicted in Table 5. Many additional suggestions will be made and included in the development of the draft international implementation scheme for the Decade.

Table 5: International cooperation

Actors at international level	Working individually to:	Working together in various fora to:
International Ad hoc Working Group	<ul style="list-style-type: none"> gather information on developments in ESD and emerging priorities promoting DESD 	<ul style="list-style-type: none"> advise UNESCO on developments and emerging priorities in ESD assist UNESCO in forming partnerships and developing projects in support of DESD
Intergovernmental agencies (UN and others)	<ul style="list-style-type: none"> contribute to Inter-Agency Task Force integrate ESD planning into relevant workplans and initiatives participate in international and regional fora 	<ul style="list-style-type: none"> keep ESD high on the CSD agenda mobilise political will and strengthen mutual commitment, through CSD, or an Inter-Agency Task Force integrate ESD into EFA agendas (Monitoring Report, High-Level and Working Groups) foster global exchange of practice, policy and progress organise international, regional and sub-regional capacity building workshops, and conferences to advance DESD and ESD
UNESCO (DESD Lead Agency)	<ul style="list-style-type: none"> promotion and capacity building for ESD and DESD within and across UNESCO sectors advocacy and communication with international community building partnerships and collective momentum 	
Civil society and NGO networks	<ul style="list-style-type: none"> promote inter-regional exchange and learning inform members of ESD developments 	
Bilateral and multi-lateral development agencies	<ul style="list-style-type: none"> integrate ESD into programmes and budgets promote research in ESD 	

Monitoring

On-going monitoring is a prerequisite for a purposeful and well-organised Decade. This can be accomplished by integrating the monitoring of ESD into EFA and UNLD monitoring mechanisms at all levels. However, it may be useful to consider an inter-agency task force to meet, for instance, once a year to provide a place to monitor how far ESD issues continue to be firmly and visibly on the agenda of the international agencies, and to harmonise initiatives and avoid overlap.

Communication and advocacy

UNESCO will develop a detailed communication and marketing plan to cover at least the next 18 months before the start of the Decade. This will include as a minimum:

- internal capacity building and staff training within UNESCO so that the organization as a whole is mobilized to fulfil its role as Lead Agency
- preparation and dissemination of sample sections of text (of several lengths, e.g 1,3,5 and 10 paragraphs) on the DESD to all UNESCO staff so that they can include appropriate reference to and discussion of the DESD in papers and presentations that they make in international fora.
- a website – updating the current UNESCO Education Sector ESD site.
- formation of a UNESCO Advisory Committee for DESD
- print and web materials which present:
 - the vision of ESD and aims of DESD
 - the links between ESD, EFA and UNLD
 - the guidance as suggested in this paper
 - an ongoing inventory/database of DESD initiatives
 - links to UNESCO’s own examples of innovations and good practice in ESD (e.g Teaching and Learning for a Sustainable Future)
 - links to external websites of examples of innovations and good practice in ESD
- a programme of media releases on both the substance and process of DESD
- development of information packages to support partnerships for DESD, national launches of DESD, and guidelines for developing national DESD programs
- awareness-raising at international events and conferences
- proposals for linking the DESD with International Literacy Day and the Global EFA Week, and with the wide range of celebratory days in the United Nations calendar.

In view of the links between the DESD and the UNLD, inter-sectoral consensus-building processes have already begun. Efforts will be made also to

more fully integrate all UNESCO sectors into this collaborative work so that the strengths and experiences of all sectors are mobilized to support the DESD by a whole-of-UNESCO initiative.

UNESCO will also work with countries and international partners to plan launches of the Decade at the start of 2005, with the emphasis being on launches at national level.

Section III: Initiating the DESD

The proposed activities are recommended actions for UNESCO in its role as Lead Agency to initiate and catalyse the DESD among other UN and international agencies and organisations, countries and civil society. They are grouped into around the two roles of:

1. Communication and advocacy and
2. Building momentum and support

The recommended activities cover the period from July 2003 to December 2005 and includes tasks, meetings and events proposed in this paper, as well as some international events already programmed, eg EFA events. Timings and durations are indicative and are divided into three-month segments for convenience.

Proposed timeline: July 2003 – December 2005

2003	2003	2004	2004	2004	2004	2005	2005	2005	2005
July – Sept	Oct – Dec	Jan– March	April – June	July – Sept	Oct – Dec	Jan– March	April – June	July – Sept	Oct – Dec
<p>Promotion and capacity building for ESD and DESD within and across all UNESCO sectors, field offices and centres, including:</p> <ul style="list-style-type: none"> • internal capacity building within UNESCO so that the organization as a whole is mobilized to fulfil its role as Lead Agency • dissemination of information on the DESD to all UNESCO staff so that they can include appropriate reference to and discussion of the DESD in papers and presentations that they make in international fora. 									
<p>Extensive consultation on framework of implementation scheme</p>	<p>Formation of International Ad hoc Working Group</p>	<p>Meeting of International Ad hoc working Group</p>	<p>Develop and distribute the statement of DESD vision</p>	<p>Develop and distribute guidelines and multi-media package to support national planning and launches of DESD</p>	<p>International and national DESD launches</p>	<p>SD theme in Global EFA Week</p>	<p>International Experts' Consultation Meeting on ESD (30 years after Belgrade, to prepare for Intergovernmental Conference in 2007 (30 years after Tbilisi)</p>		
	<p>Design Communication and Advocacy strategy</p>	<p>Presentation of the Framework to the General Conference</p>	<p>DESD website launch</p>	<p>Acceptance of international implementation scheme by international partners</p>					
<p>Design UNESCO DESD website</p>	<p>Presentation of report to UN General Assembly</p>		<p>Develop, maintain and disseminate a calendar of international, regional, sub-regional and national DESD activities</p>	<p>Develop and maintain website as major international vehicle for news and networking on DESD activities and discussion</p>					

2003 July – Sept	2003 Oct – Dec	2004 Jan– March	2004 April – June	2004 July – Sept	2004 Oct – Dec	2005 Jan– March	2005 April – June	2005 July – Sept	2005 Oct – Dec
<p>Consultation on and development of the framework of the draft implementation scheme with:</p> <ul style="list-style-type: none"> • EFA Working Group • Meeting of the Heads of UN Agencies • Member States • International NGOs and specialist ESD community 	<p>Presentation of a proposal for a framework of a draft international implementation scheme to:</p> <ul style="list-style-type: none"> • UNESCO • General Conference • EFA High-Level Group (Nov) 	<p>UNESCO leads regional/sub-regional workshops to build awareness of DESD and build region and country level commitment to planning of activities for DESD</p>	<p>CSD 12</p>	<p>EFA Working Group Inter-agency ESD Task Force</p>	<p>EFA High-Level Group</p>	<p>Governments host sub-national/local stakeholder consultations</p>	<p>CSD 13</p>	<p>EFA Working Group</p>	<p>EFA High-Level Group</p>
Building momentum and participation									
<p>UNESCO facilitates consultations with regional/sub-regional organisations and national governments, where appropriate, to build awareness of DESD and build regional and country level commitment to planning of activities for the DESD</p>									
<p>UNESCO develops and disseminates guidelines and multi-DESD programmes and activities</p>									
<p>Planning of support structures and strategies for managing DESD by: governments, international agencies, regional organisations, civil society organisations and professional bodies</p>									
<p>Meetings of national DESD working groups</p>									

A black and white photograph of a young girl with dark hair, wearing a white school uniform with a bow in her hair. She is looking down and writing in a notebook with a pen. The image is semi-transparent, serving as a background for the text.

2

Education for Nepal

Education for the Sustainability of Biological Diversity

Dr. Tirtha B. Shrestha¹

Introduction

Earth is the only living planet. Living environment of the Earth is governed by the five elements (Pancha Tatwa) i.e. the air, the water, the land, the sky and the Sun. Environmental balance of the five elements is regulated by the greenery and biological diversity of the Earth. Threat to the biological diversity is the direct threat to the sustainability of the Earth's living capacity.

Greater threat to the Earth's living capacity has become eminent from the population growth of human being on this planet. It took 200,000 years for human beings to arrive at one billion mark from its early days of stone age. Next billion was added just within 100 years. The first Earth Summit of 1992 witnessed 5 billion population. Just after 10 years another billion is added to it. We have now 6 billion human population on our planet. In Nepal itself the population doubles in a period of about 25 years. Current population of 23 million is already exerting severe pressure on natural resources and biological diversity. Education for sustainable development (ESD) has therefore a great relevance in developing a society which should be responsive to the carrying capacity of its supporting ecosystem. The overarching goal of ESD in Nepal should seek to set a process in motion that

¹ Life Member, Royal Nepal Academy

provides to its entire people, the broadest of choices for the management and development of endogenous resources -natural, cultural and human.

Biological diversity

Biological diversity or “biodiversity” is understood as the variability of life in all forms, levels and combinations. It encompasses the diversity within species. Nepal has over 1800 land-races and varieties of rice within one species *Oryza sativa*. Similarly the diversity of species is also equally impressive. For example, there are over 5800 species of flowering plants in Nepal that represent 2.7 per cent of the global resources. Nepal claims over 9.3 per cent of the global wealth of bird species, 4.5 percent of butterfly species and so on (Nepal Biodiversity Strategy, 2002). Habitat / ecosystem diversity also is the most pronounced in Nepal due to the Himalayan terrain and topography. As such ecologists have identified 189 different ecosystems that range from snowy nival habitat of Yaks, Yetis and Snow Leopards at about 5000m altitude to sultry tropical region of Rhinoceros, Tigers, and Water Buffaloes. Biological diversity is also mirrored in cultural diversity of Nepal with ethnic groups of high mountains like the Sherpas to the mid-mountain groups like the Gurungs and the Tamags and the dwellers of tropical flat lands like the Tharus and the Dhimals. Therefore the challenges in ESD lie not only in delivering goods and services to remote areas but also to develop unifying linkages among differing cultures. The need of education to improve agricultural productivity, to improve sustainable harvest of forest and vegetation seasons, to enhance the status of women, to reduce population growth rate, to enhance environmental protection, to reduce ecological hazard and to raise the standard of living is widely acknowledged in modern Nepal. However, the current thrust of educational development has not adequately addressed the differing need of different ethnic groups whose language and dialect is not exactly Nepali, the national language. Beside the curricula of basic education can not address the problem of local environmental stewardship. As a result formal education has become a force and factor to push younger generation away from their place of origin to centers of new job markets, especially urban towns and cities. This trend is also threatening to the loss and extinction of indigenous knowledge, tradition and technologies.

Sustainable development and environmental education

Sustainable development is still a debated doctrine in spite of its being explained and defined in various international fora including the Earth Summit. It may mean different things to different people. However a common understanding underlying the notion is that *“humanity must take no more than nature can replenish”*. Nepali society and their culture has a long tradition of respecting this notion, especially in the harvesting of forest resources. However the disparity among people and their relations in terms of economic development, consumption patterns, and environmental pollution hinders sustainable development of non-industrialized countries. Widespread poverty, hunger, diseases and illiteracy among people have contributed to cause environmental degradation and the loss of the Earth's biological diversity. The initial concept of sustainable development as defined by the Brundtland report in 1987 that reads; *“development that meets the needs of the present without compromising the ability of future generations to meet their own needs”* has opened up avenues for global alliances to overcoming interdependent problems of environmental sustainability. The threshold to sustainable development is better to be sought in the process of educating the society and imparting knowledge and awareness to the present generation. The type of education to address the problem of sustainable development would need to integrate three main components; environment, society and economy.

Environment as the resource for development would need effective conservation efforts.

Nepal has set aside over 18 per cent of its territory as protected area to conserve rare and threatened biodiversity. Empowerment of people through community forestry programs has illustrated environmental revivals of degraded areas. Economy of over 80 per cent of people largely depend on agriculture. The “Nepal Biodiversity Strategy 2002” and the “Agricultural Perspective Plan 1995” seek to follow a development model that is sustainable. But the path of educational development has not yet taken a course to contribute towards sustainable development. The National Conservation Strategy Implementation Project (1989-1996) under the aegis of the National Planning Commission and the World Conservation Union-IUCN for the first time identified “environment

education” as a priority area to support the goals and objectives of the National Conservation Strategy (NCS).

Other areas of NCS implementation were heritage and biodiversity conservation, environmental impact assessment, and environment planning. The Project assisted to incorporate environmental education in the teaching of formal school education as well as in the new 3-year Bachelor of Education Program. The environmental curriculum was integrated with existing curricula of four subjects, namely Nepali language, Social Studies, Health Education and General Science. Basic issues like pollution and contamination of land, water and air, conservation of biological diversity, degradation of forests and land resources, natural hazards associated with the monsoon and the mountain ecosystem, and global environmental concerns like ozone depletion, global warming and climate change were the main themes for environmental education. Besides it also dwelt upon population pressure and heritage conservation.

Similarly, non-formal education packages were prepared for various training program in agriculture, forestry, tourism and so on. Public awareness, programs were conducted with various partners and NGOs. While environmental education is increasingly getting popular, the need to re-orient the entire education program towards sustainable development would be a challenging task. It would require intensive exercise to fully understand the changes required for ESD. One of the major changes would lie in the revival and use of indigenous knowledge system which may vary from place to place. While returning to indigenous lifestyles or to a lost Eden may not be an option for modern generation, the values and major tenets of indigenous traditions can be adopted to live with the 21st century. Reorienting education to address sustainable development should therefore require a long term national commitment based upon a well-planned educational system. Chapter 36 of Agenda 21 recognizes three major thrusts to begin the works of ESD; improving basic education, re-orienting existing education, and developing public understanding, awareness and training.

The Convention on Biological Diversity

The Convention on Biological Diversity (CBD) entered into force on 29 December 1993 after it was adopted during the Earth Summit 1992 in Rio de

Janeiro, Brazil. It is a major international response to managing the Earth's biological resources for a sustainable future. Its objectives are extremely broad in scope and have the potential to affect all kinds of human development. Main objectives encompass three interlinked aspects of management i.e., the conservation of biological diversity, the sustainable use of its components, and the equitable sharing of its benefits. ESD should be able to foster and reinforce attitudes or behaviors of human communities towards effective implementation of CBD. Article 13 of CBD dwells upon public education and awareness. The goal of Article 13 is to promote and encourage understanding of biological diversity and the measures required for its conservation thorough formal and informal education. It also goes to emphasize the importance and significance of locally developed curricula which have direct relevance to students' own surroundings and resource base. Besides it recognizes the potentials for a variety of informal means, especially built upon local language, culture, art and literature. Indigenous knowledge system is regarded as a valuable asset for sustainable development especially in the management of natural resources. Article 8 (j) of CBD dwells upon knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles relevant for conservation and sustainable use of biological diversity. A productive relation between CBD and ESD is thus so very obvious. Therefore education for the sustainability of biological diversity has a strong bearing upon sustainable development especially for those countries which are rich in biological diversity but weaker in technology and industry.

Concluding remarks

Education is the key to influence human behaviors, attitudes and actions. Of the three main stages of education attainment, i.e., Sila (precept), Samadhi (concentration of mind) and Pragma (wisdom-insight), the first stage "Sila" is related to human behaviors and attitudes such as right speech, right action and right livelihood (please see U Ba Khin for details). ESD is a process to enter into the first stage, and it should be able to bring about a harmonious co-existence between the developing biodiversity rich countries and industrialized technology rich countries. Relating education with nature and biodiversity is an essential path to leading to the sustainability of this planet.

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Education, Governance and Economic Growth in Nepal

Inquiries into the Scope for Sustainable Development

Anand Aditya¹

In fifteen years, in 2018, Tri-chandra college, the premier college of this country, is going to celebrate its first centennial, but how many of us have noticed that that year also heralds the possible celebration of an even more important occasion; the quarter millennium of Nepal's nationhood? Somehow did we miss celebrating our nation's two centennial anniversaries in succession: the first one in 1868, another in 1968. If these two cases of historic amnesia suggest our low level of national awareness and we have a long way to go in the course of political education, the slips also remind us that we do not miss it again, 15 years later, when the day arrives. The point is worth remembering that when Nepal appeared on the world map, the number of independent nation-states was hardly more than nineteen.

This historic perspective raises queries of direct bearing upon the issues taken up here. Does education sustain growth? Does education affect governance? And, does governance in turn impact on growth? How are these three elements related to each other and how do they sustain the overall process of development?

While the paper does not intend to address all of these queries, it does try to explain some of these relationships.

¹. Political analyst with interest in civic education, security, social research and development and South Asia.

In that context, the first part of the paper offers a conceptual outline to explain the possible relationship between the three sectors. It then discusses the determinants of growth before presenting a chronology of developments in the history of Nepal's education, the level of public awareness on education in Nepal, and the perceived impact of education on citizens' individual capacities. The last part of the exercise presents SWOT and stakeholder analyses on education, strategies for development, and a round-up of the arguments at the end.

Does governance matter?

Put simply, politics is about governance. Put another way, it is about how people manage their government. However, the relationship between the governor and the goveenee, when one tries to go deeper turns out to be far more complex, and multi-faceted. It is this multi-level dimensionality that lends governance its significance. It means the process of governance, the capacity of government in policy formulation as also the quality of citizen-state interaction. A World Bank study finds a strong relationship between governance and development outcomes². More specifically, a one-standard deviation increase in any one of the governance indicators selected by it from the six governance clusters (a. voice and accountability, b. political instability and violence, c. government effectiveness, d. regulatory burden, e. rule of law, f. graft) causes between a two and a half to four-fold increase (decrease) in per capita income (infant mortality) and a 15 to 25 percent increase in literacy. Another report, one from within this region, establishes a similar close relationship between human development and humane governance – a composite of economic, political, and civic governance³. In fact in eradicating poverty and promoting development, democratic or good governance is the single most important factor.

Retracing the roots

Governance has been analyzed in more than one way. Thus, if the regional report looks at the economic, political, and civic aspects, the *Nepal Human Development Report 2001* considers increased ownership, enquiry, transparency, accountability, and overall system efficiency to monitor the process of governance.

² Kaufmann, Daniel, Anart Kray, Pablo Zoido Labaton. 1999. *Governance Matters*. World Bank.

³ Oxford University press. 1999. *Human Development in South Asia: the Crisis of Governance*. Chapter 2, pp.28-40.

The 40-country World Governance survey (WGS) conducted by the United Nations University (for 1995–2000) identifies a total of six dimensions—a. political participation, b. interest aggregation, c. government stewardship, d. civil service and policy planning, e. state-market relationship, and f. dispute resolution system⁴.

Parity index and participatory education

This paper is conceptually based on two starting propositions which appear almost self-evident and need little elucidation, each leading to a pair of hypotheses in turn.

But the four terms used in this paper need to be defined. In the course of developing a paper last year, this observer proposed a term: Parity Index of Governance (PIOG). Another term, Delivery Coefficient, can be proposed at this point to develop the conceptual framework on the basis of the analysis done in a report submitted to UNRISD in 1998.

Essentially, if PLOG is the ratio obtained by dividing the percentage of a particular community represented in governance by its share of population, Delivery Coefficient is a hypothetical concept for a country which reflects the proportion of its capacity to produce or perform compared to its potential in a certain sector in terms of the system capital. In hydropower, for instance, it has been observed to be less than 2 and in the tourism sector, it persists on the whole in the case of mean regional tourist flow to Nepal at less than two, as conducted from an analysis of Table: Comparative County Profile of the South Asian Region on Tourism.

The term, system capital implies a sum total of six more forms of social resources, apart from finance – a. social capital (trust), b. human capital (skills, knowledge, and science and technology), c. political strategic resources, d. administrative and management culture, e. physical assets (structures set up by human kind), and f. natural resources. Finally, participatory approach to education (PATE) implies the active interaction and collaboration of various stakeholders in the education sector to minimize costs and wastage that can otherwise significantly undermine the sector preventing efforts at its sustainability.

⁴ Dhungel, Dwarika N. 2002. *Governance Situation in Nepal*. Kathmandu: IIDS

Proposition One: Parity Index and Participatory Education are positively and structurally correlated.

- *Hypothesis a:* The larger the parity index of governance (PIOG), the larger a community’s delivery coefficient.
- *Hypothesis b:* The larger the delivery coefficient of a community, the larger the scope for participatory education.

Proposition Two: Participatory education and sustainable development are positively and intrinsically correlated.

- *Hypothesis c:* The higher the level of participatory education in a system, the larger the magnitude of social synergy of that system.
- *Hypothesis d:* The larger the magnitude of social synergy, the larger the scope for sustainable development.

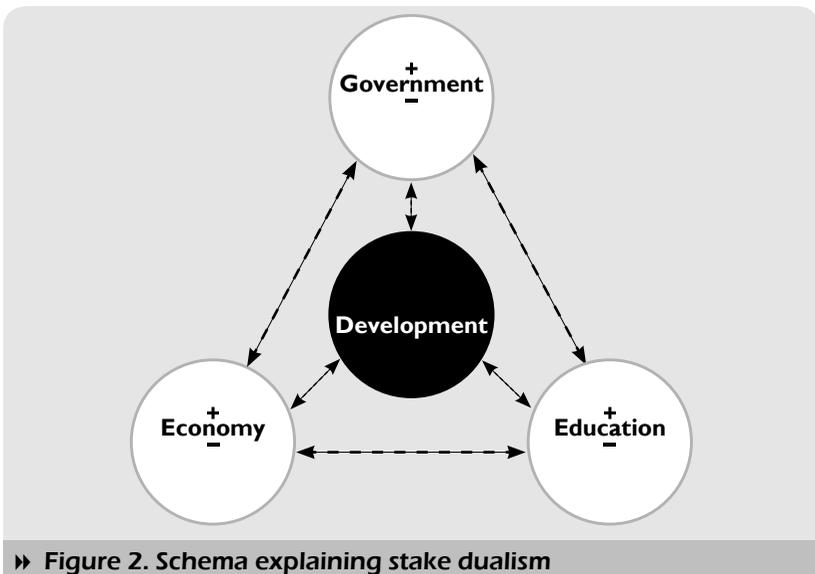
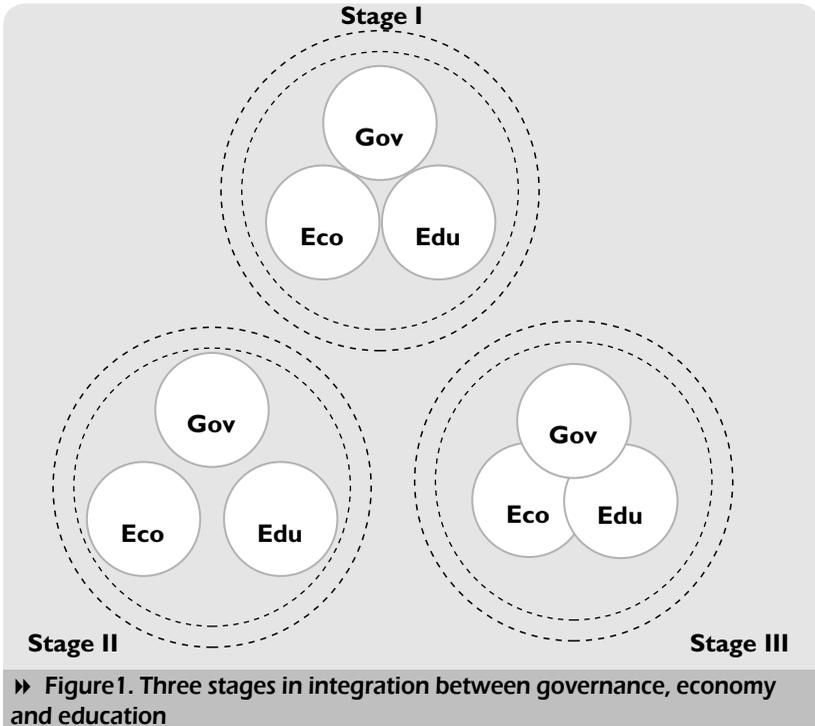
Participatory approach to education

Table 1. Participatory approach to education (PATE)

Attribute	Dimension	Objective
1. Holistic	Individual	Full development of human personality
2. Integrative	Various sectors & disciplines of study	Synergy
3. Inclusive	Society	Equity & equal access to opportunities
4. Participatory	Action	Proactive mobilization of resources at all levels

Interaction between Governance, Economy and Education

Before proceeding further, two points are in order. First, the interaction between governance, economy and education can be understood to evolve over time in three separate stages (Fig. 1) and the interaction in Nepal is still in transition (stage II) as it is in most of the developing countries. Second, in each of these three sectors, the emergence of a sort of dichotomy in stakeholding sooner or later usually gives way to a state of conflict between the positive and negative stakeholders generating crisis, if they remain unresolved for long. Nepal is no exception to that.



Recent trends

Studies show education of girls and women effects child health. One study done in 45 developing countries says the mortality rate for under 5 children per 1,000 live births was 144 for mothers without education, 106 for those with primary education, and 68 for mothers with some secondary education.

Education in a number of countries is seen to have a visible impact upon household economy, in Peru, for instance. In Vietnam, for another example, the poverty rate for households with parents with no education was 68%, for those with primary education 54%, for secondary 41%, and for university education 12%.

One US study has shown that the growth in years of schooling explained about 25% of the increase in GDP per capita between 1929 and 1982 (World Development Report 1998/99). Also more than half of the GDP in the major OECD countries is said to be based on knowledge production and management.

While the three observations made above highlight the strong relationship between knowledge (a product of education) and growth, three trends can be noticed currently with critical implications for future policies related to education, governance and sustainable development.

1. Improvements in international communications have made distance and location even landlockedness of Nepal largely irrelevant.
2. More workers are engaged in the high growth states and are likely to be engaged in the future in other countries, too, in producing and distributing knowledge than in making physical goods.
3. Information technologies are advancing at a tremendous rate. Information revolution not only accelerates creation of new knowledge, it also facilitates production of a large number of goods and services. Technical knowledge also is expanding rapidly.
4. Another analysis, done by the World Bank⁵ in 1995, shows that human resources make up a much large share of nation's real wealth and that investing in human resources is the most important way to promoting sustainable development.

⁵ World Bank Press Release, September 17, 1995.

Determinants of growth

Physical and economic assets, it has been claimed, do not necessarily determine the quality of a nation's education and growth. But, if they do not, what does? And how should a country like Nepal set out its vision for a new society? On that issue what Schumaker says is worth recalling, *“Among the causes of poverty, I am sure the material factors are entirely secondary – such things as lack of natural resources or a lack of capital or an insufficiency of infrastructures”*. The primary causes of extreme poverty, he argues, are non-material which lie in certain deficiencies in education, organization, and discipline and adds: *“Development does not start with goods; it starts with people and their education, organization, and discipline”*.

Alvin Toffler would agree. He declares that instead of land , labor, raw materials, and capital, which were the main factors of production in the second wave economy, it is knowledge (broadly defined to include data, information, images, symbols, culture, ideology, and values), which would be the central resource of the third wave economy .

Thus, unlike the need for more territory – the demand of the agrarian states of the first wave economy, or even the vast natural resources which the industrial states of the second wave economy needed, the soft hyper-connective context of the Prigoginian post-nation environment in the 21st century will demand an altogether different kind of resource and capital base for growth and development.

Focusing on moral development as a psychological issue of crucial importance for national development, and the need of a war against indiscipline(WAI), Alastair Munday Castle proposes a humanistic psychology as an approach toward meaningful and effective national development. In doing this, he suggests departure from the hitherto dominant scientific behaviorism of the existentialist – phenomenological school of psychology – as a total approach to national education and development.

The cases of some small, poorly endowed states will help to place the problem in the right perspective. Like Nepal, Uruguay has no minerals, no petroleum; in fact no mineral wealth, simply its farms. Like Nepal, again, it is also sandwiched between the two giants of Latin America – Brazil and Argentina. Unlike Nepal,

however, it became the world's first welfare state establishing a vibrant democratic tradition long before most of its sister states in the region could even hold a free election. Today it has, in fact, few poor, and virtually no illiterates.

Uruguay apart, there is the case of Costa Rica which targeted literacy for action and pushed its female literacy from a low 17 percent in 1960 to a near spectacular 65 in 1989. During the last quarter of the 19th century, Denmark demonstrated a pace worth emulating. Ethiopia itself raised its literacy rate from under 10 percent to over 60 within a decade after its Revolution. Following the collapse of the Somoza regime in 1979, the Government of Reconstruction in Nicaragua cut off all aid, and yet succeeded in reducing illiteracy by more than three times – from 53% to 13%—achieving, according to the *New England Journal of Medicine*, more advances in “most areas of social welfare than in fifty years of dictatorship under the Somoza family”.

The most remarkable case in history of a nation's transformation through public education is, of course, Japan, which after 1868, the year of Meiji Restoration, set itself the task of modernizing its feudal, self-isolated and technologically backward society. That it did in twenty years, motivated by the theory that education of the people must be ensured if a nation is to win its right as a state in the international community. Japan, as a consequence, was able to beat Russia in 1940 and challenged the western powers.

Without a drastic reform of the educational system and the creation of a new type of man, the success of social reforms founded upon the idea of democracy would not have been possible for Japan.

Education in Nepal: Chronological highlights

1918	Tri-Candra College established
1920	I. Sc. course started
1930	Ayurved College
1932	S.L.C. Board set up
1936	Tansen starts library (Pustak Padhne Dalan) and becomes Dhawal Pustakalaya in 1947
1942	Technical Training School established to produce overseers
1947	Training of primary school teachers started

- 1947 Basic Teacher Training Center changed to Nepal Teachers' Training Center in 1956
- 1948 B. Sc. course started
- 1950 Montessori School in Kathmandu
- 1952 Central Library
- 1952 Education Board established to supervise and expand educational facilities
- 1953 A national inspectorate system established to maintain first-hand touch with the schools
- 1953 Durbar High School
- 1954 National Education Planning Commission
- 1956 Multipurpose Vocational Education
- 1956 Curricular Program starts to work
- 1957 College of Education
- 1959 Tribhuvan University (TU) founded
- 1959 Post-Graduate Classes at TU start
- 1960 Ban on political parties shifts political activism toward colleges and universities
- 1961 Multi-Purpose School Program
- 1961 Sarvangin Rashtrita Shikshya Samiti
- 1962 UNESCO Report on Education in Nepal
- 1964 Efforts on nursery classes start
- 1965 TU shifted to Kirtipur
- 1965 M. Sc. classes at T.U.
- 1965 Sajha Prakashan
- 1965 Bal Mandir
- 1967 HMG starts Special Education Program setting up a council in 1976
- 1967 National Education Advisory Council
- 1968 Work on Child education Curriculum under MOE
- 1970 Nutritious Food Program (HMG-WFP)
- 1971 Curriculum Development Center
- 1971 TU Act 1971 brings all teaching instructions and training programs under TU umbrella
- 1971 New Education Act
- 1972 NESP (New Education System Plan) implemented
- 1974 Five month-long student strike

- 1976 Ph.D. in Science and Technology program
- 1977 CEDA, CNAS, RECAST set up
- 1977 B. Sc. Nursing classes
- 1978 Radio program for teacher's training started
- 1978 B. Sc. classes started in Agriculture, Engineering, and Medicine
- 1978 National Literacy Program
- 1979 Private school permitted
- 1979 Recentralization of campuses
- 1979 Students protest against Bhutto's execution (April 6); April 9 brings 27 fresh demands from students
- 1980 Private schools emerge
- 1980 Technical School Plan
- 1980 Private campus permitted
- 1981 National Education Committee forms a task force to study TU structure
- 1981 B. Sc. Forestry classes
- 1982 Semester System changed to annual system of examination
- 1983 Royal Commission on Education (Ranadhir Subba) submits report (July 24)
- 1985 Seminar in Kathmandu on private sector's role in development of higher education
- 1986 Mahendra Sanskrit University set up
- 1987 B. Sc. Veterinary's Science Course started
- 1988 Basic & Primary Education Program
- 1992 National Education Commission's Report
- 1996 Policy on Special Education
- 1998 New National Education Commission's Report

A cross-country comparison

Comparison with 18 other countries done on 11 educational parameters in Table 2 shows how poorly Nepal fares on various indices of education. While in spending on public education (cols. 1 & 2) and net secondary enrollment ratio (col. 6), it is not very much behind, the showings in the other areas present a stark contrast, particularly in both adult and female literacy figures (col., 2 and 4) that rank at the bottom, and in primary enrollment (col. 5).

Table 2. Cross-Country Comparison of Nepal's Educational Parameters

Countries	1	2	3	4	5	6	Nat Sc.		8	9	10	11
	Public education expenditure, 1995-97 as % of GNP	Public education expenditure as % of all primary and secondary levels, 1995-97 pre-primary and primary	Adult literacy % 15 and more, 2000	Female literacy % 15 and more, 2000	Net primary enrollment ratio, 1998	Net secondary enrollment ratio, 1998	7a	Eng of 20-24 age group)	Tertiary students in Sc., Math., & Eng. as % of all tertiary students, 1994-97	Scientists and engineers in R & D per million people, 1981-95 (WDR 1998-99-T19)	Children aged 10-14 in labor force % of age group, 1997 (WDR 1998 T3)	Printing and writing paper consumed kg per capita, 1997 (HDR 2000 T 21)
1. Bangladesh	2.2	44.8	41.3	29.9	100	...	...	7b	...	...	10	11
2. (Bhutan)	4.1	44.0	...	...	16	5	...	...	...	...	...	0.0
3. Bolivia	4.9	50.7	85.5	79.3	97	...	0.5	2.9	...	250	13	1.2
4. China	2.3	37.4	84.1	76.3	91	50	0.1	0.8	53	537	10	...
5. Finland	7.5	33.0	...	...	99	95	2.9	12.7	37	3,675	0	249.9
6. India	3.2	39.5	57.2	45.4	...	39	1.1	0.3	25	151	13	2.2
7. Israel	7.6	42.3	94.6	92.4	95	85	2.1	6.2	...	4,826	0	49.5
8. Japan	3.6	39.3	...	...	100	...	0.7	9.0	23	5,677	0	117.9
9. Maldives	6.4	...	96.7	96.8	...	...	...	...	...	...	2	3.6
10. (Mongolia)	5.7	19.9	98.9	...	85	53	0.7	2.5	...	(910)	...	0.3
11. Myanmar	1.2	47.7	84.7	80.5	...	...	...	...	37	...	...	0.6
12. (Nepal)	3.2	45.1	41.6	24.0	78.4	54.6	0.8	0.1	14	22	44	0.1
13. Pakistan	2.7	51.8	43.2	27.9	...	...	0.3	0.4	...	54	17	1.4
14. South Korea	3.7	45.3	97.8	96.4	97	...	3.8	13.5	34	2,636	0	56.3
15. Sri Lanka	3.4	...	91.6	89.0	100	...	0.5	0.4	28	173	2	2.8
16. Sweden	8.3	34.1	...	...	100	100	1.8	6.2	31	3,714	0	77.9
17. (Switzerland)	5.4	30.6	...	...	94	83	2.3	4.4	31	3,006	0	11.7
18. Thailand	4.8	50.4	95.5	93.9	77	55	1.3	1.7	21	173	15	13.5
19. USA	5.4	38.7	...	...	95	90	2.6	4.2	...	3,732	0	145.9

Note: Landlocked states have been put inside parentheses; large powers or states are in bold face; and South Asian countries have been italicized. Figures in parentheses are from WDR 2000/01.

The standing on tertiary education looks no less depressing (cols. 7a & 7b, and 8). With the nation's figures for children aged 10-14 employed in labor force at the top (col.10), no wonder that our share of scientists and engineers in research and development per million people is minuscule compared to all other 14 countries entered in the table: a mere 22 (col. 9). As for the paper consumed by the average individual in printing and writing 0.1 kg (col. 11), it could be hardly anything

Public awareness of education as an issue

Surveys done in Nepal from time to time suggest that people in general do not take education as a very important issue. At least this is what one can infer from Table 3 which shows that the proportion of people who said education is the most important issue of the nation did not range above 17 at the national level and above 22 at the local level. Ironically, the figure was much lower in the case of the political parties and MPs.

