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**INITIAL COUNTRY
ENVIRONMENTAL EDUCATION
AND AWARENESS
REVIEWS**

FOR
NILE TRANSBOUNDARY ENVIRONMENTAL ACTION PROJECT

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Prepared by
M. Hashem M. Morsy
Egypt National Consultant

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II. EXECUTIVE SUMMARY

The World Bank and UNDP are jointly implementing the Nile Transboundary Environmental Action Project (NTEAP).

The main objective of the project is to provide a strategic environmental framework for the management of the transboundary waters and the environmental challenges in the Nile river basin.

To accomplish this objective, the project planned for six components one of them is the Environmental Education and Awareness (EE&A), which focuses on creating awareness on the Nile River environmental threats, while stimulating behavior change. In order to design this component, the need raised to know about the history of the environmental issues, knowledge of the key institutions and individuals, and the possible options.

A rapid assessment of EE&A in Egypt was requested to come up with clear snapshot of the existing state of EE&A, the main objective of the reviews for which this report is developed.

To carry out these reviews, it was necessary to use some sort of techniques integrated together in a participatory approach to collect the necessary information, such as documents & web sites search review, in-depth/semi structured interviews, focus group discussion, direct observations and interviewing sample of groups by a short checklist of questions. The report consists of eleven sections, which can be introduced in this statement.

The Background covered two main issues, the first issue about the Nile Basin came up with the related information about the Nile river with focus to facts and issues about Egypt, and what has been done to curb environmental degradation beside description of EE&A evolution, and information about the development challenges which associated with water reservation and the aquatic environment, and that associated with the Nile river which show the linkages between environmental conditions and human welfare. Besides presenting information about Nile basin opportunities to transform the Nile into a unifying force and promote economic activities, and the last point in this issue was information about the Nile basin initiative which evolving regional cooperation and recognizing the mutual benefits. The second issue is answering the questions about Environmental Education, Information and Awareness Support, it introduces environmental education as the most effective method for behavior change and it works in two

shapes, the formal one which relies upon formal education institutions, and informal one which comes through other institutions and uses such forms of communication, second method is environmental information which focuses on environmental protection through information plan involving all media methods, and the third is environmental awareness which being channeled through all types of mass media and interpersonal communication. This second issue includes as well a part about strategy for public education and awareness building.

Policy and institutional framework subject which contains four parts High Level Commitment, which pointed out its importance for the effective management and conservation of the Nile's environment and natural resources. While the part about Policy and Capacity Strengthening in Egypt has two points, in the first information was introduced about institutional and legal capacity building, environmental development and resources conservation while the second was about Egypt's laws on environment protection and on Nile river protection, within which specific sections were cited about EE&A. In Capacity Building and Institutional framework part, where pointed out that the integrated strategy with incorporate capacity is essential for achieving sustainable development, besides, the commitment to build human and institutional capacity and the need for training and transfer of technical skills, and presenting EEAA mandate. The last part in this section is the Institutional Mechanisms for Participatory Planning and Management, which aims to facilitate communication, build awareness and increase coordination and provide guidance and technical skills, with highlights on EEAA's mechanisms, its main activities of EEE&A, collaboration with other agencies and its achievements.

Highlights of relevant issues, was introduced in three parts, a part on An Overview of Issues been selected within the project's information frame and from its documents and related web sites, these issues were UNDP global program, NTEAP and Environmental threats. And added second part about the practical view of EE&A Programs contains information on Formal EE&A activities state at the Egyptian Ministry of Education, and Informal EE&A activities state in Egypt through selected principal resources as the Ministries of Environment, Water Resources and Irrigation, Nile protection NGO, and some successful case studies. This part presented EE&A state at tertiary institutions, and brought out examples about the obvious projects of EE&A beside the outreach activities that could learn from or collaborate with, then the section ended with a part about The National Nile Basin Discourse Forum (NNBDF).

Opportunities and Constraints, which were suggested for transboundary environmental education and awareness activities within the basin in Egypt, came up from the collected information. While **Lessons learned** were introduced around EE&A project experiences at national and transboundary levels.

The report introduced suggested **Indicators** for measuring progress, and these indicators cover essential points such as: expanding EE&A activities, information of natural resources management, networking of schools& universities, increasing knowledgeable specialists, enhancing public awareness of transboundary environmental threats, increasing the basin-wide networks, increasing the regional cooperation. Besides, general topics indicators which are creating awareness on Nile Transboundary environmental issues, Communication management, which include suggested measures that support M&E indicators of EE&A program, Preventive Measures and Curative Measures, and An improved quality of life of the Population of the riparian states

The most important section in the report is that of **Conclusions and recommendations**, which has the bulk of the reviews' information and out comes. It has four parts, the first concerned with Report Out Comes which include overview of the findings from the interviews (see annex of tables on checklist results& summary of view points), consultancy viewpoints, regarding behavior change, how to protect environment and key points formulations of civil society role needed for EE&A activities and options to be taken into account. And the second part came with Conclusions, which gathered all the results and findings from each section of the report, while the third part was for the Recommendations, which mainly derived from the field study for institutions and individuals.

At the end of the report various **annexes** were attached, including a copy of the Checklist, a table indicated the interviewed Sample Group; the Key Findings were summarized in tables covering the results of checklist administration and the derived viewpoints. A list identifies active practitioners mostly who assigned to the chosen agencies in this report beside the EE&A products. A list of main Background Documents and Websites, and a list of active key persons with their contact information were attached as well.

The report content, with the methodology been used to cover its essential information needed for the required reviews, has achieved the main objective and came up with a clear snapshot of the existing state of EE&A in Egypt as a riparian country.

III. INTRODUCTION

Sustainable development and environmental conservation come to be prominent goals in the most riparian' strategies and plans, and the cooperation between the Nile countries and the international partners, with their long history, has been recently directed to promote such activities in that sense.

Regarding this, NTEAP comes to be one of the eight projects under the Nile Basin Initiative Shared Vision Programs (SVP). NTEAP provides a strategic environmental framework for the management of the transboundary waters and environmental challenges in the Nile river basin. One of the NTEAP components is Environmental Education & Awareness which focus on creating awareness on the River Nile environmental threats, while stimulating behavioral change. The program's objectives will be achieved through enhancing awareness on the nature of environmental inter-relatedness within the Nile basin and effects on his communities.

In order to design an environmental education and awareness component, it is important to begin with a sense of the history of the environmental issues and of EE&A activities within the country status. Regarding that successful and sustainable EE&A initiatives are usually built on a combination of all stakeholders, especially project recipients and beneficiaries ideas.

This report presents a rapid assessment of EE&A state in Egypt, it includes an over view of the history of environmental issues, the current state of EE&A, identification of the key institutions and individuals, opportunities, constraints and an idea of which options are possible.

The assessment process methodology consisted of (I) existing documents & websites reviews, (II) in depth/semi structured interviews and direct observation, (III) and a short checklist of questions for sample groups. These techniques present participatory approach for collecting the required information, because each was used to get a part of the proposed data as its nature, aiming to the integration that leads to the completion of the information

The **first** method dealt with the general information of the report subject to reach a clear background and get principal data about donors and their roles in Egypt. The **second** method was used with officials in the assigned departments to EE&A at the ministries of Environment, water resources, Education and Information, beside a selected NGO, which has concerns with EE&A activities in

general and in Nile protection in particular. This second one gives a considerable space of free discussion aimed to get information from people (key individuals/representatives of key institutions) tied with EE&A. And from their own prospective they talked freely about the situation including country status (government recognition, policy, framework, finance, cooperation, people concerns, etc...), the circumstances in which they work, and their viewpoints and recommendations. While the **third** method was administered to representative sample of people from various categories in order to measure their knowledge about important environmental issues that have linkage with their lives, to identify the status of the formal and informal EE&A activities and its sources and to request opinions from them as recipients and beneficiaries. Besides, asking for their views, through suggested answers (semi opened questions), cover such viewpoints, recommendations, opportunities and constraints.

IV. BACKGROUND

A) Over View of the Nile Basin

- 1) Related Information***
- 2) Development Challenges***
- 3) Nile Basin Opportunities***
- 4) Nile Basin Initiative***

B) Education, Information and Awareness Support

- 1) Environmental Education***
- 2) Environmental Information***
- 3) Environmental Awareness***

A) Over View of the Nile Basin:

1) Related Information:

In general:

- The Nile is the world's longest river, its length about 6,600Km with an area of 3 million sq km, and it has several sources. The main streams are White Nile, which begins in the Great lakes region of central Africa, the Blue Nile and the Atbara, both flow from Ethiopia. The most distant source is the Kigera River, which flows from Burundi through Rwanda and Tanzania into lake Victoria. The Nile basin is home to about 160 million people and includes parts of ten countries: Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda.
- The Nile River is one of the world's great assets, from ancient times till now the flows of the river system have nourished live hoods and played a central role in rich diversity of cultures.
- Famine, extreme poverty, instability, rapid population growth and deteriorating natural resources are characteristic features of the basin today. Half of the Nile basin countries are among the 10 poorest in the world. Nevertheless, the extraordinary physical and ecological features of the Nile have supported a dramatic evolution and expansion of human activity. The yearlong availability of Nile water supported some of the world's earliest agricultural settlements with annual floods carrying enough fertile sit to turn thousands of miles of desert into an agricultural lands.

About Egypt (facts and environmental issues):

- Egypt's population is 73.4 million people (2004) settle in 3.7% of the total land which is around one million square kilometer, about 33 thousands sq km of the land is the Delta and Nile Valley, and about 80% of it is using for agriculture, while the remaining of the land which is about 960 thousands sq km is desert. The average of the population density 73 persons/km while the gross density at delta and valley about 1815 persons/km².
- The urban people percentage is 42 % of the total population, and because the economic activities are mainly based at the urban areas, the urbanization percentage has highly and rapidly increased and that leads to the spread of

informal housing and poor settlements with all kind of problems. This percentage also means overcrowded population in the rural areas, which produces health, educational, environmental, housing problems and overloaded services.

- The rapid population growth rate of Egypt, which is 2.2, leads to a projected population by the year 2025 of 86 million people. Only small fraction of these people will be located outside the Nile valley and delta. The vast majority of the population will remain depended on the Nile river system, which will become one of the world's most populated river basins with a share of less than 500 m³/y/cap.
- This will further endanger a significant part of the economic activities: agriculture, fisheries, tourism, and put an unbearable cost on health, drinking water supply and sanitation.
- Cairo, is the only city remains over continues seven thousands years as a capital of Egypt in an area does not exceed 300 km². The planned area of greater Cairo region is 2900 km² while the town plan's area is 294 km².
- Cairo population is about 20 million people, within which 3.3 million people daily passengers from Cairo surroundings, and that makes Cairo one of the world's most highly residential densities.
- This situation affects many of Cairo facilities and services; for instance the school area in Cairo is not more than 500 m² while reaches about 4 feddans in some developed countries. The green area in Cairo is 0.17 m²/per while in the developed countries is 20m²/per.
- The cultivated area is about 6.8 million feddans, which is yearly decreased by 20 thousands feddans, because of the increasing of housing growth as a result of rabid population growth.
- The unbalance between the population growth and the growth of the agricultural lands, over and above the population explosion, derived because of the shortage of resources for reclaiming lands at the desert area.
- And the rapid increase of population leads to increase in waste beside shortage in services and general utilities, such as drinking water and sanitation.

- Due to the arid climate, agriculture relies on Nile water irrigation (55.5 billion m³); it is thus concentrated in the Nile river valley and delta, while the oases in the desert area are supplied with groundwater (3 billion m³) and partly rain fed (5 billion m³).
- The basin's most significant man-made feature of modern times is the Aswan High Dam which was completed in 1970 to provide control over the annual flood in Egypt, and it created Lake Nasser which is a reservoir stretching 500 km.
- Although the flood regulation of the Nile river by the Aswan Dam has allowed the expansion of irrigation, notably on the western and eastern fringes of the delta, the problem of agricultural land losses either in quantity or in quality remains a major issue for the country since the availability of easily cultivable land is limited by fresh water availability
- **Problems related to pollution and degradation of Egypt's natural resources of water and land**
 - Egypt faces a rapidly increasing deterioration of its surface and groundwater resources. Untreated or poorly treated urban and industrial effluent endanger the health and welfare of hundreds of thousands of people.
 - Soil salinization and water logging are problems affecting the productivity of agricultural lands.
 - Irrigation canals and drains increasingly suffer from eutrophication, weeds and the accumulation of pesticides.
 - Urban areas, archaeological sites, and historic districts are affected by an increase in the water table due to over-use of water and poor drainage of the land.
 - Discharge of nutrients and chemicals to the sea remains at tolerable levels within international standards, but it has begun to negatively affect Egypt's own shores and coastal fishing as well as the potential for tourism.

- **Consequences of water and land degradation:**

As result of development, environmental degradation becomes a serious issue in Egypt. Population growth, industrialization and the need for new agricultural lands and water use increase the requirements for appropriate actions to prevent further pollution that produce these consequences.

A) The greatest impacts of water pollution on public health are:

- contamination of sources for drinking water,
- exposure to pathogenic bacteria and parasites, and
- contamination of fish and other food products.

B) Black spots, areas cited as the most alarming examples of water pollution in Egypt.

C) Salinization.

D) Sand encroachment, several villages are reported to have been buried under drift sands during the three decades. While sandstorms are source of irritation and possibly of respiratory ailments.

- **Egypt's actions to stop the on-going deterioration of the environment**

In recognition of the central role that Egypt's two critical natural resources land and water, play a role in sustaining Egypt's productive and service sectors made up of agriculture, industry and urban services. The government's environmental strategy gives the highest priority to conserving these natural resources as follow:

- Initially, priority to actions to phase out subsidies, and strengthening institutional capacities, protect the Nile River and improving the water quality.
- The highest pollution abatement priority is attached to actions that reduce heavy metal pollution at source, in key industries for example.
- Highest priority to land use plan, as well as reversing water logging and salinization of irrigated lands and for protection from desertification

** It is the intention of the government to give the central Environmental Agency (EEAA) the following duties, which EEAA needs to fulfill in consultation with other Ministries, Agencies, private sector and NGOs. By undertaking these duties; EEAA maintains its main responsibilities with the mentioned actions:

- Preparation of the *National Environmental Policy and plans*;

- Setting targets and timetables for achievement of environmental quality objectives;
- Liaison and cooperation with Central Economic and planning Ministries, Sectoral Ministries, Agencies, Governorates, etc...
- The promotion of pollution prevention in industry;
- Assisting Governorates in preparing their own Environmental plans;
- International environmental links;
- Setting environmental protection standards for;
 1. Air, water and land
 2. Emissions
 3. Products
- Promoting, guiding, and supervising sound environmental management techniques (including EIA's)
- Preparation of proposals for environmental legislation;
- Overseeing enforcement of legislation;
- Proposing economic instruments for environmental protection;
- Masterminding inter-ministerial cooperation to resolve complex environmental management issues;
- Defining monitoring requirements and establishing networks;
- Receiving, analyzing and interpreting environmental data;
- Presenting information on the environment to GOE and the public;
- Implementing demonstration and pilot projects for improved environmental management;
- Masterminding an environmental education and public awareness campaign.

2) Development Challenges:

- Associated with water resources and the Aquatic Environment:

Strategies aimed at reconciling human development with protection of the aquatic environment and the sustainable management of water resources must recognize that water accessibility and scarcity increasingly threaten four fundamental aspects of human security, food production; human health; the health of the aquatic environment; and social, economic and political stability. All four of these areas are directly linked to the viability of fresh, coastal and marine waters.

An issue that has gained increasing recognition in recent years is that all types of water -- in freshwater, coastal and marine environments -- should be considered as a management continuum with significant implications for strategy, planning, management and investment actions. These systems must be viewed as intimately inter-linked and a much broader range of "downstream effects" from human interventions and development activities must be recognized.

Ensuring that water constraints -- particularly scarcity and, increasingly climate variability and change - pollution does not undermine these vital components of human well-being is the critical challenge of water management as we head into the twenty-first century.

Food Security

With the global population projected to increase during the next 30 years by as many as 2.8 billion people, the pressures on the world's fresh water supply will increase markedly.

Food production is a highly water-intensive activity. Each ton of harvested grain requires on the order of 1,000 tons of water to produce. By far the largest demand for the world's water comes from agriculture. Worldwide, agriculture accounts for about two-thirds of all the water withdrawn from rivers, lakes and aquifers; in some countries, it accounts for 90 percent or more.

Today, 16 percent of the world's cropland is irrigated. Because this irrigated land yields more than one-third of our food, it is disproportionately important to global food security. For most of modern history, the area of irrigated land grew faster than did population. As the amount of irrigated land per person steadily rose, diets improved in much of the world. In the past quarter century, however, this trend has reversed: irrigated area per person peaked in 1978 and has been more or less declining since then. Scarcity of land and water, increased cost of investment and the loss of irrigated lands to water logging and salinisation are among the major causes. This trend seems unlikely to reverse anytime soon. Irrigated land is now expanding at a rate of about 1 percent per year, while global population is growing by 1.6 percent per year.