Table 3: Percentage of people who said education is the most important issue

	Mass survey (N=1004)		Elite survey (N=100)		Political parties (N=805)		MPs (N=752)
	National	Local	National	Local	National	Local	
1	13.5	7.3	9.0	3.1	4.2	3.1	3.9
2	17.2	13.3	14.0	6.5	4.8	6.5	
3	14.0	17	22.0	4.6	6.1	4.6	

Source: POLSAN 1991

Source: POLSAN 1992

Impact of education on individual capacities

A change in the citizen's individual capacities is likely to bring change in specific ways. The national survey done by the IIDS on media shows clearly that an increase in the level of education tends to increase the proportion of people involved in issue discussion, of those aware of the concept of freedom of expression, of individuals with regular source of information, and of persons with perceived

self-ability to evaluate the role of the state media. Even more important, critical capacity also increases with important implications for democratization.

Another survey, done by the NOSC, suggests that increase in education tends to increase the percentage of people who:

- Feel the most important benefit of democracy is individual freedom (rather than economic opportunity whose share decreases)
- Are critical of the performance of political parties
- Support multi-party's positive role in democracy
- Favor a secular role of religion in politics
- Feel voters are very influential in the political system and local government decisions
- Feel media are very influential in government decisions
- Believe women, minorities, and the disadvantaged groups are inadequately represented in local government. (Source: NOSC 1993, various tables)

SWOT analysis of education in Nepal's context

Strengths (S)	Weaknesses (W)
<ul style="list-style-type: none">• State commitment: Decentralization Act 1997; 60% of local revenue set aside for local spending• Increased presence of UN and other international agencies and INGOs in support of development• Rapidly growing civil society and NGO strength• Freer media environment• Holistic restructuring of concepts and strategies for peace, security, and development	<ul style="list-style-type: none">• Endemic poverty: 45% of population below poverty line• Poor professional skill in teaching and research• Low levels of communication and interaction• Weak implementation, institutionalization, incentive mechanism• Poor monitoring, evaluation, and feedback system• Inadequate information and data banking system• Skewed concentration of agencies and resource distribution at the center• Given the size of the state, personalized nature of planning can induce interference, conservatism, and conflict quicker than in large states (Mark Bray, 1992)

Opportunities (O)	Threats (T)
<ul style="list-style-type: none">• Growingly assertive local self-government• Increased IT and physical infrastructure for development• Growth in awareness of human, gender, ethnic, and Dalit rights in support of larger local ownership, participation, and decision making• Globalization increases the potential for privatization and education marketing (students, teachers, and experts) at the domestic and international levels• In the context of the relatively small size of the country and the multiplex nature of its social relationships, there is more scope for social cohesion, issue sensitivity, accountability, coordination, and participation; issue identification becomes easier and innovation may have more rapid spread effects (Mark Bay, 1992)	<ul style="list-style-type: none">• Threats emanating from political violence (insurgency)• Threats to environment• Threats to national heritage, social culture, and norms• Risks rooted in unmediated globalization• Risks engendered by political instability and policy and planning discontinuity, particularly on the education front• Failure (as well as success) may have a larger impact than on larger states which can absorb negative impacts more resiliently

Stakeholder analysis

Stakeholder analysis implies focusing on the issue of stakeholding, the process of cultivating stakes, and the various roles that stakeholders can play. In so doing, the focus has to be not only on what the traditional role players can do, but also on what new emerging agencies can do to improve the overall efficiency and effectivity, equity as well as efficacy aspects. A dynamic stakeholder equilibrium model generates stakes where such a possibility exists, cultivates it where it has taken roots, and optimizes its role where it has started functioning.

The table below offers a view on the possible roles that the various stakeholders can play in promoting education in a participatory framework.

Table 3: Stakeholder-Role Matrix

Roles (functions) of stakeholders (partners)	Community	Educational institutions	Cultural associations	Professional associations	Civil society/NGOs	Media	Govt./Local Self-Governments	International Organizations
1. Awareness campaign	+	+	+	+	+	+		
2. Education and training		+		+	+			
3. Entitlement							+	
4. Empowerment	+			+	+		+	
5. Communication	+			+	+	+		
6. Coordination							+	+
7. Infrastructure building	+						+	
8. Conceptualization (vision, mission & goals)	+	+	+		+		+	+
9. Planning, policy making, and strategy formulation	+	+	+		+		+	+
10. Resource generation and funding	+			+			+	+
11. Monitoring, evaluation & feedback	+	+			+	+	+	+
12. Linkaging					+		+	+
13. Survey, research, and innovation		+	+		+		+	+
14. Institutionalization	+						+	+

Strategies for future education

The strategies envisaged here are anticipated to improve competence in the education sector, enhance its impact in the target area, and explore the scope for its extension and consolidation through seven policy measures.

Sensitization: Active advocacy at the mass level to increase public awareness on education-related issues and mobilization of resources through talks, seminars, and use of media and publication.

Enablement: Efforts at capacity building of professionals and to increase human capital through courses, trainings, and workshops.

Entitlement: Effective use of legislation, enforcement, and adjudication measures to implement laws, rules, policies, programs, and decisions made.

Empowerment: Focusing on concrete and empirically measurable improvement in the professional competence of individuals, agencies, and organizations through the increased level of collaboration and solidarity building.

Mainstreaming: Targeting and channelizing the new generations (children and youth) in an inclusive manner, and also women, disadvantaged groups, and minorities as well as communities at the local level.

Reinforcement: Strengthening the capacity building of the key educational agencies, organizations, and institutions by consolidating their policy, decision-making, and implementation mechanism focused on the promotion of a healthy self- through civic, security, and scientific education.

Networking and Synergizing: Linkaging the stakeholders at the local, national, regional, and global levels in a coordinated framework of proactive communication, creative interaction, and productive collaboration for sustained flow of the resources and assistance needed in the education sector and integrating the educational policies. Also, development of programs and activities with other existing and upcoming initiatives in the field at home and abroad.

Conclusion

The main strands of the discussion can now be summarized:

1. Education, governance, and growth are reciprocally related in significant ways with a critical bearing upon the overall process of the nation's course of development. If, therefore, the pace of development is to be sustained, policies related to education, governance, and economic growth must be reformulated and implemented in a substantively new framework: policies that materialize the goal of mass education, policies that can effect the objectives of good governance, and policies that fuel up the process of vibrant economic growth. Only the synergy that such policies engender can transform the pace and momentum of this nation's development. But since the comparative evaluation of the nation's parameters shows it at rock bottom, attempting such a reformulation means tremendous efforts and huge inputs in all the

three sectors. The question then is: Are we ready for such a momentous take-off?

2. At the threshold of the 21st century, the challenges that lie ahead for Nepal in the course of sustainable development are going to be fundamentally different in nature and magnitude than the nation has faced so far. These challenges are likely to be as much ethical in their nature as ethnological, as much ideational as institutional, and as much professional as political. All this demands a fundamental change in our national style and habits of heart and work as well. Changing habits of heart and work style will, however, not be possible without changing our existing mode of education and governance.
3. Changing age-old habits will be at a premium as, of course, eternal vigilance over the process of social democratization which makes the list a tall bill. But that is the way things are. To achieve the goals, the nation must invest increasingly on education and a new mode of socialization. The course of development, like all courses toward ideal goals, after all, is a nation's unceasing journey of discovery that, like the asymptote of democracy ever surges forward but never quite meets its destiny. It is a perennial effort that does not end when the peak of a parameter is reached. Such a journey means a relentless ordeal, and will be a hard long test of our will and skill to democratize, educate, and develop as well as a certain level of patience and determination.
4. When all is said and done, there is no royal road to democracy and there are surely no shortcuts to development. But if we are mentally ready for such test and the ordeal it implies, and brace up ourselves with the right kind of national vision and the adequate measure of political will and strategy on education and governance that really works, we could still strike our tryst with the nation's destiny to which Perceval London beckoned decades ago.

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Education in the Special Context of Nepal

Dr. Tara Nath Sharma¹

Our educational experts almost always consider education in terms of Western thinking and totally neglect the traditional teaching and learning. We had our own traditional system of education handed down to us from generation to generation for thousands of years. Ours is a glorious land where the Vedas were composed, the Upanishads created and the Puranas written. There were scholars who studied planets and stars, interpreted their distances and calculated their movements quite correctly. They experimented scientifically and cured many diseases by discovering various precious herbs.

Nepal, however, entered into the world of modern education by directly copying the British system of schooling introduced in India. Most educational experts are of opinion that the British Indian system was launched to produce administrative assistants of lower and middle orders in a massive scale to smoothly govern the vast empire they had established in the subcontinent. We imitated the colonial British system of education lock, stock and barrel.

The first such educational institution to appear in Nepal was Durbar School in 1853 AD, initially begun to modernize the Rana boys who were to assume the administration of the country. They indeed were expected to keep themselves abreast of things happening generally in countries abroad and particularly in the

¹. Principal Kathmandu Don Bosco College.

British Empire. But the personnel employed to serve the Ranas could not keep themselves forever blind to the rising tide of modern education among the conscious Indian neighbours and, of course, from their consistent struggle for independence. The Brahmin priests as well as other servants of the Rana high officials appealed to their ruling masters to allow their sons to join the school which was exclusively reserved for the Ranas. So the Durbar School was partially opened for commoners only after thirty-two years of its inception.

The reasons for making the Durbar School public were twofold. First, many officers serving the Ranas were expelled and exiled to India for their disagreements with the Rana masters. And they began to educate their sons at Indian universities. They would definitely influence their friends and relatives still in Nepal. Secondly, the English language assuming far more importance particularly in matters dealing with British India and as the Durbar School was started for imparting the British style of education in which English played a dominant role, the products of the school were naturally expected to be useful and handy in dealing with the British rulers.

The freedom struggle in India began to have its wider repercussions on Nepal and first the people of the valley and later those living in smaller towns outside clamoured for opening up schools. By the time the Ranas were removed from their positions of power, schools on British Empire pattern were already making their inroad into almost every part of the Himalayan kingdom. The more liberal administrative authority at the centre after the overthrow of the Ranas in 1951 allowed people to open up schools everywhere. The government also invited a US educational expert to prepare a report, which, they thought, would pave the way for future planning of education. It was a sort of guideline for those involved in teaching and learning within the country.

But there were several glaring lapses in that educational report. As it was prepared by a foreigner with no access to our ground realities and specifically the traditional heritage of the Nepalese people, it was far removed from what the country immediately needed to improve the lot of its uneducated people. Not only this, he neglected the social and vocational aspects of education altogether. The emphasis was only on liberal, or what we usually refer to as academic type of education aiming at conferring university degrees like BA, MA, BSc, MSc, BCom, MCom, etc.

The first higher educational institute founded in the country was Tri-Chandra College as late as September 12, 1918. We had no university and no education board to prepare courses of study nor we had set any national educational objectives. Our students had to follow Patna University and study whatever books it prescribed. It was again Patna University that conducted our school final, Intermediate and Bachelor examinations. It was in 1933 or thereabout that our School Leaving Certificate Board was finally established which conducted the SLC Examination of our students. But for college degrees up to the bachelor level we depended solely on Patna University.

Only after the Tribhuvan University was formally inaugurated in 1956 that the examinations were conducted by our own educational authority. Since its inception the Tribhuvan University has done a wonderful job of disseminating academic type of education all over the country. But due to the lack of a proper national education policy vis-à-vis the needs and aspirations of people, the praiseworthy achievement the university has made so far hasn't been able to contribute anything substantial in the area of practical development.

In the sixties during the heyday of the Panchayat system of governance, a new education system plan was launched with much fanfare. Many educationists, however, criticized the plan as undemocratic and impractical in our context. The main slogan of the new plan was, however, to mainly emphasize on vocational and technical education, and it was for the first time the economic concept of manpower was brought to fore. Education was considered on the background of country's developmental needs. And our schools and colleges were proposed to be converted to training centres for supplying required technical and other hands in the country with a view in mind not to wasting manpower on areas of education with no relevance to the national practical uses.

Although the new education plan proved to be almost a disaster in terms of its highly propagated objectives of the government, yet its main thrust of orienting the country's education to jobs was not at all out of place. The failure of the system lay not in its concept, which was indeed excellent, but in its application.

The new education system, in order to do away with the British Empire style of annual academic year and the assessment of students by examinations at the end of the year, introduced the semester system prevalent in the USA. But the teaching

community was not trained for the new and obviously complicated assignment. Failure of the semester system can be attributed to the following causes:

- i) There was a total lack of infrastructure for a new semester style of teaching and assessing students. Lack of libraries was the most important disadvantage.
- ii) Lack of properly trained teachers particularly to conduct tutorial classes was felt everywhere. The teachers with the experience of the old system were unable to assess their own students internally, as they were used to checking answers of unknown students privately at home without fear of being detected or feeling no direct responsibility during the previous examinations. Now, because the students knew their examiners personally, the teachers hesitated to fail undeserving students for various reasons. There were several cases of threats to teachers and so out of fear students who would certainly fail were given good grades. And, on the other hand, if the teacher had a grudge against any student for personal causes, the student would not get a deserving grade. Thus a whole generation of good for nothing students got excellent grades jeopardizing the whole objective of quality education.
- iii) The plan advocated for the spread of vocational education. Several regular high schools were developed and transformed into multipurpose schools where such technical subjects as carpentry, weaving, typing, sewing, cooking, knitting, brick laying, agricultural skills, poultry farming, gardening and such were taught. But unfortunately the students had no practical value of their acquired skills as they universally opted for conservative academic degrees after their school. And the training they got at such multipurpose schools could not be attuned to real life situations.
- iv) The new education system plan had envisaged a job-oriented practical education and tried to produce trained manpower in the areas of country's needs. But in reality due to lack of coordination, non-availability of vocational experts and absence of confidence in teachers brought the new policy to a complete collapse and a severe deterioration of general educational standard.

With the collapse of the new education plan came down the edifice of the partyless Panchayat political system like a house of cards. The popular movement did re-install democracy but in the euphoria of gaining political rights the people

at the helm of affairs in the new political dispensation brought in disorganization, distrust and disorientation in the country's education. Instead of setting things right and putting unbalanced system ruining the public schools in order, they allowed privatization with no proper programming and guidelines.

It is true that private schools mostly with residential facilities did much to eradicate the defects of public schools. They highly raised the standard of teaching and with good management produced excellent results.

The overall result of the SLC Examination was going deplorably down at government schools, but, on the contrary, the private schools have been showing almost a hundred per cent result and that also in first division.

There are now private schools almost all over the country and they are doing an appreciable job of providing quality education within the country. A large number of students were sent annually to different cities of India in quest of quality education investing a huge amount of money. Private schools put a stop to this tremendous national loss by providing equally good or in many ways better schooling to Nepalese children right inside the country.

The only snag with the private schools has been that they are not at all affordable and accessible to every sect of our society. Only those with substantial monthly income can send their sons and daughters to privately run schools. Thus a very wide gap has developed between two distinctly different sets of students, one enjoying the benefits of quality education comparable to prestigious schools anywhere in the world and another hardly able to cope up with the prescribed courses at poorly run public schools with incompetent and miserably paid teachers and mismanagement due to sheer negligence. Our students in an overwhelming number are made victims of confusion and chaos. They are made to suffer below standard and failure. Besides, the self-seeking democratic leaders for their nefarious political gains have been fanning up these educationally dissatisfied and disgruntled students to stage strikes, to resort to lock-outs and burnings of priceless teaching materials. It's all the fault of the Education Department of the so-called democratic government. Only a mere thirty-three per cent from among the SLC candidates gets through the school final and that also mostly in the third division. The Ministry of Education just watches this rampart national wastage doing nothing.

Had there been no private schools with excellent results it would be far better to immediately dislodge the SLC Examination altogether.

A mental complex is clearly making a dichotomy in our rural community due to the type of education that has taken roots in the country after the ouster of the Ranas. The children who go to school develop a psychology that makes them feel superior to their non-school going members in the family. The students are alienated from the family, their tradition and occupation. The system of education doesn't permit them to appreciate farming, or any other family trade. They harbour higher ambitions of going to cities and doing government jobs in offices. Realistic education should have aimed at either improving the existing indigenous techniques and capacities or innovate new viable methods for higher production. If the uneducated older generation worked in the field with primitive tools, the young educated generation should have developed better methods to improve the quality of life. But instead of that, the whole new school going generation is cruelly leaving the rural areas in search of fanciful, impractical and utopian life away from home. Thus a large number of youths is either perspiring in the deserts of the Middle East or in the hot jungles of Malaysia.

The scenario of modern education is pitifully sad. It requires a revolutionary overhauling. When 66% of students fail and only 10% or less get the first division in the school final, only 10% should be allowed to pursue their higher studies for university degrees. The other 90% should be tuned to vocational and technical skills required for nation building. Practical training should be provided with the opening of technical schools offering huge incentives to the young generation. Flower gardening, herbal plantation, irrigation, animal farming, bee-keeping, fish farming, poultry farming, road and house building, bamboo arts, cooking, internal decoration, sewing, knitting, carpentry, masonry, house painting, dying, electric wiring, wood carving, and hundreds of other essential skills like them could provide adequate income to lead a decent life to our people.

Many people today think that our educational experiment began with the establishment of the Durbar School, but it is not at all true. Ranas had formally opened up two kinds of schools: (i) vernacular schools, and (ii) Sanskrit schools. Although Sanskrit schools existed since time immemorial, the Ranas tried to give economic support to such schools. Today most of such schools are either

defunct or transformed into modern English medium schools, yet the tradition of Sanskrit learning is still intact mostly in rural areas.

The vernacular schools were meant for teaching commoners the three Rs (reading, writing and arithmetic). The three Rs made people capable of reading the vernacular, writing letters and applications and doing basic sums like addition, subtraction, multiplication and division. The skill of three Rs can prove to be greatly beneficial for societal reform, for the literate people can read the message of the government and be aware of developmental activities much better and more efficiently than the illiterate lot. We can cite the example of the states of Kerala and Karnataka in South India where almost everybody knows the three Rs with a result that the overall developmental situation is remarkably ahead of other states. In our case, however, alienation of the new generation has prompted youths to vacate their homes. Ranas didn't introduce the vernacular schools for social uplift, and hence the schools didn't continue for long.

The Sanskrit schools too didn't fare better. The so-called educationally conscious people of this country paid no attention to Sanskrit education regarding it as out of date and of no relevance to national context at all. But they were totally wrong.

The Sanskrit Pradhan Pathshala, a secondary level Sanskrit school, was run on the ground floor of the building of the famous Durbar School from 1877 AD and a hostel at Teendhara nearby was begun in 1885 AD. Unfortunately, they were open only for Brahmins. These institutions are still running and they are now under the Mahendra Sanskrit University, established as late as 1988 AD. Some educationists may dismiss Sanskrit education as irrelevant in modern times, but a wide section of Nepalese population is served by the products of this form of education. The following are the professional experts required by people of many walks of life:

1. Scholars/Pundits, who interpret the Sanskrit mythological and religious texts together with the Vedas, are held in high esteem.
2. Priests, who perform rituals at the houses of clients during births, deaths, marriages, sacred thread wearing ceremonies, religious functions and all kinds of worships. They are also profitably employed at temples to perform

regular worshipping rituals in the mornings, evenings and at special festive occasions.

3. Teachers, who are useful, even for modern schools to teach Nepali as well as Sanskrit. They teach Sanskrit literature, philosophy, grammar, astrology, Ayurveda system of medication, yoga, acupressure, herbs, etc.
4. Astrologers, who make and interpret our horoscopes and make a good income.
5. Health scientists. They are either vaidyas, healers with Ayurvedic method or employers of herbs, or yogic experts, acupressurists.

Although those who are appointed at the Mahendra Sanskrit University still have no vision to grapple the future potentiality of the ancient learning in the universal context and are still under the illusion of superstitious orthodox view that the immense treasure of knowledge that's in store in the ancient texts is divine and beyond the critical analysis and interpretation of human beings, yet if the perennial source of knowledge were properly tapped, it could immensely help in the process of development in the country. We could update the hidden knowledge and put to our use intelligently and in a liberal and humane way.

The universities that have recently come up in Nepal can work together to make our education more people-oriented and practical, more useful to natural job seekers and employers. The only areas our universities have given some importance are modern medicine, engineering, management, computer application, information and agricultural theory. These areas are definitely very essential to look into, but we could expand the areas and make them unique and our own by adding and updating them. For example an addition of Vedic architectural techniques in modern engineering, as the Maharishi University of Management has done in Iowa, USA and enriching modern methods of medicine by incorporating the Ayurvedic system, herbal knowledge, yogic practices and acupressure, etc. We could also give due recognition on ancient astrology and increase our repertoire of human knowledge. We cannot make a headway in our educational venture if we blindly copycat the West and completely forget or neglect our own rich heritage. Who can shine unless standing on firmer foundation of one's own ground?

A Simple Educational Structure and Prioritized Sustainable Development Curriculum

Dr. Chiran S. Thapa

It is important that we get the educational structure right as the foundation on which the educational curriculum (ecosystems, sustainability, environment conservation) can be imparted. The challenge is to have a uniform but simple structure from Mechi to Mahakali and from the Himalayas in the north to the Terai plains in the south. It is best to have a twelve-grade all-Nepal school structure which leads to a further four-year University/college studies and for those whom society chooses to make available, with choice left to competent young men and women, specific training in medical, engineering, business and law schools or postgraduate education. The educational structure has to be right for all the important reasons. At the higher education level, competent students should have the right to choose the course of study they want to follow and even the amount of time they want to devote to their coursework and balance it with their other interests, extra-curricular activities, sports, etc. This way, democracy is built into the educational structure and the country's future leaders will learn to institutionalize democratic values while being competent in their own profession. In Nepal's case, with diverse structures in place, the challenge is to move towards this uniform structure, and the right way of going about it may be to have some models, with a twelve-grade school structure ascending to a four-year college course and, for those who can make it, specialized schools, law school, medical school, business school, etc. or further education to the master's level and the



Ph.D. British Prime Minister Tony Blair says that his three priorities are: education, education and education. Our priority has to be a simple and uniform all-Nepal structure. The transition may not be as complicated as may appear. We have large numbers of very fine students who want to continue higher education in the United States. One of the attractions is that, in the country with the largest educational infrastructure in the world, the organizational structure is the same from the east coast to Hawaii and from Alaska to Mississippi. The structure obtains in private schools or in community-financed ones, in community colleges, or private liberal arts. There are great differences in the quality of the teaching and in the fees students and schoolchildren have to pay, but the organizational structure is uniform.

Within the uniform educational infrastructure, there is great variety, a further reason, at the higher education level, of attraction for Nepali students. For example, community colleges, and two-year colleges are relatively easy to get admission into, and costless. But competent and hard-working students can transfer to a tougher and higher-standard institution at almost any level. This is one more argument for a uniform structure; with one more choice to transfer on the basis of achievement, additional to the choice at the start in admission. With a basic all-Nepal structure at both the school and higher education levels, the curriculum needs to focus area-wise on diverse priorities based on the region-specific resource endowments and needs of different geographic areas.

The challenge is to have the rich diversity of Nepal's terrain reflected in the curriculum within the simple uniformity of an all-Nepal educational structure. As an instance, teaching would focus on protecting forests, with the success of community forests highlighted in the hills so that the local needs of fodder and wood are protected and the sources of drinking water insured, while in the food-predominant Terai rural economy, protecting the fertility of the soil and measures against soil erosion would have priority.

Nepal's topography rises from near sea level in the lowlands of the south with sub-tropical jungles to the Himalayan range in the north with peaks above 8000 meters. The summer monsoons in most of the country combine with the topography to provide every kind of climate zone on the face of the earth. The great variety of life zones provide the habitat for a large number of plants, birds and animals. Despite the grinding poverty of the vast majority of its population,

Nepal has set aside more than 13,000 square kilometers, almost a tenth of the country's total area, as national parks and wildlife reserves. These protected areas cover wetlands and grasslands vegetation in the south and temperate forests in the mid-mountain region and alpine meadows and the glacial tundra of the Himalaya mountains including Mount Everest in the north. The national parks and the wildlife reserves provide sanctuary to hundreds of land-based and aquatic animals, including many endangered species such as the one-horned rhinoceros, the Bengal tiger and the gharial crocodile and protect flowers, trees and other fauna, some of which are found only in the country. It is important that for sustainable development, development is as important as its sustainability. In the way it is self-defeating and harmful for any country to implement policies which harm the environment or degrade ecology, the opportunity cost of not getting more out of the resource endowment is high and gets higher with growing population and rising aspirations.

The terrain gives the country one of the highest, relative to size, hydroelectric potential in the world. Much of it remains untapped and the bulk of the population, which is rural, is dependent for energy on inefficient exploitation of biomass and forest logging. Community forests have helped to stem the damage to the environment through loss of forest cover (except in the ten per cent of the country's area which is protected). Multipurpose development of the country's water resources for power, irrigation and flood control could turn around the fate of one of the poorest countries and would help protect forests by reducing the cutting of trees for firewood and improve soil nutrients by diverting manure to the fields rather than use as an energy resource. Dam construction is usually sited where population density is low, so relocation would not cause the problems that construction of dams and reservoirs pose in other countries.

While Nepal's geographic location and terrain endow the country with some unique and extraordinary features, the country has commonalities with other poor countries. Like other poor countries, Nepal has to make agriculture more efficient so that the food needs of her growing population and the fodder needs of animal husbandry are addressed. While Nepal has protected biodiversity and the country's unique flora in its national parks and other protected areas, meeting adequately the country's demands for food and feed would release pressure on ecologically fragile areas. There is no greater challenge before the country than

producing adequate food and the necessary feed. Protecting the country's ecology and sustaining the environment would be an exercise in futility if millions of our countrymen and countrywomen continue to go to bed hungry, and even more have less than the necessary caloric intake. How do we implement measures which assure food to the hungry and the malnourished? There is no doubt that, in the way, the 'green' revolution reduced the numbers of the hungry, genetic modification (GM) provides the best hope for today's hungry and the malnourished. GM has the potential to improve the quantity and quality of global food production and to do so in food-deficit countries within the terrain and climatic constraints facing these countries. Nepal may be unique with its cloud-hugging Himalaya mountains but it shares poverty and a growing population with many other developing countries. Rainfall-dependent crop cultivation suffers from drought one year followed the next year or the year after next by heavy downpours which flood the farming areas. If GM could produce seeds which would give reasonable yields regardless of the rain pattern, stable local production would improve the food supply for the hungry and the malnourished. The main consideration in the use of any new technology is that product safety has to be ensured. More than eighty crops have been genetically modified and tens of thousands of field trials have been conducted worldwide. At the latest count, some 30 million hectares of farmland, more than a quarter of it in the United States, but also in over forty countries as diverse as China, South Africa, France and Argentina, grow GM crops, which include soyabeans, maize, rapeseed and cotton. The consumers in richer countries have every right to assess the environmental concerns and even perceived ethical issues in deciding whether to stick to food from organic farms, or diversify the menu from the output of conventional agriculture and additionally GM crops. The hungry and the malnourished have no such luxury when what they are being offered with GM food is not only more and safer product, but also improved processing and more value for less money. GM has advantages over natural conditions of crossbreeding: pest and herbicide resistance has been achieved in GM maize and soyabeans and genetic engineering has developed cotton and potatoes which resist insects. And there are tantalizing but realistic possibilities of potentially better nutritional content and targeted sensory properties. Food materials can be improved faster and at lower cost and GM allows more choice in selecting characteristics. In the longer term the farmer, the food industry, and the rural environment could benefit from higher yields with reduced use

of pesticides particularly where fertile soils make weed control difficult. Crops could be genetically engineered to survive in conditions of dry or excessive wet weather or frost conditions leading to ability to feed a growing world population at a reduced environmental cost.

Food value could be improved to combat nutritionally harmful and allergenic factors. GM rice rich in vitamin A content could prevent blindness in countries where rice is the staple diet. Breeding cereals with better proteins is a matter of time. Processing characteristics could be modified to reduce waste and lower food costs to the consumer. Rapeseeds with fatty acids more suitable for certain diets and virus-resistant bacteria in production of milk and meat would make the production process and the food safer. Thus GM could contribute to alleviation of hunger and malnutrition, while helping to prevent the otherwise inevitable pressure to take more out of the natural environment. Phytase is an enzyme produced by GM bacteria and its use for poultry and pig feed reduces phosphorus deposited in the fields, something which is positive for the environment. Genetically modified food has not been found to pose a greater risk than normal food, so with all their advantages, in the absence of problems in digestion or allergies, or damage of internal organs, or malfunction of the immune system among all possible health hazards, there is every reason for poorer countries to go for lower cost but more nutritive imports and cultivation of GM crops.

In the food-deficit poorer countries, too, it is possible as in the food-surplus developed countries for farmers to increase efficiency with minimal impact on the environment, for example through reduced use of weed-killers and targeted energy savings. With improved crop management, farmers in the poorer countries too could apply cultivation practices to preserve soil structure and the harmless fauna that live in it, ensure that the fertilizer and nutrients are applied in the right quantities and at the right time, protect crops by targeting pests and diseases whilst minimizing the impact on non-target insects and the environment and manage the protection of a rich diversity of flora and fauna. Farmers in the developing countries have to be aware that organic foods are generally more expensive than other foods as yields of organic crops tend to be lower and more labor has to be applied. Organic farming too has some negative effects on the environment: organic pesticides require careful handling to avoid killing field-endemic fauna and plowing and tilling can be more harmful than herbicides to creatures which

thrive in the soil and organic fertilizer can be toxic to earthworms and fish. But whereas GM is, in the rich countries, an alternative for recent practices, for the farmers of the poor countries GM is an important strategy towards greater efficiency and sustainability with higher yields of important crops such as wheat, maize, soya and potatoes and decreased use of insecticide leading to higher value of output for a smaller outlay.

While nature is unique to Nepal and, despite the constraints posed by a growing population and acute poverty, the country has protected biodiversity and the country's flora and fauna as part of the common heritage of mankind, the country is considerably behind in benefiting from the advances which, both for want of any better alternative and its product and cost advantages, GM technology can provide as food and feed. The unique terrain bestows an energy potential, which, if developed, could do away with the country's grinding poverty. Instead, life for the vast majority of the population continues to be much as it has been for centuries, dependent on the cycle of nature for low-yield agriculture and use of traditional source of biomass and firewood for heat and energy.

Food-deficit countries have fallen behind in improving yields at lower cost through cultivation of GM crops tried, tested and used for food in more than forty countries. Traditional cultivation practices, improved some through use of chemical fertilizers, for example, but not enough, could be replaced with cultivation of GM crops, which give higher yields with reduced costs of pesticide and fertilizer application. If these countries have been wanting in getting more out of Mother Nature in agriculture, the same holds for failure to develop the energy potential which, as an instance, Nepal's terrain makes available. Instead, the natural forest endowment and traditional biomass continue to be encroached upon for traditionally inefficient exploitation of energy. The poorer countries need to sustain the natural environment but they can do so only by making better use of their endowments by growing GM crops for more food and feed and developing energy sources which the natural terrain offers.

This paper has argued that any education, including education for sustainable development has to be grounded in a simple and uniform structure. Within this structure, a region-specific curriculum of education for sustainable development has to be formulated. In this curriculum, education and research have to be focused, as an example, on protecting the forest resources and the fodder needs

of the hilly districts, while the priority has to be on protecting soil erosion and the soil resources and the water needs of rain-fed and mechanical irrigation in the food-producing Terai plains. Sustainability and development are interrelated. To the extent that we can make agriculture efficient, the pressure on the natural environment is less. Generation of hydroelectric power makes available more efficient energy, which releases biomass as fertilizer, and the right choice of herbicide-resistant and insect-resistant GM crops provide higher yields at lower energy and financial cost. Education for sustainable development has to be in the organizational context of a Nepal-wide uniform structure but with a curriculum from the school level to advanced education which is region-specific. Development of hydroelectricity provides us the resources to sustain the natural environment which we have to give priority to.

On the Principles of Community School

Dr. Poorna Kanta Adhikary

Schools in the community

A few years ago, I was passing through a community in Lamjung, which I knew since my early childhood. I stopped by the local public school and inquired about its status. I was told that their enrolment in the lower grades was decreasing mainly because parents started sending their children to a nearby private school. When inquired about the reasons, one of the teachers replied *'forget about the others, me who is teaching in this school, am sending my child to that private school and not to this one.'* I asked: *'why?'* He replied: *'Very simple! The classes are not held here regularly. But there, they are done. Even as a teacher I have not much say in the way my own school is managed'*. I knew that the public school was opened and constructed by local people without any government support. Local people searched for teachers and recruited them from far away places as they could not be found locally. The community managed the school on its own. After it was nationalized according to the New Education System 1971-76, the management responsibility shifted to the government.

A quick appraisal indicated that the former students of the very school had become university graduates and then its teachers. They have also received

training on modern methods of teaching and school management. Looking at their qualification and home-based employment, there is not much to complain about their salary and other benefits. They look quite healthy and the school outfit looks quite good as well as it has sufficient furniture, a new roof, sports facilities and other educational materials. Everything looks fine, except that the classes are not held regularly. The teachers are often busy in party politics. There is often confrontation within and between teachers and students, which is influenced by party politics.

Similar appraisal of the private school indicated that the school was started by a few young people of the village out of disgust of what was happening in the public school. They collected some money from among themselves including personal loan as the community had encouraged them to open the private school. The school was yet far from having adequate facilities, teachers were not that qualified either, nor had they any training on the modern methods of training and educational management. Yet it was attracting large number of children and the enrolment was going up. The parents were taking the children out from the free public school and putting them in the private school paying Rs.200 a month. The difference here was that the classes were held regularly. And the parents have been visiting the school quite frequently and demanding the progress reports of their children. When I asked about the nature of the parents, the teachers told me that it was not only the educated and well-to-do parents who were demanding the children's progress reports but the poor and illiterate ones as well. This indicates that not only the educated and well-to-do parents value the quality of education but the poor and illiterates ones as well.

There may be a great deal of debate on what does quality of education means. But for ordinary people it does definitely means regular classes, responsible children who pass examinations with good grades. Nepali parents, rich or poor, educated or not, are investing in their children's education as they think that they should be placed higher in the society than they themselves have been and they believe that education does make the difference. When public and private schools gear for preparing the children to take them through the School Leaving Certificate (SLC) Examination, obviously society measures their efficiency in terms of comparative number of children passing SLC and the grades they receive. In this context, private schools have demonstrated very high efficiency compared

to the public ones as the passing rate is more than 80% for private and less than 20% for the public ones and the First Divisions seem to be more associated with the private compared to the public. One could argue that passing exam is not necessarily a measure of quality education of a child. No matter how much of righteous assertion one may have in this opinion, for the common public, it is the only indicator that is available to them to measure the efficiency and effectiveness of school education. As a result, many parents, especially the well to do ones, started rejecting the public schools by putting their children in the private ones. This has resulted in the class education in Nepali society and is developing a deep division within. This leads to serious questioning on the accountability of the teachers and the related education administrators and managers in the public education system and the rationalization of huge public expenses in education.

Community participation in school building

During the later half of the eighteenth, the whole of the nineteenth and first part of the twentieth centuries, Nepali people, although being the subjects of an independent nation, were kept in total darkness by their feudal rulers when scientific, technological, socio-economic and political revolutions were taking place in the countries of Europe, Americas and Japan. Only after the revolution of 1951, when the Rana Regime was thrown out and both Nepalis and foreigners could move freely in and out of the country, then the people realized their level of illiteracy and backwardness. Then their spontaneous action, often without any government support, was to open school in their own communities. There was both immense cooperation within and competition between communities in not only opening the school but also in its management. The decades of 1950's and 1960's marked the golden age of education development in Nepal as it was a big movement which not only conscientized the people but also empowered them to transform their own praxis. People had already started questioning on what goes on inside the classrooms demonstrating their concern on quality of education of their children.

People had built up and managed not only the schools in their communities but also higher institutes of learning by opening colleges in several parts of the country. Curtailing their basic needs people invested in education development, which was considered as the topmost social, political and spiritual task of the time, which generated a great deal of financing through voluntary contribution

based upon individual capacity. The school was regarded as a secret and common place for everyone. The children of rich and poor, different ethnic and dalit, communities went through the same schools. The schools were the rallying point of all sections of the society. The above movement was totally halted in 1971 by government's nationalization of the school system as a part of its program of the New Education System (1971-76). Whether this action of the government was motivated by the interest of controlling the educated elites by the authoritarian Panchayat Regime, or by making the teachers' government salary scheme as lever against their free actions or that a few within it felt the responsibility of the state to provide education for all, the government action snatched the schools away from their community bringing an unprecedented alienation between them.

This action of the government had both positive and negative effects. Positively, schools were open even in those areas where the educational movement had not reached as yet. Negatively, it created alienation in the communities whereby the schools opened and managed by the very people became foreign to them. The teachers' attention, instead of being focused on the communities they were working for, was drawn away to district headquarters and then to the Central Ministry, Keshar Mahal. As a result of student movement of 1979, when the government controlled mechanism on teachers failed, the state started becoming indifferent in managing the educational sector that resulted in anarchy and breakdown of the public education system. It has become worse, when teachers were allowed to participate in party politics indiscriminately which has resulted in loss of everyone concerned except for some political party leaders, who have mobilized them as state-paid but free-for-them volunteer workers. This is the reason, why they are getting into cross-fire during the last few years of armed conflict in Nepal. As a result of which some teachers have lost life, many have been mutilated and/or displaced, and many schools in the countryside are going without teachers.

State and its responsibility

The Russian Revolution and its initial success in social transformation attracted many of the newly independent countries in the third world. Many of the third world leaders like Jawaharlal Nehru of India tried to adopt mixed economy by bringing into certain elements of Soviet socialism in the socio-economic sphere into the super structure of the western liberal democracy. The state corporations were

established under this scheme. Many elites of Marxist orientation were also drawn to support the Panchayat Regime in Nepal by the idea that it is only through the authoritarian system egalitarian principles can be implemented. This could be one of the premises of the New Education System adopted in Nepal in the seventies. Although such attempts in the beginning have demonstrated some success no doubt both here in Nepal and elsewhere, their sustainability has been questioned mainly because they are found to clash with the long feudal traditions. Even after the restoration of democracy, no matter what the principles the party leaders carry on their party manifesto, they are found to be domesticated themselves in feudal traditions. The rule of law has been quite far from practice. Instead, it has given birth to worse form of corruption, nepotism and neo-authoritarianism. As said by the world famous educator Paulo Freire, oppression does not end just by replacing the seat of an oppressor by an oppressed.

When the Soviet Socialist System, claiming state security of everyone from the cradle to the grave, collapsed after only seven decades of practice, many of the 'egalitarian' programs based upon authoritarianism following the same principle, have gone down the drain. This has raised the question on the very definition of the state and its responsibility. What do we mean by the state? What should be its structure? What should be its responsibility? By not being able to answer these questions adequately at the operational level and at the same time the emergence of corrupt and neo-authoritarian practice of the leaders in power even after the restoration of democracy has created such an immense pain and alienation in Nepali society, which is unprecedented in the country's history.

Redefining the state: A paradigm shift

It is true that the value '*state as being the benevolent benefactor as operationalized by the government alone as the doer*' is a dead notion. For this reason, in the name of socialism such a dead notion cannot be carried for ever. In fact 'socialism' as a tool for social transformation needs a new definition, which requires redefining the state as well. Unless one can come up with a clear operational definition of the state and its functions and responsibilities, one cannot think of community school, community irrigation, community forest, community road or community water tap and so forth. It is where there is an urgent need for 'paradigm shift' in our thinking process. This 'paradigm shift' dictates us to change our perception

of the state as a mono-centric model of governance to poly-centric model of governance, where community based organizations, local elected bodies, civil societies, political parties and trade unions, governmental/para-statal/non-governmental/private organizations have their specific roles to conscientize and empower the people, who are both the subjects and focal points of social transformation. All these are the institutions of people themselves, which have their precise roles and responsibilities and should be guided by the principles as mentioned below.

Guiding principles

1. People are sovereign, who are responsible for their own social transformation (development). They are not mere recipients of some benevolent benefactors. Rather they are the main actors and the focal point of all the development programs including education and health, which are meant to enable them for their social transformation. Obviously those people, who are not active on their own, need to be activated for which, participation of different institutions with clear roles and responsibilities is required to organize, conscientize and empower them.
2. The role of the community based organizations like users group, teacher-parent organization, school-management committee is to conscientize the local people and organize for their social mobilization in collective action and manage the specified tasks.
3. The function of the student and teacher unions is to see that teachers have kept themselves up-to-date through their professional development and that teaching is relevant and of desired quality to meet the students' and societal needs.
4. The role of the national and local civil societies is to draw attention of the citizens, government and other collaborating partners to see that equal opportunities are provided to all communities and wherever necessary act to conscientize and facilitate the concerned people and the service agencies.
5. The function of the elected local government is to facilitate and coordinate relevant agencies to mobilize the related resources, services and opportunities.

6. The role of the district based governmental/para-statal/non-governmental/private organizations is to support the people through mobilization of the needed human and material resources.
7. The role of the political parties and trade unions is to bring all concerned together in one platform so as to facilitate their collective action.
8. The role of the national and international donor agencies is to assist the people indirectly but through the above mentioned intermediaries.

Thus all the people's institutions have their own roles and responsibilities to support for people's action for social transformation. For this reason, any development program, education, health or anything else becomes the synergy between people's humanistic political activism and technocracy that transforms their praxis. This way mono-centric state in the form of government as the sole doer gets transformed into poly-centric state in the form of various institutions of people, which have their specified roles and responsibilities to support people to transform their own reality through their own active participation. Here the government becomes the facilitator of development process.

People's activism as a practice of liberty

The old notion that the government is the state and as a benevolent benefactor, it has the responsibility to provide the entire needed social and development services to its people, who are mere beneficiaries, is very simple and appealing to subscribe. But this notion is authoritarian and paternalistic and as it is, it never allows people to be independent and free. It makes people as objects totally dependent upon an abstract body called state and hinders them to take their own initiatives for change. This is the anti-thesis of democracy and liberation, where people as subjects are expected to take their own initiatives to act freely and independently, so that they take the responsibility to change their own praxis. If one views education or development as a process needed for liberty of people not only from the fulfillment of their basic needs but also from psychological and philosophical ones, then this notion of the state as the only authoritarian benevolent benefactor has to be rejected. No matter how much appealing the authoritarianism is and threatening the liberation is, from the holistic point of view of liberation and democracy, the mono-centric authoritarian sectarian state

has to be transformed into poly-centric pluralist democratic one. Internalization of this assertion is a must if Nepal has to live together with the family of nations in this changing and competitive world of globalization.

This author does not see much difficulty to internalize the above assertion as Nepalis have already demonstrated that they have the capability to reverse the process of desertification through community forestry program. The ill doing by the authoritarian state through the nationalization of forest has been corrected by the people, as the community forestry program made efforts to utilize the internal capability of the people. There are many other examples of success in Nepal. The green-road construction approach has demonstrated enormous internal capability of people to construct community roads, which are not only cost effective and environment friendly but also deeply engraved upon people's ownership of the whole process. Here the people act as active subjects to engage themselves in transformation of their reality and take not only to construct the road but also its maintenance. It is very interesting to observe this process as a very high degree of informal education takes place among them while they engage in dialogue while participating in the process of situation analysis and planning, which in itself is a conscientization and empowerment process. The education sector, which is being totally destroyed since last three decades by government's nationalization drive can only be corrected if the community is trusted to manage their own schools. In fact every educational institution right from the primary to university should be managed in an autonomous manner. For this first of all, one should be sincere enough to internalize the notion of poly-centric governance and demonstrate the political will to operationalize it.

Conclusion

It has already been discussed above that people are the actors themselves and are at the center of the social transformation process. It is also being discussed that the various institutional frameworks within the poly-centric state have their active roles and responsibilities to support the people in the process. Despite the fact that the majority of Nepali people, especially in the rural remote areas are illiterate, one cannot undermine their innate capabilities for their own social transformation and treat as if they are the empty cans and waiting for someone away from the Center to pour the wisdom of water to fill them up. One should

not forget that the people who took initiatives to open and manage schools in rural Nepal during the 1950's and 1960's were the illiterate ones. It is their intrinsic motivation and desire for social transformation, the educational movement in Nepal had taken place. It is for this reason, it is essential for every educator, political leader, administrator, foreign advisor, social worker to internalize this and act accordingly.

The gaps and shortcomings in the above is the common problem for many countries like Nepal in the world today. Nobody is an empty can nor anybody, can claim to be a full one. Everyone is half filled as nobody is perfect. It is only the cooperation of all concerned that can bring about a change which should not only be desirable but also realistically achievable, sustainable and equitable. It is only through the collective practice that can challenge the repressive authoritarianism so as to liberate everyone concerned from its domestication, to transform the praxis for liberation of all by adopting pluralism and democracy. Those communities who have adopted this notion have demonstrated success, which seems not very easy though but definitely possible. It is only from this point of view community school makes sense not only for education development as such but also to act as a vehicle for liberation from all kinds of suffering—ill health, ill-habitation, hunger, unemployment, etc.

Education and the Challenges for National Development

Dr. Radhaber D. Khati¹

Introduction

For many years before the emergence of democracy education was considered as a distinctive feature of public honor, and it was defined an upper-class constituency. It was definitely a luxury for a few elite, but could not be craved for by the rest of the others. Provision of education was there, although to a very limited extent and that was only for the study of Hindu and Buddhist classics. It was only after the national awakening that the country began its drive for social and economic development. Then, education was begun to be perceived as a means to expand the number of skilled manpower and raise the level of trained personnel. Thus, with the inception of Trichandra College in 1918, and mainly after the incorporation of a national university in 1959 that the country made a remarkable stride in the field of education at higher levels.

Educational development does not have a very long history of its own in our country. The geophysical and sociopolitical factors are to a greater extent responsible for this delayed realization of the importance of education. This had made us wait for long to unveil the gloom of ignorance, which

¹ Chief, Research Division, Tribhuvan University

actually was uncovered with the emergence of democracy in 1951. Till then, education, especially higher education, was considered something to be a luxury for a few higher ups, but for the greater masses it was something hard to crave for. It was only since 1951 that the country actually launched a drive for educational development.

After the advent of democracy the nation was, all of a sudden, exposed to the varieties of social and economic challenges that were stockpiled for centuries. Challenges that are linked to educational development are emphatically dealt with here. Challenges that education in Nepal has to face are due to factors that are divided into these three categories; Social, Cultural and Economic.

Box 1: Selected factors linked to educational development

1. Social factors

- i) Lack of access to educational opportunities
- ii) Historical perspective
- iii) Social discrimination
- iv) Rural urban disparities

2. Cultural factors

- i) Female dependency
- ii) Traditional ethnic, caste diversity
- iii) Traditional belief system

3. Economic factors

- i) Class background
- ii) Problem of inequality
- iii) Traditional agricultural profession
- iv) Education and unemployment

Lack of access to educational opportunities

Education system and policies will have regressive character if they favor only the urban population and middle and upper-income groups. Equalizing opportunities for the access to education is a necessary pre-requisite to ensure social mobility through education. Amount of disparities among the people at large, due to unequal distribution of educational opportunities

basing on sex, socioeconomic status, and different regional, rural, and urban backgrounds, could only be decreased by adding more realistic approach to educational planning. But, the things were not what they were supposed to be. Efforts to expand and equalize, particularly, higher educational opportunities have been facing many constraints in our country. Lacks of financial, physical and human resources are some such restrictions that make the construction of buildings, supply of books and equipment, and the provision of qualified teachers the difficult and costly tasks.

Educational opportunities may be equalized to a certain extent by adopting appropriate methods of selection and promotion, such as 'quota system' or by improving the methods of educational finance. Broadly expanded educational facilities are simple but effective means of ensuring mass participation, particularly, in lower levels of education. This is, especially, where physical proximity is a major factor in determining the number of school goers. At the higher levels decentralization of educational opportunities is an imperative in the sense that it will control rural-urban flow of population, narrow down regional gaps and lessen disparities caused by low socioeconomic status. Therefore, in order to face the challenges of improving the access to education, improvement in the necessary mechanisms to meet certain level of educational needs, like the mobilization of national and local resources and working out effective planning in setting up education center, must be taken into serious account.

Historical perspective

Up until the very dawn of democracy (i.e. 1951) there was virtually no any central office to administer and supervise nation's education system. As late as 1953 a national inspectorial system was established to maintain some records of schools, even if there were not any uniform system of records and record keeping as far as education is concerned. As a matter of the fact there was no any national system of education in Nepal prior to democracy. Even the census of 1952 does not have to say much about it. Later on Nepalese education began to be organized and controlled by the central level administration instituted nationally. Curricula of some of the schools were framed in accordance with the system adopted by the schools of Patna. Higher education in Nepal itself was, to a sufficient extent, an offspring of the

system of Patna University, itself. Gradually, new schools began to be opened at various places of the kingdom. Initially, the schools were divided in three categories:

1. Government schools, or those supported and administered by the Central Government
2. Government-aided schools, or those started independently, but receiving various amounts of financial aids from the Central Government after meeting certain standards put by the government;
3. Independent schools, or those operating independently, both financially and administratively.

Not only that the schools in the initial stages after the emergence of democracy were very few in Nepal and that too were only in the urban areas with relatively denser population, the teachers were also very scarce to be employed. In the case of the unavailability of any Nepalese teachers for the schools the teachers were recruited from India. Since the schools were localized in the towns and were catering the children of the elite, the poor masses of the people and also those residing in the villages were utterly devoid of the opportunities of education. Educational equipment was very rare in schools. Schools themselves were not adequately built. Most of them were thatched and were equipped with bamboo mattresses. Schools were closed when it rained or when it was too hot. First schools were opened in the open rest houses nearby the temples.

Of all the most serious shortage of educational equipment were the textbooks, especially, those written in Nepali. Initially, Nepalese students had to read books written in Hindi and produced in India for the school children of India. Gradually, some chalk-board entered the schools, but charts, maps and globes were still rare.

Curriculum of these schools varied considerably. Curricula of some of the English schools were patterned after those schools in India, which in turn is patterned after the schools in Great Britain. Therefore, the English education in Nepal is termed as the third-hand version of a system that was originated in Britain, came to India and, then, through India, came to Nepal.

One of the things that the country was able to obtain as an outstanding gift of democracy was the growth of educational awareness among the people in general. This wave of educational awareness, which gradually increased after the advent of democracy, had an important impact on the overall development of education and the country itself. Consequently, a number of schools and colleges were opened in a rapid succession. The swift expansion of higher educational establishments throughout the country is demonstrated by the fact that there were as many as 14 colleges with 915 students in them in a matter of just three years from the advent of democracy in 1951. The number rose up to 61 TU constituent campuses, 122 affiliated campuses under TU, and four other full-fledged universities.

Public demand for greater access to higher education is still rising. With an increase in the number of colleges within the country, the government, which was taking the total financial responsibility of higher education, thought to introduce a policy that would divert certain portion of higher educational expenses to the private sector from it. But, the major higher educational policy decisions were still in the hands of the government.

Social discrimination

Traditional concept, “*education has a limited benefit and that is too to the upper class of people,*” was a widely accepted belief among the people in Nepal. Children who by birth happened to be of certain castes or class of family could profit more than those who were not. Education carried potential risks to the lower caste children, in almost the same way, as it was a threat to the upper and the ruling class. It was a risk for the lower and the working class because it would drive them to active dissatisfaction leading to much higher expectation, rather not normally achievable, to result frustration in the mass of the people. But it was a kind of threat to the upper class of people, especially, for the reason that if education benefits the lower masses they would forget their traditional lower status and would try to snatch the power, luxury and comfort of the upper and the ruling class. The reason behind the upper class people’s wish of education for their children was basically lying on the belief that if education is made available to everybody equally, their monopoly in the access to better opportunities in the future will be lessened or even lost. It was not

customary for the upper class children to compete the lower or suppressed class who could be the counterpart for the same opportunity. The upper class or caste of people always wanted some kind of social discrimination or segregation to exist in their favor.

Rural urban disparities

The problem of education in the rural areas still persists even after the emergence of democracy when the people in general need to be getting increased awareness about their rights and the consciousness about the role of education. People in the rural areas, where majority of them reside, still seem to prefer education lesser than anything else. The reasons for all these could be the following:

- Centralized educational administration system
- Lack of modern means of transport, easy physical inaccessibility, poverty and unaffordability among the rural masses for education
- Traditional social beliefs of the rural people
- Lack of qualified teachers and their reluctance to go and be there as depute
- Absence of physical facilities and comfort in the schools to attract teachers
- Regular mobility of the remote-rural and highland people

Due to having schools concentrated in the urban areas in the beginning people got misguided by the very concept of education. For them to give education of the secondary level was something like giving their boys a status to leave the traditional parental profession and the village itself. It was also for this reason why qualified teachers were not easily available for the village schools, when required. Therefore, due to the causes like the lack of educational awareness, unaffordability on the part of the parents to meet their children's educational expenses, bleak job opportunities for those who graduated and also due to the long prevailed belief of supremacy of destiny, the rural people could not get benefit from education.

Since, the country's financial resources were so limited that it was very difficult for the government to provide school facilities to the villages. It did demand greater financial and moral commitment on the part of the government to sufficiently run even the primary schools in the rural areas. Not only the educational logistics were to be supplied to the village-schools from the towns, the qualified teachers also needed to be made available to those schools from the towns with 100 or more percent of extra allowances, in addition to the regular salaries. An extra effort is needed on the part of educational administrators to make sure that the teachers stay where they were deputed, on top of evaluating their job performance. The financial burden to the family, when youngsters go to the school, is far greater than most families in the rural areas could adequately afford. This is the money that the student could have saved. Not only the tuition is saved, but, expenses on books and stationery are also saved. Besides, the rural boys could earn while at work. So the huge economic back-up measure is needed to be adopted if to send rural children to schools.

Cultural factors

Female dependency

Females are more adversely affected members in the family structure than males in the traditional male dominated family system. This was because the males coming from higher or the wealthier classes of society already get some sort of education inside the country or outside it. At least they could get education in not so expensive educational institutions in India, like those at Allahabad, Calcutta or Banaras. The educationally equipped males get jobs relatively easily and are more capable to earn their fortune. But, the females having restrictions on all these frontiers have to remain all inside the home. Thus, they happened to be under the financial dependency of the males. Besides, males are the owners of parental property and the earner of bread, women only share the expenses at the pleasure of her male partner. This makes her to yield to the pressures at this male dominated familyhood. So, the more the women are uneducated the more they are under

the pressures of the males and lesser they enjoy their equal position and power with her male counterpart.

Traditional ethnic caste diversity

In a nation like Nepal with lots of class and caste divisions, several social and ethnic problems arise calling for conflicts between the opposite concepts. They may range from untouchables to inter-caste-marriage and from polygamy to slavery. These things are so heavily merged into the society that merely one or two slogans, however radical they might look, seem not to drive them away. In Nepal where racial differences based on caste corresponding to socioeconomic status exist, it is hard to find the ideal of equal opportunity to educational development practiced in a form of equal access to the social and economic opportunities to be provided by the nation. As the socioeconomic status was the base of what social and educational opportunities one would get and what social position one would obtain, it is very difficult to completely root out that tradition just with one or two strokes or even within a short time like this. The real feeling of equality in the field of education is still a distant phenomenon even half a century after the emergence of democracy in the country. This may be the lasting impact of the traditional social system and the traditional social norms that have been carried on in our society till today.

Traditionally, the number of children from the upper class and castes like Brahmans and Chhetriyas always remained to be high in the schools, whereas, those of the poor common peasants scatter around. Even if they attended the schools, they generally got discouraged by their peers, parents and the family to continue education after two or three years of schooling. In this way, they leave the school before completion and join family profession, i.e. work in the farm, herd cattle, or do other similar labors that the rest of the people in that area do to contribute to the family income. Thus, the dropout rate was much higher than it is now, among the peasants' children in the schools where they attended. However, those few still fortunate enough to continue the school show their attendance that is quite often interrupted by numerous family demands.

Traditional belief system

Another important problem that education is facing in the rural Nepal is the traditional belief system that was at the root of every village community, “*what is lotted cannot be blotted.*” This belief still plays a prominent role in the life and the activities of most of the Nepalese. This has led the Nepalese to be satisfied with the status-quo, since they believe that “not a single leaf is shaken without the wish of God.” Any miracle could happen if He wished, and man does not have any control over his own destiny. Origins of these beliefs probably lie deep in the Hindu-Buddhist influences.

The class and caste-based norms are further backed by the religious influence on the society. In a country like Nepal, where people are so much devoted to religion and that devotion is so deeply rooted to the life of the general people that they cannot even imagine to raise their voice against this culture. They, rather, tend to blame themselves for being so fated, because of their own sin probably committed in the past life. Their belief that the sin committed in the life before must have revisited them now for their being born in such a poor society that is made to suffer all hardships. Just on the contrary to it, the well off people might have felt that their relative rich and comfortable life must have been due to some virtues that they had done in their respective past lives. The basis of this belief is that whatever they sow they reap.

Economic factors

Class background

The socioeconomic background of a student’s family appears to be a very significant challenge negatively influencing public participation in the development of higher education in Nepal. The financing of education is a powerful policy tool to determine the distribution of financial burden of education. Schemes for expanding educational opportunities, improving the quality of education, building national capacity of educational management and educational planning and research are often hampered by limited

resources devoted to education. Financial resources allotted to education are not only restricted to public revenues. They include expenditures of parents on their children's schooling- for fees, books, clothes and so on- and contributions from local communities. In spite of all these, an adequate government subsidy in the form of aid is essential to encourage the participation of unprivileged groups in education. Anyway, it has become quite evident that the rate of government subsidy is high in the development of education, particularly, that in higher education. It is with this reason that the burden of financing the regular and development costs of all national educational institutions, especially, those of higher education has in most cases, till now, fallen upon the government resources.

Problem of inequality

In a country which is so impoverished that neither the government can facilitate every locality, rural or urban with schools free for children, nor the schools can run without government subsidies and without fees raised from the students, nor even the children or their parents can pay fees. In Nepal where the basic needs are still the food, shelter and education, the general masses have still to stay satisfied at a lower key. The poor peasants living in the rural areas having no regular resources for income can hardly afford any money for the education of their children, and the children themselves in the schools have to sacrifice their time to be used which they could have used in family or the farm related works, otherwise. Therefore, besides, regional disparity, poor peasant's inability to financially afford to the educational expenses of their children further emphasizes the issue of inequality already present in the country.

In addition, financial inability among the poor peasants leading to the unequal distribution of education in the country, there is another big factor that is hindering their children from being admitted or retained to the schools for long, without being dropped out prior to the completion of a certain course or the level. The question whether our course contents taught in the schools, so far, are practically useful or relevant to the real world demands in the society to boost its economy and, thus improve the status of the people socially suppressed, still need answers. Often times, it is being expressed by the parents that the foreign looking and heavily

academic centered education, as if imported from the rich and the highly developed countries of the West, is made to be imparted to the students in schools and the colleges. They are not only costly to the normal Nepalese purse, but almost impractical for the solution of the real life problems in this country. Parents have raised doubts whether it is reasonably appropriate to invest their hard earned capital on their kids in schools, since they see no special prospects of their kids to get employment to earn at least the comfortable living even after years of expenses in such type of schooling. This wide spread dissatisfaction on the present education system gives enough room for our system of education for an appropriate change. In keeping with this, steps have been taken to revise the old policies of education in the recent times, especially, after the revival of democracy in 1990.

Traditional agricultural profession

The continued dependence of people on agriculture is mainly due to the slow development and the bare expansion of non-agricultural sector activities in the country. Opportunities for the diversification of the occupation are quite limited in our context. This is truer, especially, in the rural situations where people have very few or almost no alternative occupation to take that would replace agriculture. The situation for the common people in these places is that either they get involved in the traditional and less sustainable agricultural profession or get themselves unemployed. Due to this very reason that the people go to agriculture, even knowing that this will not give any lucrative return. One more important problem with the rural society is that neither the youth are equipped with the skills that are required for any technical or vocational professions, nor do they have any convenient opportunities to acquire them. Quite meager attempts were tried in order to produce lower level manpower. Provision of facilities for skill training was thought to be introduced earlier in order to produce vocationally trained manpower well within the locality where they are needed. But that job was initiated only in the 1980s by the opening up of technical and vocational schools in some of the remote rural areas like Jumla, Jiri and Dhankuta. Although, the full impact of this scheme is yet to be seen, but the initial results is not too satisfactory.

Education and unemployment

The term equality is very nice to hear, but the true spirit of it is rarely practiced in the modern time, even in the developed world. The matter of the fact is that some are close to it; while others are not so closer. Until the recent past, education's intrinsic value was not a part of habitual Nepalese conception about it. For a considerable time in the past it was conceived to be the property of the western world. Since, the people are living in the traditional agricultural life in the rural society, they rarely require any advanced educational expertise and degrees to perform their agricultural professions, which they take from the parents, thus, making the role of education not very starkly apparent. For them it was a waste of time, money and the energy, with virtually no practical financial benefit. For most of the poor rural boys it was better to remain uneducated and with work than to spend rarely earned money for an educational degree and get frustrated for not being suitably employed.

Educated unemployed people are more of a problem in the rural society than the uneducated unemployed. The return that the parents want from their educated boys is somewhat different and somewhat extra than the benefit that they get from the uneducated ones. Since, those uneducated do not incur any extra expenses on the part of their parents, the parents are satisfied with whatever he earns or do not mind even he does not earn unless he supports the family's traditional agricultural or pastoral works. It has commonly been seen in the villages that the secondary passed and unemployed son is more a burden for a poor family than a boy who did not have any educational diploma or a degree, whatsoever, but does the farm or household works. The reason is that the former hesitates to take up the traditional jobs of the family, whereas the later does not mind it.

Now it is already a high time to overcome this challenge for national development. If education were to be seen as the very foundation for sustainable national development, which is what it is, a national level commitment needs to be made by those national leaders occupying different crucial sectors. They also need to garner wide and constructive support from the general public who might be divided into so many pockets now. A general awareness among the common people about the benefit of education and how it

could bring about a lasting development in the country must be generated by those who have more exposures than many others. Even if it is not that easy to overcome all the above challenges that the present educational endeavors are facing, but, if all of us are sincerely effortful towards it and work with greater enthusiasm no challenge is too difficult to overcome.

Depoliticising Education

Dr. Raman Raj Misra¹

Introduction

The acceptance and verbal importance given to universal education after 1950 by the State has not produced the desired effect up to date. Hence, this paper deals primarily with one of many causes that seem to adversely affect the education system in the country. The problems in the educational sector, both public and private, are no doubt many. Scarcity of good teachers, financial limitation of subsidised education, problems associated with management, lack of requisite infrastructure, scarcity and cost of textbooks, etc. do provide many hurdles. However, politics in education have had more a damaging effect than the restrictive effects from other constraints within the education sector. Hence politicisation of educational institutions is considered here as the primary problem not only restricting the growth of quality education in this country, but also retarding the whole education system.

Currently, national politics have not only disrupted education from time to time, but now threats are being made to completely paralyse the entire educational system in the country. In such unfortunate circumstances, the capable will have no alternative, but to seek educational services from foreign countries, mostly

¹. Freelance Consultant

India. Those hapless students who may not be able to get the benefit of foreign education will no doubt be contributing to the future menial level of manpower in our labour force. As the latter type of students will be more numerous, this will no doubt adversely affect the quality of human resource in this country and hence our long-term development. Hence the focus of this paper is directed towards politicisation of education.

Growth of education in the country

Religious institutions from earlier times had undertaken to impart education in the country. However, it was not based on the principle of universal education. Select caste and groups were catered to by such religious institutions. Even then the paucity of such educational institutions had made many to go to India particularly in places like Banaras (then known as Kasi) for higher education.

Later, the government during the Rana period established few schools and a college, specifically in Kathmandu. Such schools catered primarily to the children of the elite. After 1950 the expansion of schools and colleges was facilitated both by the government and private (including missionary) and community efforts. Such expansion catered to the educational needs of larger segment of the population beyond the confines of Kathmandu valley. However, the coverage was not uniform throughout the country.

Nationalisation of educational institutions after 1971 enabled the establishment of schools in many remote districts. But this tended to discourage private and community initiatives. The 'educational reform' of the seventies, with generous technical and material aid from the United States of America, tended to be more disruptive, particularly because of the dearth of technical (educational) manpower well-versed in the American system of education.

After 1980, the State began to relinquish to some extent its monopoly and control over the educational system. Private schools, particularly with the initiative of foreigners from Darjeeling (India) were being established. And after 1990 private schools (commonly referred to as boarding schools) have expanded considerably. Similarly, private colleges and universities have come into existence.

Consumer demand in education

Education has been perceived as a means of improvement of one's life, particularly as it enables employment and earning. Education among the general populace was never perceived as the means for the pursuit of knowledge per se. Ancient Sanskrit adage associates education as a means to wealth. Education, patronage, wealth, dharma and happiness are said to be causally related.

Today, it is generally believed that education enables one to get better employment. And that better or quality education entails better employment. Hence the consumer demand has been for quality education. The assessment of quality education are made by the consumers of education (that is, those who seek to be educated or to educate their children), by their preference or choice of the type and place of the educational institutions in which they seek to be enrolled.

It has been the tradition for Nepalis to go for education outside of the country. The trend initiated, in the beginning, due to lack of sufficient educational institutions within the country, especially for higher education. However, this tendency has been maintained in spite of the growth and availability of educational institutions in the country, indicating the preference of those who seek to receive quality and useful education.

Hence the first consumer preference has been for education in foreign countries. Within the country, the preference has been for private education. The public (government) educational institutions receive the least priority. This is attributed to the lower quality of education within the country, and particularly in the public education, even though the cost, heavily subsidised, is lower in the public educational institutions.

Politicisation of education

Politics have been seen as one of the greatest hurdles in the development of education in this country. Prior to 1950 the education was coveted by the high castes and selected elite. The masses were systematically discouraged from acquiring general education. After 1950, the State undertook to expand

education and also private and community initiatives were discerned to contribute in enhancing education in the country.

After 1971, the State took the sole responsibility (or burden) for education, but eventually began to relinquish its total control by the eighties, as the limitation of monopoly without civic participation were beginning to be discernible. The educational committee report of 1980 did recommend gradual encouragement of private initiatives in education. During the thirty years prior to 1990, political parties opposed to the system began to infiltrate the educational institutions and covertly began to mobilise teachers and students for political purpose. At the same time, the State also attempted to use the educational institution to indoctrinate and to counter the moves of the political parties by creating its own student union.

With the advent of democracy after 1990, the earlier trend towards politicisation of education received further impetus due to open and free atmosphere. The unions within the public educational institutions, whether of the teachers, workers or those of the students, openly declare themselves to be affiliated to the main political parties. The fact that there are many teachers, educational workers and students organisations instead of just one indicate that they are formed not to protect and further their professional interests, but to cater to the interests of their respective political parties.

The political parties have thus infiltrated and vitiated the public education institutions to use them for political purpose. They have been successful in utilising the teachers, professors, and students to further their partisan interests. Thus degradation of public sector education due to politicisation has naturally lowered its quality, as is seen from the recent SLC results. Had it not been for the private schools, the percentages of those passing the SLC examination would have been very much lower. The growing percentages of failures among the public university students also seem to indicate the falling quality in institutions of higher learning.

The dereliction of duty by the partisan teachers and professors in the public educational institutions precludes any possibility of improvement of such institutions. The public sector education in Nepal has thus been successfully sabotaged with no discernible possibility of improvement. It is no wonder that

the people seek to educate their children in private schools and colleges even though the cost is much higher than those of the public educational institutions. (see also, Dr. Purna Kanta Adhikari: Kantipur Daily: 31 July 2003, pg. 6.)

The private sector, however, had remained impervious to such political machination. Perhaps this is why the private schools are being targeted today by the political parties. Disruption of education has already begun. Political parties via their student organisations in the public educational sector and the activities of few economically incapable parents have targeted the quality schools of this country and are likely to continue to do so. Such systematically and periodic disruptions have made many to prefer educating their children in foreign schools. This, in turn, is bound to restrict if not retard the growth of quality education in the private sector within this country.

Those not associated with the private educational institutions make political onslaughts on the private sector educational institutions. And such organisations rationalise their violent actions purportedly on the grounds of their high cost. Such dictatorial demands will, if actually implemented, deprecate the quality of private sector education to the level of the public sector educational institutions or force them to close down completely. In either case the educational system of this country will be successfully damaged even more.

However the actual motive of political parties in targeting private as well as public sector educational institutions seems to be guided solely by their desire to create difficulty to the government. As Keshab Sharma had observed (The Kathmandu Post: 22 August 2003, pg 7.) the seemingly justifiable demands of the politically affiliated unions in the public educational institutions are raised only when there respective parties are not in power and not while they are in power.

Cronyism

The practice of cronyism, or to use the Nepali word, *afno manche* (one's person) is also intimately related with politicisation of the educational institutions. As Dor Bahadur Bista in his book entitled *Fatalism and Development*, had clearly explained that cronyism has been an inherent and well-entrenched practice in Nepal. At least in the Rana period the practice associated with cronyism was openly declared

without qualms and the system was designed to accommodate such practice overtly. In the post-Rana period, hypocrisy prevails and admission associated with the practices of cronyism is generally camouflaged, and yet still practised.

Nevertheless instituting one's party-men and cronies in positions of vice-chancellors or deans or as teachers and lecturers prevail. This struggle for coveted positions in the educational institutions generates its own political dynamics within our educational institutions. Qualifications and performances are subordinated in favour of cronyism. At times student unions of the related political parties are mobilised to coercively oust or retain or install certain individuals, purely on the basis of cronyism.

When the qualification, performance and experiences are ignored in favour of partisan and cronyism then naturally the quality of education is depreciated. When considerable energy is consumed in politicking for positions of favour, the concern of academic performances is ignored. Lack of transparent criteria and establishment of durable criteria for selection and positioning precludes the possibility of improvement of quality of the professors and teachers. Durable criteria or rules and regulations are rare because in Nepal the rules are not made to be broken as much as they are made to be frequently changed whenever one's vested interest requires.

Babu Ram Neupane has pointed out (The Kathmandu Post: 22 August 2003 pg. 7) how politicisation has also brought about tussle between teachers in the Tribhuvan University. The practice of hiring instructors on contract basis was postponed some two years ago, apparently due to "conflict between the central and the local leadership. The seats supposed to be filled up by persons close to central authority were duly or unduly allocated by campus chiefs to their sycophants." This had its own ramification in that some 4000 part-time teachers throughout the country are said to be agitated.

This state of uncertainty of the part-time teachers will naturally affect the education of the students. Making rules, suspending rules or postponing their implementation or altering rules is a practice guided by political consideration associated with cronyism. Facilitating and conducive atmosphere for quality education can never be created with such practices when uncertainty, is promoted by contorting rules and regulations in an ad hoc manner.

In recent times the various unions and organisations within the educational institutions have not only been utilised for disruptive purpose. The students have been used to vandalise public properties including the educational infrastructures. Further, students have also been used as agents of extortion. Now education does not consist of the content of the curriculum. Such activities will contribute towards their practical education. What sort of future citizens are we unwittingly producing when coercion, violence, vandalism and extortion are shaping the minds and character of our students?

Conclusion

Given the present scenario one can not but be pessimistic regarding the products of our educational system mediated by political parties. In this age of globalisation and competition, it seems we will not be able to produce capable human resource for the future. It is said that education is the means of long-term development. If our education is of sub-standard quality this country cannot even hope for any bright future. A slight hope exists, however, due to the fact that not all students will be adversely affected by the politicised education. Those who have and those who will be receiving education in foreign countries at least will be saved. But then the proportion of such students may be too small to have sufficient impact. Hence one must explore the possibility of improvement within this country.

The remedy lies in depoliticising our entire educational system. The other physical, financial and managerial constraints can be managed with time and persistence. But in order to facilitate such capacity one must get rid of the political influence in the educational sector.