On top of this, one out of every 10 hectares of irrigated farmland is losing productivity due to waterlogging and salinization. Much additional irrigated farmland is watered by over-pumping groundwater -- which is inherently unsustainable. North China now has eight separate regions of groundwater overdraft, covering a total area of 1.5 million hectares, much of it productive

farmland. Over-pumping is occurring in many districts of the Punjab, India's breadbasket. In California, nearly one-fifth of groundwater use is met by overdrafting aquifers. Nonrenewable groundwater is being mined in order to grow some of today's food, which means that the portion of the food supply is not dependable over the long term. Saudi Arabia, for example, mines fossil water to grow 2 - 4 million tons of wheat in the desert each year.

The bulk of food production in many arid and semi-arid developing countries comes from rain fed agriculture. Thus, wide-scale adoption of soil and water conservation techniques by farmers can have a significant impact on food production. In sub-Saharan Africa, 80 to 90 percent of cereal production comes from rain fed farming.

As already noted, fish caught in marine aqua-systems are a primary source of protein for much of the world: marine fisheries yield 80 to 90 million tons of fish and shellfish per year (approximately 75 percent of total world fish production). Over-investment in modern fishing fleets and use of inappropriate small mesh nets cause a large loss of fish stock and destroy the livelihood of artisan fishing communities which represent 90 percent of the world's fishers and are usually from the poorest sectors of their society. Land-based pollution of coastal zones -- runoff from agricultural areas, municipal and industrial waste, toxic dumping and other human activities -- are the overwhelming source of coastal and marine pollution, and are causing tremendous degradation to marine life.

It is essential that policy makers and development specialists begin to assess realistically the potential impact of water scarcity trends -- and in the case of marine systems, of over-fishing and land-based pollution -- on global food production and economic development. For example, if each country is economically rational and shifts water to higher valued uses, what are the accounting books for global grain supply and demand going to look like in 20 or 30 years? What will they look like if China enters world grain markets in a major way, as seems increasingly likely? And, in turn, what does this mean for the 1 billion people who today survive on \$1 a day?

Improving the efficiency of irrigation, which in most parts of the world is quite low, is also needed. Policies that provide incentives to increase water efficiency in agriculture, such as pricing, will help generate additional water resources and prevent water logging and salinisation. Land use and waste disposal policies and management must be linked to their "downstream" impacts on coastal

areas. Efforts to meet the needs of the poorest through small-scale, affordable projects are essential.

Human Health

That more than one-fifth of humanity still lacks access to adequate quantities of safe water constitutes arguably the largest single public health threat in the world. As noted above, more than 1.2 billion people -- nearly one out of every three in the developing world -- lacks access to a safe supply of drinking water. Close to three billion lack adequate sanitation. Water-borne diseases are a cause of illness and death for millions. At least 2 million children die each year because of unsafe water and inadequate sanitation.

Public health concerns arising from a degraded marine environment include the contamination of seafood, direct contact (such as bathing), and the use of seawater in food-processing plants.

Human health, of course, is closely linked to adequate nutrition. Given the potential negative impact of water scarcity on food production, the health of the most vulnerable groups in society -- particularly the poor and, most especially, children -- is at great risk from pressures on the world's water supply.

The lack of safe drinking water and sanitation is not so much a result of water scarcity as it is an expression of a lack of capacity in communities, municipalities, and governments, and of political will and financial support. Estimates made in 1990 suggested that it would take annual expenditures of \$50 billion to provide universal access to clean water and sanitation services by 2000.

Decline of the Aquatic Environment

Globally, water use has more than tripled since 1950. To meet this rising demand, governments have generally resorted to building an increasing number of bigger water supply projects, especially dams and river diversions. Around the world, the number of large dams (those more than 15 meters high) has grown from just over 5,000 in 1950 to roughly 38,000 today. More than 85 percent of the large dams now standing have been built during the last 35 years.

In spite of the positive aspects of these developments, some negative aspects of this rapid and massive change in the global aquatic environment are just beginning to become apparent -- degraded river deltas and coastal zones, numerous species being pushed to the brink of extinction, shrinking inland lakes,

disappearing wetlands. Rapid increases in the use of water resources have accelerated the spread of organic and inorganic wastes originating from households, industry and irrigated fields on which pesticides and fertilizers are used. The degradation of major watersheds is having a negative impact on the hydrological regimes of rivers and lakes by, for instance, increasing the frequency of flooding. The resulting environmental damage, in turn, is placing a large number of economies and communities at risk. In particular, the quality of the aquatic environment is declining rapidly throughout the developing world, with the deterioration very pronounced in many of the poorest countries.

Water development has proven hugely successful at getting water to people when and where they need it -- and this, historically, was its principal objective. But, in large measure, water management planning has not taken an ecosystem approach. The management of river basins, aquifers, coastal zones and the marine environment has often been seen as separate problems, when in fact these water resources are intimately linked. In effect, concerns about water quantity and quality of both fresh and seawaters -- historically treated as separate issues -- must now be seen as a global concern requiring a unified management approach.

This shift in approach is especially important since coastal and marine environments are directly influenced by land-based activities. Although a high economic potential exists in coastal and marine resources in many countries, they are often under intense pressures, both direct and indirect. Demands on their productive capacities will increase with population. Addressing linkages between freshwater, coastal and marine systems is vital due to the concentration of population and economic activities in coastal areas and the importance of the marine environment as a development frontier. Their management should be a major issue in water resources management as a whole.

An issue that has gained increasing recognition in recent years is that all types of water -- in freshwater, coastal and marine environments -- should be considered as a management continuum with significant implications for strategy, planning, management and investment actions. These systems must be viewed as intimately inter-linked and a much broader range of "downstream effects" from human interventions and development activities must be acknowledged.

Social, Economic and Political Stability

A fourth major threat stems from the growing competition for freshwater as it becomes increasingly scarce. A new politics of scarcity is emerging at local,

regional, national, and international levels as competing interests vie for limited supplies.

Also growing are antagonisms between those who are the recipients of pollution and those who produce it. Such tensions are arising both in freshwater systems, such as river basins, and further downstream as coastal areas are beset by land-based pollution generated far up river, sometimes in other countries.

At the international level, tensions over water exist in a growing number of river basins, including all three major basins in the Middle East (the Jordan, the Nile, and the Tigris- Euphrates) as well as the Aral Sea basin in Central Asia, the Ganges basin in South Asia and the Okavango basin in South-west Africa. In none of them is there yet a water-sharing agreement that includes all riparian nor any agreement that ensures protection of the aquatic environment.

Tensions are also bound to increase locally and regionally between different ethnic groups, societal classes and water-use sectors as competition increases for scarce water and as water quality deteriorates. Over the next 30 years, the world's urban population is expected to double -- from 2.5 billion today to just over 5 billion -- and 70 percent of this increase will occur in Asia, where water supplies are already chronically scarce in many river basins. In China -- home to 22 percent of the world's people, but only 8 percent of its fresh water -- farms and cities already compete for water, particularly in the densely populated north China plain. In Thailand's Chao Phraya basin, where water demands already exceed available supplies and water tables are falling severely in and around Bangkok, the dry season crop area peaked in 1982, and it has declined more or less since then.

It goes without saying that in agrarian societies the loss of water means the loss of livelihood. The potential for social unrest if water is diverted from farmers to supply cities is real and growing. And, in a vicious cycle, it will contribute both to more rural-urban migration and to more cross-border migration. Alternatively, sound and equitable water management practices can have many stabilizing effects on society, particularly when stakeholders are involved in decision-making processes.

The international community can play a vital role in helping to decrease social, economic and political instability due to water scarcity and pollution. International organizations can help parties in their discussions on alternative water use and pollution issues. They can be instrumental in bringing all major competitors for limited water supplies to the same table to try to reach water-sharing and management agreements -- whether at the local, regional, national, or

international level. And they can play a role in ensuring that the exploitation of major aquifers shared by two or more countries, such as the Nubian sandstone aquifer shared by Egypt, Libya and Sudan, is properly monitored. While important and encouraging efforts are under way, such as in the Nile and Aral Sea basins, the process should be hastened or encouraged in virtually every river basin where water-sharing agreements are needed. International institutions can clearly play a catalytic role in this area.

- Associated with The Nile River:

The Nile basin countries face significant challenges:

- ❖ Six of it is among the worlds poorest.
- ❖ Their combined population increased 3.5 times between 1950 and 1998, and now displaced by numerous natural disasters and conflicts.
- ❖ Quality of life indicators haven't been improved during recent decades.
- ❖ Poverty in combination with the very rapid population growth put pressure on the natural resources and ecological systems.
- ❖ Efforts to reduce poverty are undermined by a variety of environmental problems: Soil erosion, degradation of agricultural lands, desertification, loss of forest and wetlands, over grazing of pastures, declining water quality, over exploitation of fisheries, eutrophication of lakes, invasive water needs, inadequate urban waste management, water born disease, declining biodiversity and the threat of climate change. As a result, there is an urgent need to integrate environmental concern into poverty alleviation and economic development strategies.