The private sector has shown to be relatively free of such harmful political involvement. They should be promoted. Further, as recent onslaught on private educational institutions has shown that they need protection. Protection of property, protection from harassment, and protection from extortion are needed. Such protection is the right of every citizen and organisation. And therefore the private educational institutions should not be deprived of such protection. Though it is the duty of the State to grant all such protection, its incapacity today to do so has been glaring. Hence, civil society, intellectuals and human rights organisations should contribute towards this end.

The myopic and irresponsible behaviour of the political parties may not be easily corrected. Hence, gradual reduction and replacement of public education by private ones or, as it is already being done, by community school system may be the only option to save the education system from the evil effects of political parties.

The long entrenched practice of cronyism, which has persisted in all the types of political systems we have historically adopted, needs more frank and honest attention. Standard and criteria of eligibility for posts and positions must not be more stringent, unambiguous and transparent. Rules and regulations should not be changed, for a stipulated time, and above all altered by those who are in the executive positions. Here again the pressure from the civil society seems necessary. And the media could function as a watchdog against any breach.

The focus of public sector education should be oriented towards results. Perhaps, political parties can be made to be responsible and not to exploit the various unions and organisations for their partisan politics. Let, as many have already said, the educational institutions be declared a zone of peace. For this public opinion must be created to make the political parties responsible. Here again the roles of intellectuals and civil societies have scope for action.

Managing Paradoxes: Education for the Sustained Future

Dr. Bidya Nath Koirala¹

Paradoxical context

State, society, and school nurture each other. In the process of nurturing each other conflicts occur at the individual and institutional levels. These conflicts are highlighted at different levels. At the traditional level it is a destructive force. At the behavioral level, it is the natural occurrence. And at the interactionists' level it is an inevitable output. In each level of the conflict, individual and institution develops logic of practice (Bourdieu, 1990), sets of values, and beliefs. Because of the contextual differences, paradoxes occur in their values, beliefs, and practice. This global phenomenon has been highlighted, questioned, and answered many times. And still paradoxes occur. For example, traditionally Hindu school systems taught caste hierarchy. At the same time it taught human being as equal. How these two contradictory ideas sustained each other in Hindu society (Parish, 1993). So is the case with Buddhism which was stood against idolaters and caste hierarchy. But Buddhists constructed biggest idols and maintained caste hierarchy. This problem of paradoxical belief lies with Islam and Christian believers as well. This discussion implies that theological Gurus have to manage religious paradoxes. And as a teacher s/he has to do the same thing in the classroom.

¹. Faculty of Education, Tribhuvan University

State is divided between the idea of homogenization and decentralization. In the process of homogenization it promotes national integration and in the process of decentralization, it accepts pluralism (Parajuli, 2003, Valentin, 2001). In this paradox, school is cut-off and teachers are supposed to manage these paradoxes. This continued paradox is a subject to be understood and issue to be dealt with for all the prospective teachers.

Society demands disciplined graduates. Media on the other hand reiterate capitalist order and at the same time manufacture discontents (Chomsky, 1992). Where do social order and media discontents fit? The answer is that they end up with lived paradoxes. In these paradoxes children learn to be docile in the society and hostile in the school or the other way round. It is where teachers blame society and society blames teachers. This paradoxical situation demands sustained Gurus at both ends.

Everyday life and school differs in many ways. The demographic change of the students over the years has made this issue even clearer. Schooling occurs at the both end. In the society students learn social truth through everyday living. And in the school they learn universal/global truth through textual learning. Children cannot match the learning of these two settings. Because of this mismatch, children learn to be liar or live in paradox. Question comes, who is there to be a Guru for the management of these lived paradoxes? This question requires a sustained Guru at different locations.

Modernization labeled people in terms of the per capita income, share of GDP, and literacy status as developed and underdeveloped (Hoogvelt, 1982). Many other indices are developed to divide and label people (UNDP, 2002). This objective division of the subjective people yielded socio-psychological tension – functionalists blaming nonfunctional and underdeveloped people and developmentalists throwing their anger against the advocators of the capitalist order. Here the question arises, where is the meeting point between modernization and indigenization? Moreover, what is our identity at the cultural and social level? This identity crisis is to be managed somewhere by someone for ever. But who is that “someone” at school level and how can we ensure the perennial occurrence of the “someone” (a) to protect agricultural land from exhaustive chemical fertilizer that has been promoted under the name of green revolution (b) to ensure “equal exchange between center and periphery” under

the name of development and underdevelopment (Frank, 1969), and (c) to protect world culture against national culture

Critical theorists taught students to question against the taken for granted knowledge. In this process, the interpretive theoreticians are sidelined. In the words of Margaret Mead, “generalized others” are ignored under the structuralists’ dominant knowledge. Here the question of values/realities comes (Chamber, 1994), the electoral value of majority over minority or pluralist’s value of multiple identities. The learners are cut off where we need bridging knowledge.

Students study for exam and teachers also prepare them for exam. But the society and the workplace expect more than what the teachers and students did for exam. In other words, education system demands rote learner students and rote learner producing teachers. But the society and the outer world look for competitive students and teachers. This is where paradoxes emerge.

At large, knowledge factories differ from people to people. Because of these differences there has been a gap between two generations, two nations, two caste groups, two religious faiths, and many other “twos”. These differences have created social paradoxes, each generation justifying its practice as “perfect”. This generational reality is to be addressed at some points by some one. But who is that “someone” at school, at home, and how can they be instrumental in learning from each generation’s realities.

The above discussion implies that paradoxes are everywhere. These paradoxes require educational interventions at school, at home, and at media. The first step is to unveil these paradoxes, the second step is to incorporate them into curricular and extra-curricular activities of the school, and the third approach is to make a part of cultural movement for change at the familial level.

Question of accountability in addressing the paradoxes

Accountability lies with “knowledge generating and receiving factories” to address paradoxes. This implies that school alone is not the place to be made accountable and oriented. There are homes, media, fellow groups, and recipients as well who can be made accountable to address these paradoxes. But the problem lies

with the compartmentalized structure. For example, school, if conceived from functional sociological frame, is an institution for “social good”. If school by design is a good place to be and its contents are already well and good, how can we address these paradoxes? In fact, its “take away” approach to content selection, teaching, and evaluation procedure do not help us address these paradoxes. At this point question comes, can we think of school as a place to address the above paradoxes? From the critical Marxist frame, school is understood as jail, teachers as jail-guard, and students as prisoners (Illich, 1971) in the capitalist and “conditioned capitalist states” (Carnoy, 1990), then again the same question comes, can we think of ways to address paradoxes from this capitalist order? Even if we go for transformative education as socialist and communist countries advocate, is there any room to address paradoxes under that political regime? In both the situation, these paradoxes remain to be unaddressed because of their political supremacy over education. The third set of knowledge is generated from the interpretative educators. These educators, because of their orientation, always look for individual and collective interpretation. In each interpretation, a person provides his/her logic of practice (Bourdieu, 1990). For example, a Hindu because of caste orientation learns to be hierarchical (Dumont, 1980). At the same time s/he has to be equal for all. How a teacher can do both at a time? This question itself demands two answers, answer for the home and the community and answer for school and in other public places. Here Giddens cited in Haralumbos (1995) seems to be worth citing who brought the idea of duality over agency and structural view of leadership. The duality view demands two way communications between agency and structure. In the field of education, it can be loosely translated as teachers and community interactions. In the context of Nepal, this interaction has been a “cry in wilderness.” A recent report (CERI, 2003) conducted process impact study of a School Management Committee (SMC) and found that parents and guardians of public schools are not taking interest in school. And experience of the teachers and principals of private schools (speech of the teachers and principal of private schools, at Galaxy Higher Secondary School of Kathmandu, July, 2003) helps understand that very few parents visit their children’s school. This implies that both rich and poor parents rely on teachers and teachers themselves are either unaware of the above paradoxes or ignore them for good.

The discussion above provides a clue that home has been working as a creator of paradoxes and school has been an institution which is ignoring them for good. The media and fellow groups are the other forces to be accountable for addressing these paradoxes. But the analysis of media broadcasted knowledge over a year presents different story to tell. In fact the media, in many cases paint wrong picture. For example, “the only tooth paste in the world...; the only machine for the farmer...” What does a child understand by these media messages? The answer is again paradoxes, because s/he might have been exposed with other options as well. Media violence (Chomsky, 1992) and moral education in school curricula can also be taken as paradoxical example. The fellow groups, in many ways serve in both ways. In one way, teaching will take place among the fellows about media messages and on the other hand the same fellow will be teaching moral education as well. Again the child may learn paradoxes.

The pessimistic statements of the above paragraphs look for optimistic approach to address paradoxes in a sustained way. For example, if teachers have developed “paradox blindness” teacher training, orientation sessions, and reflection forums can be the remedial measures. And if parents are paradoxically blind, Parent Teacher Association could be the venue for such discussions. Reading circle of the students can be another venue for the students and the non-formal education classes and investigative journalists of the media group can also be a forum for sustained discussion over the issues around paradoxes.

School effectiveness thesis and sustained paradox management programs

Traditional schools are managed under small management system. The present total quality management (TQM) thesis of school improvement programs probably came from that knowledge. This is where Paton (1994) argued that none of the authors is to be credited as TQM Guru. But the quality education thesis has brought five contending perspectives, viz. zero defect production perspective, stakeholders’ satisfaction perspective, self determined normative perspective, just in time perspective, and suppliers’ partnership perspective. In each perspective, one can find hope to address paradoxical knowledge. For example, if we expect zero defect products, paradox can be a defect. This realization provides a room

for dovetailing the idea of defect free product or paradox free product. The same argument can be applied with other perspective as well.

All forms of globalization (Held, 2000) opened doors for globalizing paradoxes. Playing with globalizing idea, children find contradictions with traditional beliefs and value systems. For example, individualism, competitiveness, and “money culture” are alien to the traditional society. At the same time they are the integral part of the developed society. Here the question arises, where does a child should fit? What is his/her limit? These questions help address the “imported source of paradoxes”. But again, where is that place to begin with? The decentralized political system and privatization seek answer at the individual school and the individual community. The media on the other hand manufacture message from the apex. The two message manufacturing agencies need meeting point at different levels. Equally they seek sustained management to continue these bridging messages.

The above discussion implies that a single forum cannot resolve paradoxes that have different roots. Here again question comes, what is the horizon of school to work for? This question helps capitalize a “learning web” of the deschoolers and advocators of open school system. In both the cases, there is a role of private agencies as well to create, use, and sustain paradox management learning forums. In other words, these conflicting themes can be the area of the studies for learning web users and open school program beneficiaries.

Implication of this paper

In the process of learning, we gather paradoxes. These paradoxes are spread everywhere. In school, they are living under a constant battle between traditional and modern knowledge system. With teachers and students, these paradoxes are growing with their values and belief systems. Parents also hold these paradoxes in the form of their everyday life. This implies that the field of education is full of paradoxes at the individual and social levels. Individually it has been perpetuated in the form of duality. In the society, the same thing has been nurtured in the form of culture. In all these knowledge generating, distributing, and controlling sources, there is a need of sustained education system. Individual reflection, questioning to oneself, social reflection, and group reflection are some of the

implications of this paper. At the individual level, children can be taught to be reflective at home, at school, and at public places. At the social level, they can be asked to undertake reflective research. And at the group level, they can be encouraged for discourse analysis.

How things are different? Why they have different perspective? What are the commonalities? Where is the point of departure? These are some questions that can be taught to the children at home and at school to narrow the paradoxes if they are not eliminated. The answer of these questions helps ensure sustained education for a child. For example, Hindu mythology taught that God created plants and human beings. Some of the other mythologies mentioned that God showed his first and second incarnations in the form of fish and tortoise, i.e. as aquatic beings. The third incarnation was shown in the form of a terrestrial animal, boar and the fourth one in half human and half lion. The fifth incarnation was a tiny person called Baman. The fifth incarnation was a half-brained devotee. And in the next incarnation, the God manifested him in the form of a person with all kinds of knowledge. The mythologies go on explaining about incarnations. Teachers on the other side draw Darwin's theory and claim that life began with jelly fish on water. Gradually human being evolved out of the aquatic animal. A child by now has three sets of paradoxical information about the origin of species. The first set of information leads the child to divine theory which can be understood from its point of departure. But the second and the third set of information provides room for common understanding between science and myth. For example, both of the knowledge system believes that life started in water. And both of them are indicating that human being came lately through evolutionary process. Individual reflection and the search for commonality and search for the point of departure help learner bridge between paradoxical knowledge systems. This is also an approach to ensure active peace in the field of education (Toh, 1993). This process to generate, distribute, and control knowledge can be replicated at individual, group, and societal levels. At all levels, what we need is an understanding that there are commonalities and point of departures. And we have to respect them as a product of a knowledge factory. Schooling at different points to inculcate this realization is the only approach that should be promoted at various levels of knowledge generating, distributing, and controlling factories. These practices produce Gurus at school, community, and home. Following their individual, group, and community reflections of students, teachers, community leaders, and

parents, we can address paradoxes which can be considered as an approach to ensure education for sustained future.

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Reorienting the National Policies and Plans in Nepal

Laba Prasad Tripathee¹

Nepal at a glance

The population of Nepal is nearly 23.1 million and the area is 147181 square kilometres. About one third of the land is higher mountain with snow all the year round. About 86% of the population lives in rural areas, of which 13% live in remote areas. The census shows 92 languages and 101 different castes /ethnic groups including Dalit. The Nepali language is the lingua franca and the state language of the country.

Nepal has almost a dozen world heritage sites. It continues to sustain the culture of celebrations that combines spiritual values, mythology and the wonders of nature. Because of this, many social groups in Nepal have been living spiritually and culturally driven lives even in the difficult circumstances of economic hardships and topographical challenges.

The per capita income of Nepal has reached \$240 per annum². Human Resource Index (HRI) of Nepal is at the 146th position.

¹ Joint Secretary, Ministry of Education and Sports, His Majesty's Government, Kathmandu , Nepal

² Statistical Yearbook 2002

Nepal is predominantly an agricultural country. About 40 % of Gross Domestic Product (GDP) comes from agriculture and about 80% of the population earns their living from agriculture. Some 38% of its population is estimated to be living below the poverty line³.

The growth of school education as reflected in the Net Enrolment Rate is 81% at the primary level. The network of primary and secondary schools has considerably increased throughout the country facilitating easy access to children.

The natural resources of Nepal are the Himalayas providing water resources, the mountains with the possibilities of developing hydropower and tourism industries. The climatic belts like tundra in the mountains, sub-tropical in the hills and tropical in the Tarai are favorable for growing all kinds of grains, fruits, vegetables, flowers and cash crops all the year round.

Nepal is signatory to national commitment to EFA objectives as articulated in the Jomtien Declaration of 1990. Following the Nepal's commitment on EFA in Dakar, Nepal has prepared an EFA National Plan of Actions 2003.

His Majesty's Government of Nepal is committed to the right of every child to quality basic education. The Jomtien Conference and the Dakar Framework of Action highlight the commitment of governments to provide basic education of good quality to all children by 2015.

The Constitution of Nepal (1990) and the Child Rights and Welfare Act (2048) have made clear provision to safeguard the rights of the child to education. The 10th Five Year Plan, the three-year Medium Term Expenditure Framework (MTEF) and the NPA for EFA address the need to continue basic and primary education.

Current policies

The seventh amendment of Education Act (2002) has spelt out the provision of pre-primary education for children of age 3-5 years. Under this Act the government can provide grants to the child development centers established in collaboration with VDCs and municipalities.

³ UNDP, 2002

The Education Regulation (2002) spelt out the structure, modalities and community involvement in managing and implementation of the early childhood development (ECD) program in the country. The vision of ESD is: Provide stimulating and child friendly learning environment to enable every child to develop up to their optimum potentials through well managed services and supported by national policies, community participation and backed up by professional support services within the frameworks of child right. Some important national policies and plans are briefly mentioned below.

The 10th Five-Year Plan

The Plan gives high priority to develop human resources, as its one strategy to eliminate poverty. Its objectives to develop human resource are as follows.

- To produce such citizens as are aware of nationality, democracy, human rights and social responsibilities, and are dedicated, responsible and sensible.
- To help improve the living standard of illiterate people, especially women, by conducting functional literacy program.
- To prepare children for enrolment to the primary level of education emphasizing their physical, mental and attitudinal development.
- To make the quality primary education accessible to all.
- To develop and expand quality secondary education in consonance with the development of the nation.
- To produce moderate level manpower by developing and expanding qualitative higher secondary education and prepare them for higher education.
- To supply the technical manpower with basic and middle level skill for the nation.
- To produce high-level manpower that can compete at the international level and support national economy for the all-round development of the nation.

The EFA National Plan of Action

The EFA National Plan of Action has been developed according to goals set by the Dakar Framework which is to be achieved by the year 2015. The goals have been adapted to suit the national contexts with one additional goal to cater to the

ethnic, social and linguistic needs of the country. The added goal is: ensure the rights of indigenous people and linguistic minorities to quality basic and primary education through their mother tongue.

The policy framework for EFA (2004 – 2009) has also been developed. The key policy objectives are:

- The 20 % children currently out-of-school will obtain access to basic and primary education.
- The retention of the 80% children already within the system will be met with a strong emphasis on improved norms and standards for quality in education and predictability of schooling, through improvements in central, district and sub-district educational administration as well as management.

Programs like inclusive education will be scaled up during the program period and systematic action will be taken to ensure the right to education for all disabled children. Alternative schooling provision will support access to children at remote areas, which are beyond the reach of the formal schooling system. Open learning approaches will be employed to foster access to relevant educational opportunities for working people and others who are constrained from attending formal schooling.

Basic and Primary Education Program II (BPEP II) (1999-2004)

BPEP II has been designed with the following objectives in order of priority.

- Ensuring access and participation to primary education.
- Enhancing learning achievement of the students.
- Strengthening management capacity

After the Mid-Term Review (MTR) of 2002, BPEP II has shifted its focus towards the child. However, BPEP II also emphasizes that it is necessary to have visions for schools, teachers and local institutions. The Mid Term Review⁴ identified a number of changes necessary to BPEP II such as revising its goals in line with the 10th Five Year Plan and the EFA National Plan of Action focusing on the child and the community, giving a more holistic view of education, importance of

Grade One, etc. BPEP II suggests that the future support for stakeholders must be flexible and responsive to change. Under this project, teachers have been trained and the physical environment expanded and improved.

Enhancing quality

The primary focus is to help children develop their potentialities to the fullest so that they develop into inquisitive persons and contribute to the development of the society. Teachers will have a key role – in closest collaboration with the parents – to develop and maintain quality of education. The key policies are;

- National minimum norms and standards will have to be developed for quality educational response in all situations of teaching-learning.
- Curriculum will be designed to cover aspects of local life, educational materials and manuals reviewed and strengthened.
- Schools will have a choice of textbooks and be well-equipped with all instructional materials.
- Teachers will be trained to manage a teaching-learning environment, focusing on generic skills like working in teams, solving problems and having self-esteem.
- Efficiency in schools will be met by increases in the actual schooldays and instructional hours.
- Early Childhood Development (ECD) and pre-primary schooling will be expanded to contribute to the achievement of universal primary education and acceptable quality of education.
- The Continuous Assessment System (CAS) will be linked to the school-based recurrent teacher training to help teachers regularly evaluate the progress of their children and provide feedback for constant improvement.
- The Human Resource Development (HRD) Plan will be in place to help teachers and education managers to develop their competencies for effectively implementing educational reforms.

⁴ The Mid Term Review, March 2002

The training of teachers emphasizes the inclusion of disabled, displaced and disadvantaged children to ensure that they have a full school life expectancy. The educational system is affirmative towards female and local teachers.

Education in basic and primary education will be responsive not only to local needs but also take into account that delivery of educational services is made in difficult circumstances. The educational administration and management will be run in close collaboration with civil society.

Improving efficiency

Approximately 60,000 teachers are being trained annually but with little effective impact on classroom practices. Schooldays are guesstimated at an average of 90-100 days annually. The level of instructional hours is low. Thousands of scholarships do not have any tangible impact on the retention and/or the completion of cycle. The key challenge in improving the internal efficiency is to benefit the poor through coherent and responsive policies and strategies to implement the programs.

Decentralization of basic and primary education will provide momentum to increase efficiency through transparency, participation and accountability. Dialogue and partnerships are promoted through decentralization of authority and responsibility to the levels furthest away from the center, thus strengthening the credibility of basic and primary education locally. Decentralization creates new tasks and responsibilities at all levels. The key policies for improving the internal and external efficiency are:

- Involvement of civil society, through participation and social contracts in general and partnerships in particular
- Administrative governance with transparency, accountability and participation is a characteristic of activities at all levels.

Educational governance – at individual, institutional and systemic levels – will make certain that educational deliveries are being made throughout the system at the agreed time and quality. Indicators will be used to monitor and document the progress of the performance of basic and primary education as well as staff performance, inclusion of people at the local level and governance in general

(transparency, accountability and participation) supported by a solid computerized education, monitoring, information system (EMIS).

Development of programs should take place at the local level, using local resources whenever possible.

Partnerships between state, local authorities and civil society expressed and established in the District Education Plans and social contracts between authorities and communities will facilitate the implementation of the program components.

Some policies on higher education

The Government has formed a Higher Technical Education Promotion and Monitoring Committee under the chairmanship of the honorable Minister of Education and Sports. The main responsibilities of the Committee are to streamline the private technical colleges affiliated to the university by coordinating the Nepal Medical Council, the Nepal Engineering Council, the Nepal Nursing Council, the Higher Secondary Education Board, the Council for Technical Education and Vocational Training, Universities and the University Grants Commission. The Committee is authorized to issue the certificate of registration for running the colleges.

The Government has also formed a Higher Education Evaluation and Monitoring Committee to streamline the private colleges, which are affiliated to foreign universities and Boards, and are run in Nepal. The Committee coordinates with the different institutions related to the higher education and technical education. This has opened the door to establish institutions to provide education of the foreign universities in Nepal.

Summaries of major programs

This section gives a summary of major program components that are the part of the Annual Strategic Implementation Plan, the District Education Plan, the School Improvement Plans and the Village Education Plans. These are:

- a) Expanding early childhood development
- b) Ensuring access for all children

- c) Meeting the learning needs of all children
- d) Reducing adult illiteracy
- e) Eliminating gender and social disparities
- f) Improving all aspects of quality education

a) Expanding early childhood development

Main policies: The two types of early childhood development (ECD) programs—school based and community based—will be designed and implemented on the principle of cost sharing.

The pre-primary schooling program will be a school-based option, offering one year schooling to children of 3-5 years of age. It will basically prepare children for entering into primary school. The pre-schooling program will be targeted at schools and is based on demands of the community. In case the stakeholders support the pre-schooling program, then the school will be allowed to find ways of sharing costs.

The ECD-program will be a community-based facility, aimed at creating an enjoyable learning environment for children between 3-5 years. Communities will be empowered to manage ECD centers with authority to generate resources for meeting the expenditure of their operation. The following efforts will be made.

- The program will support and evaluate the effects of ECD activities on enrolment, retention and learning achievement of primary education
- A number of ECD centers will be established with program assistance in the areas with the most vulnerable and disadvantaged groups.
- The program will facilitate partnerships with private and business enterprises to establish and run centers outside the mentioned districts

Comprehensive IEC (information, education and communication) programs for ECD will be designed and disseminated through the mass media targeting the parents at rural and remote areas.

The ECD program is expected to have a pro-poor effect as it frees parents to pursue income-generating activities and prevents underage enrolment in schools.

The program will also have a positive impact on the attendance and retention of older girls as well.

b) Ensuring access to education for all children

Main policies: In order to make basic and primary education free and accessible, parents of the deprived and disadvantaged children must be assisted, reducing or eliminating direct and indirect cost of education.

Free distribution of textbooks including relevant learning materials, scholarships and incentives, providing uniforms and serving meal in selected pocket areas of disadvantaged communities will be undertaken for meeting the opportunity cost of the disadvantaged groups. The following principles will guide educational activities and management:

- Inclusive education will be further developed and scaled up to a national level during the support period including to the disabled and deprived children.
- Social contracts between educational authorities and communities
- Testing on a large scale of new and improved scholarship and freeship programs, especially for girls and children from the disadvantaged groups.

Increased emphasis will be attributed to the process of decentralization in general and especially to the planning processes in particular. School improvement planning/village education planning will be scaled up to all schools and VDCs/ municipalities and District Education Plans will be as the main educational vehicle for educational administration and planning.

Norms and standards will be revised for financial and activity planning. Performance based financial allocations for districts, schools and communities will be designed and tested.

In order to improve efficiency, analysis of distribution of education facilities on an equitable basis (school mapping) will be undertaken in a scientific manner on a national scale.

The program framework would prioritize alternative schooling facilities as a mechanism for streamlining remote and isolated hamlets within the access of basic and primary education.

c) Meeting the learning needs of all children

Main policies: This program includes developing a learning environment sensitive to the needs of girls, disadvantaged and displaced children. The framework for the institutional management and capacity building will be operationalized through the involvement of communities to the extent possible and gender issues will be fully integrated. The principal policy vehicle of the framework is to intensify decentralization by establishing local control in the management of their own schools, with assistance from and under the supervision of the center.

Life skill education will be provided to the young generations to earn livelihood. Elements such as developing critical thinking, balanced emotional development, taking critical decisions, managing conflicts, etc. are the essence of life skills that should be taken into account. The curricula will be revisited to include civic education perspectives such as

- Develop school curriculum that is more civic, practical and relevant to the lives of children, youths and adults.
- Use of new communication technologies for expanding learning opportunities and diversifying ways of learning.
- Enable all the children, youths and adults to live safer, healthier and economically and socially active and productive lives.
- Learn generic skills such as information gathering, problem solving, critical thinking, team working, negotiation, interpersonal skills, self-awareness, assertiveness, handling emotions, conflict resolution skills, living in harmony and peace with neighbors.
- Design and disseminate programs to prevent and combat HIV/AIDS.
- Provide alternative and flexible schooling.

The process of decentralized planning and management will be intensified as an effective means of ensuring good governance and sustainability of program. The government will provide financial support and allocate more funds for ensuring universal access to quality basic education.

The School Improvement Plan (SIP) shall involve key stakeholders extensively to make the process fully participatory for accountability. Partnership on a broad basis at local, national and international levels with local bodies, CBOs, GOs,

NGOs and other private agencies will be the main strategy for bringing additional resources and expertise for implementing program activities.

d) Reducing adult illiteracy

Main policies: Primary education is the main contributor to an improved literacy situation. Hence, in order to improve the situation of literacy programs, non-formal education and primary education will be made supplementary and complimentary to each other. The literacy program consists of three elements - basic literacy, updating skills and continuing education.

Non-formal education will cover both literacy and alternative schooling programs, like out-of-school, flexible schooling and school outreach programs. The main principles behind the non-formal education will be:

- The non-formal education programs will be focused in the very low literacy areas like mountain and hills from mid and far western development regions and the middle Terai.
- The programs will mainly focus on women and girls in general but especially from ethnic minorities and poverty stricken areas.
- The non-formal education programs are linked to programs like the ECD, scholarships, income generation, etc. which mean that an integrated and need based literacy policy will be developed to support the implementation of the activities.
- Expanding community learning centers (CLCs) and, where possible, fostering greater coordination between CLCs and Resource Centers with a focus on continuing education.

Political, professional, social and religious groups along with their sister organizations will be mobilized for implementing literacy programs. Each VDC/ VEC (Village Education Committee) will target for literacy programs under its Village Development Plan (VEP) as per the needs of the village. The central institutions will provide technical backstopping with learning materials, training and adequate funding. Funds will be increased, as share of national education budget. VDCs will be empowered to seek partnership with other CBOs and NGOs for additional resources and expertise.

The Community Learning Centers (CLCs) as an effective means of providing continuing education will be established in each electoral constituency of the country in order to provide the opportunity for the neo-literates and the young people in the community.

e) Eliminating gender and social disparities

Main policies: The Gender Audit of 2002 will be regarded as the main guideline to achieve the ambitious targets.

Massive community mobilization campaigns involving CBOs, NGOs and others; incentive packages for subsidizing opportunity cost; contextualizing the curriculum and text materials will form the main policy for mainstreaming these groups

The policy of fulfilling at least one female teacher per school will be scaled up to make 50% of the total teaching force in primary education. Recruiting teachers from other disadvantaged and indigenous groups will also be prioritized. In order to achieve gender parity, enough attention would be paid to make special provision for girls and children with disabilities as well as for female teachers. Girls' friendly environment in schools and classrooms along with gender sensitized curriculum and text materials will be given the topmost priority.

School extension program in areas of low enrolment of girls and disadvantaged groups will be targeted for improving the access of these groups. In some of the remote districts residential schools will be opened as affirmative actions in favor of this group.

f) Improving all aspects of quality education

Main policies: Universal access to basic education without acceptable quality carries little meaning. In order to keep our future generations abreast of the global knowledge and technology developments, improving the quality education delivery is a must. Quality education builds competency among the future generation so that they are not lagged behind in the global competition. This will require setting of standards and norms for basic education and implement appropriate management measures.

While designing appropriate strategies for addressing the issue of quality enhancement, following considerations need to be taken into considerations.

- Availability of adequate number of qualified teachers for teaching children enrolled in the schools.
- Active learning requires an interactive teaching-learning environment, motivating and challenging with adequate facilities.
- The teacher staff of schools must reflect the composition of gender and ethnic groups in the area of teaching.
- Additional teachers' posts will be created on the basis of the size of enrolment in order to meet the increasing requirement.

Building teachers' capacity is one aspect and helping them to implement the acquired capacity in the classroom practice is another. The mandatory provision in the Education Act requiring teacher's licensing will be linked with effective mechanism of competency based in-service and pre-service teacher training programs that address the classroom needs and demands of practicing teachers. Teacher support systems, including Resource Centers, will be strengthened in order to provide support for teachers in implementing newly acquired experiences and expertise.

Regularity of teachers and community satisfaction with performance of teachers will be taken as priority area of educational management. This will require revision of legal provision requiring the working conditions of teachers.

The focus of teaching-learning methodology will be on student centered active learning with teachers being aware of each students' level at all times through using a wide range of formal and informal child-friendly techniques. Successful experiences from the continuous assessment program will be incorporated into the recurrent teacher training to support the child centered learning approaches for the improvement of the completion rate of primary education.

Low completion rate of primary education has been and will be the main challenge of any basic education policy framework. A liberal promotion policy combined with an appropriate mechanism of quality control will reduce dropouts and repetition rate contributing to the improvement of the completion rate of primary education.

g) Secondary education development program

The Secondary Education Development Plan has been developed according to the approach paper presented to the 10th Five-Year Plan. The Plan will be implemented during the 10th and 11th Five-Year Plan periods.

The strategic goals of the Plan are to increase access to secondary education especially for the educationally disadvantaged groups, ethnic minorities and girls; to decentralize educational management to the school, district and regional levels; to develop an integrated curriculum and assessment system for the school sector, to develop an integrated teacher development and management system and to prepare for a compulsory 8 year basic education cycle and a sound secondary cycle.

Poverty, gender and minority considerations are taken into account across all components of the Secondary Education Development Plan.

Community school improvement plans play a primary role in the implementation of the Plan.

The current institutional arrangements have been modified at central, regional and district levels. An enhanced role for regional education directorates is included. At the central level the amalgamation of teacher development centers is built-in while the National Center for Educational Development will become a separate institution focusing on management and planning.

The rationalization and re-orientation of the school curriculum into a national curriculum from Grade 1 to Grade 12 is a much-needed over-arching activity. A participatory development of a national curriculum for schools is being planned.

Based on the curriculum changes an integrated central and decentralized assessment and examination system will be further developed from the current range of assessment practices at the school, district, regional and central levels.

Strategies are developed to recruit, train, and retain secondary school principals and teachers within an overall sector strategy that will establish a single comprehensive source of policies related to teacher recruitment and training; improve capacity for implementing policies related to teacher training;

create an agency with overall responsibility and capacity to carry out strategic planning and management within the teacher training programs throughout all sectors; improve the targeting and internal efficiency of training and co-ordinate or integrate teacher development delivery institutions.

Monitoring and data collection methods will be reviewed, streamlined, and modernized wherever possible.

Implementation strategies

The commitment of the Government to provide free primary education is further reaffirmed by its adherence to the EFS Dakar Framework, 2000, the 7th amendment of Education Act, 2002 and Education Regulations, 2002. Presently, the Government is providing grants-in-aid to cover teachers' salary and a very small amount for administrative cost. There are very few funds for non-salary recurrent cost, which is very critical for improving quality in primary education. The Government also supports social welfare expenditures i.e. on providing free textbooks, scholarships to girls and the Dalit children and the nutritious food program.

The Government has prepared the EFA National Plan of Action to provide quality basic and primary education to all primary school going children. It has envisaged allocating 3.7% of Gross Domestic Product (GDP) on education sector in 2009 and it is also envisaged that 55 % of the total education sector budget will be allocated to basic and primary education sub-sector.

The programs will be managed by the Department of Education. A Management Committee, headed by the Director General of the Department of Education, and including chief executive managers of all central line agencies, will coordinate the management. The Government will manage the co-ordination of the development partners. Biannual meetings will be carried out for co-ordination. Joint donors-HMG review mission will be organized yearly during March in order to jointly review and appraise the annual strategic implementation plan (ASIP) and the annual work plan and budget (AWPB) including the status of the program implementation. The co-ordination will be executed through the central line agencies.

The implementation strategy of basic and primary education will be as follows.

Pro-poor

Special programs focused on the poor, marginalized and the ethnic minorities for mainstreaming their children will be prioritized so that their capacity to choose appropriate socio-economic opportunity and bring new meanings to their life are increased.

Incentives and scholarships for children to attend schools and the income generation packages to subsidise the opportunity cost for the parents for sending their children to schools will constitute the main strategy for ensuring universal and free basic education.

Gender focused

The elimination of the persistent gender disparity is one of the main targets of the Government in basic and primary education. The revision of curricular materials and the teacher training materials for gender sensitivity, gender integration in the entire management for optimizing female participation will form the core of the strategy for gender parity. Creation of gender friendly environment in the schools (both physical and pedagogical) and the classroom practices will receive high priority. Special programs focused on the education of girls, especially of the disadvantaged and marginalized communities will be prioritized. Special efforts for generating a larger female teaching force and increasing their availability will be targeted so that even the remote areas will have female teachers. Affirmative initiatives with respect to salaries, accommodation and other factors will be launched. The policy of prioritizing the recruitment of female teachers in the vacant positions will be strengthened.

Holistic approach

School education will be addressed in a holistic manner, with a strong coordination between ECD, primary, secondary and higher secondary levels. The continuity of learning experiences will be ensured across all levels.

Good governance

Ownership, equity, transparency, accountability and efficiency are the indispensable elements of good governance, which form the main strategies for implementation of education programs.

The program will discourage all kinds of discriminations - ethnic, religious, ecological, cultural, socio-economic or of any other kind. The interest of even the voiceless people with multiple disadvantages will be well-taken into account and equity to all will be ensured. It will be guaranteed that no child and youth would be denied of quality basic education due to their inability to afford the cost of schooling.

Mechanisms for transparency and accountability will be imbedded in the program to ascertain that the resources are being spent under well-defined procedures for the right cause and are yielding the intended results. The implementation process will be simplified to the extent that the program is carried out with minimum cost, time and effort possible to deliver high quality service to the people.

New provisions will be implemented to strengthen management and administration of human resource, emphasizing performance, merit and competence as the main vehicle for development.

Decentralization

Decentralized planning will be the main implementation strategy for basic and primary education. A line of responsibility, authority and relationship between and among different administrative levels of government and the community level institutions such as the DDCs and DEC (District Education Committees), the VDCs and VECs, the schools and their SMCs (School Management Committees) including the roles of NGOs and CBOs will be clearly delineated.

The stakeholders will be empowered with knowledge, skills and resources in order to facilitate their genuine efforts to plan, manage, implement and monitor education activities.

An information-based planning and monitoring system, comprising an Annual Strategic Implementation Plan, District and Village Education Plans as well as School

Improvement Plans and Status Reports, will be the main vehicles for implementing and monitoring activities.