The linkages between environmental conditions and human welfare are extraordinarily complex, these linkages suggest that reduction in poverty can be if:

- Environment continues to provide ecological services for the benefit of current and future generations.
- Human health is protected from the adverse effects of pollution.
- Environmental services such as the provision of water, sanitation and waste collection and disposal benefit all segments of society, especially the poor.
- Natural resources are used in a way that does not compromise long-term development.
- Environmental risks are recognized, managed and mitigated.

To face the challenges, it is required visionary and courageous leadership, as well as the emergence of a regional perspective on management and development of the river.

3) Nile Basin Opportunities:

The challenge provides an opportunity to promote regional economic development in one of the poorest regions of the world. There is an opportunity to transform the Nile, through collaborative and visible actions on the ground. Into a unifying force, which builds regional and international interdependencies and promote economic activities. That could enable basin countries to participate as partners in emerging regional and global trade. Effective water management can bring benefits to all involved riparian countries.

4) Nile Basin Initiative:

Evolving Regional Cooperation, appreciating the benefits of cooperating, various sub-groups within the Nile basin have engaged in cooperative activities over the past thirty years.

In 1993, the first in a series of ten CIDA supported Nile 2002 conferences was *launched* to provide an informal mechanism for riparian dialogue and exchange of views between basin countries as well as with the international community. In 1995, a Nile River Basin Action Plan was prepared with support from CIDA, in 1997 the World Bank agreed to lead and coordinate donor support to Nile Council of Ministers of Water Affairs' activities. Thus, the World Bank, UNDP and CIDA began operating in concert as "cooperating partners" to facilitate dialogue and cooperation among the riparians, to create a climate of confidence within which an inclusive mechanism for working together could be established.

Towards A long-Term legal and Institutional Framework, aware that forward *movements* on Nile cooperation requires both an institution and agreement on the core legal principle⁷⁷, the Nile riparians established a forum for process of Legal and institutional dialogue in 1997, with UNDP support, and a "Panel of Experts" produced the draft text of a "cooperative Frame Work" in early 2000. This encompasses general principles, rights and obligations, and institutional structure. The council of Ministers agreed in August 2000 to extend the dialogue process to seek further agreement on the outstanding issues UNDP has pledged its continued support to the process, a process which by its very nature requires time and effort.

Establishment of the Nile Basin Initiative, in 1998, recognizing that cooperative development holds the greatest prospects of bringing mutual benefits to the region, all riparians (except Eritrea) joined in a dialogue to design a transnational institutional mechanism until a permanent cooperative framework is in place. An inclusive mechanism includes all riparians as equal members and creates a regional

partnership to facilitate the common pursuit of sustainable development and management of Nile waters.

The transitional mechanism is comprised of the council of ministers of water Affairs of the Nile Basin States (Nile-Com), Technical Advisory committee (Nile-TAC), and a Secretarial (Nile-SEC). In May 1999, the overall process was officially named the Nile Basin Initiative (NBI)

Developing a Shared Vision and Objectives, following extensive consultations, the Nile-COM, at its Extraordinary Meeting in February 1999, adopted a shared vision and policy guidelines for NBI. The Shared Vision is to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile basin water resources.

The policy guidelines, which provide a basin-wide framework for moving forward with cooperative action, set forth the primary objectives of the NBI.

To develop the water resources of the Nile Basin in a sustainable and equitable way to ensure prosperity, security, and peace for its entire people.

To ensure efficient water management and the optimal use of the resources.

To ensure cooperation and joint action between the riparian countries, seeking win-win gains.

To target poverty eradication and promote economic integration.

B) Education, Information and Awareness Support:

Decisions concerning land or water use in the Nile basin often been made in the absence of environmental awareness or basic information. Lack of awareness and concern for environmental issues permeates all level of decision making, from local communities to key agencies of the national governments.

Lack of awareness is an important cause of environmental damage and serious impediment to finding solutions. When the public, the private sector civil servants and politicians have a well-informed grasp of environmental issues there is a better chance of developing pro-active, preventive polices rather than reacting defensively after damage has been done.

Environmental Education based on careful analysis can strengthen environmental management and improve sustainability of natural resource use there is increasing realization on broad front that improving people's lives, especially the lives of the poorest, requires a solid foundation of information, learning and adaptation.

The information revolution makes understanding the relationship between knowledge and economic development more urgent than ever before. Globalization is intensifying competition and attention must be paid to ensure that the poorest countries and communities do not fall behind more rapidly.

For the poor, the promise of the new information age and access to knowledge for all may seem far distant. To bring that promise closer to reality, the implications and opportunities of the information revolution must be absorbed into the development and environment agenda

1) Environmental Education:

Education is the most effective method for inducing behavioral change, and is not restricted to teaching, which is obviously one of its methods. While environmental communication is designed to motivate the individual to care for the environment, preserve its resources, and refrain from its pollution or destruction. This is achieved by providing necessary information, creating a set of values conducive to such behavior, teaching relevant skills, and forming positive attitudes towards the environment with the aim of developing a constructive behavior in this respect.

It is necessary to design a comprehensive program for environmental education to be implemented in and out of school through all levels of education and sectors of the community. Hence, environmental education follows two main approaches.

**Formal Environmental Education:*

Which relies upon formal educational institutions starting from pre-school level to university level.

**Informal Environmental Education:*

It uses the mass media and other forms of communication such as interpersonal communication methods.

The objective of informal environmental education is to disseminate environmental knowledge and promote environmental awareness among the public. This approach is the most effective one in promoting the formation of an enlightened and informed person whose values and skills enable him/her to co-exist with the environment, whether it is natural or man-made.

It is stressed in all conferences and studies, the importance of providing general education to the public of all age groups, with emphasis on the NGO's.

2) *Environmental information:*

Which focuses on the environment, is managed by competent authorities, and is financed by its advocates. It attempts to protect the environment through a scientifically -based information plan involving all media- under this plan, the performance of the different media should be assessed and their success in achieving the environmental objectives of the plan.

The information can influence the behavior of people in favor of protecting the environment for the following reasons:

- ❖ Daily influence on people.
- ❖ Renewed continuous action.
- ❖ The higher voice.
- ❖ Presenting models.
- ❖ Develop know-how to deal with environment.

3) *Environmental Awareness:*

In the contrary of other methods, the environmental awareness to be effective must be channeled through all types of mass media and interpersonal communication.

In the field of environmental awareness, the need for clearer public communication media increases when:

- There is a great cultural disparity between the source and the receiver, and/or
- The receiver public has largely varied experiences.

Hence, creating environmental awareness requires making use of diversified communication media not entirely dependent on language formulation, but addressing all the senses. Accordingly, it can be said that the communication methods to be used in environmental awareness should consist of audio means, visual mean and audio-visual mean.

The effective communication methods in creating environmental awareness:

It is agreeable that environmental issues are both scientific and technical, and that they involve a degree of complexity, there for the information cant depend on one communication method only.

In order of their influence in changing behavior, the interpersonal communication comes to be the most effective means of producing a desired change or modification.

A Strategy for Public Education and Awareness Building

The focus here is on raising public and decision-makers' awareness about the value of coastal resources and biodiversity conservation, their relationship to human welfare and their significance as a basis for sustained economic activity. Public education can build a constituency of support for the project and its objectives, which in turn then can influence the political decision-makers. Consequently, the education process needs to start as early as possible in a project since it is the repetition and constancy of the message that builds awareness. Emphasis is placed on encouraging community involvement, responsibility and control and in helping people to comply with regulations that may already be enacted. This applies, not only to the general public, but also to government institutions and private industry. It should not be confused with the training efforts necessary to improve the technical capacity of a line institution to conserve biodiversity.

The Cuban project tried to produce attractive, high quality public information materials and technical papers as a strategy for building their constituency. The project also collaborated with area universities to provide

training materials, thesis projects and to develop case studies. In the Dominican Republic project, public education was incorporated with public participation as an integral part of their community institutional strengthening activities. NGOs were contracted by the Black Sea project to produce training materials and to develop a curriculum for distribution in schools. The Cuba project used “citizen science” as a means to encourage participation by clubs and organizations associated with universities and museums in sampling and monitoring of environmental indices.

Evolution of EE&A in Egypt:

It is evident that the level of awareness in Egypt on environmental issues is low throughout the government, industry and public in large. And that, in consequence, if the aim of paying greater attention to environmental issues and natural resources protection issues is to be realized, a substantial and deliberate effort will have to be made to instruct and inform them on the interactions between these issues and their sectoral, industrial or other responsibilities, and on the means by which they can be taken into account

EE&A activities started as environmental information engaged with the environmental events, when it comes only to cover an issue that brings public opinion attention, and this coverage came as it is now through mass media. The activities were associated as well with the conferences and to support such campaign. And till now the main shape of this activities in most cases is media coverage, beside individual efforts hardly undertaken whether from governmental bodies or NGOs. In fact there is no strategy or policy to gather and organize the current separate activities and direct it to achieve an agreeable goals within an integrated approach.

Even the formal EE&A activity, which is very critical task, is depending on individual effort. (See more information in section X and XI)

V. POLICY AND INSITITIONAL FRAMEWORK

A) High Level Political Commitment

B) Policy and Capacity Strengthening in Egypt

1) Introduction

❖ *Institutional and Legal Capacity Building*

❖ *Environmental Development and Transboundary Issues*

❖ *Resources Conservation and Public Awareness*

2) Egypt's laws and Political Decisions.

C) Capacity Building and Institutional Framework. (Egypt's EEAA)

D) Institutional Mechanisms for Participatory Planning and Management (Egypt's EEAA)

A) High Level Political Commitment:

Effective management and conservation of Nile's environment and natural resources will depend first on high-level commitment by governments of the Nile Basin Countries. The prospects for implementing and sustaining the benefits of the Agenda for Environmental Action have been enhanced by being embedded with much broader initiative to which the governments of the Nile countries have already committed themselves. They see that NBI moves them beyond isolated planning and unilateral actions in non-cooperative and possibly contentious setting. The initial basin-wide activities must therefore be seen as a component within a much larger Nile basin strategic action program.

The governments of the region, in making their commitments to the NBI have committed themselves to finding cooperative solutions to sustainable governance of shared natural resources and further integration, these commitments are the most important elements underpinning long-term sustainability of activities in the Nile basin. The deliberate decision of the Nile riparian countries to self-finance the recurring cost of the Nile Secretariat Further reflects this commitment.

Governments support will be required to ensure that the priorities established under the agenda for Environmental Action are supported through policy measures, effective implementation of laws and regulations, investment activities and capacity building of regional, national and local situations. This support will be given the need to take preventive actions that require control of development in sensitive areas, enforcement of existing regulations, and investments to avoid potential adverse impacts.

Egypt's signatory to international environmental conventions, protocols, agreements and treats:

- Protocol 1891 been signed by England for Egypt and Sudan, and Italy for Ethiopia, in which Italy committed not to establish any irrigation project on Atbara river may hinder the flow of the Nile.
- 1902 Agreement which been signed by England for Egypt and Sudan and Ethiopia King to prohibit constructions and projects on the Blue River, Tana Lake and Sobat River which would affect t the flow of the Nile.
- There are 6 more agreements which organize the water relations between the riparian countries, 1906, 1929, 1934, 1953, 1959, 1991,

- Jeddah/ Saudi Conference on year 1974, and in Barcelona 1975, in which the Arab states participated to study the ways of protecting the environment of the Mediterranean sea, the Red Sea and Eden Gulf.
- 1989 a Conference on environment protection attended by the Ministers of environment of the Arab States.
- The Earth Summit at Rio De Janeiro/Brazil, 1992, attended by 150 countries, and Agenda 21.
- 1994, Cairo Conference on Population, Development and Environment

B) Policy and Capacity Strengthening in Egypt

1) Introduction

❖ Institutional and Legal Capacity Building:

Action has to be taken to introduce an integrated. Coordination action plan to develop mechanisms for national Law Development, and enforcement. And this action will be on local, national and regional scale.

The action has to include environmental policy, regulations and enforcement, as well as the institutional reform with focus of capacity building.

❖ Environmental Development and Transboundary Issues:

It is highly urgent to obtain commitment by Governments to achieve sustainable use and development of Nile basin. This help in developing and implementing the development plan in the region.

The potential cooperative projects have to be identified, with common environmental goals and shared benefits. While the public awareness of the Nile River Basin should be increased to obtain the necessary cooperative support and real participation among the development activities.

❖ Resources conservation and Public Awareness:

Besides developing management plans, it is initial to develop first national environmental regulations and enforcement mechanism to prevent the damage to environment

and the natural resources in particular. These needs to create public awareness through the effective environmental education formally and non-formally, the public awareness has to aim to involve the civil society as an especially the NGO's

2) Egypt's laws and political decisions:

a) On Environment protection:

There are various laws and decrees been issued for the protection of environment such as:

1. Ministry of Agriculture instructions issued on 1928 prohibited hunting some kind of poultry, which help peasants.
2. Legislations to protect air from pollution as Law no.453 on year 1945 and modified by Law 359 on year 1956 which includes items about smokes and dust which would result from such industries.
3. Law no.59 on year 1960 concerns with radiation and precautions.
4. Minister of Labor decree no.48 on year 1967 which defined limit for dust concentration in factories to protect workers health.
5. President decree no. 846 on year 1969 to establish a
6. The Decree of the Minister of industry no.380 on year 1982, to secure that no hazards may occur from high technology usage.
7. Law no. 38 on year 1967, and the ministerial decree no. 134 on year 1968 concern with solid waste.

b) On the Nile Protection:

There are some legal actions were taken as laws or decrees:

1. Law no.93 on year 1962, concerns with waste water discharge and standards for to public sewers and surface drainage.
2. President decree n. 330 on year 1966, to establish a high Committee for water.
3. Law no. 48 on year 1982, which prohibits the drainage of industrial and health waste in the water courses of the Nile, unless under certain control.
4. The Prime Minister decree no.1981 on year 1982, which consider the Nile River is unique natural utility, and established a permanent committee for those projects related to the Nile River and to work for protecting the Nile from pollution and aggression.
5. The Egypt's President decision no. 1631 on year 1982, to establish the Environmental Affairs Agency authority, to monitor and follow up the environmental protection efforts and the Nile protection in particular.

6. Law no. 4 on year 1994, for the Environment, which comes to face new challenges, bridge the gaps of the pervious legislation, protect the development activities and the investment and to protect environment from pollution.

c) On environmental education:

The Law no. 4 is the only one contains sections about EE activities, polices and the needed contributions. These were cited in chapter two, article no. 5 as follow:

1. The agency (EEAA) shall formulate the general policy and prepare the necessary plans for the protection and promotion of the environment. Also, it shall follow up the implementation of such plans in coordination with competent administrative authorities. The agency shall have the authority to implement some pilot projects.
2. Collection and publication of national and international information related to the environment on a periodical basis in cooperation with information centers of other agencies. It shall evaluate and utilize this updated information in environmental management and planning.
3. Preparation of programs for environmental education of the public and cooperation in their implementation
4. Participation with the Ministry of Education in the preparation of training programs for the protection of the environment within the scope of various educational programs at the fundamental educational stage.

C) Capacity Building and Institutional Framework. (Egypt's EEAA)

Project activities may be rendered irrelevant unless there are initiatives, which enhance the local capacity to sustain management activities after the end of the project. An integrated strategy to incorporate capacity building therefore is a vital part of the process for achieving sustainable human development. Viewing the entire project as a long training initiative and as a broad subject would produce a project design and implementation schedule that substantially differs from one that focuses only on gathering technical knowledge about series of specific topics. In the first one, the planning and implementation of later project activities rely upon gains obtained via the prior early training and awareness building activities. Hence, a commitment to methodically build human and institutional capacity for

project management is required, this may be reflected by a higher level of effort required for training and transfer of technical skills early in the project and longer project time frames.

A social scientist and an environmental educator with skills in participatory adult education should be key team members from the beginning of project design. The first develops the studies necessary for the resource managers to understand the human dimensions that may be contributing to ecosystem degradation. The latter is needed in order to assess needs and to develop and facilitate implementation of an education strategy that is fully integrated into the other project components.

The training and education strategy should include technical training for counterparts, developing curriculum at all levels of education (primary, secondary and tertiary) and building awareness among counterparts, elected officials and the general public in an effort to create a wide public-based constituency of support regarding the importance of natural resources conservation. Technical training should be task oriented with the outputs feeding into the management process, particularly for targeted research and monitoring activities

1) Institutional Framework: “Egypt’s EEAA”

It is an agency for the protection and promotion of the environment was established within the prime Minister’s cabinet. This agency called the “*Environmental Affairs Agency*”, which have a public juridical personality and is affiliated with the competent Minister of Environmental Affairs. It has an independent budget and located in Cairo. The Minister for Environmental Affairs establishes EEAA branches in the Governorates by ministerial decree, with priority to be given to industrial areas.

The chairman of the Agency is appointed by Presidential decree stating his financial remuneration, based upon a nomination by the Minister of the Environmental Affairs and the recommendation of the Prime Minister.

The Agency formulated the general policy and prepares the necessary plans for the protection and promotion of the environment. Also, it follows up the implementation of such

plans in coordination with competent administrative authorities. The Agency has the authority to implement some pilot projects.