Support systems

Appropriate systems to support classroom practices and school management will be strengthened. This will include alternative modalities for the resource center system to allow innovative monitoring and support activities. Ownership of the resource centers by the school clusters will be prioritized. The actual learning and development of the child takes place in the classrooms and schools. This makes it obvious that funds to implement educational programs should be made available to the communities in order to ensure their control over the prioritization and utilization of resources.

Annual strategic implementation plan (ASIP)

ASIP will be the overall vehicle for planning and administration. ASIP is meant to be a compass for educational managers at all levels to plan, implement and monitor their activities guided by a clear insight into the policy framework and major strategies. It will take into account the total scenario of socio-economic, political and educational contexts, assessment of the strengths and weaknesses of the past, threats and opportunities ahead.

ASIP will be providing guidelines continuously to the stakeholders at all levels by giving the long-term visions and missions, medium term goals and objectives and short-term targets. It will also deal with main strategies to be taken, detailed action plan to be followed, an overview of the resource requirement and the monitoring and procurement schedules. No activity will be undertaken unless it is required by ASIP. The expected outcome of the program is presented in Table I.

Table 1: Expected outcomes of the program

SN	Indicators	2000	2008/09
1	Gross enrolment rate of early childhood / pre school	13	51
2	Percentage of new entrants at grade I with ECD	11	60
3	Gross intake rate at grade I	141	110
4	Net intake rate at grade I	53.7 ^a	95
5	Gross enrolment rate	120	104
6	Net enrolment rate	80	96
7	Percentage of gross national product channeled to primary education sub sector	1.8 ^b	2.3
8	Percentage of total education budget channeled to Primary education sub sector	56.7 ^b	60
9	Percentage of teachers with required qualification and training	15	99
10	Percentage of teachers with required certification		99
11	Pupil Teacher Ratio	37	37
12	Repetition Rate:		
	• Grade I	42	10
	• Grade 5	11	3
	• Survival rate to Grade 5	63	85
	• Coefficient of efficiency	55	83
	• Percentage of learning achievement at grade 5	40	60
13	Literacy rate		
	• Age group 15-24	70 ^c	82
	• Age group 6+ years	54 ^c	73
	• Adult literacy rate (15+ years)	48 ^c	76
	• Literacy gender parity index (15+ years)	0.6	0.9

Source: a, 1997, b, 1999, c, 2001 census

Problems and issues

Experience from BPEPII suggests that any future program must be responsive both to changing contexts and to lessons learned. Future support should adopt a flexible rolling budget, which nationally covers a five-year period corresponding to the 10th Five-Year Plan and MTEF (Mid Term Expenditure Framework). Outcomes for the education sector will be explicitly specified, based on a realistic assessment of the Government and local capacity, and these will be used to construct a program of activities. This program will be specified in a one year ASIP and Annual Work Plan

and Budget (AWPB), with annual reviews to monitor progress against outcomes and adjust strategy as necessary.

The human resource development plan prepared under the BPEPII and SEDP will be implemented. It is expected that the plan will be the best instrument for capacity building at the national, district, resource centers (RCs), and school levels. The capacity of the personnel at the different levels will certainly support the programs to bring changes in the achievement of students.

It is expected that the process of the bottom up planning with the involvement of the real stakeholders and the resources made available at the implementation side will have tremendous effect on the development of education in the country.

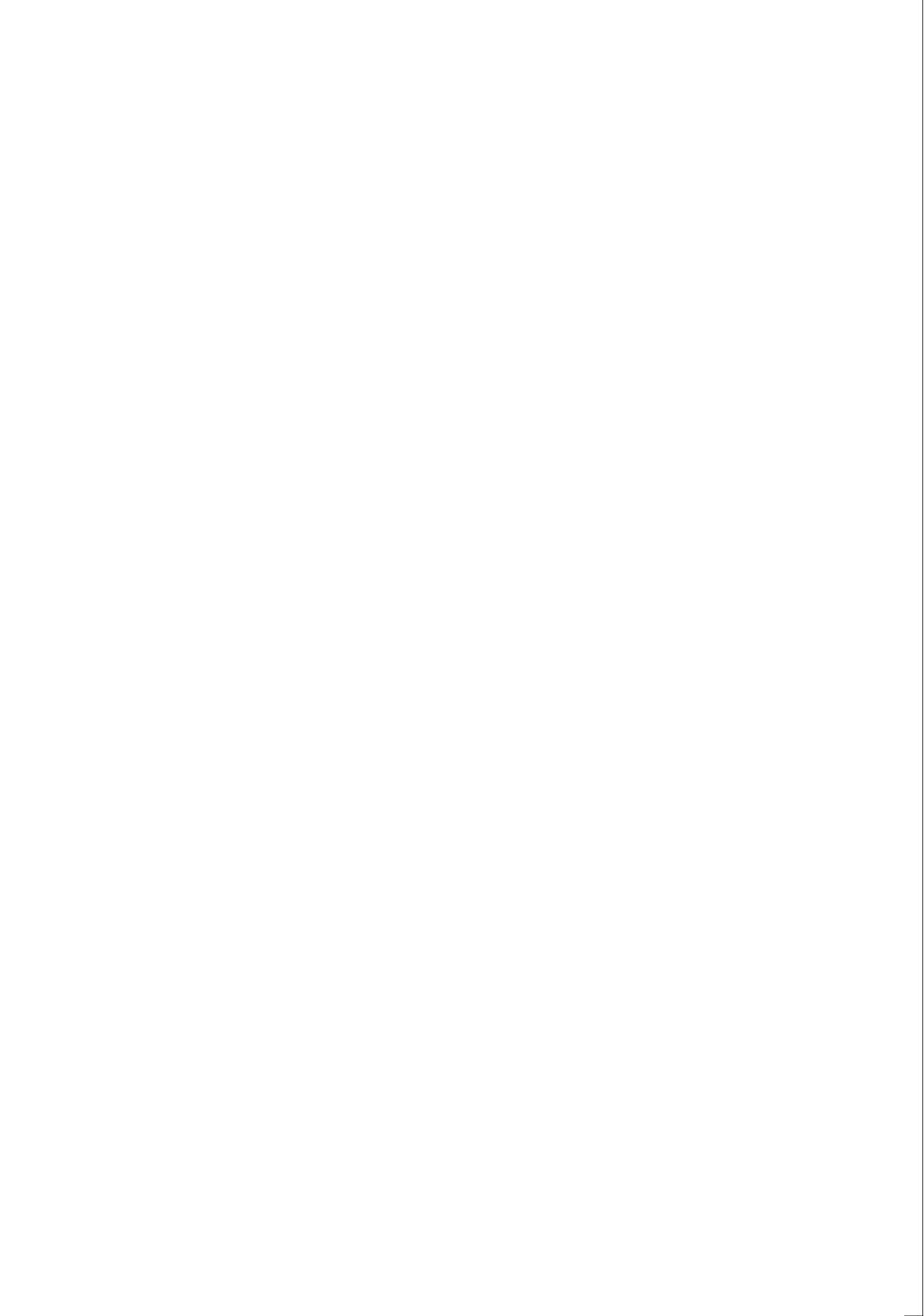
Partnerships between state, local authorities, civil society expressed and established in District Education Plans and social contracts between authorities and communities will facilitate the implementation of the program components.

Despite all these efforts, there are many issues (such as topographical situation, shortage of resources, and low capacity of the community) that need to be negotiated before moving ahead for the coming decades.

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3

Case Studies

Community Learning For Sustainable Development

IUCN Nepal's Field Experience

Dr. Mahesh Baskota¹

Introduction

Is sustainable development an unattainable utopia? What is it that can be done at various levels to control and eventually reverse unsustainable forces? The problems of global warming, pollution of freshwater, loss of biodiversity, desertification, build up of hazardous substances, and sharp deterioration in air quality in high density settlements appear to be almost insurmountable given the pressures of population growth, development forces and the relatively low priority accorded to environmental challenges.

Sustainability is not an easy concept to follow. It involves a process of change where society is not relatively worse off in economic, social, cultural and environmental terms compared to some earlier periods. The crucial test of sustainable development lies in making feasible gains on all fronts without making substantive tradeoffs. Past experience in development has clearly illustrated that too much sacrifice in any one component may compromise the performance of other components. Sacrificing environmental and cultural aspects for economic change has created major problems of resource degradation and loss of cultural wealth of the people. If there is one important lesson from the development

¹ Country Representative, IUCN – The World Conservation Union, Nepal Office

experience of the past fifty years, it is that development is sustainable only if it stands firmly on the pillars of technology, society and the environment. To some extent it was a strong belief until recently that technology had all the answers to the problems of humanity and the environment. Unfortunately this is not so. While technology has its place, the conditions of the environment and society cannot also be neglected. Today, the impending threat to human health and survival itself is the single biggest impact of the past neglect of environmental processes. If the very survival of humanity is at stake, there is a need to reflect on the many things that have become part and parcel of our so-called modern day lives.

Changes in lifestyles to reduce the pressure on the natural resources have become urgent. There is just too much consumption of natural resources and this is unsustainable. Changes are needed in the way we value things so that conservation also figures prominently in our thinking. This is not so at present. Changes in the way we are organized where participation is limited, where access to resources are denied to some, where benefits of growth are not shared, where opportunities to improve livelihoods are too limited and narrowly distributed has become urgent, critical and indispensable.

This is a tall agenda for humanity that has a very slow record for learning when problems are not at their immediate doorsteps. However, it is now recognized that much of the challenge towards sustainable development lies in the diversity scale and intensity of efforts to implement the new sustainable vision of the society and their underlying requirements in terms of technology, lifestyles, organizations and environmental conditions.

This paper seeks to present some of the work that IUCN Nepal is doing to promote community learning for sustainable development. It focuses on the efforts being made to improve the livelihoods of the people as well as the conditions of the ecosystem in which they live. The objective of the program is to promote the wellbeing of the people by more efficient use of available ecosystem resources without degrading the environment in the process. The efforts are focused at the community level in a few locations. It is expected that these micro level partnerships will yield valuable lessons for sustainable development.

The national context

Although the country is classified as one of the poorest in the world, there are many good examples of community conservation practices. Many hill communities have quite successfully restored degraded forest areas and have instituted regulatory mechanisms for harvesting forest products. Community-based activities have expanded from forest conservation to water, livestock development and resource mobilisation. Community group formation has now become a standard practice in development projects for ensuring greater beneficiary participation, transparency and accountability in development activities.

The Government has announced the Tenth Five Year Plan (2002 – 2007) which has been developed in conjunction with the Poverty Reduction Strategy Paper (PRSP). The Plan's objective is poverty reduction through expansion of economic opportunities and employment based on efficient use of available resources. Strategies include a broad based process of economic growth, expansion of social services and infrastructure, empowerment and good governance. It further identifies areas for special attention such as sustainable management of natural resources, and conservation of biodiversity.

The country is going through a very turbulent period. The impact across the country and in particular in the rural regions has been severe in terms of direct violence, extortion, conscription, destruction of infrastructure, interruptions in services and overall fear. Loss of development support represents an additional burden on rural people. Increasing insecurity has further intensified the need for peaceful solutions to resolve differences and prevent conflict. The call for governance systems that are transparent, accountable, participatory and effective at delivering services throughout the country has never been more evident.

The conflict has also brought some unexpected positive outcomes. Security risks for project staff working in the field has resulted in a shift towards working more closely through local organisations. It has also reinforced a sense of self-reliance with more local community organisations working together. The increasing role of community-based organizations is likely to contribute to increased transparency, accountability, ownership and greater incorporation of local knowledge and experience.

In spite of the many difficulties affecting fieldwork at the present, IUCN Nepal's national and local partners have demonstrated unwavering commitment to continue working together. In fact, there is demand for expansion. At the local level the community-based organisations see our joint activities as being strongly supportive of their livelihood security. The dependence of people on their local environment is now even more evident, and hence the need for sustainable use of natural resources as the livelihood base.

The varied natural environment and amazing biodiversity are Nepal's biggest assets. This diversity has played an enormously important role in livelihood support of the majority of people and will continue to do so in the future. The links between poverty and environment are complex and dynamic and require greater understanding in the context of conservation and sustainable use of natural resources.

IUCN Nepal activities

IUCN's global mission is 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 Nepal works to further IUCN's global mission in Nepal.

Vision

In line with the global vision of the Union, IUCN Nepal's vision is "a just Nepal that values and conserves nature".

Overall goal

The overall goal is "an economically prosperous, socially just, environmentally conscious and ecologically sustainable Nepal".

Approach

IUCN has pledged itself to the people of Nepal with a long-term vision and goal. IUCN is committed to assist Nepal in its endeavour to alleviate poverty and

promote equity and social justice through the sustainable use of natural resources. IUCN's niche is described in Figure 1. Its major focus will be as follows.

Knowledge

Generating, integrating, managing and disseminating knowledge for the conservation, sustainable and equitable use of natural resources in Nepal. Field projects are crucial sites for generating knowledge, as are learning platforms and action research.

Empowerment

Enhancing the willingness, responsibility, capacity and skills of Nepalese people and institutions to plan, manage, conserve and use natural resources in an equitable and sustainable manner. This is achieved through policy strengthening, advocacy and capacity building.

Governance

Achieving systemic improvement of, and coherence between Nepalese law, policy, institutions and economic instruments through decentralisation and devolution for the conservation and equitable and sustainable use of natural resources.

In the pursuit of its mission and goal, IUCN Nepal continues to build strategic alliances with key Nepalese development organisations both in the government and civil society as well as bi/multilateral organisations. These partnerships are realised through the implementation of joint programs to contribute to the national poverty reduction agenda and to promote conservation and sustainable use of natural resources.

IUCN Nepal’s Niche:

IUCN works globally to promote the wellbeing of ecosystems and people.

Our entry point for making change is where people and ecosystems interact.

Our intent is to influence people’s attitudes and behaviours on how they interact with the natural environment. By changing people’s actions, IUCN extends its impact to improving people’s livelihoods and supporting environmental sustainability.

Wellbeing of people	Area of overlap 	Ecosystem condition
Food, shelter, education, health, income, spirituality, security, voice, dignity, equity Ability to use assets Capacity to adapt Resistance to vulnerability	People’s actions impacting on ecosystems Ecosystems’ impacts on people	Food, shelter, education, health, income, spirituality, security, voice, dignity, equity Ability to use assets Capacity to adapt Resistance to vulnerability

The area of overlap between ecosystem wellbeing and human wellbeing in Nepal is great due to high dependence on natural resources for most people’s livelihoods.

IUCN Nepal main contributions include:

Building knowledge - promoting better understanding of the linkages

1. How do natural resources contribute to human well being? How can people conserve and sustainably use natural resources? How do these relationships change in different ecological and socio-economic and cultural settings?

Enhancing people’s contribution to biodiversity conservation and sustainable use of natural resources

1. Learning, strengthening, replicating existing best practices.
2. Where people are interested but do not know how to contribute:
 - Support them to access resources (human, financial, natural) and build capacity (tools, techniques, methodologies).
3. Where people’s actions are incompatible with natural resource conservation:
 - Understand why these actions are done.
 - Provide incentives, remove perverse incentives, and promote alternative livelihoods.
 - Raise awareness, build capacity, and demonstrate good practices.
4. Strengthening the enabling environment:
 - Working with the government, private sector and the community for human and ecosystem wellbeing.

▶ **Figure 1: IUCN Nepal’s niche**

Underlying priorities and operating principles

IUCN Nepal emphasises the need to sustain people's livelihoods as the central purpose of promoting conservation and sustainable use of natural resources. People should benefit from conservation and sustainable practices if these are to be internalised by households in their day-to-day concerns. Related issues are those of gender, equity, peace and security. As resources are lost and degraded there are enormous impacts on livelihood security with implications for distribution of work and inter and intra community conflicts. The following priorities will guide IUCN Nepal's conservation activities.

Poverty alleviation and equity

Enhancing IUCN Nepal's understanding and capacity to deal with poverty and equity issues will receive a high priority over the next five years. IUCN will take a two-pronged approach to poverty and equity. On the one hand it will constantly gather more intelligence about poverty and equity in relation to conservation and sustainable use of natural resources. On the other hand, IUCN will be constantly utilising its knowledge and skills to address poverty and equity issues at all levels of its work, especially field projects, advocacy and strengthening of environmental policies and laws.

Programme Development and Learning Group (PDLG) will be given the lead responsibility to initiate, coordinate, facilitate and oversee the organisational actions to make poverty alleviation and equity in the use of natural resources a cornerstone of the IUCN Nepal Program. Resources made available to different sub-programs will be used to enhance the organisational understanding and capacities for addressing poverty and equity issues as they pertain to natural resources and conservation.

Incorporating gender concerns into the program

The promotion of gender equality will continue to receive priority attention. A systematic effort will be made to influence the IUCN Program at the design stages to take account of gender-based differences. It will include, *inter alia*, sensitisation and capacity building of IUCN and key partners in the application of gender analysis to project development and implementation. IUCN will promote

actions to overcome gender-based inequities in all its projects and will encourage its members and partners to do the same.

Sub-programme resources will be accessed to sensitise the staff and provide assistance for the incorporation of gender dimension into various programs and projects. Program Development and Learning Group will assume the overall responsibility with the support of a gender specialist if needed. Initially the priority gender needs of the organisation will be identified and a six-monthly work plan will be developed.

Sustainability

IUCN Nepal's program focus is on conservation of natural resources and improved human wellbeing through the sustainable use of natural resources. Sustainability is a very dynamic process involving multiple sectors and forces, many of which may not be under local control or influence. Strategies to support sustainability will be pursued from various perspectives: institutional, social, economic and ecological. The ultimate goal of fostering sustainability is to develop processes of self reliance so that the community is willing and has the necessary wherewithal to make desired and needed changes for conservation of natural resources and improvement of human welfare.

Peace and security

Rural areas of Nepal have been facing increasing insecurity because of Maoist insurgency and the subsequent military response. All aspects of rural life have been affected by the breakdown in local government, enforcement of Maoist activities and subsequent army operations. Under such circumstances all development activities have been disrupted. Even the security of project staff has become a matter of serious concern. Many people have been dislocated from their farms and families and have become refugees. While it is absolutely critical that peace is restored for security of all, this is going to take time and is beyond the influence of IUCN.

IUCN is responding to the security situation in several ways. First, IUCN Nepal keeps the situation under constant surveillance in order to avoid exposing anyone to unnecessary risk. Communication, risk assessment and response strategies are in place. Second, a more adaptive and flexible management approach

is being used, whereby project interventions can be modified as required. This has been possible through greater emphasis on annual workplans and quarterly progress review, as well as through active communication. Third, programming is increasingly being planned, implemented and monitored through local organisations. The increased local engagement and ownership also strengthens sustainability and models effective governance systems. Fourth, the content of programming remains balanced on meeting immediate needs and changing people's behaviour for the long term regarding natural resource use. The link between environmental sustainability and livelihood security is very evident in the rural areas where we are working. Finally, additional activities such as rights-based awareness raising and conflict resolution training are planned to facilitate the restoration of peace and security.

There are a number of practical considerations that need to be kept in mind in planning and implementing programs.

Building on past achievement

This program cycle is a natural progression from the previous phase. It is recognised that many of the activities undertaken in the earlier phase have yet to show concrete benefits for people and improvement in ecosystem conditions. There are indeed many positive signs both at the household level as well as in the overall environmental conditions but these are at very early stages and relatively fragile.

The focus of the new cycle will be to continue to further consolidate the gains made in the earlier phase in all the demonstration areas as well as in matters of policy work, sensitisation and capacity building.

One of the reasons for IUCN entering fieldwork with its limited scale demonstration activities was to promote people-based innovation in resource conservation and to identify processes for upscaling these to wider levels. The field projects also serve as a testing ground for policy development. The demonstration of concrete results in the field is a necessary precursor to influence national policy and programs. IUCN Nepal will continue to have its feet on the ground in order to ensure our national actions are rooted in reality.

Participatory planning and implementation

As in the past phase, IUCN will adopt a participatory planning and implementation process for identifying and implementing project activities. Without ownership by the people many activities are just not sustainable. With ownership come many different types of commitment and resources far in excess of the Project's limited resources. This has been well demonstrated in our field partnerships to date. By providing people an opportunity to articulate their needs and priorities, as well as potential options to address these challenges, there are better assessments of the problems and constraints as well as careful identification of feasible opportunities and solutions. Obviously a certain degree of care is necessary to ensure that marginalized voices are heard and that benefits are not cornered by a few. IUCN will extend its use of participatory processes to monitoring, learning and reflection.

Capacity building and partnerships

One of the key operating principles of IUCN is enabling key members and partners to carry on the conservation and development work both at the policy and practice levels. Accordingly, IUCN Nepal will make systematic and concerted efforts with three basic purposes. The first is to develop the capability of member and partner NGOs and other institutions to take a more active role in the program and in project design and delivery. The second is to facilitate the acquisition of skills by IUCN staff in order to adapt to the needs of a changing program in the new millennium. The third is to partner with like-minded projects and organisations to enhance our collective impact in Nepal.

Conservation and sustainable use: three years in the field

How do we translate concepts of conservation and sustainable use into practice?

IUCN attempted to promote this principle in three project areas, namely the llam Siwaliks, the TMJ Rhododendron area and the promotion of NTFP in Doti. The problem identified was that forest resources were being lost and degraded in

these areas. It was argued that by working closely with the community in certain areas it would be feasible to reduce the pressures on the forests and this would promote conservation. With increasing conservation one could assume that communities would gradually move towards sustainable use in the future.

A number of interventions were identified by the local community as their priority in the conservation of the forests and land resources in the area. A few more was added by experts and the overall package consisted of new plantations, some construction related with conservation and protection, awareness raising, environmental education, social mobilization for group formation and group activities to reduce pressures either directly or indirectly on critical environmental resources, capacity building at the local level, provision of improved technology in selected areas affecting the environment, etc.

It was believed that whatever could be done with the available resources in selected areas and groups within the broadly identified project activities would be desirable - contribute towards conservation and sustainable use. As there were few other development activities in the area, whatever was done was to be seen as a positive sum game even if this was based only on fairly limited assessments about challenges, response and impacts. The key factor however, was that the local stakeholders made most of the decisions.

Based on the experience so far, and given the limited time for activities to come to fruition what are some of the emerging signals on the ground? What can we say about conservation and sustainable use from the point of view of the community? Are we seeing any changes or the likelihood of changes because of our interventions?

Focus on community assets

Communities are still very much dependent on available natural resources for sustaining their livelihood activities. Preservation and sustainable use principles are readily accepted especially in the case of forest and water resources. These are seen by all as important community assets with continuing value for all members of the community. It is for this reason that people identified development of different types of community assets as high priority for partnership with IUCN Nepal.

One of the interesting areas of cooperation has been the construction of spurs. Flooding is mainly a downstream problem. In the past years, floods had threatened and actually damaged agricultural land. Some of the settlements were also at risk. The spurs emerged as a priority of the community and work was jointly supported. After one year the lands protected by the spurs, had a fairly rich natural growth of kans – a type of hardy grass that had good market value. Also, the spurs have provided some protection to the neighboring areas. It cannot be said how long these spurs will last but for the present they appear to have fulfilled their purpose quite well. Similarly other activities related with forest conservation also focused on the downstream groups.

Given the fact that Siwalik conservation should focus on both downstream and upstream activities, stronger efforts will be made to move activities to upstream areas in the future.

Organizations at the grassroots level

IUCN decided to work with the community groups. While it was not the intention to bypass the local government in anyway, the nature and scale of activities necessitated the actual users be involved in the identification and implementation of the activities. The local government has been kept fully informed and even been convinced to put up some of their own resources to support community activities in the Siwaliks.

The active role of women in all aspects of Siwalik conservation has been a most encouraging part of the Siwalik experience. Women in the Siwaliks had been organized into groups by some previous development activity but had become dormant after the project pulled out. The groups were revived and when the women groups were introduced to conservation, they found this as a strong rallying point to deal with many of the environment degradation related hardships they were facing. With little motivation, they came together and developed a strong agenda on conservation of forests within their group area. They have made much contribution to the protection of the forests – sometimes at great risks to their safety. A few years of protection and nature is already bestowing its bounty in terms of a rich growth of biomass. They decided to implement:

- Strict protection through rotational guarding of selected areas

- Control of all grazing in the area
- Selective harvesting of forest products

The most important lesson here was the development of strong women organization and the strength of the organization came from the willingness of its members to enforce its decisions. It is not so much the specific decisions, which were well known but could never be implemented. Another minor point could be the need for a facilitator – a catalyst that can lend a helping hand in some ways.

Appropriate technology support

Environmental conservation in the long run must be sustainable on its own merit because people value environmental resources. It will not be sustainable if people are not able to benefit from it. However, in the early stages of development when much of livelihood resources must come from the environment, technology to improve efficiency and / or to reduce natural resources can play an important role. In the area of forest conservation, IUCN has played a key role in promoting ICS and biogas to reduce the demand for firewood. As the initial investments are quite high a revolving fund has been developed jointly by different partners including the women groups. Repayments to the funds have been almost full and on target.

Better ways of improving productivity of very scarce resources that households have access to is a high priority. The need for more improved and appropriate technology is very great. Better practices in the use of available natural resources, new crops that increase incomes but do not damage the environment, and other devices that save resources, reduce drudgery of women and relieve children from household chores need to be introduced. Production efficiency also gets transferred to better use of natural resources and therefore should be seen as an integral part of the conservation and sustainable use of natural resources.

Community conservation and learning

There are many more examples that can be given to show how working together with the community can create many locally acceptable examples of change that benefit both the people and the ecosystems. We have talked about community

assets, improved technologies, getting organized and a common theme in all these is awareness generating and communication. Had IUCN Nepal moved in with blue prints prepared somewhere else, some of this might have worked but most of it would not have been relevant because so much of the work on conservation and sustainable use is about getting started almost not knowing where it will end and makes adjustments as people see fit along the way.

A large number of opportunities present themselves when we proceed without any prior ideas and have a willingness to listen to the other side. If the other side understands that we are not the *Kalpa Briksha* (a tree that endows whatever one wishes) and realizes that much of the work can and has to be done by the locals, a very practical basis is established. Obviously there are local constraints, and some of these may be cash related while others are related with external linkages or intra group conflicts where an outside facilitator can play a constructive role. Unless we are prepared to listen to all sides, they will listen to us only as long as the cookies are there. There are areas where it takes time to develop an understanding and issues like equity must be introduced so that all sides have an understanding of what it implies. There must always be value added to ideas from the outside and this is what demonstration of best practices should do. They need not always come from the outside. Some innovations may have already started and need to be extended far enough.

We are slowly understanding the need to move away from compartmentalized knowledge and learning. A new type of integration based on real life conditions is needed in all types of teaching. More basically teaching and learning can no longer be confined just to the classrooms. Sustainability must be practiced by all at all levels. There must be better synergy between indigenous traditions and modern ones. The focus must be on making sustainable what is already on the ground and not so much on transplanting things from the outside. There must be greater diversity on all fronts if sustainability, stability and efficiency are to be maintained in our ecosystems and livelihood activities.

I wish to add a few words about mountain areas. Although mountain societies have had a rich tradition and have survived in these very difficult terrains for thousands of years, the discovery of development appears to be making them and their environments more unsustainable. First, there are very few educational institutions in the mountain areas. Second, even the few that exist do not teach

mountain related issues although this is changing to some extent more recently. There is no way sustainable solutions can come from these limited educational organizations and consequently the relevance of community-based learning becomes even greater if we are to find all the solutions needed to improve the quality of livelihood and the ecosystems in the mountain areas.

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School-based Environmental Clubs

An Initiative Towards Education for Sustainable Development in Nepal

Dr. Chandra P. Gurung^{1a} and Ms. Neelima Shrestha^{1b}

Background

Chinese proverb: “If you want 1 year of prosperity grow grains. If you want 10 years of prosperity grow trees. If you want 100 years of prosperity grow people - educate them.”

The present generation, to some extent is aware about the importance of conservation and sustainable development. But what is more important for everyone to know is how to conserve Nepal's biological diversity in a way that is ecologically viable, economically beneficial and socially equitable. Thus, education is very essential to enable the society to better understand their intrinsic relationship with and dependency on the natural and cultural environment and to empower them to play a pivotal role in conserving the natural and cultural environment for sustainable development so as to improve their standard of living. In this regard, conservation education has been an integral part of WWF Nepal Program's activities since its inception in 1993. WWF Nepal Program operates many conservation awareness programs for different target groups to help them understand, how by conserving the biodiversity and using the resources sustainably

^{1a} Country Representative, WWF Nepal Program, Kathmandu, Nepal

^{1b} Education Assistant, WWF Nepal Program, Kathmandu, Nepal

will benefit them and the future generations. Conservation awareness programs run by WWF NP are as follows:

School-based environmental clubs–Eco Clubs

WWF Nepal Program and its conservation partners have jointly implemented school based environmental education programs through the formation of Eco Clubs in Nepal since 1994. There are currently around 228 Eco Clubs formed under WWF NP and its partners in 16 different districts of Nepal namely, Banke, Bardiya, Bhaktapur, Chitwan, Dang, Dolpa, Jhapa, Kailali, Kanchanpur, Kathmandu, Lalitpur, Morang, Palpa, Solukhumbu, Sunsari and Taplejung with over 30,000 members.

The objectives of Eco Club are:

- to raise conservation awareness among the students, teachers and youths
- to encourage them to participate in the conservation of natural and cultural environment at local and national levels and
- to mobilize those students, teachers and youth to raise conservation awareness in the communities

The Eco Club members carry out various curricular and extra curricular activities to enhance their knowledge on environment and its conservation namely, study tours, plantation, cleanup campaigns, awareness campaigns in the locality, recycling and reuse of waste materials, various competitions like essay, quiz, poetry, sports, song, etc.

Environmental awareness programs

Various environmental awareness programs like Community Mobile Education and Extension, Audio/Visual Programs, Campaigns, Boards with Conservation Messages and Street Theatre are organized at local levels to create awareness on conservation issues among the local communities. Environmental awareness programs are more frequently organized on the World Environment Day, World Forestry Day, World Wetlands Day, Wildlife Week, etc.

Capacity building programs

Various capacity building programs are organized for local staffs, teachers, local leaders etc. to develop their understanding and skills in order to make them more capable to work towards conservation and sustainable development.

All the above mentioned programs are directed towards creating a better understanding among the society about their interdependence on the natural and cultural environment so that they are aware and have increased capacities to conserve Nepal's biological diversity in a way that is ecologically viable, economically beneficial and socially equitable.

Purpose

The purpose of this paper is to explore possibilities to promote the same through curricular and extra curricular activities in schools in line with His Majesty's Government Nepal's (HMG/N) school course on Environment, Health and Population. The opportunities and findings written down in the concept paper is based on the experience and findings of WWF Nepal Program and its partners namely, schoolteachers, school students, both government and non-government organizations working towards improving the environmental education in Nepal.

Opportunities to promote ESD

Over the years, WWF Nepal Program and its partners through experience have realized that the school students can also do much more outside the school to raise awareness among the community members about conservation and sustainable development. By instilling the importance of conservation and sustainable development in the youth's mind, we can look forward to get their support even after they grow up and leave Eco Clubs. The values of conservation would still be ingrained in their minds and they would think twice before doing anything that is harmful to the environment. The main purpose of education is to bring changes in attitudes and behaviors of the youths through the school-based environment clubs so that they become the catalysts to raise voice to support conservation of the biological diversity, natural and cultural environment and sustainable development in which our lives are interdependent.

Educating the students means creating a radiation effect in the community, for example, if a conservation message is conveyed to one student, s/he would pass on the message to at least two people in her/his home (father and mother), through the father and mother, the message would pass on to the communities, hence creating a radiation effect.

The Eco Club activities are being much appreciated in the schools by the teachers, students and even parents. The activities have given the students and teachers the opportunity to better understand the environment in which they live. The activities help the students to practically understand the course of Environment, Health and Population. It has also been observed that the members of the school-based environmental clubs show more responsibility towards the environment.

However, this initiative is not free of problems. Some of the problems faced by the teachers and students are as follows:

1. Eco Club teachers lack adequate knowledge and skills on conservation and sustainable development
2. Eco Clubs do not have sufficient resources/educational materials on conservation and sustainable development
3. Eco Club students do not have strong knowledge base on conservation and sustainable development
4. Eco Clubs do not have sufficient budget to carry out desired activities
5. Eco Club teachers have time constraint to properly guide the members
6. Constrain in coordination with the school management and the Eco Clubs
7. Few of the Eco Club teachers and members tend to be inactive if they are not regularly monitored and guided
8. Internal conflict among the Eco Club teacher and other teachers of the school as the Eco Club teachers get more exposure and opportunities

With proper training, guidance and inspiration the teachers and students can be mobilized to raise awareness conservation and sustainable development in their respective areas.

- They can become the major supporters of conservation and sustainable development to raise awareness against poaching, illegal logging, illegal harvesting, collection of medicinal plants, unsustainable use of resources, etc.
- They can also be mobilized to gain public attention on the environmental and sustainable development issues that needs to be addressed at present to conserve the biological diversity and to acquire sustainable development.

The main objective of conservation education is to bring changes in attitudes and behaviors of the youths through the school-based environment clubs so that they become the catalysts to raise voice to support conservation of the biological diversity, natural and cultural environment in which our lives are much interdependent. Conservation and sustainable use of resources begins at home. Thus, knowing about sustainable use of resources is as important for everyone as knowing the importance to eat and to keep oneself clean. Hence, through the school based environmental clubs WWF Nepal Program and its partners are promoting the basic required knowledge about conservation and sustainable development among the students and teachers and through them to the community members.

Strategies to promote ESD

Alliance with partners

There are a number of organizations both government and non-government striving towards achieving the educational goal to develop skills and attitudes necessary to understand and appreciate the interrelation among the human beings, its culture and biophysical surroundings to entail practice in decision making and formulating code of behaviors about issues concerning environmental quality. Hence, these organizations should come together and work collectively to achieve the goals of conservation and sustainable development more effectively and efficiently.

Revising the HMG/N curriculum

The HMG/N's course on Environment, Health and Population should be revised to see if it incorporates the issues related to conservation and sustainable

development so that the practice can be integrated in the education system. Experts' guidance, help and assistance should be sought in this regard.

Training the concerned authorities

Since the teachers lack teaching skills and adequate knowledge, the teachers needs to be trained and educational resource materials should be developed to support the education for conservation and sustainable development.

Implementing guidelines for the modified curriculum

Once the curriculum has been revised, proper guidelines should be developed for its implementation.

Developing strong supervision and monitoring mechanism

Strong supervision and monitoring mechanism is very necessary for effective implementation of the program.

Conclusion

In conclusion, *“Many present efforts to guard and maintain human progress to meet human needs, and to realize human ambitions are simply unsustainable - in both the rich and poor nations. They draw too heavily and too quickly on already overdrawn environment resource accounts ... They may show profits on the balance sheets of our generations, but our children will inherit losses”* (World Commission on Environment and Development, 2002). Therefore, organizations both government and non-government should work collectively to promote education for sustainable development.

Making Education Responsive to the Local Context

Experience from Bungamati

Dr. Hridaya R. Bajracharya¹

Intorduction

Education commissions constituted at different times ever since 1954 emphasised on the need for providing basic and primary education for all citizens. All the changes on the basic policy has remained the same: universal access to quality basic and primary education, vocational and skill-oriented secondary education and academically competent and development oriented tertiary education.

Since 1990, after the restoration of multi-party democracy, educational development efforts have become more consistent. More emphasis is given to the needs of the disadvantaged communities. Democratic norms and values, decentralization, local self-governance, participatory action and collaborations have become central theme in policy and programme planning. In this decade, some important national and international thrusts such as Basic and Primary Education Development Program and the global campaign for EFA (Education for All) were given at the highest level.

¹ Executive Director, CERID, Tribhuvan Universtiy.

National development programmes

In Nepal, medium and long-term goals and targets of developments, including those of educational development, are reflected in the national development plans, which cover mostly a period of five years. In the earlier plans as well as in the current national plan, the following areas have been focussed.