EEAA is the competent national authority for strengthening environmental relations between the ARE and other countries, and regional and international organization. Also, the Agency recommends the necessary legal procedures to join regional and international conventions related to the environment. It prepares the necessary draft legislation and decrees required for the implementation of those conventions.

D) Institutional Mechanisms for Participatory Planning and Management (Egypt's EEAA)

Institutional mechanisms for participatory planning and management of a project's areas of activities are enhanced by creating linkages and strengthening the capacity at all levels of stakeholders, including line government institutions and non-governmental organizations, such as universities, private business, communities and individuals.

Successful conservation of water and natural resources requires addressing problems that face the Nile basin, the aim of this process is to facilitate communication, build awareness, increase coordination and provide guidance and technical skills. It is not to act in parallel or to direct the planning and actions of existing national agencies and organizations.

The type of capacity building and assistance in this component (EE&A) will vary depending upon the role of the target stakeholders. In many cases it may be difficult to determine the exact content of training curriculum until after the project has commenced but a general needs assessment can be conducted during the project preparation phase. An environmental educator with skills in participatory non-formal adult education should be actively involved from the beginning.

Staff for this component will need training on such skills as participatory decision making processes, negotiation and conflict resolution, project management, management by objectives, environmental economics, environmental impact assessment, monitoring and evaluation, managing workshops, public relations, fund-raising and advertising. They also may require support resources, such as transport, communications, offices, and appropriate equipment.

It is important to understand that training and capacity building is a continuing process that proceeds in response to new needs. Thus, a training strategy must be developed early and implemented throughout the term of the project and with periodic reassessment. A project relying upon capacity building to develop the human assets to achieve its goals will move at a slower pace than one which brings in the experts to complete specific technical tasks and to conduct a little on-the-job-training while there.

This has substantial implications for project design when planning for transfer of skills and technology since it may require longer terms for technical inputs and more repetition in order to build local capacity. It is also useful to remember that skills can transfer relatively rapidly where as the values, ideals and philosophies for conservation take much longer and require more contact time before being embraced by the recipients.

1) Coordination and implementation mechanisms: “Egypt’s EEAA”

EEAA mechanisms for planning, management and implementation of its areas of activities and the needed coordination for it are enhanced by creating linkages and strengthening the capacity at all levels of stakeholders, including government institutions and non-governmental organizations, such as universities, private sector, communities and individuals.

The focus is directed to the management of the Agency that needs technical assistance on such planning skills, regional planning, environmental engineering, economics, sustainable architecture and environmental law. These new skills were used in real life exercises, which incorporated the information into the planning processes for the concerned ministries.

EEAA have staff knowledgeable about ecology and biodiversity conservation issues and trained in strategic planning, resource management, scuba diving and law enforcement. They also have inter-personal skills to handle the general public (laypersons, resource users, scientists, policy makers and tourists, both foreign and national), including skills in naturalist interpretation as well as conflict resolution and negotiation.

As it is mentioned in EEAA’s duties, the followings explain the tasks that support the mechanisms by which EEAA coordinate and collaborate with others in concern with the field of EE&A:

- Preparation of the National Environmental Policy and plans.
- Liaison and cooperation with Economic and planning Ministries, Sectoral Ministries, Agencies, Governorates, etc...
- Promotion of pollution prevention in industry.
- Assisting Governorates in preparing their own Environmental plans.
- Maintain International environmental links.
- Setting environmental protection standards.
- Promoting, guiding, and supervising sound environmental management techniques.
- Preparation of proposals for environmental legislation;
- Overseeing enforcement of legislation;
- Proposing economic instruments for environmental protection;
- Masterminding inter-ministerial cooperation to resolve complex environmental management issues;
- Defining monitoring requirements and establishing networks;
- Receiving, analyzing and interpreting environmental data;
- Presenting information on the environment to GOE and the public;
- Implementing demonstration and pilot projects for improved environmental management;
- Masterminding an environmental education and public awareness campaign.

2) Cooperation and collaboration of EEAA:

This can be explained in the following:

- 1- With Mass media.
- 2- With Universities (Projects- conferences and seminars).
- 3- With Schools (journeys to protectorates, seminars).
- 4- NGO's (Training, campaigns, seminars).
- 5- Donors and Foreign agencies.
- 6- With other ministries- such as the cooperation with 9 ministries and 4 Governorates to face the black cloud. Army, got helpful assistance in some missions which impossible to be carried out by government, such as treated the big problem of domestic solid waste which was around half million Quebec meter, in four informal settlements.
- 7- Ministry of Interior, participating in monitoring air pollution. Whether from cars or factories or farm's waste burning.

3) EEAA's main activities on EE&A:

The following is a summary of the achievements of the General Department of Information and Environmental Awareness on year 2004:

First: News Paper and Magazines:

- 1) Establish award competition in the field of environmental Education in cooperation with Journalists Union.
- 2) Provide Financial Support for two magazines.
- 3) Support the environmental pages in some newspapers.

Second: TV programs:

1. Environmental item was aired through "Good Morning Egypt" TV program.
2. EE program was introduced by Cinema Film, which was showed in the culture palaces at 3 Governorates.
3. Provide technical support to 16 TV programs.
4. Executed TV series at "Our Planet" program, which is presented by the Nile Station for News.

Third: Radio Programs:

- (1) Provided technical support to 30 programs at the different stations.
- (2) Carried out two competitions at the holy month of Ramadan, which are "Egypt talk about herself" & "Alphabetical of Environment" programs.

Fourth: Environ. Competitions:

1. Organized group of environmental competitions at culture palaces in various Governorates.
2. Carried out 5 religious competitions.

Fifth: Exhibition:

- 1) Participated in 7 local & international exhibitions
- 2) Preparing plans for coming exhibitions.

Sixth: Environ. Journeys:

Carried out 7 journeys to protectorates for students and information people.

Seventh: Environ. Conferences:

Participated in 17 conferences which given EEAA financial supportive portions.

Eighth: Environ. Seminars:

Carried out 143 seminars at various agencies.

Ninth: Workshops:

Carried out 23 workshops at different places.

Tenth: Different EE&A Activities:

1. Prepared a guide about Environ. Campaign.
2. Provided Schools, NGOs and Youth Centers and other agencies with publications and posters.
3. Implemented multi cooperation program with Ministry of Youth.
4. Prepared and organized Child Cinema Festival at the Opera House and recognized the best film on environment.
5. Carried out the project of “Environment Street”, its idea is choosing a street in a Governorate and cleans it, and makes the necessary beautification and the needed a tree-planting.
6. Cooperated with Gezera Sheraton Hotel to carry out a month program of environmental activities.
7. Participated in a workshop, which organized by UNICEF about “The Future of Health and Environ. Education in Egypt”.
8. Carried out a cooperative Environ. Program with the Ministry of Social Affairs.
9. Coordination been made with Nile Guards Association to carry out a project on EE&A.
10. Cooperation was made with Woman Association at Assuit Governorate to implement the initiative project in some schools.
11. Prepared an Environ. Bag to be distributed for schools, with cooperation with the Ministry of Education.

12. Prepared an Environ. Learning Material bag for the children, which been developed by professional child writer.

Eleventh: Training courses:

Carried out 8 courses for workers at the Central Department for Information & Environ. Awareness.

Twelfth: Environ. Celebrations:

1. Participated in various celebrations and distributed awards in cooperation with AED.
2. Participated in Alexandria University Celebration with “International Environ. Day”
3. Participated in the celebration of the awards distribution of the art competition in cooperation with Arab League.

VI. HIGHLIGHTS OF RELEVANT ISSUES

A) Over View of Selected Reviewed Issues

- 1. *UNDP Global Program***
- 2. *NTEAP***
- 3. *Environmental Threats***

B) Environmental Education and Awareness Program

- 1. *Formal EE&A Activities***
- 2. *Informal EE&A Activities***
- 3. *EE&A at tertiary institutions***
- 4. *Recent Projects& Programs, and Planned Environmental Education Out Reach Program***

C) The National Nile Basin Discourse Forum (NNBDF), EGYPT

A) Over View of Selected Reviewed Issues:

The Nile is the world's longest river, it flows 6,600 Km. And drains an area about 3 millions Sq. Km. There are ten countries share the Nile basin- Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda.

The majority of people in the Nile basin lives in rural areas and depends on land and Nile water for income, energy and shelter, Only Egypt is highly urbanized.

Nile basin's people face considerable challenges, six of the Nile countries are among the worlds poorest, and most efforts to safeguard the natural resources were been carried out within the boundaries of individual riparian countries. More recently recognition has been increased that environmental transboundary issues are regional and sometimes global. This understanding let the riparian countries have to take concrete steps to address current challenges and have sustainable development, which delivers mutual benefits to region.

(1)- UNDP Global Program:

Introduction

There are few problems more vital to sustainable development than the quality and availability of water throughout the world. Water is both a necessary resource for human development and an environmental resource essential to the health and functioning of the planet's ecosystems. In both capacities, it is facing serious challenges. Unless concerted action is taken at the community, national and international levels, water may become a constraint - rather than the basis for - the achievement of sustainable human development in many countries, especially the developing world.

Water and sustainable human development are inextricably linked. Without adequate supplies and management of freshwater and good management of aquatic resources, socioeconomic development simply cannot take place. Indeed, a strong case can be made that some of the most important results that could be produced in the field of development today involve water:

- **First**, by ensuring that the poorest one billion people on the planet have

access to adequate water and sanitation services;

- **Second**, by reversing the trend toward degradation of finite freshwater and aquatic resources; and
- **Third**, by implementing sustainable use, management and conservation processes and policies to protect freshwater, marine and coastal systems for succeeding generations.

Within the overall sustainable human development framework, UNDP focuses on four key objectives: poverty elimination, livelihood and job creation, the advancement of women and environmental protection. Each of these goals is closely linked to achieving patterns of sustainable management and equitable use of water resources and the aquatic environment. For example:

- ❖ **Poverty** can be dramatically reduced when households have access to a sufficient quantity of clean water so that family members can lead healthy and productive lives. Access to water for irrigation can significantly increase per capita food production and incomes for the rural poor, and reduce vulnerability to recurrent droughts, particularly when ground water is the source of supply. In addition, the poverty or prosperity of the majority of people who live in the coastal zone -- 60 percent of the world's population lives within 60 kilometers of a coast -- is directly dependent on the quality of coastal and ocean management. Many countries depend on sources of income from activities -- such as fishing and tourism -- that are directly threatened by degradation of the marine environment.
- ❖ **Livelihoods** for the land poor can be significantly enhanced by irrigation which often creates demand for labor in two or even three growing seasons a year, as opposed to one season for rain fed agriculture. In addition, jobs can be created in the construction and maintenance of drinking water supply, irrigation, drainage and waste management systems. Proper management of fisheries, tourism, shipping, and other coastal activities also promotes livelihoods. Ultimately, sustainable patterns of human activity in coastal areas depend upon a healthy marine environment, and vice versa.
- ❖ **Women** are key water users throughout the world, and are central to planning, financing and maintaining safe water supplies for community and home use. They also play an important role in agriculture: in Africa, for instance, women are responsible for about 80 percent of total food supply. Experience demonstrates that focusing on empowering women is a high leverage approach to

achieving sustainable management and equitable use of water resources. Women also play major roles in the economic systems of coastal areas and fisheries.

- ❖ **Environmental protection** can be enhanced by managing water demands and waste disposal so that they do not degrade or destroy aquatic ecosystems. Sustainable water management can prevent salinisation, the major form of land degradation in irrigated areas. Environmental protection is a matter of survival for coastal dwellers -- particularly the poor. Coastal zone management can protect coastal and marine resources, and ensure that healthy aquatic environments are sustained.

Problem to be addressed- the Present Situation

Water resources are essential for life and a wide spectrum of human activities and livelihoods including agriculture, aquaculture, fisheries, health, industry, energy generation, transport, tourism and recreation. Demographic pressures and rising incomes have created unprecedented levels of fresh and seawater pollution, which not only present acute risks to food security, human health, and social and economic well-being but also increase competition for resources and exacerbate tensions within and between countries.

For example, irrigated agriculture plays a major role in achieving food security and poverty alleviation in the developing world. Food production is a highly water-intensive activity that currently consumes two-thirds of total global water use. In the decades to come, food demands will rise sharply with rising population and incomes, and irrigated agriculture will undoubtedly bear a disproportionate share of meeting these increased food demands. Furthermore, the amount of water available for irrigated agriculture will become smaller as other demands for freshwater grow, and the quality of the water available for irrigation will deteriorate as a result of pollution, improper drainage and other causes.

The vital roles that water plays in human development -- and the growing threat of water scarcity -- have become absolutely clear. This situation is complicated by more than 300 river basins that involve more than one country and the growing need for these countries to work together if their food security and economic development are to be adequately and sustainably addressed. Nearly 40 percent of the world's people live in river basins shared by more than two countries.

Access to reliable water supplies has been pivotal to some of the world's major development triumphs. Over the past 30 years, for example, half of the

growth in global food supplies has come from expanding irrigation, and irrigated agriculture now accounts for one-third of all food production. Millions have gained access to some form of irrigation. In recent decades, large numbers of people have also gained access to greater quantities of water for domestic use. During the International Drinking Water Supply and Sanitation Decade, an additional 1.3 billion people benefited from improved water supplies; 700 million gained access to better sanitation facilities.

Important as these accomplishments are, many significant problems still need to be addressed. While progress during the 1980s was great, 1.2 billion people still lack access to a safe and adequate supply of drinking water, and close to 3 billion lack proper sanitation facilities. At least 2 million children die every year because of unsafe water and inadequate sanitation. In less developed countries, 80 percent of infectious diseases are related to water. Water scarcity and poor quality are among the most significant causes of disease among urban dwellers.

In spite of their importance, it is only recently that oceans and coasts have received concerted international attention. Constraints to progress, which, in turn represent challenges to the world community, include the lack of data on and awareness of the nature and scope of the problems, the lack of well established institutions and technologies, and serious conflicts among users and resource constraints at all levels. Since the situation is evolving, it will be necessary to find a way to capture and share successful approaches to these problems even before they are fully developed.

Over the last two years, UNDP's Sustainable Energy and Environment Division (SEED) has worked with other units of the Policy Bureau, Regional Bureau, outside experts, colleagues from related agencies, and selected Country Offices to prepare a strategy to guide *the entire spectrum of national, regional and global* UNDP activities in the sustainable management of water resources and the aquatic environment.

The strategy takes into account the changing needs of program countries as well as new approaches to sustainable management of water resources and the aquatic environment is consistent with Agenda 21 -- the global action plan for sustainable development adopted at the UN Conference on Environment and Development (the "Rio Earth Summit"). It also capitalizes upon UNDP's proven strengths and capabilities, and is directly linked to UNDP's four primary goals of poverty elimination, creation of jobs and sustainable livelihoods, advancement of women, and protection and regeneration of the environment.

The strategy proposes that UNDP efforts in the water sector focus on support to the capacity building process through and with governments and civil society for the management and use of water resources and the aquatic environment, in ways that reconcile poverty alleviation and environmental protection. The principal objective of capacity building for sustainable water resources management is to improve the quality of decision-making, sector efficiency and managerial performance in the planning and implementation of water sector programs and projects. More specifically, capacity building for sustainable water resources management is designed to improve capabilities for assessing water resources; facilitate better planning in the context of national development planning; and promote financially and environmentally sustainable, more efficient and more effective delivery of water services.

In essence, UNDP's water strategy has six key characteristics:

- *It links the entire continuum* of freshwater, coastal and marine environments.
- It focuses on *capacity building* for management of water resources and the aquatic environment.
- It builds on UNDP's *proven strengths and capabilities*.
- It is *linked to UNDP's four goals*: poverty, livelihoods, environmental protection and women.
- *It embodies the international consensus* of thinking (as represented by various conventions and agreements) on the most important interventions related to freshwater and oceans.
- It targets *actions to address the four principal challenges associated with water scarcity and pollution* -- food security, human health, the decline of the aquatic environment, and social, economic and political stability.

An innovation of the UNDP water strategy is that it combines the management of freshwater resources with the management of aquatic ecosystems. This management takes place along a continuum from watersheds, rivers, streams, lakes and aquifers to deltas, wetlands, coastal zones and oceans. Freshwater management is clearly critical with respect to watersheds, rivers, streams, lakes and aquifers. Aquatic ecosystem management also affects rivers, streams and

lakes in addition to the more unique areas of deltas, wetlands, coastal zones and oceans. The ocean and coastal component, which deals with ecosystem management, clearly must take account of the whole continuum leading to the aquatic ecosystems. Similarly, in the management of freshwater resources, account must be taken of the impact of such management on aquatic ecosystems downstream.

This strategy has been described in detail in a new SEED publication, which is due to be published in final form this month. The strategy is intended to serve as a guide to Country Offices, SURFs, Regional Bureau, and headquarters staff in addressing water issues as an instrument for sustainable human development. It is also intended to become a useful resource for increasing appreciation of water-related issues, serving as a diagnostic tool at the country level, and organizing water resources and aquatic environment assessments including projected needs analyses.