- Human resources development, in view of the situation that a large number of populations are illiterate and unskilled.
- Sustainable development, poverty alleviation and reduction of regional disparities in view of the existing subsistence agriculture-based economy, lack of alternatives and disparities among different region and communities.
- Enhancement of the quality of education in view of the still underdeveloped educational provisions.
- Developing literacy education for adults directed to poverty alleviation
- Enhancing gender and social equity regarding access to quality basic education
- Meeting the appropriate learning and life skills needs of all young people and adults to enable them socially and economically.

Investments in education

In Nepal, education budget has been always inadequate and remains a difficult challenge despite continued expansion. The table below shows that the percentage of total budget on education has increased from 10% level to 12% in 1991/92 and has stabilised at about 13% in the 1990s. Currently it is about 15%².

The sub-sector data indicate that there has been steady increase in allocation to primary education sub-sector (see Table I). Basic and primary education has been prioritised as the key element of educational development. Accordingly, there has been a steady increase in the share of budget for basic and primary education (see Table I).

² 1997/98 Revised Budget Estimates; 1998/99 Budget Estimates. Source: Red Book (Ministry of Finance) of different years

Table 1: Education budget by sub-sector (in millions of rupees)

S.N.	Sub-sector	1991/92		2001/02	
		Amount	%	Amount	%
1.	Primary education	1,588.4	48.6	7790.9	55.4
2.	Secondary education	424.6	13.0	2971.0	21.1
3	Higher secondary education	0.0	0.0	48.1	0.3
4	Technical and vocational education	54.3	1.07	193.2	1.4
5	Higher education	902.2	27.6	1680.4	11.9
6	Non-formal education	19.7	0.6	133.5	0.9
7	Others	277.8	8.5	1255.5	8.9
	Total	3,268.0	100.0	8,114.9	100

Source: MOE, and Educational Statistics of Nepal (1991-1997)

The expenditure trend shows a steady progress in the financing of education from the pre-1992 to post-1992 periods. This progress corresponds to two important national projects—the Basic and Primary Education Project (BPEP) and the Primary Education Development Project (PEDP). These projects were supported by international aid in the form of grants and loans.

There has been a growing trend in international assistance to educational development in Nepal. In 1990/91, the percentage of international assistance to education was less than 10% of the total educational expenditure. This figure reached about 25% in 1995/96³.

The total financial cost of the Basic and Primary Education Project (BPEP I) in 1992–1997 was about US \$ 230 million. The combined financial support of the World Bank, DANIDA, JICA and UNICEF to the Project was US \$ 70 million. The BPEP II Programme (1999-2004) is jointly supported by DANIDA, IDA, NORAD, EC, FINIDA, UNICEF and JICA, and utilises a ‘basket approach’ to financing. The total donor financing under the Five-Year Program Implementation Plan was US \$106 million.

The efforts on the part of the government to bring improvement in basic and primary education are reflected by the national budget expenditure⁴. In 1991 the public expenditure on primary education as a percentage of GNP was 0.8%. Presently the percentage has increased to 1.4%. The public expenditure on

³ Source: Economic Survey (2002), MOF

⁴ The World Bank (2001). Nepal: Priorities and Strategies for Education Reform

primary education per pupil as a percentage of per capita GNP in 1991 was 5.1 (Currently it is about 8.8). The expenditure on primary education, as percentage of GNP in other SAARC countries ranges from 1.1% in Pakistan to 2.4% in Maldives. In Bangladesh it is 1.3%, Bhutan 1.9% and India 1.2%. The expenditure as the percentage of GNP per capita in the region ranges from 8.8% in Nepal and Bangladesh to 15.6% in Bhutan. In India it is 9.9%, Pakistan 11.6%, and Maldives 12.1%.

Free education

Primary education, as basic education, has been made free since 1975 up to Grade 3, and from 1981 up to Grade 5. In 1992, the government declared free education up to secondary level (Grade 10). These commitments have proven to be too difficult for the government to meet even to ensure the bare minimum required to keep the schools operating. In the year 1997, the government spent NRs. 4,155 million on 3,460,756 primary school students, resulting in a per capita student expenditure of NRs. 1,200. Most of the government support (95%) goes for the teachers' salaries alone. The government support in many cases could not even cover minimum number of teachers needed to operate the schools. Most of the schools were therefore forced to raise money from the parents to keep the schools operating. It has given rise to the issue of breaching the commitments. Consequently, the free secondary education decree has been revoked. The issue at primary level still remains unsettled. Over the past several decades, there has been steady development in the number of schools, students enrolled to schools, teachers and the literacy percentage of the population. The details figure in Table 2.

The trends of development in terms of the number of schools, the student enrolment and the teachers involved clearly show a steady development in Nepal. The National EFA Assessment 2000⁵ using 18 indicators of basic and primary education also indicated steady development in Nepal. However the assessments also clearly point out that the conditions are far from even being desirable minimum expected by the EFA campaign. Critiques also argue that this

⁵ In 2000 national assessments were carried out world wide to take the stock of the impact of the decade long effort in the form of the EFA campaign started in 1990 by the World Conference in Jomtien Thailand.

development cannot and should not overshadow the critical problems and issues of educational development in the country.

Table 2: The school level education at a glance

Year	1976	1981	1991	1996/97	2001
Total no. of schools	-	-	-	22372	25194
Primary	8768	10628	18694	22,218	24943
Lower secondary	2289	2786	4045	5506	7340
Secondary	520	918	2079	2903	4113
Total students	907000	1701896	3658083	4568942	5361362
Primary	644000	1388001	2884275	3447607	3853618
Lower secondary	189000	169564	378478	791502	1058448
Secondary	74000	144331	395330	329833	449296
Total teachers	32146	46288	99127	125505	142183
Primary	20775	29134	74495	89378	96659
Lower secondary	7932	12245	13005	19704	26678
Secondary	3439	4909	11627	16423	18846
Net enrolment (primary level)				67.5 / 69.4	81.1
Literacy rate 6+		25	39.6	48	54
Literacy rate 15+			33.0	44.8* (1997)	44
Literacy 15-24			49.6	67.4*(1997)	74

Sources: *Educational Statistics, MOE, 1999*

Major issues and challenges

The current high Gross Enrolment Rate (GER) of 124.7% indicate that there is high proportion of children who are either under or over age. The age specific enrolment, Net Enrolment Ratio (NER) is 81%, i.e. about 19% of the primary school age children are still outside the school. There are differences in NER as well as other educational indicators by districts, ecological regions and ethnicity. Although 14 of the 75 districts have been found close to 100% NER, 48 districts remain behind the national average.

Quality and efficiency of education is still a major issue as the following efficiency indicators show. Grade repetition is still a problem, particularly at Grade I which is 38.7%. The survival rate to Grade 5 is about 65%. About 14% of the children drop out from school at Grade I.

Further, a national assessment study of learning achievement of Grade 5 children shows that mean scores in Nepali Language, Social Studies and Mathematics are low, 51%, 42% and 29% respectively. The efficiency and the achievement indicators reflect the poor quality and efficiency of primary school education in Nepal.

Illiteracy is still a major problem in Nepal, particularly among the adults. The current status of literacy of 6+ year age group is 54%. The adult literacy rate (of the 15+ year population group) is about 48%.

Table 3: Adult literacy by place of residence

	Poor		Non poor	
	Rural	Urban	Rural	Urban
Percentage of school age children out of school	49.49	42.52	32.81	13.54
Total		49.27		31.02
Adult literacy	26.31	41.34	38.41	68.00
Total		26.71		41.64

Source: Nepal Human Development Report, Nepal South Asia Centre, 1998.

The issue of social disparity is rather significant and persistent in terms of school enrolment as well as in terms of literacy. Illiteracy is a major problem especially among disadvantaged communities.

Table 4: Social groups and their literacy level

Social group	Literacy level
61 Social group	• 39% (average)
41 Groups	• Below 39%
26 Groups	• Below 30%
10 Groups	• Below 15%

Source: Statistics Year Book 2000. CBS (2000).

The problem of access and social equity in the case of secondary and higher education is rather more prominent than in the primary level. The attainments of higher education by different communities are highly disproportionate.

The issue of relevance: The issue of educational attainment directly relates to accessibility to educational facilities. This, however, should be interpreted in

terms of physical access as well as social access. Social access pertains to the ability of different communities to find meaning in the educational provision as well as be confident in using the educational opportunities and facilities. A social assessment of educationally disadvantaged communities indicates that some people in some communities (Rana Tharus) tended to see education as irrelevant to their socio-economic conditions and therefore it is counter-productive for them (See Box 1 for an example). Similarly, communities like Mushahar from Terai as well as Chepang from the hills do not feel confident to use the educational provisions for their advantage.

Box 1: Relevance of Education – the story of Gyani Lal

Gyani Lal is a seasonal construction worker in Kathmandu. Gyani Lal is from the Tharu community of Sarlahi district in eastern Terai. His family consisting of his mother, one brother and two sisters live in his family house in the village. He is now 15 years old and the eldest among five brothers and sisters. The eldest of the sister who is now 14 was married at the age 11 years. His father passed away two years ago. He has been working as the wage earning construction worker ever since. He now earns Rs. 100 per day on wage basis. During the construction season he could get almost one to two months of work at a stretch. He is very much grateful to his uncle who has helped him get in this work. Earlier he was a household servant where he would be getting only a small and irregular pocket money.

He had joined primary school at the age of 8. But nobody in his family considered his education as priority. Every body in the family had to work hard to get food and clothing. Even health care is difficult for them, so his mother has to live with her illness that could not be cured by the local healer. Passing away of his father was a disaster, as the debt incurred to get his sister married has not been paid yet. Besides he has the immediate responsibility to get his 12 year old sister married soon. She has never been enrolled to a school. Gyani feels that the important thing for his sister is to learn how to look after kitchen and household rather than going to school. His younger brother who is now 10 years old works as "household servant". He is registered to a school but he is very irregular and is likely to drop out from the school.

Reflection

Reflection on the efforts, achievements and the issues of educational development discussed above clearly indicate that policy, progress and resources can bring development in quantitative aspects such as number of schools, students and teachers. But bringing qualitative changes in the quality of education; making

education relevant to the daily lives of people and supportive to poverty alleviation and thereby contributing to sustainable development of community, village, district is hard to achieve. There is, therefore, a need to develop basic education focused on sustainable development with direct relevance to the local contexts. Experiences show that functional education and incomes generating educational activities are essential for economic empowerment of the rural people. Such activities not only provide occupational and vocational skills but also develop creativity and entrepreneurial skills. More importantly, people need place to try their skills and build confidence in the market system. At the same time the needs of at least, basic and primary education for all should be emphasised. School age children should be engaged in school in meaningful learning activities. Experiences also show that school transformation can take place from within the school with initiatives of individual people involved in the school, not from outside. Outside factors such as policy, system and mechanism if positively oriented and operated, can support transformation in a faster way.

Implications for educational reform

1. Transform the school into the community centre by involving children in community development work and by allowing community participation in educational reform.
2. Make school curriculum flexible at the local level to facilitate the use of local tools, resources and techniques. Encourage schools to generate resources for undertaking social activities such as school fair, school-based community undertakings, and research.
3. Provide occupational skills and market entrepreneur skill through non-formal education for the needy youths. This should be focused because they are likely to discontinue education at the secondary level.
4. Develop strong linkage between the formal and non-formal education to help disadvantaged children get to the school without much hindrance. Ensure provisions to reduce dropout, increase enrolment and enhance overall standard of education.
5. Develop the NFE curricula addressed for the out of school youths. Develop functional co-ordination among school/NFE and vocational training whereby

children could be first inducted to school/NFE for functional literacy and basic education that opens doors for higher level vocational skill.

6. Mobilise and empower local CBOs, NGOs, and local government to keep record of data and information at VDC.
7. Develop co-ordination among the government, NGOs, and CBOs, for the development of local communities..

Participatory action research at Bungmati

As an experimental approach to make education responsive to the local contexts basically to help the local youths get connected to broader context and enhance the strengths and potentials of the inherited traditions and culture of the area, CERID initiated a snowball project in the Bungamati Village Development Committee. The purpose of this project was to initiate school-based educational activities for local youths, especially those who are dropouts or are likely to drop out of the school, to provide better life skills suitable for their real world. The overall goal is to develop education that will be instrumental to initiate the process of sustainable development.

This initiative is based on the following assumptions, which are discussed elsewhere.

- Schools could be transformed into centres for community development — It could be a common place for people, a resource centre and professional anchor point.
- Schools have potential for providing life skill education to the local community— The infrastructure and human resource of the schools could be mobilized to provide life skill education for youths.
- Schools can play the coordinating role for mobilizing and networking of youths for economic activities.

The setting

Bungamati is a village located in the south-west corner of the Kathmandu valley at the Mahabharat range facing the north. It is perhaps the oldest settlement

in Nepal. The existence of Bungamati is made prominent by the temple of *Bungadyo*, also known as the *Matsyendra Nath*. Much of the social activities are associated with the *Matsyendra Nath*. There are special chariot festival days associated with the *Matsyendra Nath*. Every year the god is brought to Lalitpur city for chariot festival. This festival is enjoyed and revered by people on the days decided by the royal astrologer. The festival is graced by the King and the members of the royal families. This day is also designated as the national holiday in the valley.

Farming is the main traditional occupation in Bungamati in which whole family is engaged in the jobs suitable to their age and physical conditions. The other occupations are metal work, pottery, woodwork, house building, etc. Even the religious, cultural and social services exist as occupations for some, for example the priest, the artist, the mason worker, the goldsmith, the metal worker, etc. But agriculture remains as the primary occupation, hence residents are either tillers or tenants, or even both.

Agricultural activities and the social activities are linked to the movements of stars, the moon, and the planet, giving life a mystic existence. There is always anxiety for rain in the hot and dry seasons. This is when the local people summon the god of rain, prosperity and compassion – the *Karunamaya* for Buddhists and *Matshendra Nath* for Hindus – for rain. The Newars call them *Janbaha dyo* or *Bunga dyo* and celebrate the chariot festival.

Soon after the festival is over people prepare for rice plantation. The drums would be set aside with respect and traditional ritual offering. All the celebration and festivities start again after the rice plantation is over, i.e. in the month of Shrawan. The cultural calendar lists the festivals and social activities for the whole year, and also projects the activities to a twelve-year cycle. People are organized in Guthis to render different services to the community.

Seemingly, in the traditional way of life people depend much on the judicious and sustainable use of natural resources. Cultural activities and engagement in arts and crafts enriches the life of the people in this village. However, a family would look like socially backward if there is no modern amenities such as radio, TV, watch, fan, refrigerator, motorbikes, if not a car. For most of the people in Bungamati (who are peasants), there is no scope for them to acquire these

amenities with their dependence on traditional economy. One has to seek employment to earn cash money. Education is viewed as the means to move to other job, from the traditional farming to the modern job.

Bridging school and community

There is a need for critical awareness of the trends of social and economic development in a situation like Bungamati. On the other hand, it would be unrealistic and radical to think that the tradition and culture should continue as it had been. On the other it would be unrealistic and unwise to get swept by the "modern" amenities forgetting the very social and cultural roots. Therefore, there is a need of critical awareness education that helps analyse the social and cultural development. Also, there is need to prepare youths for the modern realities. The youth should be be creative and acquire entrepreneurial skills and the skill of critical social and economic analysis. On the whole, there is a scope for a comprehensive life skill education in the context of the village like Bungamati.

Also, life skill education is a fundamental human rights recognized by United Nations. The World Conference at Jomtein (1990) and the World Forum on Education for All at Dakar (2000) emphasized the need to take actions that enhance life skill of the people. One of the important life skills is to understand the social, cultural and physical environment. Such approach is not a one-time action, but is perennial and thereby requiring the sustained efforts.

In order to address this need CERID along with collaborating partners started this long-term project titled Interfacing the School and Community for Responsive Education for the Conservation of Cultural Heritage. The Project has three phases: 1) community assessment, 2) preparation of action plan and training/orientation for implementation of the plan, and 3) implementation of plan with appropriate activities and social dynamics for ensuring continuation and sustainability of the process. The main aim of this project is to develop ways to empower the rural community to take their own initiatives to make school education responsive to the local norms, values and way of life to harmonize school education with the local social events.

The specific objectives of the Project are:

- To provide school-based skill training programme for the students who are likely to drop out from the school. The skill training emphasizes on the vitalization of the traditional/local skills.
- To develop network of schools, local community, the business and professional institutions and organizations to provide experiences to income generating activities for the youths. (Connect to the industrial/business organizations and marketing bodies).
- To harmonize school education and calendar with the local social and cultural events. (Increase active participation of the youths in the local social events to take ownership and to innovate for making it fit and beneficial for the changed contexts).

Conclusions

This project emphasizes on Participatory Action Research (PAR) method. Central to the PAR technique is to have faith in people and in their abilities to find solutions. The role of professional institution like CERID is only to facilitate the process. This approach has special importance in Nepal which is at the moment facing social issues that have cropped up due to defective practices, shortcoming and others. Building trust and mutual confidence which this method emphasizes, is the primary step to learn and experience for institutions like CERID and the community together, i.e. build trust and work together for betterment of the environment.

The main strategic approach of the Project are;

1. Forming a stakeholder group/facilitating team
2. Developing key contacts in the village through local community organizations
3. Conducting regular group meetings with the community people to identify topics for discussion, research and action
4. Orienting/enabling the community to express their concerns, needs and development
5. Taking meaningful initiatives

This Project is an ongoing attempt to understand the community dynamics in Bungamati, i.e. the dilemma of living traditional way of life in a modern day. It also attempts to understand the educational needs of the youths so that they can take up the challenges of living in the modern world with dignity based on their social and environmental reality. Ultimately the Project aims to evolve education for sustainable development. The Project is run under the leadership of CERID and the Industrial Entrepreneurial Development Institution with support from the Bungamati Co-operative Society, the Tri-Ratna Co-operative School, and the Bungamati Village Development Committee and other industrial and commercial organizations. The Project brings the school and community together through activities such as blending nature and culture at their real life situation.

Sustainable Community Development and Education

Mr. Hum Bahadur Gurung¹

The emerging concept of ESD

Environmental education was widely used since the late sixties. The historic Earth Summit of 1992 endorsed Agenda 21, a blueprint for sustainable development in the 21st century. In Chapter 36 of Agenda 21, it has called countries to reorient their education system to incorporate environment and development issues (United Nations, 2002). However, progress towards reforming the education systems by countries both developed and developing, is still a long way to go.

The international debate on education for sustainable development (ESD) was organized by the IUCN–Commission on Education and Communication in 2000. A number of views were expressed in the debate that there are relationships between Environmental Education (EE) and ESD. *“Despite the differences in opinion about the relationship between EE and ESD most participants appear to regard ESD as the next evolutionary stage or new generation of EE”* (IUCN, 2000:12). Many participants were quite comfortable with ESD as a tool to develop norms and values and change practices and lifestyles. However, some participants were quite uncomfortable with ESD as a tool to change behavior. They argue that

¹ National Programme Manager, Sustainable Community Development Programme, NPC/UNDP, Kathmandu, Nepal

ESD should enable people to determine their own pathways towards sustainable living. Wagle (2003:182) states that “ESD enables people to develop the knowledge, values and skills to participate in decisions about the way we do things individually and collectively, both locally and globally, which will improve the quality of life now without damaging the planet for the future”.

It is important to realize that ESD is an evolving concept that has grown and developed in the years since the Earth Summit. A series of United Nations conferences helped to further develop the concept of sustainable development and sustainability (Hopkins and McKeown, 2002:14) and stressed that the major UN conferences also added to the conceptual framework of ESD, some of which are as follows.

- stressed the need for social and human development along with economic development and environmental concern;
- called for the advancement and empowerment of women;
- demanded basic social services for all;
- recognized the critical importance of sustainable livelihoods;
- cited the necessity of broad environment for social and economic development;
- sought to sustain the environment and natural resources on which all people depend.

ESD and sustainable community development

The Brundtland Commission defined sustainable development as “development that meets the needs of present without compromising the ability of future generations to meet their own needs” (WCED, 1987). In the context of Nepal, the sustainable development is defined broadly. “The over-arching goal of sustainable development in Nepal is to expedite the process that provides to its citizens and successive generations at least the basic means of livelihood with the broadest of opportunities in the field of social, economic, political, cultural, and ecological aspects of their lives (NPC/MOPE: 2003:1)”. A wide range of choices can only be achieved to integrate social, economic and environmental considerations by enhancing their management capacities.

The perspective on sustainable communities could be different from one country to another based on the social and cultural values. Generally, sustainable communities can be defined as those communities that have managed their wellbeing by maintaining their harmony with the natural environment. John Fien and Daniella Tilbury (2002) defined that: *“Sustainable community development is a process of local empowerment that enhances the ability of people to control their own lives and the conditions under which they live. This involves learning and action to ensure that as many people as possible participate in making decisions about the issues and problems that need addressing and work collaboratively to implement them. Sustainable community development means taking action to ensure that poverty is addressed by actions that both redistribute wealth appropriately and generate productive and stable employment.”*

As stated above the heart of sustainable community development is people and their ability to manage their own development and environmental affairs. It is a people-centered development. The three Ps – policies, programs and processes– for implementation of the community led initiatives are discussed in support of creating sustainable communities. Sustainable community development program (SCDP) is one of the best practices that use education as a means to achieve sustainable development. ESD has been regarded as a crosscutting tool to respond the local challenges of sustainable development.

The SCDP model

Nepal's Sustainable Community Development Program (SCDP) aims to reduce human poverty. *“When Capacity 21 support became available, it was logical to look at the participatory community development model to improve socio-economic conditions that would directly result in environmental protection”* (Dixit, 2002: 29). Thus, SCDP promotes environmental sustainability by helping reverse the resource degradation that undermines the rural communities. It starts with social mobilization, helping communities take control of their development and offering training to help them build their social, economic and environmental capital. SCDP builds on important trends in Nepal—decentralization, democratization and economic integration. When SCDP was planned, Nepal already had good national policies, but needed more initiatives defining what sustainable development should look like in rural communities. The SCDP design reflects models emerging in Nepal in the mid-1990s.

Some focused on social development, some on micro-economic development and some on environmental management. The best ones converged over time, moving towards sustainable community development.

SCDP is a joint undertaking of the National Planning Commission (NPC) and United Nations Development Programmed (UNDP) aimed at building local capacities to integrate the principles of Agenda 21 into national development. SCDP was launched at the end of 1996 and initially worked in Kailali, Surkhhet and Dang districts. In 2000, SCDP was expanded to Humla, Myagdi and Okhaldhunga districts.

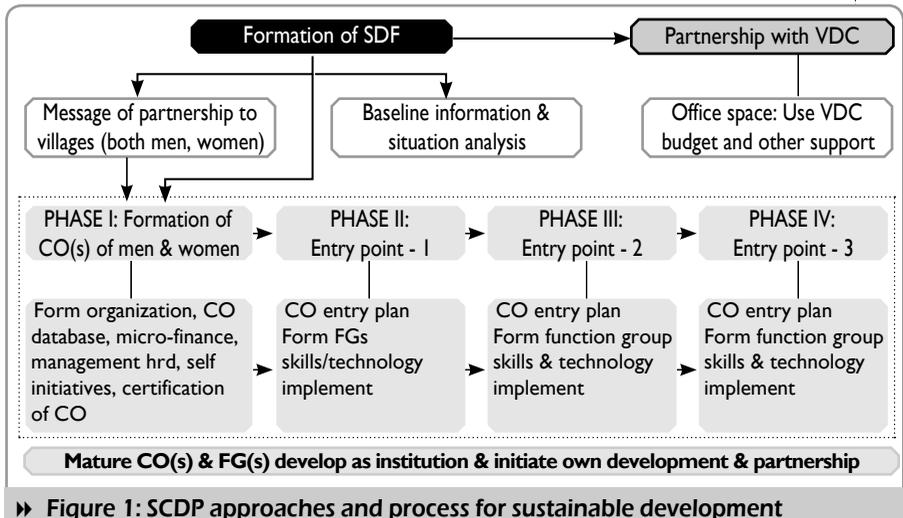
SCDP has promoted three pillars of sustainable development- social development, economic development and environmental management through an integrated and holistic approach. It attempts to combine increased stakeholder participation, information sharing and the integration of economic, social and environmental priorities. The fundamental principles of the SCDP model to development are:

- Participation of all stakeholders from national to local levels
- Integration of environmental sustainability into development plans and activities and,
- Information sharing to ease adaptation/replication of the experiences of the Program, both within the country and abroad

Since the beginning of the SCDP implementation, a social mobilization process was adopted for building local institutions, mobilizing local capital and resources, and improving skills to reduce poverty and enhancing environmental quality. It is believed that ESD becomes a promise when there is no alternative to poor people. Educating the local communities about sustainable development with opportunities and alternatives is a practical strategy. It is also important to recognize that people are agents of change. To make them an agent of change they should have opportunities for their participation in three ways. First, build self-governing local institutions so that people can get organized into groups. Second, enhance their skills through training and education. Third, mobilize financial resources internally and externally to undertake social, economic and environmental activities. Local institutions such as Community-based Organizations (CBOs) were formed in order to undertake these activities in six districts in Nepal: Surkhhet, Dang, Kailali, Humla, Myagdi and Okhaldhunga. Sustainable development requires a

strong partnership with stakeholders. In the SCDP district, it adopted a strategic process to ensure sustainability where education plays a vital role in ensuring and strengthening such process.

In three districts, CBOs in partnership with the District Development Committees (DDCs) and Village Development Committees (VDCs), identified one of the three dimensions of sustainable development as a starting point for development activities. For example, Surkhet district began with an environmental management program as its initial entry point. On the basis of the priorities of Dang and Kailali districts selected economic and social development programs respectively. A review workshop of each districts' initial efforts was organized with the participation of all concerned stakeholders. Based on the feedback information from this workshop, the second phase of development was initiated in each district. The last component was added after a review of the integration of the first two developmental components. Experience has shown that the integration of environmental management, social development and economic development builds synergetic impacts while addressing common problems (See Figure 1).



SCDP has developed an integrated and holistic community-based sustainable development program that has catalyzed the rural communities to be organized in self-governing local institutions. The watershed communities have a lead role in identifying their socio-economic and environmental problems, designing and

implementing them. A number of practical lessons and experiences were gained during the course of implementation. ESD links social and economic issues with environmental conservation. The following are the major activities to achieve sustainable development.

Socio- economic development for poverty reduction

The long term development focuses of the Tenth Five Year Plan (2002-2007) includes nine areas including poverty reduction, sustainable economic growth, community-based sustainable development and integration of environment and population management in all sectoral programs (HMG/NPC, 2003). SCDP is one of the best initiatives that has been reflected in the Ninth Plan in community development, resource conservation and uplift of the living standard of villagers. It has created a mechanism to support the rural poor communities in their efforts to overcome the vicious cycle of poverty. A Sustainable Development Facility Fund (SDFF) has been set up to provide a credit facility to the CBOs and their households based upon their enterprise and plans. CBOs have generated community funds of over Rs. 23 million to support their income generating activities. This helped promote communities' self-help activities and opened the door to income generation activities. SDFF increased the access of rural poor to the micro credit facilities regardless of collateral system of the financial institutions. Over 94 million rupees has been mobilized in six districts as loans to support the micro-enterprises such as non-timber forest products, livestock raising, vegetable farming, retail shops and seasonal business.

The SDFF credit fund has already generated approximately 4 million rupees as interest. The interest generated is also added in the principal capital that had increased the investment. However, the interest is arranged to meet the cost of operation of NGO/Support Organization so that SDFF could sustain in the future. CBOs have supported the following activities to ensure social sustainability.

- Health and sanitation awareness, and toilet construction.
- Improved drinking water supply to ensure clean water and reduce the labor of village women.
- Scholarships for girls and children of indigenous Raji communities.

- Non-formal adult literacy classes, often focused on women in the community and usually linked with practical training.
- Community-based child development centers, ensuring proper care and nurturing of pre-school children during periods when parents are busy with agricultural works.
- School infrastructure support to repair old schools and build new ones.
- Mobile health clinics to reach rural populations otherwise beyond the reach of trained medical professionals.
- Training of traditional birth attendants, who provide the only support to most women giving birth in remote villages.

Micro-economic development has been promoted through:

- Construction of irrigation ponds to retain waters from monsoon for the dry season.
- Green enterprise development, such as commercial plantations to produce bamboo, napier grass and valuable cash crops that also serve to protect vulnerable micro-watersheds.
- Micro-credits for enterprises harvesting non-timber forest products, cooperative mills, animal husbandry, fruit vegetable, fish farming and village shops.
- Training in primary veterinary care, apiculture, community forest management and horticulture to create capacities of villagers and provide services at community level.

Sustainable use and management of natural resources

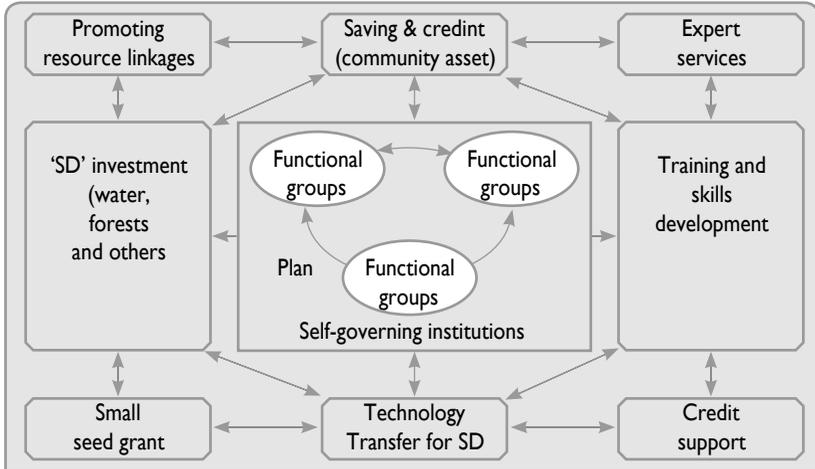
The mission of SCDP is to support the government's efforts in building local institutions' capacity to manage environment and natural resources integrating socio-economic development. SCDP has promoted integrated and holistic community development in the program areas by addressing local environmental issues that are closely associated with the issues of poverty. SCDP is supporting the initiatives of CBOs, NGOs/SOs and the local governments in environmental and natural resource management through encouraging collaboration among the stakeholders and introducing alternative energy like improved cooking stoves, solar

power and bio-gas. As a result, pressure on the forests is reduced, women's and children's chances of inhalation of smoke improved, and the level of awareness to conserve, protect and use the forest resources in a sustainable manner increased. To promote environmental sustainability, the CBOs have developed:

- Multi-purpose nurseries for trees and shrubs to supply fuel wood, fodder, fruit and medicines.
- Community plantations in micro-watersheds to improve soil management, as well as increase the supplies of wood, fuel and fodder for the community.
- Community forest-users groups prepare management plans resulting in stewardship certificates from the concerned line agency giving them legal rights.
- Promotion of alternative energy and efficient stoves, including the training in their manufacture and repair.
- Wetland management and ecotourism development
- Environmental adult literacy classes, mainly for illiterate women.

Capacity building for sustainable development

As aimed to build local capacities, SCDP facilitate various training activity related to sustainable human development in collaboration with other agencies. Over 1352 CBOs are closely working with SCDP to strengthen their management capabilities. SCDP has been supporting CBOs to train their members as Sustainable Development Village Specialists to support their development initiatives. A wide range of practical strategies and linkages are necessary to make development environmentally sustainable, socially equitable and economically sound (see Figure 2).



► Figure 2: Practical strategies and linkages for sustainable development

Sustainable development policies and strategies

SCDP with support of, and collaboration from, UNDP’s Capacity 21, World Wildlife Fund (WWF) and IUCN–The World Conservation Union assisted the National Planning Commission and the Ministry of Population and Environment to formulate the Sustainable Development Agenda for Nepal (SDAN) after a series of consultations with a various stakeholders. SDAN has been recently approved by His Majesty’s Government. Nepal’s SDAN aims to guide and influence national level planning and policies up to 2017. Its agenda draws upon, and is in conformity with, the long term goals envisaged in Tenth Five Year Plan (2002-2007), Millennium Development Goals, Poverty Reduction Paper and commitments made by the country in various international forums (HMG/NPC/MoPE, 2003). SDAN stresses a major departure from the current education system to ensure happy and healthy society that leads toward a sustainable society.

Challenges for ESD

The major challenge for ESD in the context of SCDP is to demonstrate sustainable, viable and alternative approaches to making implementation of sustainable development effective through decentralized management and local initiatives. The immediate challenges are:

- ESD has not yet been reflected in the formal education system. Local efforts and initiatives in isolated areas may require more time and resources for promotion in schools.
- To train local communities in non- formal sector and teachers in formal sectors requires more time as the term “sustainable development” is not common and well-understood by the communities. Some aspects of environment are provided in the national curriculum, but the approach is not coherent and does not cover the wider range of sustainable development. In the SCDP districts, eco schools have promoted ESD but its replication in other schools is a major challenge.
- To develop local capacities and demonstrate sustainable development principles in action through an integrated approach, incorporating gender-sensitive social, economic and environment linkages.
- To develop partnerships amongst the major stakeholder organizations (central governments, local governments, NGOs and CBOs) and to reinvent their roles so that CBOs function as planners and implementers of their own sustainable development program.
- To demonstrate viable options for sustenance and adaptation of sustainable development approaches.
- To document and disseminate knowledge from successful experiences and to link the use of local knowledge to support district and national level sustainable development policies.

Conclusion

ESD is a life long process. It is a driving force in mobilizing the local communities and a tool for ensuring sustainability. Capacity building of the local communities through various educational programs is essential to enhance their ability to manage their resources. In the SCDP program areas, it helps the community to understand the process of achieving sustainability through sound management of their ecology and environment. Development becomes sustainable when people develop the sense of ownership and fulfill their needs without destroying the resource base.

SCDP is a good example of how local initiatives can lead to a society that can sustain itself through environmentally sustainable local development efforts (UNDP/Capacity 21: 2001). It is important that these initiatives have long-term support, but to obtain this commitment is a slow process. Local communities must put their trust in the program before they make such commitment. However, the success so far demonstrates that biodiversity conservation and sustainable development combined with ESD can generate sustainable actions to help communities and safeguard their environment. The support of UNDP and Capacity 21 in Nepal has reached into rural communities where the nexus between poverty and the environment is very strong. SCDP was able to mobilize the rural communities for the self-help community development and environmental conservation activities. The ability of managing the environment for sustainable development by the people of the SCDP area is perhaps one of the greatest impacts of ESD. However, ESD is an emerging paradigm and more constructive debates is to make it every body's agenda and concerns.

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Education for Cooperation and Benefit Sharing in Conservation and Development

Ukesh Raj Bhujju¹

Introduction

Education has been a key factor of conservation success in Nepal. Since the establishment of the first national park in Chitwan in 1973, His Majesty's Government has considered public awareness and education as an indispensable tool for the active participation of the local communities in the management of the protected areas. Conservation education is one of the major programs launched by the government in the protected areas management and wildlife conservation. During the initial years of protected areas establishment, although the Royal Nepal Army was engaged in the protection along with the promulgation of the 1973 National Parks and Wildlife Conservation Act and the regulations, long-term conservation education programs were launched in the protected areas in 1975 and 1983. The major international affiliations and commitments that prompted conservation education programs in Nepal included membership of IUCN – the World Conservation Union in 1974, ratification and signing of conventions such as CITES (Convention on the International Trade in Endangered Species of Wild Fauna and Flora) in 1975, World Heritage Convention in 1978, Ramsar Convention in 1987 and Convention on Biological Diversity in 1992.

¹ President, Nepal Heritage Society

At the time of nomination of the Royal Chitwan National Park for the World Heritage Site in 1984, the IUCN team observed that the government had promoted public awareness programs to resolve the issues of wildlife damage in Chitwan. The driving force of the Annapurna Conservation Area Project (ACAP) that was launched in 1985 and the Parks and People Program (1994-2001) launched in 7 protected areas was primarily conservation awareness and benefit sharing at the community level. The projects supported by World Wildlife Fund (WWF) since 1967 have a component of education directly or indirectly. Following its permanent office establishment in Kathmandu in 1992, WWF Nepal Program promoted eco clubs in schools around the protected areas and in the Kathmandu valley. The climax of its program was realized in 2000 when the Eco Walk was organized in Kathmandu. Over 2,500 students and teachers (including some from abroad), leaders and celebrities participated in the walk.

The Master Plan for the Forestry Sector outlined high priority to human interests while developing protected areas. One of the objectives of the Plan for the conservation of ecosystems and genetic resources is “*to enhance education in resource and protected area management and in people-park relations*” (HMG/MFSC 1988 p58). Conservation awareness was a major highlight of the National Conservation Strategy (NCS) for Nepal. It outlined eight resolutions pertinent to conservation awareness, such as national coordination, public education system focusing on students and teachers, in-service training, agricultural extension service training, developing technical capacity, resource conservation and Tribhuvan University, women and conservation education, and nongovernmental organizations and private sector. In its sectoral analysis, the NCS states, “*Conservation – the wise-use of natural resources and the preservation of cultural heritage – begins with improved understanding*” (HMG/IUCN 1988 p27). In 1991, the National Environment Education Guidelines was drafted out for the promotion of environmental education in the formal, nonformal and informal education systems of the country.

The two main streams of education that played significant roles in the current conservation history of Nepal are school-based eco clubs and community oriented public awareness campaigns. Various conservation organizations ranging from grassroots community-based organizations, private voluntary organizations, national and international nongovernmental organizations, donors and the

government line agencies have contributed to education from their respective capacities. The leading organizations include the Association for the Preservation of Environment and Culture (APEC), Environmental Camps for Conservation Awareness (ECCA), Food and Agriculture Organization (FAO), Green Camp Nepal, Himalayan Trust, IUCN, Kathmandu Environmental Education Project (KEEP), King Mahendra Trust for Nature Conservation (KMTNC), Nepal Heritage Society (NHS), Research Center for Educational Innovation and Development (CERID), Sagarmatha Pollution Control Committee (SPCC), UNESCO, United Development Programs (UNDP), WWF, and others. The schools, village development committees and social clubs also have contributed to environmental education in and around the protected areas.

The global strategies that influenced environmental education in Nepal are the guiding principles for environmental education endorsed in the Intergovernmental Conference on Environmental Education in Tbilisi in 1977, education strategies outlined in the *Our Common Future* 1987, the *Caring for Earth - A Strategy for Sustainable Living* 1991, and *Agenda 21*.

Eco clubs: A mode of cooperation

Background

In 1995, the District Education Office of Kathmandu, Goethe-Institut, and WWF Nepal Program jointly celebrated the World Environment Day by organizing a workshop for the 32 teachers/students representing 16 schools from the Kathmandu valley. The Sharada Madhyamik Vidyalaya from Bhaktapur presented a case study of their eco club. Similarly, Friends of Shuvatara School from Lalitpur displayed their materials (Nepal, Ashoke 1995). Following a brain storming session, the participants outlined a list of 40 different activities for eco clubs. With the implementation of the Bardia Integrated Conservation Project (1995-2001), eco clubs have been expanded into 51 schools in the Buffer Zone of the Royal Bardia National Park (WWF Nepal Program 2001). APEC promoted eco clubs in over 125 schools in 6 districts in East Nepal. KMTNC promoted eco clubs as a part of its zoo education program. The number of schools having eco clubs is estimated to be over 500 in the country today. Some examples are given in the boxes.

Objectives

The three initial objectives of eco clubs in schools are:

- i. Encourage students to study, practice and undertake environmental activities;
- ii. Encourage students to share their knowledge, concepts, skills among their peers in country and abroad; and
- iii. Enhance students' networking for the cause of environmental conservation, peace and harmony.

Box 1. Budhanilkantha Environment Club

The club has been instrumental in activating eco clubs in other schools. The members visited places like Bardia and Bhaktapur, and share their knowledge and skill in organizing educational activities. The club initiated a system of organizing annual competition of school environmental projects in the Kathmandu Valley. The members promoted environmental quiz contest in Bardia by donating a running shield. Being senior students (Grade XI and XII, and A and O Levels), the Budhanilkantha environment club has been in the forefront in organizing environmental activities.

Impacts

Eco club has become a regular extra-curricular activity in the schools (public and private). The favorable conditions were created by the NCS Implementation Project during 1989-1997. Coincidentally, the Royal Commission on Education recommended environmental education in the formal school system (Grade I through X) in 1992. By the end of the NCS implementation in 1997, students at Grades I through VII were fully exposed with environmental education in their formal education. For the development and implementation of the environmental education components of NCS, over 25 different organizations (10 government and 15 others) were involved in the process (NPC/IUCN NCS Implementation Project 1998).

With the renewal of membership and leadership every new academic year, the eco clubs activate new batches of students to learn and act for environmental conservation. One of the exciting activities is a green gift exchange that has been initiated since their creation in 1994. The club members prepare a package of materials (handicrafts, pictures, report, etc.) based on their environmental activities, and send them out to other schools both in country and abroad. The Nepalese schools have exchanged their green gifts with schools in several

countries like India, Bhutan, Pakistan, Thailand, Malaysia, Hong Kong, Japan and USA. The message of the gifts is primarily on conservation. Encouraged with their school activities, students who were once involved in eco clubs have formed environmental groups after they have graduated from schools.

Box 2. Jagadamba Eco Club

Aggressive and active since the formation of eco club in Jagadamba High School in 1996, the members have established tree plantation and fruit orchard in the school premise. They have led the rest 50 schools in the Buffer Zone of the Royal Bardia National Park in eco club campaign. Their members have demonstrated high skills in street theater, recycling of paper, reuse of plastic wrappers, public awareness programs, and cleaning of heritage sites. The members are invited as resource persons on various functions.

In 1998, they organized letter-writing campaign to mark the Year for the Tiger Campaign. The essence of the 500 letters was that the people of Bardia had sacrificed their properties for the sake of tiger conservation, although they had suffered from the increasing wildlife populations. The letters appealed the people to give up drug containing tiger parts. The letters were sent out to schools in Hong Kong, Japan, and Malaysia.

Synergy

Eco clubs have become a major component of conservation and development programs launched jointly by WWF and the Department of National Parks and Wildlife Conservation (DNPWC) in Kangchenjunga Conservation Area, Sagarmatha National Park and Buffer Zone, and Shey Phoksundo National Park and Buffer Zone. Eco clubs have also been adopted in the UNDP projects in western Nepal. Several education organizations have promoted eco clubs, though under different names. For example, the School Partnership Worldwide organized Green Clubs; the ECCA formed Nature Clubs; the Kathmandu Metropolitan City promoted BaBa (Batabaran ra Balak - Children and Environment); Prakriti Clubs, and Nepal Heritage Society campaigned “One school one heritage” program.

By 2000, eco club has become a popular educational movement in the country. Upon the appeal of the Ministry of Population and Environment and WWF Nepal Program, over 2,000 students from various parts of the country and abroad joined for the historical Eco Walk in Kathmandu on the occasion of the World Environment Day in 2000. Over 500 teachers, journalists, educators, leaders and celebrities followed the students in the walk.

Box 3. Sharada Eco Club

The Sharada Madhyamik Vidyalaya of Bhaktapur has become a focal point for disseminating the idea of eco clubs in the country. Teachers from various districts such as Makwanpur, Bardia, Solukhumbu, Taplejung and others have visited there to acquire information and knowledge about eco club establishment and operation. They received celebrities like a world cyclist from the Netherlands. They organized regular Friday activities, and invited celebrities like a Sagarmatha summiteer. They take pride in exchanging green gifts with schools in country and abroad. Its club members have participated in the special heritage march to welcome the delegates to the “Journey to Kathmandu: Bhaktapur Festival” organized by WWF Nepal Program in November 2000. Its members have traveled abroad and disseminated conservation message in the global forums.

With the enthusiasm gathered from various events, WWF Nepal Program, CERID, Nepal Scout and Nepal Red Cross Society developed a long-term strategy of eco club promotion in the country in 2002. The vision is to expand a national network of eco clubs in all the secondary schools (nearly 5,000) in 5 years by using the existing organizational structures of Scouts and Red Cross.

Eco club heritage quiz launched since 2000, has been a fine example of how over a dozen of organizations cooperate for the cause of environment. The Radio Sagarmatha – FM 102.4 MHz, a community radio program managed by the Nepal Forum of Environmental Journalists (NEFEJ), conducts the quiz contest among the schools using its children broadcasts on Saturdays and Sundays. The final round is held after a completion of 16 rounds of contests. On the World Heritage Day (April 18), Nepal Heritage Society organizes a public platform for the final contest that goes on the air. Celebrities are invited as “quiz master” for public awareness. Along with the 16 participating schools in one cycle of contest, over a dozen of organizations contribute to various capacities, such as financial, technical, material and volunteers. Over 100 schools have participated in the quiz.

Eco clubs have also generated synergy at the environmental education forum conducted by CERID. In 2001-2002, CERID facilitated 9 forums among educators, teachers, students and experts to discuss various aspects of eco clubs (TU/CERID 2002). Recently, the educators involved in eco clubs have been exchanging their views on how to strengthen eco clubs at the national level. The idea is to organize national level activities such as exhibitions of achievements, competitions of environmental projects, recognition awards and incentives for the best eco clubs, and so on.

Buffer zones: A mechanism of benefit sharing

Background

Ever since the establishment of the protected areas, there has been a conflict between the local communities and the protected area authorities over the priority issues. For the local communities, the use of natural resources has been a major priority, and is facing the wildlife related human casualties and property damage a major issue. For the authorities, protection of wildlife and their habitats is a number one priority, and poaching problems and encroachments a major challenge. In 2001-2002, there were 31 wildlife incidents around the protected areas in which a total of 19 persons were killed (9 in encounters). In 2000-2001, of the 39 wildlife accidents, 34 persons were killed (11 in encounters).

During the popular movement in the country in 1990, local communities living around the protected areas especially in Chitwan and Langtang intensified their voice on sufferings from wildlife damage including human casualty. However, the local communities did not undermine the values of the wildlife. Conservation education campaigns of the Department of National Parks and Wildlife Conservation (DNPWC) using audio-visuals had created positive impacts. Over a dozen of wildlife documentary films that were produced and screened publicly in the 1970s were educative, motivating and entertaining for the local people (Box 4).

Box 4. Documentary films on wildlife and conservation

- | | |
|---|---|
| 1. A Fragile Mountain (30 minutes) | 10. Pity the Poor Crocodile (30 minutes) |
| 2. An Elephant's Eye View (30 minutes) | 11. Resolving Conflict (9 minutes) |
| 3. Elephant Polo Tiger Tops 1991 (60 minutes) | 12. Rhino Translocation (30 minutes) |
| 4. Follow that Tiger (30 minutes) | 13. Star Himalayan Balloon Over Everest Expedition 1991 |
| 5. Great One Horned Rhinoceros (30 minutes) | 14. The Living Planet (60 minutes) |
| 6. Hunting the Hunter (30 minutes) | 15. Tiger Tiger (60 minutes) |
| 7. Living in Harmony (37 minutes) | 16. Tiger Tops Elephant Breeding |
| 8. Marshes of Bharatpur (30 minutes) | 17. Tough Near the Top (30 minutes) |
| 9. Nepal the Land of Adventures (20 minutes) | 18. Wildlife of Nepal (30 minutes) |

Legislation

In response to the people's voice, the government formulated the buffer zone policy by amending the National Parks and Wildlife Conservation Act in 1993 (HMG 1993). The 4th amendment of the Act introduced buffer zone policy. One of the articles of the Act states, "30 to 50% of the of the income generated by the national parks, reserves or conservation areas can be spent for the community development of the local people by coordination with local agencies (HMG 1993 p39)."

The Buffer Zone Management Regulations 1996 and Buffer Zone Management Guidelines 1999 made provisions of institutional structure, program planning, resource mobilization and funds management. With the promulgation of the regulations in 1996, buffer zones have been declared in Bardia and Chitwan. By 2002, buffer zones have been declared in six national parks (see in Table 1). The six buffer zones cover the total area of 3,941 Km in 109 Village Development Committees and 2 municipalities. There are over 160 User Committees and over 2,000 User Groups representing over 400,000 populations. With a view of furthering the coordination as well as competition among the Buffer Zone Management Committees, a Buffer Zone Forum was launched in 2002. The Forum will also help the government in revision of the buffer zone related policies and programs.

Table 1. Buffer zone status

Buffer Zone	Year Declared	Area Km ²	Population	LG	UC	UG
1. Langtang National Park	1998	420	40,000	34	21	315
2. Makalu Barun National Park	1999	830	32,000	12	NA	NA
3. Royal Bardia National Park	1996	328	69,000	17	83	178
4. Royal Chitwan National Park	1996	750	242,000	37	37	1,541
5. Sagarmatha National Park	2002	275	13,000	3	3	28
6. Shey Phoksundo National Park	1998	449	9,000	8	17	NA
7. Koshitappu Wildlife Reserve*		136	172,000	13	NA	NA
8. Parsa Wildlife Reserve *		367	126,000	17	NA	NA
9. Royal Shuklaphanta Wildlife Reserve *		153	74,000	11	NA	NA
Total		3,708	777,000	152	161	2,062

(* Proposed)

LG: Local government (Village Development Committee and Municipality)

UC: User Committee; UG: User Group

Source: DNPWC/PCP 2002, and HMGNI/MFSC 2002.

Public voice

There are some remarkable public initiatives that complemented DNPWC's buffer zone policy. The three cases from Bardia, Langtang and Sagarmatha are worth mentioning here. The Bardia workshop supported the MFSC officials to put the process of formulating buffer zone regulations in a fast track. The Langtang discussion program helped the DNPWC officials to recommend for 50% revenue allocation for the buffer zone programs in Langtang. The Sagarmatha event helped declare the buffer zone by including the Pharak region.

Box 5. Bardia buffer zone

Nepal Forum for Environmental Journalists (NEFEJ), Royal Bardia National Park and WWF Nepal Program jointly organized an interactive workshop on "Park People: Interrelation and Interdependence" in Thakurdwara, Bardia on May 1 and 2, 1995. The workshop passed a resolution that people's participation was a must in conservation efforts, and the 4th amendment of the buffer zone policy should be implemented without delay. Following the workshop, the facilitators approached the Ministry of Forests and Soil Conservation (MFSC) officials to put the buffer zone regulations in a fast track, for without the regulations the buffer zone policy would remain inactive. The Workshop was a positive thrust to the officials of DNPWC and MFSC to bring the regulations out in a gazette in 1996 (NEFEJ 1995, Personal communications with Mr Bhairav Risal, and personal observations).

With the technical and financial supports of various donor agencies, the government launched conservation and development programs in and around the protected areas. The programs included public awareness as a main activity. Annual public coordination meetings and the occasional stakeholders meetings were the main platforms where circulars and information of public interest were disseminated. The level of participation in terms of inputs was significant in these forums. Using the stakeholders' forums, DNPWC received inputs for strategic frameworks of 8 protected areas namely Bardia, Chitwan, Khaptad, Koshitappu, Parsa, Rara, Sagarmatha and Shuklaphanta.

Awareness efforts

The most exciting event that DNPWC and its protected area offices observe is the celebration of the Nepali New Year (second week of April) by organizing a nation-wide Wildlife Week. Hundreds of students are invited to participate in various contests and activities such as art drawing and essay writing. The celebration includes bird watching, exhibition, seminar, rally and other awareness activities. Similarly, the World Environment Day (June 5), the World Heritage Day (April 18) and the other national and international days are observed widely.

Box 6. Langtang buffer zone

NEFEJ and the Langtang National Park with the assistance of Friedrich Naumann Stiftung organized a district level discussion program in Dhunche, Rasuwa in 1998 on the relationship between the inhabitants of Rasuwa district and the Langtang National Park. Men and women from all the 26 Village Development Committees of the district participated in the program. The district leaders enthusiastically mobilized the local people for cooperating with the park administration, and demanded for the maximum ceiling that is 50% park revenue to be recycled in the buffer zone. The interactive meeting was instrumental in helping the park authorities for the recommendation to the DNPWC/MFSC (NEFEJ 1995, Personal communications with Mr Bhairav Risal)

DNPWC runs a weekly program on conservation called “Naso” in the national broadcast of the Radio Nepal. DNPWC regularly publishes promotional and educational materials, such as brochures for each of the protected areas. These materials are distributed to the visitors, students and other interested people. On various occasions, DNPWC has published a series of posters and charts especially useful for the students and general public. Along with the annual progress reports since 1993, DNPWC brings out Samrakshan Samachar, a bi-monthly newsletter in Nepali (published since 1980), and Wildlife Nepal, a bi-monthly newsletter in English (published since 1988).

DNPWC coordinates with the Nepal Rastra Bank to ensure correct pictures of wildlife on the currency notes. Similarly there are commemorative coins carrying the pictures of various wildlife species. Occasionally the notes are referred to the name of a wildlife species, such as the Rs100 note is often called a Rhino note. The pictures of wildlife species and their corresponding notes are listed (Box 7 Currency Notes and Wildlife Pictures).

Box 7. Currency Notes and Wildlife

1.	Rs. 1	Musk Deer (<i>Moschus chrisogaster</i>)
2.	Rs. 2	Common Leopard (<i>Panthera pardus</i>)
3.	Rs. 5	Yak (<i>Bos grunniens</i>)
4.	Rs. 10	Black Buck (<i>Antilope cervicapra</i>)
5.	Rs. 20	Swamp Deer (<i>Cervus duvacei</i>)
6.	Rs. 25	(National Animal: Cow)
7.	Rs. 50	Himalayan Tahr (<i>Hemitragus jemlahicus</i>)
8.	Rs. 100	Rhinoceros (<i>Rhinoceros unicornis</i>)
9.	Rs. 250	(National Animal: cow)
10.	Rs. 500	Tiger (<i>Panthera tigris</i>)
11.	Rs. 1,000	Elephant (<i>Elephas maximus</i>)

The Department of Postal Services publishes postage stamps depicting wildlife, plants, landscapes and other features of the country. The Nepalese currency notes and the postal stamps of Nepal are popular for their wildlife pictures.

Box 8. Sagarmatha Buffer Zone

To mark the 25th anniversary of the Sagarmatha National Park and the International Year of Mountains 2002, His Majesty's Government of Nepal declared Buffer Zone in the Sagarmatha National Park on January 1, 2002.

In the first week of November 2002, Minister of Forests and Soil Conservation, Mr Gopal Man Shrestha, escorted by the senior officials made a special visit to the Sagarmatha National Park and the project area of Sagarmatha Community Agroforestry Project launched by the Department of Forests and WWF. On the occasion, the local women working for the community forestry program gave impressive presentation and briefings to the minister and the officials on their contributions in forestry and fuel saving programs. They strongly lobbied for the buffer zone declaration in Sagarmatha by including the Chaurikharka Village Development Committee (VDC). Till then, buffer zone declaration in Sagarmatha was pending for years due to indecisiveness to whether include Chaurikharka VDC or not (<http://www.wwfnepal.org.np/scafp.htm> and Personal observation).

Attitudinal change

In the three decades of conservation history, public support for conservation has been significant. Once hostile to the national parks system and the authorities, local communities have become good friends with their hospitality in the recent years. Under the Buffer Zone policy, DNPWC has been able to bring over 737,000 buffer zone residents in the mainstream of conservation campaign.

Under the conservation and development projects in the protected areas, eco clubs have been formed and strengthened in hundreds of schools along with public awareness campaigns. With a purpose of enhancing park-people relations, each protected area office annually conducts public coordination meetings in the field.

Box 7. Sagarmatha pollution control

Garbage was the number one environmental pressure in the Sagarmatha National Park and Buffer Zone in the early 1990s. There were news articles defaming the park that the Khumbu region was the “highest trash pit” in the world, or “you could follow tin cans and toilet papers and reach the top of the mountain!” Shocked by the news, His Holiness Rimpoche of Tengboche, Ngawang Tenzing Jangpo, took initiative and mobilised the local people to clean up their backyards. The initiative gave birth to the organisation, Sagarmatha Pollution Control Committee (SPCC) in 1991.

During the 3 years period from 1994-95 to 1997-98, SPCC managed 767,776kg of garbage. Amount of garbage collection has increased over the years. In 2000-01 alone, the committee collected 217,238 kg of garbage. The figures indicate that garbage deposits in the region have also increased. The buffer zone residents suggest that the garbage management should be directly under the park administration.

The two major sources of funding SPCC’s activities were His Majesty’s Government of Nepal and WWF. Under the policy of recycling peak fees generated from the Khumbu region, His Majesty’s Government of Nepal has been providing the SPCC with approximately Rs2.5 million per year since 1993. WWF provided matching grants to SPCC. To implement the SPCC operational plan, a tripartite agreement was signed in 1993 between the Ministry of Tourism and Civil Aviation (then without the portfolio of Culture), WWF and SPCC. The Himalayan Adventure Trust of Japan has separately provided support to SPCC for apple tree plantation and garbage incinerator at Lukla.

(Source: SPCC Annual Progress Reports; personal observations, communications with SPCC staff)

Conclusion

On one hand, the school-based eco clubs have been instrumental in disseminating strong message of CITES and species conservation across the country and abroad. The clubs have become a good medium of peer learning and knowing each other at the participant level. The clubs have created synergy among organizations for enhanced cooperation for conservation.

Public awareness programs have been a major force in buffer zone declarations. Men and women have realized the importance of protected areas and biodiversity conservation for their better future. With increased awareness, public attitude has changed from hostility to hospitality. The communities have also raised voice against the government policy to hand over management responsibilities to the nongovernmental and other organizations. Their suggestions have been to retain the management responsibilities with the government and open up an avenue for the community involvement.

Realizing the importance of environmental education, the Nepal Biodiversity Strategy 2002 has outlined two main strategies on education. They are:

- i. Endorsing indigenous knowledge and innovations, and
- ii. Increasing conservation awareness.

The other strategies that also reflects the value of education are; Integrating Local Participation, Enhancing National Capacity, Securing Intellectual Property and Farmer Property Rights, and Women in Biodiversity Conservation (HMGN/MFSC 2002).

Nepal's recent conservation efforts have been geared towards ecoregion-based conservation at the landscape level focusing on biodiversity conservation and poverty alleviation. There is a vision of linking the existing protected areas by maintaining the forest corridors where activities on biodiversity conservation and poverty alleviation will be considered. Such visions encompass millions of people living in the biological corridors. Naturally, the vision will be materialized only when the local communities, the main stakeholders, participate in the program for which intensive environmental education coupled with cooperation and benefit sharing will be a driving force.

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Community Managed Schools in Nepal

Dr. Badri Dev Pande¹

Background

Nepal can take pride in her glorious history of community support to schools. Communities throughout the country have placed high value on education. Schools have been perceived as symbol of prestige for a village or a community. Community leaders, therefore, have endeavored to get a school established in their door steps. Initially, teachers were well paid by the communities and through their contribution of land, cash, materials and labor, school buildings were erected. Although many schools received lump sum grant to pay for teachers' salary, maintenance of support proved to be a burden for many communities. As a result, it was common for teachers not to receive their salaries for many months.

The government takeover of schools with the advent of the National Education System Plan in 1971 was a relief both for the communities and the teachers with regard to financing of education. However, it also drastically curtailed the community's authority to manage their schools. School Management Committee (SMC) was restructured as School Cooperation Committee. This change shifted almost entire burden of financing schools and managing them to the Government through district education offices.

¹ Director of Program, Foundation for Human Development

Since 1971 the number of schools has increased by over three folds and the number of students has increased by almost four folds. In 2001 the government expenses in education sub-sector reached 15.6% of the total national budget. Educational quality has not kept in pace with the increase in government expenditures.

More recently, the government has adopted a policy of letting the communities manage their schools on a voluntary basis. Applications are invited through advertisements in the leading newspapers. Schools meeting the criteria set for eligibility enter into agreement with District Education Office or municipality. A school to qualify for the transfer of management must be a community school receiving government grant, should have SMC in place duly formed as per The Education Act; must submit approval of the Village Development Committee, municipality or SMC in writing; a meeting of parents/guardians must give its consent for management of schools by the community.

During the fiscal year 2002/2003 management of nearly 100 schools was transferred to communities. Additional schools are being handed over to communities during the current fiscal year. In addition to management responsibility, schools receive a one-time incentive grant of Rs. 100, 000 for each level of management takeover. An agreement was signed between His Majesty's Government and The World Bank for a loan of US\$50 million to provide incentive grant to 1500 schools over a period of two years. A total of 250 of these schools will receive block and performance grants, scholarships and technical assistance for capacity building.

Current status of the community managed schools

The author in connection with a World Bank mission recently visited 55 community managed schools in six districts to assess their status with regard to changes after management takeover. Except in a few schools where both teachers and students seemed conscious of the need for greenery and environmental sanitation, most schools were devoid of flowerbeds, trees and other forms of greenery. Toilets in most schools were not clean and classrooms and playgrounds were far from being clean and pleasant. Although environmental education and

sustainable development (SD) concepts are introduced from Grade I, they seemed to have been limited to theoretical instructions.

Schools managed by communities offer good opportunity for promotion of education for sustainable development (ESD) in their schools. Thus far SMCs seem to be engrossed primarily in improving physical facilities of their schools, supporting additional teachers with their own resources and trying to secure government approval for next grade or next level of schooling. Improving educational quality and promotion of ESD do not seem to be their priority concerns.

Schools where management has been transferred to communities benefit both from additional financial resources and increased involvement of communities in school affairs. Incentive grants and performance grants from the government and technical assistance for capacity building of school communities open up new avenues of resource mobilization. The guidelines prepared for communities taking over management of their schools suggests SMCs to form a resource mobilization sub-committee. Likewise, the guidelines also suggests for formulation of a sub-committee on educational quality. Each school is also to organize a Parents Teachers Association (PTA). Other sub-committees are also proposed involving parents, teachers and other members of the school communities. Thus a good platform for SD will be in place when schools handed over to communities are fully functional as per the guidelines given to them.

ESD strategy

In a school community the stakeholders include students, teachers, SMC and parents/guardians. These stakeholders can draw upon resources from local NGOs, CBOs and other infrastructures and natural resources of the community. Here a broad strategy is proposed for each group of stakeholders towards realizing ESD.

Students

In a formal school setting students have the opportunity to gain theoretical knowledge on environment and population from the curriculum and textbooks prescribed for them. However, they have had little or no opportunity to apply their theoretical knowledge in practice or to gain in-depth insight into the

concepts introduced to them. Moreover, the students are not used to relating their education to their surroundings and everyday living.

Some schools have formed eco clubs/nature clubs with lead initiatives of students and with guidance from teachers. Such clubs are reported to have positive impact on students' understanding of SD concepts. These clubs have also significantly contributed to environmental sanitation and beautification of school premises. Because it provides students to develop leadership qualities, conserve nature and better understand the consequences of unsustainable practices of human beings, nature clubs or eco clubs should be made mandatory in all community managed schools.

Teachers

Teachers can play a crucial role in promoting ESD principles and practices not only among their students but also among their community people as a whole. In teaching the teachers should endeavor to engage their students in discussion inside classrooms; adopt demonstration methods whenever feasible and try to take their students out of classrooms for practical observation and work as far as possible.

Teachers should actively involve themselves in SMC meetings, parents / teachers meetings and other community gatherings and share their ESD knowledge at the same time encouraging their audience to follow SD practices. They should always be ready and willing to serve as resource persons to events organized by their students and in community events. By providing guidance to eco clubs of their schools, the teachers will be enhancing their own capacity on the promotion of SD concepts.

School management committees

Since SMC comprises of school headmaster, teacher, student guardians, community leaders, local government representative and donor, it represents a resourceful and powerful school community body. SMC should provide every encouragement to nature club of their school and to teachers in their efforts to promote ESD. The SMC members should themselves be open to learn about and practice sustainable living. They should try to provide financial and other

community-based resources at their disposal to assist with the learning and innovative activities of students and teachers.

As SMC establishes linkage with the District Education Office and other agencies outside of school communities, it should try to arrange human and material resources from these agencies. There are many agencies in districts, regional headquarters and municipalities engaged in various activities contributing to SD (e.g. solar energy set ups, development and processing of medicinal plants, bio-gas support agencies and so on).

SMC should chalk out an annual plan for school specifically aimed at promoting SD. In doing this inputs from students, teachers and parents should be sought. The plan should include organization of debates, interaction programs, workshops and seminars.

Parents/guardians

In community managed schools parents/guardians are expected to play a more active role in ensuring quality education for their children and in supporting their schools as per their skills and abilities. By playing active role in PTA they can be informed about and encouraged to help their children and community to lead sustainable lifestyle. Parents/ guardians should also involve themselves in other activities organized by nature club, school and community organizations.

Though not directly associated with schools, local NGOs and CBOs should play a role in capacity building and facilitating SD endeavors of students, teachers and parents. By accessing and developing awareness raising and educational materials and organizing training for the SMC members they can equip influential members of their community to adopt favorable policies and programs towards converting the school into a learning centre for the community as a whole.

Conclusion

All public schools are now considered as community schools. Apparently, private schools have done more than community schools in making their students aware and skilled about sustainable development practices. With the transfer of management to communities opting to run the schools are now equipped with

additional financial resources and opportunity to enhance capacity for sustainable way of living. The number of such schools is on the increase as more communities have applied for management takeover of their schools. These schools can be exemplary by having their own strategies based on local needs and resources. Government agencies, local NGOs/CBOs can and should play the role of resource providers and facilitators in the efforts of students, teachers, SMC members and parents/guardians towards realization of sustainable livelihood.

Parental Participation in Children's Learning Process

Uddhab Karki¹

Introduction

Teaching learning process includes several factors. Though educationists may have different opinion on these factors, they can be classified into context factor, input factor, process factor and output factor. The context factor contains a number of variables such as educational policy, home and school characteristics whereas the input factor encompasses teacher characteristics, student characteristics and others. The process factor includes characteristics of teacher and student, teaching-learning activities and other factors and the output factor leads to the performance of learners, change in behavior and practices, both tangible and intangible. There is close interrelationship among these factors and one influences another in the teaching learning process. Among these factors the roles of the school management, parents and students are more important in learning process. When school works together with parents, children are likely to succeed in their present and future life. Research studies show that parental participation in schooling improves student's learning. The studies further state that parental participation is essential not only in the very beginning of educational process, but throughout the child's academic career. In this regard, sustainable development

¹ Institute of Environmental Management

of education is possible if we can increase the parental participation in teaching learning process.

In the context of Nepal there is a gradual increase of the need of parental participation in school education. The community school must form a management committee in which there is a representation from the parent. There should be a representative from educationists, too (Education Act, 2001). Educationists and parent representatives have the role in managing the school but it is questionable what will be the roles of other parents. The policy documents have not mentioned specifically how and in what programs the parents will be involved. However, there is a consensus that there should be parental participation in the school education together with educationists and policy makers. It will certainly take some years to translate this thinking into policy and action. Under this circumstance, this study has been conducted to explain the status, extent of initiatives and the level of involvement of the parents in the teaching learning process at the public school.

Methodology

This study was conducted in three public secondary schools and one lower secondary school. They are two secondary schools from Lalitpur district (Adarsh Saral Secondary School, Patakdhoka, Gambhir Samundra Setu Secondary School, Imadol); and one secondary school (Baba Batika Secondary School, Tilganga) and one lower secondary school (Sarada Lower Secondary School, Tilganga) from Kathmandu district. One of the sample schools of Latitpure district is situated at the core city area whereas another is far from the city. In the case of Kathmandu district both are situated at the periphery of the core city area.

Informant

The key informants of the study are head teachers, teachers, students and parents of the sample schools. The head teachers and teachers were taken irrespective of the level they are teaching and their interest to participate in the discussion. Four head teachers (male) and eighteen teachers (5 female teachers) participated in the discussion. The students were of classes 8, 9 and 10 as they can participate in the discussion. Altogether 65 students (boy 53% and girl 47%)

were interviewed and took part in the discussion. Regarding the parents, those who were nearest from the school within 1.5 kilometers were contacted. Only 21 parents (6 females) were met at their home or at workplace to discuss the issues.

Instrument

The researcher used an open-ended structure interview schedule. It is for the facilitation of discussion only. It is a flexible tool to collect information from the informant.

Modality

The researcher contacted head teachers at his office and explained the purpose of the study. He discussed separately with head teachers, and teachers about the parental participation in children's teaching learning process.

He visited the classes 8, 9 and 10 and then explained the purpose of the visit. Then he discussed with the students how the parents have been facilitating them to support their learning process. Altogether 65 students participated in the discussion. Some questions were flexible and asked the researcher for clarification. The discussion was held for 40 minutes for each class.

Analysis and synthesis

Data and information were analyzed and then inferences, drawn in an integrated form to trace the present situation of parental participation in children's teaching-learning process. The major findings of the study are presented as follows.

Need

The school management perceives the need of parental participation in the teaching-learning process. They recognize that parental participation contribute to the following:

- improvement in the teaching-learning process at school by correcting their mistakes
- facilitation of the school management to teach students effectively

- solving the learning difficulties of students in time
- improvement in the misconduct of the students through the parental support
- effective management of the school for improving teaching-learning situation
- sharing the problems and constraints of the school

The parents do not disagree with the need of their participation in the teaching-learning process of their children though they cannot specify how they can assist the school management. The students also expect support of their parents to their learning process. It is found that there is an agreement of the school management, parents and students on the need of parental participation in children's teaching-learning process.

Contact

Only 30% parents contact the head teachers to know the progress and the problem of learning difficulties of their children. Among them the contact of the parents of upper level (classes 6-10) is very low (10%). They seldom contact with the class teachers and the subject teacher unless they are invited to discuss on a specific problems. During the contact parents are concerned with the child's regularity at the class not on details of their children's learning progress.

The contact of the parents of the primary level is comparatively higher (15%) than those of the upper level (classes 6-10). It is because some of the parents of primary level come to drop their children at school. At that time they sometimes meet the head teacher and other teachers and ask the progress of their children or to inform some difficulties such as reason of absenteeism, conflict with their classmates, sickness, difficulty to do homework, etc. All the parents feel that once their children enrol at the school, it is the responsibility of the school to teach their children.

Support

The school management has been responding to the parental concern on the student's learning. They discuss with them about attendance record, the progress report, and learning difficulties in the subjects. They also request the parents to

contact the school management frequently and the subject teachers to know the progress and problems of their children. The parents opined that they are getting the information from the school management on the activities of their children. They know that their children are going to school to study but do not know the details except the names of some subjects.

Effort

The school management has been trying its best to increase the parental participation in children's teaching learning process. The efforts made by them are;

- i) **Parental meeting:** The school management has been organizing meeting three times in an academic year. They conduct examination three times at an interval of three months. After each examination they invite the parents to the meeting. The purpose of the meeting is to present the progress report of their children, difficulties faced in the teaching learning process (especially, on the subject in which the child is weak), need of parental cooperation to improve the learning of their children and informing the forthcoming school program, etc.
- ii) **Attendance:** The overall attendance of the parents at the meeting is very low (30%). Especially, the parents (25%) of primary classes (1-5) attend the meeting. The attendance of the parents of the upper class (6-10) is very low (5%). The reasons of higher participation of parents of primary level compared to the upper level are that primary children need more care and they do not know the progress of the study. According to them the children of the upper classes (6-10) should take the responsibility of their education and they should know their progress by themselves. It suggests that parents want to give more responsibility to their children studying at the secondary level.
- iii) **Discussion meeting:** Though one-third of the parents attend the meeting every three months to know the progress of their children, their participation is also low in the discussion meeting. They read the progress report and get information on learning difficulties from the class teachers. Whatever they were told about their children they listen and agree to follow the suggestions to improve their children's learning process. Ultimately they say, "School should force their children to study".

- iv) **Suggestions:** The parents seem very helpful when they attend the meeting. They accept to assist their children in the learning process either coaching by themselves at home or through organizing tuition on the weak subjects. But it is found that rarely parents bring the suggestions into action after returning home. Because of this situation it is very difficult to improve the teaching-learning process of the weak students.
- v) **Follow-up:** The school management does not do any follow-up of the parental meeting. It is because of difficulty to contact them. The parents also do not come to know the improvement and difficulties after the meeting. There is no communication between the school management and parents before and after quarterly meeting, even for those parents who attend the formal meeting.
- vi) **Request to attend the school:** The school management sometimes contacts the parents through telephone and letters to attend the school. The purpose is to discuss with them about some special issues like irregularity of students, misconduct, failures in the examination. In this case some parents attend the school, while others do not. It is found that it has affected the teaching learning process of non-attending parents.

The school management organizes annual day of the school. They present the progress report of the school and problems to the parents to encourage them to participate in the school program. The attendance of the parents is 55% in this program, which is satisfactory.

- vii) **Non-attending parents:** In the case of parents who do not attend the meeting their contact point is very far. A few of them enter into the school at their convenience to know the progress of their children. Otherwise, they contact the management body, when they have serious problem such as irregularity, misconduct, failure in the final examination, need of the transfer certificate, etc.

Kinds of participation

Participation in the teaching-learning process can be viewed from three dimensions; school management, student and parents.

School Management

The school management expects the parental support in the following ways:

- visiting the school frequently
- giving instruction to the children to attend the school regularly
- checking the children's work at home
- guiding the children in the weak subjects
- informing the learning difficulties to school in time
- attending the school meeting to review the progress
- providing the feedback to the school
- informing the student's study at home

The parental involvement in the activities is very low though the management has been requesting them to support them. It means that the school management is not satisfied with the parental participation at present.

Student

The students as learners expect support of the parents in different ways which include:

- guidance in the weak subjects or providing tuition
- encouragement to study at home
- correcting the mistakes on subject
- providing the favorable environment at home
- not forcing them to study
- understanding the problems and providing guidance accordingly
- visiting school to know the progress

The students are getting the following type of general support from the parents.

- textbooks and stationary in time

- teaching-learning material
- provision of tuition in the weak subjects
- encouragement to study at home

The students are satisfied with the support they are receiving from the parents. But they feel that they are not getting proper guidance to improve their learning. It is because their parents cannot help them in the academic matters. Some of the students are getting the facility of tuition to improve their weak subjects, which is not possible to many students. The school management also has the similar opinion that the parents have not been participating in the learning process of their children.

Parents

The parents expressed their view on the kinds of their participation in the teaching-learning process. They wish to participate in the following ways to facilitate the learning of their children:

- providing the textbooks and other references
- making tuition facility available
- visiting the school to know the progress of their children
- guiding their children for the future
- making the children disciplined
- providing a better learning environment at home
- meeting the school management

The expression of the parents indicates that they are interested in participating in the teaching-learning process of their children. Their suggested types of participation are supportive to facilitate the teaching learning process. But these are contributing less to the academic improvement as expressed by the school management and students. It means that there is a gap between the expected participation of the school management, students and parent. The expectations of school management and students are above the parental thought.

Causes of low participation

There are different causes of low participation of parents in the children's learning process. They are;

- busy with work
- lack of time
- lack of awareness
- negligence
- lack of knowledge in the subject

Methods of increasing participation

The school management suggests different methods to increase parental participation in children's learning process. The methods are improving awareness of the parents on the need and types of their participation, designing and implementation of action plan and mobilization of the students.

Awareness raising program

There is a need of improving awareness of the parents to increase their participation in the learning process. They should be aware about the need of their participation in making better learning process. They should be familiar with the school program and kinds of participation required in the school program.

Action plan

The school management should develop an action plan to involve the parents in the learning process. The plan should include the activities in which parents should participate and be made in cooperation with the parents. Some of the discussion topics should include the school annual program, subjects to be taught, the performance of students, quarterly meeting on the student's progress, meeting on the learning difficulties on specific subject, discipline of the students, support on the physical facility development, etc. The school management should prioritize the activities in accordance with their needs.

Mobilization of student

The students are the good medium for bringing their parents to school. They can play a major role to reduce the communication gap between the school management and the parents. The school management can convince the need of the parental participation in the teaching and learning process. This will encourage them to push their parents from home to school to make query about the performance and learning of their children.

Conclusion

- The parental participation in the learning process is low because of their busy schedule, lack of awareness of the need of their participation and not being clear of their roles.
- The parental participation in the teaching learning process at primary level is better compared to the upper level of school (classes 6-10).
- The school management has been making different efforts to increase the parental participation in the teaching learning process inviting the parents at least every three-month to discuss the progress of their children, requesting them to attend school to discuss on children's learning difficulties.
- There are variations on the kinds of the parental participation expected from the school management, students and parents themselves. The parental participation as expected by the school management and the student is towards improving the learning process whereas parents think of the general support to the school and children.
- There is need of designing specific programs on increasing the parental participation in the learning process, especially improving the level of their awareness, getting students' support to involve the parents in the school program. The school management can develop action plan for parents on the basis of their needs and thereby increasing parental participation in the learning process.

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Sustainable Ecotourism in the Tonle Sap Lake in Cambodia

Mr. Akihiro Nakahata¹

Cambodia, a small country in the ASEAN region is a new ecotourism destination, after the long civil war and excesses of the Khmer Rouge. The country emphasizes on the development of resources for raising people's lifestyle and livelihood, together with tourism industry, particularly heritage tourism at Angkor Wat in Siem Reap Province. Since ecotourism is fairly a new thing in Cambodia, a lot of things need to be done, particularly improvements on the existing physical facilities, renovating sites, initiating tourism business for the environment, and overcoming obstacles. Its amazing natural resources and its unique environment must be managed so as to attract tourists. For this purpose, raising awareness of stakeholders and local communities about nature conservation as well as that of potential visitors are indispensable and urgently needed. Taking these points into consideration, the paper intends to give a brief overview, prospects and potentials of the Tonle Sap Lake for eco-tourism.

The setting

In order to protect the rich biodiversity of the lake, the Royal Government of Cambodia established the Tonle Sap Biosphere Reserve through the promulgation

¹ Research Associate, Environmental Education Project, IGES

of royal decree in 1997. The Decree has divided the lake management into three zones; core areas, buffer zone and transition zone. The criteria such as the land use patterns, vegetation and biological hotspots were used for this purpose. Prek Toal, one of the three core areas, is a floating village situated at the Southwest shore of the Tonle Sap Lake in Ek Phnom district, Battambang Province. Most of the Prek Toal area consists of seasonally flooded forests and treasures a high biodiversity. Dense and tall trees are the most remarkable characteristics of the area and provide important nesting place for colonial waterfowls. Primary school and temples are the only buildings which are built on the land; the rest are on the water. Some floating restaurants and shops are run by local peoples. The vendors pedal from house to house on boats to sell their goods.

It is believed that most of the floating villages in the Tonle Sap Lake area were established hundred years ago. The rich natural resources especially fish were the principal attraction for the people to settle in this inundated area. Since then, the traditional way of life and the people's lifestyles have not changed much. Fishing and fishery-related activities are the major source of income for the local people even these days.

Access to Prek Toal is possible only by boat at any time of the year, either from Siem Reap or from Battambang towns. It takes one and a half hours from Chong Kneas, a boat park at lakeside in Siem Reap province. A narrow access lane between the two fishing lots, No. 2 and 3 provides the navigational route to Prek Toal. Prek Toal is at diagonally opposite side to this small floating town. Ferrying from Battambang provincial town takes about 4 hours by a speedboat and during the dry season it takes about seven hours to reach there through a shallow and narrow winding channel.

The core area covers the fishing Lot No.2 of Battambang province and is the largest and the most productive fishing lot in the lake. Three main streams, namely Prek Da, Prek Spot and Prek Daem Chheu flow across Prek Toal and join the lake.

Status of ecotourism in Prek Toal

The Tonle Sap Lake with its flooded forests, magnificent flocks of waterfowls and unique floating villages offers a unique attraction for ecotourism and a significant source of foreign currency for the local economy.

According to Nadeco and Midas (1998) there is a high potentials for developing ecotourism. The local communities would gain benefits of between US \$ 100,000-200,000 annually if the 10% of visitors to Siem Reap were to visit Prek Toal and each visitor is to pay US \$ 60. This initial investment of US \$ 160,000 is done for ecotourism in the Tonle Sap Biosphere Reserve. This would result in a gross annual income of around US \$ 1-2 million.

Though the distribution of benefits would be a complicated problem in a local community, there are opportunities for local people to benefit directly and indirectly from eco-tourism-related activities and selling of local products. The possible income opportunities indicated by Nadeco and Midas (1998) are; (1) boat and canoe operators, (2) local guides, (3) sale of handicrafts, drinks and snacks (4) guards, (5) traditional performances and shows, (6) low-cost accommodations, (7) entry and administration fees, and (8) concession fees from private eco-lodge shareholders outsidess the community

Nadeco and Midas (1998) estimate that 50 people would get full or partial employment, if 76 tourists are to visit the area in a day. In addition, the income from visitors would also bring multiplier effects in the community and widen its local market networks. For this to happen, more things need to be in place such as minimum infrastructures, local participation and eco-tourism business.

These days the number of tourists who visit Angkor Wat ranges from 800-1,200 a day. Compared to this number the number of tourists who visit the natural heritage of Prek Toal is perhaps, on an average, 1-3 a day, which is nothing.

Facilities in Prek Toal

Under the Tonle Sap Biosphere Reserve Program, the Ministry of Environment has been initiating several pilot projects to generate alternative incomes for local communities. Ecotourism development project is as one of these projects.

Although the numbers of visitors are still small the tourism in Prek Toal is getting attention these days. According to the statistics recorded in the Environmental Station, 372 tourists visited the Reserve in 2002. The numbers of visitors continue to increase steadily.

The Environmental Station began its ecotourism activities in collaboration with an NGO since 1999. According to the Ministry, current ecotourism activities in Prek Toal are as follows:

- walking in the wilderness (untouched beauty and wetland vegetation)
- watching small and large water birds
- relaxed paddle boating inside the pristine flooded forest and
- learning about the culture and tradition of the floating village

Some of the facilities in Prek Toal are as follows.

Bird watching

The major ecotourism activity in Prek Toal is bird watching. Prek Toal is an outstanding site for birdwatchers and is often referred to as the “bird sanctuary”. Just behind the Prek Toal there are flooded forests with bird sanctuary. Every year between December and March, thousands of birds come to fish and breed here. The breeding colonies of Prek Toal are one of the largest colonies in Southeast Asia. Every year from January to June flocks of Storks, Adjutants, Pelicans, Ibises, Cormorants and other birds come to nest in these flooded forests.

The population of endangered waterfowls in Prek Toal during the dry season is so high that it is unrivalled in Cambodia and even in Southeast Asia. Eleven globally threatened or near-threatened species have been recorded. Even on a regular day-trip, visitors can watch not only half of these waterfowls but also feeding or circling flocks all over the place. From January to May, large numbers of Cormorants, Storks and Pelicans are guaranteed to be seen at any time. Prek Toal makes a good place for bird watching and meets the needs and interests of bird watching. The number of common birds like herons, egrets, and terns are so many that they literally fill up the space.

Research Station

The Ministry of Environment is engaged in the overall management of Prek Toal. The first one was started in 1997 with the assistance of the European Commission. These program of activities aim at promoting environmental education and awareness at the grassroots level, conducting research and monitoring, promoting conservation of flooded forest and wildlife, identifying alternative livelihoods and incentive for local community, and exploring potentials for ecotourism and community participation. The Station provides accommodation and food for tourists and receives entrance fee from them.

To carry out conservation activities, the Ministry with support from UNESCO has set up an Environmental Research Station. The Station is administered by the senior staff of the Ministry with support from two full-time staff-members. It has also employed 12 field staff, who are the locals.

Bird watching platform

Several bird watching platforms have been built on the top of the tree in the flooded forest. These platforms were built for conducting research on waterfowls (such as making observation of birds, especially their breeding behavior). But the visitors can go to the top of the platform if accompanied by the ranger.

Community involvement and benefits

Bird collection used to be a way of life for the people of Prek Toal but not any more because it is prohibited now. Instead these people are provided with alternative jobs in the Station. They conduct regular patrolling, bird counting, and conducting conservation activities inside the Reserve. Their experience has been useful in conservation and management of the Reserve in the area.

Also, the Environmental Station employs boat paddlers. About 50 villagers are registered as boat paddlers. They take the tourists on boat to the flooded forest and receive a fee of US\$5. They work on rotation.

Visitors must pay the entrance fee to enter the core area of the Biosphere Reserve. At present, the entrance fee ranges between US \$ 10 and US \$ 30 per person according to group size, travel distance and type of transportation (such

as speedboat, paddle boat, personal boat). The transportation to the core area is included in the entrance fee. The revenue from the entrance fee is used for supporting the protection and conservation activities, research works, community development, and awareness programs. The Ministry has, with resources from the revenue, built floating houses for the poorest families, bird watching platforms and others in the community. This revenue is also used to expanding other facilities such as the purchase of new speedboat and others.

Analysis and discussion

The Tonle Sap Lake is rich in natural and cultural resources; eco-tourism development started only recently. It can be a sustainable and reliable way to raise the income of local communities as well as promoting conservation of the environment. Although ecotourism is in the jurisdiction of the Ministry of Tourism, it has been initiated in Prek Toal by the Ministry of Environment in collaboration with local stakeholders and the foreign NGOs. As of now, three key players are active in the Tonle Sap Lake; the Ministry of Environment, the Ministry of Tourism, and the Fishery Department. For developing any management plan, or guidelines for ecotourism, these three actors needs to be involved and consulted, along with local stakeholders. The first and foremost thing in this regards would be the setting up of the task force and defining the roles to coordinate their activities in the area.

According to the Royal Decree, the Ministry of Environment is responsible for the overall management of the Tonle Sap Biosphere Reserve, hence conducting research, controlling access, monitoring and impact assessment, etc. The Ministry is also responsible for providing guides and interpreters to the tourists. The Ministry of Tourism is responsible for campaigning and social marketing, communicating with private sectors and developing transportation facilities, etc. Fishery Department should oversee all fishing activities in the Tonle Sap Lake. It should make arrangement for tourists to go through fishing lots and ensure fishermen's benefits from ecotourism activities without jeopardizing their livelihoods.

Although the Prek Toal area does not have any geographical advantage, it has a potential to be an ecotourism destination. The waterfowls, the flooded forests, unique wetland vegetation and the floating village could attract tourists,

scientists, naturalists, especially birdwatchers. Yet, it has to go a long way to be the final destination.

The lodging facilities provided by the research station could accommodate a few tourists but are not enough to meet needs and demands of tourists. There are not many accommodations in the community, which makes visiting to Prek Toal very difficult and only for a limited number of tourists. Local people have hospitality but do not have infrastructures and capacity to cater to the needs of foreign tourists.

The Research Station provides employment opportunities for local community as rangers, guides and boat paddlers but the scope of the employment is still limited to a few people and is not full time.

In stead of outstanding natural resources and the unique environment of the lake, there are a few organized activities for tourists and scientists particularly for bird watching. Organizing group tour, producing local products (postcards, photos, T-shirts, local handicrafts) and developing facilities and opportunities for tourists are still lacking. This is the area that warrants immediate attention. This should receive the topmost priority because eco-tourism provides a two-pronged benefits to local communities; one is local employment and the other is nature conservation for their livelihoods and survival. This may allow them to link themselves to the broader picture of the lake ecosystem and so on. Likewise, there is little information (such as brochures, boards, maps, pamphlets, etc.) for tourists. This kind of information is requisite for the development of ecotourism in the area.

Conclusion

Ecotourism is different from just the nature-based tourism or mass tourism. The basic concept of ecotourism includes low-scale and low-impact tourism which benefits conservation of the area and the local community through activities such as entrance fee, food, accommodation, sale, guide, etc. Then ecotourism could show local community that a well-conserved environment is an asset for local development, local employment, local opportunities and local innovation.

Presently, the income from ecotourism is small compared to that from fisheries. Yet, ecotourism has a great potential in the future if administration and regulations are developed well at the outset. It is, therefore, necessary to build the capacities of the staff in the Environmental Station as well as running ecotourism activities in the area.

In the future, ecotourism is expected to play a significant role in Prek Toal. But the rampant destruction, people's short-sightedness for immediate and high profit, illegal activities, etc. needs to be controlled for the sake of the overall environment. Otherwise nature conservation and ecotourism will be in jeopardy.

Also equally important is the fact that every efforts should be taken to avoid the threat caused by the ecotourism activities, for which it is necessary to establish the institutions and rules in the area to reduce the impact of ecotourism on the natural resources and redistribute benefits equitably in the village, especially bird collectors and the poorest members of the villages, who are dependent upon the natural resources for their livelihoods. It should be made sure that direct beneficiary of the natural resources such as bird collectors do not resume the illegal bird collecting and hunting activities. Despite hurdles and constraints, limited ecotourism has shown some positive impact in the community. After all ecotourism is tourism for the environment.

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A Glimpse at Environmental Education Activities in Japan

Mr. Masahiro Takahashi¹

Environmental education policy in Japan

In Japan, the Basic Environmental Law was enacted in 1993. In this Law, three articles, 25, 26 and 27 are particularly related to environmental education and capacity building activities. Article 25 deals with education and learning on environmental conservation, whereas Article 26 is concerned with measures to promote voluntary activities by private organizations. Article 27 is about provision of information. This law is the beginning of the formal environmental education policy in Japan.

Environmental education in School

Within the framework of the environmental education policy, Japan tried to formulate environmental education in the school education. In the Japanese school education curriculum, there are two courses, in which the topics of environment are dealt with. One is the course Life Environmental Studies and the other is Period of the Integrated Studies.

¹ Research Fellow, Environmental Education Project, Institute for Global Environmental Strategies (IGES).

Life Environmental Studies: In the 1989-revised course of study, Life Environmental Studies was added as a new course for the early years of the elementary school. This course is intended to develop interests in students to link the relationship between oneself and the environment, and also develop the habits and attitudes conducive to an appropriate lifestyle through hands-on experiences. Importance is also attached on fostering abilities needed to solve environmental problems and, in the revision, emphasis was placed on fostering abilities and attitudes appropriate to responding positively to social change and on developing experience-based learning and problem-solving ability.

Period of the Integrated Studies: The Period of the Integrated Study was established in order for an individual school to be able to develop distinctive education activities and to make efforts to conduct interdisciplinary and comprehensive teaching activities, particularly, in response to the local environmental issues.

Children are given opportunity to deepen their understanding of the environment and energy issues and develop respect for the environment. They are encouraged to develop practical skills and abilities to take actions voluntarily on the conservation of the environment and make it better. Thus, great emphasis is placed on problem-solving and hands-on learning approaches.

The course Period of the Integrated Study aims at helping children to develop capability and ability to discover problems by themselves and solve those problems collaboratively. Interdisciplinary and comprehensive approaches, which reflect each individual school's activities and children's own interests are emphasized.

Individual schools are expected to develop activities for the Period of the Integrated Study. Its contents are interdisciplinary and comprehensive in nature and include international understanding, information, environment, welfare and health. Students select any of these contents based on their interests and the activities closely related to those of the school and the community.

Annually, around 110 school hours will be allocated to the Period of the Integrated Study for the third graders and older at elementary school and more than 70 school hours annually for lower secondary school students. The upper secondary school students will have 105-210 credit hours in this course depending on their schools.

Experience of Kowgai Education

Background

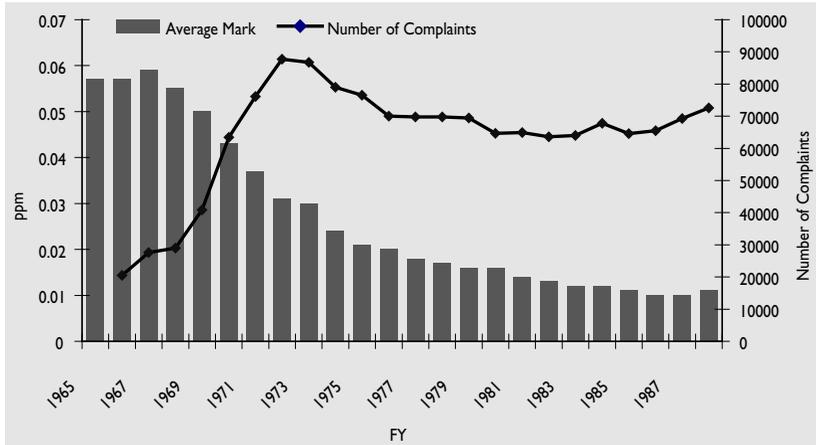
The early history of environmental education started in the 1960's as a concrete practical activity to improve the serious situation of the environmental deterioration and then recover the degraded environment. In other words, the history of the environmental education in Japan has started from the Kowgai education, which was one of the bottoms up approaches in educational movement related to the environmental reforms. The word "Kowgai" means the status of "pollution" or "public nuisance". Every Japanese knows that the word Kowgai means serious environmental situation.

In Japan, during the 1960s and the 1970s, there were four big pollution problems. It is said that those problems occurred in the process of industrial production activities. Pollution was related positively to economic growth in Japan. There were four-big-scale pollutions and were very miserable. People's health was affected by air or water pollution and many people, sometime, became pollution patients. The people who became patients or teachers who lived in the affected communities raised strong objections to pollution. They started many actions against pollution. Thus Kowgai education started as one of the movements in the 1960's.

Kowgai education started at the grassroots as one of learning processes of the pollution issues. And, it had a great influence on pollution control. The Kowgai education was active during the 1960's and the 1970's. The reason is that many issues related to pollution occurred in Japan during that time. Learning of the Kowgai education was related to the Japanese economic development, which caused inappropriate situations like pollution, and it was the one of critical influence to Japanese productive and economic systems.

Foot print of Kowgai education: Figure 1 shows the data of the air pollution and the number of complaints in Japan. There are two peaks in the figure. One is the peak of the pollution, and the other is that of complaints, which is thought to be the amount of people's awareness rising for air pollution. Why these two peak separate like this? Someone might think that at the time of peak of the pollution, the awareness also rose up as well. However, by this figure, these two peaks are

separate like this. This trend is not only seen in whole Japan, but also seen in the rural region like Yokkaichi. Peaks of pollution and awareness are separate.



► Figure 1: Trends of number of complaints and air pollution data

It can be said that during the period between 1969 to early 1970's, Kowgai education played a great role to enhance awareness on Kowgai. Line is rising up rapidly in the figure, because the movement of Kowgai education made complaints and criticized the environmental degradation which were accepted by many of the Japanese people as a "public nuisance". So, the level awareness against pollution grew rapidly and air pollution went down.

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Annex 1

List of resource persons

S.N.	Name	Telephone/Fax	Email
1.	Dr. Trailokya Nath Upraity	413080	dupraity@wlink.com.np
2.	Dr. Ratna SJB Rana	522343 526467 (Fax)	ratnarana@hotmail.com rana_ratna@yahoo.co.in
3.	Dr. Tara Nath Sharma	4781230 (O) 4471955 (R)	tanasarma@hotmail.com
4.	Dr. Chiran S. Thapa	4411159 (R)	cst21@com.ac.uk
5.	Dr. Bidya Nath Koirala	4476971 (R.)	samsedem@wlink.com.np
6.	Dr. Badri Dev Pande	5525093	basudha@wlink.com.np
7.	Mr. Anand Aditya	5527083	anandaditya@enet.com.np
8.	Dr. Hridaya Ratna Bajracharya	4252919	cerid@mos.com.np
9.	Mr. Laba Prasad Tripathy	4416693	tripathylaba@hotmail.com
10.	Dr. Tirtha Bd. Shrestha	5521258	tirtha@infofamily.com.np
11.	Mr. Ukesh Raj Bhujy	4781823	ukesh@mos.com.np
12.	Dr. Raman Raj Mishra	5521867	misras@ntc.net.com.np
13.	Dr. Poorna Kanta Adhikari	4427294 (O) 4354364 (R)	comat@ntc.net.np adhikary@wlink.com.np
14.	Dr. Mahesh Banskota	5528781, 5528761	mbanskota@iucn.org.np
15.	Mr. Hum Bd. Gurung	4241188	hbg@wlink.com.np
16.	Dr. Radhaber D. Khati	4373437	rdkhati@hotmail.com
17.	Mr. Uddhab Karki	4353694	uddab@iem.org.np
18.	Prof. Kedar Bhakta Mathema	5521569	
19.	Ms. Damini Baidhya	4391740	cnastu@mail.com.np
20.	Dr. Prabha Basnet	4412318	
21.	Ms. Sangita Shrestha	4434820	sangita.shrestha@wwfnepal.org
22.	Prof. Santa Bd. Gurung	056-581147	
23.	Dr. Ganesh Man Gurung	331494	gug@mos.com.np
24.	Prof. Narayan Gurung	5522371	
25.	Mr. D. B. Kunwar	4351436	
26.	Mr. Nirmal Man Tuladhar	4332078	nirmal@ecsl.com.np
27.	Mr. Dilli Raj Sharma	4331184	
28.	Dr. Kedar N. Shrestha	544078	kaisocd@wlink.com.np
29.	Ms. Rajya Laxmi Koirala	434531	
30.	Prof. Sanu Devi Joshi	5522481	kujoshi@wlink.com.np
31.	Ms. Poonam Rajya Laxmi Rana	4279316	prrl@ntc.net.np
32.	Dr. Shiva Raj Lohani	4470252	slohani@info.com.np

33.	Dr. Bhairab R. Kaini	5525617	agroinfo@wlink.com.np
34.	Ms. Mahima Singh	5522150	
35.	Ms. Amita Tuladhar	4260911	
36.	Mr. Paras Acharya	4498931	acharya_paras@hotmail.com
37.	Mr. Mohan Bd. Kayastha	4470049 4247948	
38.	Dr. Purushottam Shrestha	4225076	spuru@hotmail.com
39.	Mr. Ram B. Pandey	4330336	
40.	Dr. Kamal Krishna Joshi	5522481	kkjoshi@wlink.com.np
41.	Dr. Timila Shrestha	5537793	timila@infofamily.com.np
42.	Ms. Elsa Bhandari	4227011	
43.	Ms. Renu Karki	5537091	
44.	Ms. Uttara Bajracharya	4330348	
45.	Mr. Subhash Ghimire	4277282	subhashghimire@hotmail.com
46.	Dr. Neeraj N. Joshi	5531839	neerajnjoshi@hotmail.com
47.	Mr. Laxmi D. Manandhar	4220850	
48.	Mr. Bam Bahadur Jitali		
49.	Dr. Bishnu B. Bhandari	(+81)-46-855- 3842	bhandari@iges.or.jp
50.	Mr. Masahiro Takashahi	- do -	m-takahashi@iges.or.jp
51.	Mr. Akihiro Nakahata	- do -	nakahata@iges.or.jp
52.	Dr. R. B. Khadka, SchEMS	4480109, 4486803	schems@wlink.com.np
53.	Mr. Surya M. Shakya	- do -	- do -
54.	Mr. P.C. Shrestha	- do -	- do -
55.	Mr. Suman Piya	- do -	- do -
56.	Mr. Binod Basnet	- do -	- do -
57.	Ms. Indira Gurung	- do -	- do -
58.	Dr. Nawraj Khatiwada	- do -	- do -

Annex 2

Address by Mr Koïchiro Matsuura

Director-General of the United Nations Educational, Scientific and Cultural Organization (UNESCO) at the opening of the inter-agency meeting on the UN Decade of Education for Sustainable Development (2005-2014) UNESCO, 5 September 2003

[Note: We have included this address with the hope that the reader would be able to understand how the United Nations family members are working together to make the idea (ESD) that sounds abstract into a reality—The Compilers]

Colleagues,

Ladies and Gentlemen,

I am pleased to welcome you to the first joint meeting with members of the United Nations family, organized by UNESCO, on the Decade of Education for Sustainable Development. The decision to have such a decade was taken by the fifty-seventh session of the United Nations General Assembly in response to the recommendation of last year's World Summit on Sustainable Development in Johannesburg. UNESCO is honoured to have been designated as the lead agency for the Decade, which will begin in January 2005.

The recognition given by the Johannesburg Summit to the role of the international development community and, within it, the United Nations system is reflected in the resolution of the General Assembly. This resolution calls upon UNESCO to work closely with the United Nations and other relevant international organizations, Governments, non-governmental organizations and other stakeholders. It is most appropriate that the first international consultation should be with relevant UN agencies. We thank you for accepting our invitation and look forward to a very productive exchange of views.

This early-stage consultation with sister agencies is designed to emphasise the importance we attach to conceiving of the Decade as a shared enterprise. We wish to start as we intend to continue. Thus, a broad-ranging consultative process will take place long before the actual launch of the Decade and we hope that this will instil a spirit of cooperation that will itself be sustainable throughout the duration of the Decade. We particularly hope that the Decade becomes

a vehicle through which each agency pursues its own priorities and monitors its own achievements at international, regional and field levels, and that these achievements become an integral part of the Decade.

The wide range of commitments and actions that governments agreed upon at Johannesburg, the targets and time-frames established and the partnerships set up, demonstrate that sustainable development has become a top priority on the international agenda. Over the years, but particularly after the 1992 Earth Summit in Rio de Janeiro, education has been increasingly accepted as being central for achieving sustainable development. This central role was confirmed and strengthened at the World Summit last year, not least by the recommendation concerning the Decade of Education for Sustainable Development. The task now is to put these commitments into action. The focus should be on implementation and we, members of the UN system, have to lead the way.

Let us take a few moments to consider what we understand by the term 'sustainable development' and then by the term 'education for sustainable development' (ESD). A widely accepted definition of sustainable development is that provided by the Brundtland Commission (1987), which states that sustainable development is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs". We recognize that the agencies represented here today have long incorporated this understanding of sustainable development into their planning, programmes and activities.

Meanwhile, ESD is a dynamic concept that utilizes all aspects of public awareness-raising, education and training to create or enhance an understanding of sustainable development, especially in terms of linking together the issues involved and stimulating changes in conduct. It seeks to develop the knowledge, skills, perspectives and values which will empower people of all ages to assume responsibility for creating and enjoying a sustainable future. Education, broadly understood, is therefore inextricably linked to well-balanced development, which takes into consideration the social, environmental and economic dimensions of an improved quality of life for present and future generations.

Again, many agencies are already engaged with important aspects of the ESD agenda – for example, FAO and its work in rural areas, WHO and the Healthy Environment for Children Alliance (HECA), WFP and its programmes for poverty

alleviation and food security, and ILO's work on the re-orientation of teachers. Part of our task today and in the period ahead is to see how we can support one another in these endeavours. It is also important that we aggregate and combine our efforts in order to bring additional visibility, resources and effectiveness to the Decade. Our aim is to foster a coherent and concerted global effort that will make a real difference.

The Plan of Implementation agreed in Johannesburg endorses the Education For All (EFA) goals and makes it very clear that much of the work on education for sustainable development must be closely linked to the pursuit of EFA. It also endorses the two education-related goals of the Millennium Declaration. The General Assembly also added the United Nations Literacy Decade to the list of existing educational processes that need to be kept in mind while developing ESD.

Naturally, UNESCO is very pleased to see these linkages being made, especially since we have been accorded the responsibility of coordinating EFA, the Literacy Decade and the Decade of Education for Sustainable Development. However, we are under no illusion that we have this field to ourselves. On the contrary, we are very much aware of the many activities and considerable experience of other UN agencies in regard to ESD. We are also aware that this may not be the concept you traditionally use to classify your activities, preferring instead such terms as capacity-building, human resource development, community development, training, and sensitization.

Clearly, then, we recognize that the 'education' in ESD is not just formal schooling but embraces a wide range of learning experiences and programmes. The focus on basic education and literacy in the orientation of the Decade is important but it certainly does not exclude contributions from secondary education, technical and vocational training, and higher education, or from a wide range of other modalities of learning that may be labelled variously as nonformal education, professional development, training and so forth. Thus, in our conceptualization of ESD, we would like to capture as wide a scope as possible so that all partners, especially agencies like your own, can see how integral and vital are their contributions. At the same time, we believe that such an inclusive approach would serve as a stimulus to improving the quality of education – an education that is relevant to the key problems of living in the twenty-first century, an education that empowers people to exercise their rights, an education that cultivates good citizenship locally, nationally and globally.

The United Nations General Assembly resolution has requested UNESCO to develop a draft international implementation scheme for the Decade. To this end, UNESCO has prepared a Draft Framework that was widely circulated one month ago. We have already begun to receive inputs, comments and suggestions from a range of partners within the international development community and these contributions will be carefully integrated into the Draft Framework. The process of finalizing the Draft Framework will be consensual and collaborative in nature, bringing together all the major constituencies of opinion and interest.

Those constituencies are comprised of our key partners. In addition to UN agencies like your own, these partners include national governments, other international and regional organizations, NGOs and other civil society organizations, academic and research communities, media groups, faith-based institutions, the private sector, and special interest groups representing, for example, women, youth or indigenous communities. Of vital importance is the involvement of people themselves and here the various partners can play a major part in encouraging and facilitating this through capacity-building and the outreach conducted through information, education and communication (IEC) activities.

We must acknowledge that ESD is a daunting challenge for policy-makers and educators alike. It is a challenge, furthermore, that is equally relevant and critical for both developed and developing countries. It is a challenge that tests stable societies and must also be addressed in post-conflict, post-crisis and emergency situations. Thus, education for sustainable development lies at the heart of the quest to solve the problems threatening our collective future – problems such as poverty, nutrition, wasteful consumption, environmental degradation, global warming, urban decay, inordinate population growth, gender inequality, health-related issues (including HIV/AIDS), armed conflict, terrorism and the violation of human rights.

Let me briefly explore two examples. People flocking to cities in search of employment and better opportunities is not a new phenomenon. However, the abandonment of rural areas has long-term consequences on the food production cycle while increasing the pressure on urban centres to deal with the stresses of high unemployment, poor sanitation and health factors. It is pertinent therefore to make education in rural areas relevant to its environment. In this regard,

UNESCO is pleased with its ongoing cooperation with the FAO via the Education for Rural People partnership, which seeks to develop education policy strategies for rural communities.

A second example concerns the approximately 40 million people who are infected with AIDS today, of whom 95 percent are in developing countries, and 28 percent in Africa alone. The HIV/AIDS epidemic is also known to be spreading rapidly in Russia, India, the Caribbean and, more recently, in China. Current statistics show about 12 million children today have been orphaned by AIDS— a figure that is projected to rise to about 40 million by 2010. In addition to promoting HIV/AIDS-related preventive education as an important area within national educational policies, UNESCO is also helping to strengthen the capacity of education systems to counter the crisis of the AIDS epidemic. We are working closely with the UNAIDS Inter-Agency Task Team on HIV/AIDS, and we shall endeavour to ensure synergy between approaches to HIV/AIDS related education and education for sustainable development.

The list of key themes in education for sustainable development could run into several pages! The few selected for comment serve to highlight the complex inter-connectedness of the issues, especially when one takes full account of such fundamental concerns as poverty alleviation, gender equality and building a world fit for children. It is quite apparent that no organization – whether from the United Nations system or outside of it – can work in isolation. It calls for cooperation and collaboration from the grass-roots level upwards as well as new forms of creative partnership. All are essential to the evolution of a culture of sustainability. UNESCO has pledged to fulfil its part in the Plan of Implementation through its own programmes and activities working closely with our partners big and small. I would like to reconfirm this pledge today.

Thank you once again for your participation in this meeting. There is much challenging work ahead of us, but we can take strength from each other. The UN Secretary-General, Mr. Kofi Annan, has said that “our biggest challenge in this new century is to take an idea that sounds abstract – sustainable development – and turn it into a reality for all the world’s people”. This is the challenge for education for sustainable development. Our challenge is to work together to make it happen.

Thank you.



**Institute for
Global Environmental
Strategies**

**Environmental Education Project
Institute for Global Environmental Strategies (IGES)**

2108-11 Kamiyamaguchi
Hayama, Kanagawa
240-0115 Japan

Tel: +81-468-55-3842

Fax: +81-468-55-3809

design & print production@wwps, nepal, tel: 5550289