In addition to the broad input, which it is hoped the UNDP Water Strategy will have - particularly in UNDP's national and regional programs in freshwater and aquatic environment management - the Global Water Program is also targeted towards supporting UNDP's broader portfolio of projects. This is particularly evident in Objective 3 since the Strategic Initiative for Ocean and Coastal Management has as its main goal the enhancement of UNDP's projects in this field. In a similar manner the activities under Objective 2 related to the Nile River are directly supportive of specific UNDP regional program activities. Under Objective 4 it is anticipated that the Programs advisory activities will have an indirect impact on UNDP's broader portfolio. Under Objective 1, the work with the Global Water Partnership will provide additional technical assistance to country projects, support the regional SURFs, provide opportunities for exchange of experiences, and support training and education efforts.

(2)- NTEAP:

The Nile Transboundary Environmental Action Project (NTEAP) is one of the eight projects under the Nile Basin Initiative Shared Vision Programs (SVP). The main objective of the project is to provide a strategic environmental framework for the management of the transboundary waters and environment challenges in the Nile river basin. Specifically the project will:

- Improve the understanding of the relationship of water resources development and environment,

- Provide forum to discuss development paths for the Nile with a wide range of stakeholders,
- Enhance basin-wide cooperation and environmental awareness and
- Enhance environmental management capacities of the basin-wide institutions and the NBI.

NTEAP has six components:

1. Institutional Strengthening to Facilitate Regional Cooperation.
2. Community-Level Land, Forest and Water Conservation.
3. Environmental Education & Awareness.
4. Wetlands and Biodiversity Conservation.
5. Water Quality Monitoring.
6. Monitoring & Evaluation.

The Environmental Education and awareness component within the Nile Transboundary Environmental Action Project will focus on creating awareness on the River Nile environmental threats, while stimulating behavioral change at three levels; the general public, secondary schools and tertiary institutions of learning.

The program's objectives will be achieved through enhancing awareness on the nature of environmental inter-relatedness within the Nile basin and effects on communities. Focus will be put on developing or strengthening transboundary partnerships and networks of environmental education and awareness practitioners. This will be achieved through: building practitioners' capacities, introduction and building transboundary cooperation and demonstration (through pilot activities) the feasibility of developing and delivering a variety of environmental education and awareness programs at basin-wide level.

(3)- Environmental Threats:

The varied and valuable environmental resources of the Nile basin are subject to series of threats. The causes of these threats have been studied extensively and become well understood, the threats mainly showed in agricultural and grazing lands degradation, declination of water quality, losing wetlands and forests, over exploitation of natural resource is continuing, pollution from urban industrial and agricultural sources is increasing, waterborne diseases are proliferating and the harmful impacts of floods and droughts are intensifying. Many of these threats have a direct impact on human health and welfare, while other undermine people's ability to secure their livelihoods.

These threats represent a substantial barrier to long-term achievement of sustainable development in the Nile basin countries.

There is now increasing acceptance that the underlying causes often related to institutional, governance, awareness information issue as well as sectoral and macroeconomic policies. It is better to understand the complex interaction between these factors and the Nile basin's environmental resources, which are critical to the design of effective remedial actions.

B) Environmental Education and Awareness Programs

1-Formal EE&A Activities

There is no policy or framework guides the formal work of EE&A activities. Although the Ministry of Education only has the responsibility of this task, but no recognition to the need and the importance of this activity, and still the study work and school curriculum come first.

MINISTRY OF EDUCATION, General Directorate of Environmental and Population Education:

Introduction:

Ministry of Education, which responsible about the educational policy in Egypt, recognizes the EE through:

- The existing curriculums, by inserting the environmental concepts into school modules for all levels (6 yrs Prim, 3 yrs Prep, 3 yrs. Sec.).
In fact EE has no separate curriculum.
- The functions of General Directorate of Environment and Population Education, which was established under the Minister's authority while having branches at Governorates' Educational Directorates.

The G. Directorate has main tasks as follow:

- Train instructors and teachers to have better understanding about easing the delivery of the environmental concepts within the study curriculums.
- Make a good use of these concepts in such activities that help in changing behavior and built active attitudes at school community and its surroundings.

- Produce educational aid materials such as teacher's manuals and CD's supported with the needed illustrations.
- Cooperation with the various Ministries and agencies to spread out the population, health and Environmental awareness.
- Participating in local and international conferences.

(1)- Objective:

- ❖ To merge environmental, population and health concepts in studding curricula.
- ❖ To prepare and plan training programs and to hold Debates and participate in local and international conferences.
- ❖ To carry out competitions and researches.
- ❖ To publish guide reports to raise performance level in environmental, population and health education.
- ❖ To cooperate with subjects' counselors and research centers which participate in education development process.
- ❖ To cooperate with organizations, which interested in environmental population and health issues.

(2)- Principle Activities:

- Preparing remote training programs through V.C and Chinese halls.
- Preparing training programs in the main centers in the Central Directorate for In Service Training. In all Governorates.
- Preparing environmental, population and health awareness network participating with the Technological Development Center.
- Participating in carrying out the National program for Health and Environment in Promoting Schools in co-operation with the World Health Organization.
- Holding awareness programs by The Electronic Education for preparatory schools through multimedia rooms in co-operation with the World Health Organization.
- Holding training workshops in co-operation with the Academy of Education Development and Environment Affairs Agency, which called environmental education for a best society.
- Holding Health, environmental and population culturing debates participating with civil society.
- Holding electronic competitions among students of preparatory stage in all Governorates in cooperation with the Ministry of

Communications and Information and Technological Development Center.

(3)-Publications:

- Preparing environmental and population concepts survey for second stage from basic education and secondary education.
- Preparing environmental education guide for second stage from basic education.
- Preparing additional booklet, which participates in explanation of environmental, and population problems and role of the Ministry of Education to face it.
- Preparing of modules for different studying subjects rich in environmental, population and health concepts.
- Preparing pamphlets, which explains some temporary issues.
- Preparing atlas-containing drawings, which express students' awareness with temporary issues.
- Preparing population education guide for teachers training.
- Preparing document of National Program for Health and Environment for Promoting Schools.
- Preparing magazine (first Edition) for National Program for Health and Environment Promoting Schools.
- A book of Community participation, Health and Environment for promoting School.

(4)- 2004 work plan activities

○ *Training:*

- a. Training programs with Video Conference and Chinese hall. **7 programs for one day** each mainly on environmental pollution, reproductive health and resources management. **One program for one day** on combating anemia within pre. And Sec. Schools, in cooperation with Ministry of health, and Health Insurance Agency. **3 programs for 3 days** each mainly about community participation, population explosion, Egyptian Family challenges and quality management and sustainable development.
- b. Awareness network in cooperation with the Technological Development Center, for 68 schools in Cairo and Giza, the over all program's objective is to

make a better understanding about environmental, population and health issues, beside exchanging information between schools, which some of it can be carried out through IT investment.

- c. The National Program for the schools that promoting Health and Environment in cooperation with the World Health Organization. This program is directed to 150 schools in 10 Governorates, the main objectives are to: develop the students awareness regarding the environmental and health issues within their communities, to develop the self motive to gain life-practice skills, and to build effective relations between schools and exchanging experiences.
- d. The awareness program by the Electronic Education for prep. School through multi media rooms in cooperation with World Health Organization and Ministry of Communications, this program to be applied on 50 Prep. Schools, the main goal is using the Electronic Education means to gain Health and Environment Information, besides developing positive attitudes among the students.
- e. The program for combating anemia in prep. And Sec. Schools in cooperation with Ministry of Health and Health Insurance for the school instructors beside the Environmental Education cadre and school students. The program aims to spread out the health awareness among the students about the anemia problem in Teen-age duration.
- f. A training program (Workshop), named “Environmental Education for a better Community”, with cooperation of the Academy for Education Development and Egyptian Environmental Affairs Agency. This program targets 150 schools in 8 Governorates to train Environment and Population cadre and reporters in Education Directorates and Developments, Training unit in charge and students. The aim of this program is to train the target people on

building and developing awareness to create a better quality life.

○ Seminars:

- a. A program of Environmental and Health Education in cooperation with civil society. This program is directed to 500 schools at 15 Governorates, targeting female teachers and students in order to urge 1500 of them to participate in behavior change and build positive values.
- b. Local seminars to be carried out in Ed. Directorates by Env. And population cadre with the assistance of specialists in these seminars issues.
- c. The informational days, which are organized and achieved by Ed. Directorates locally according to their circumstances.

○ Competitions:

- a. The cultural competitions (the multi subjects researches)
 - 1- The environment problem between reality and hope.
 - 2- The poor settlements and population problem.
 - 3- The pollution results on human beings.
 - 4- The clean energy.
 - 5- The waste recycles.
- b. Population competition rallies
- c. Hand crafts competitions
- d. The best science and culture' articles.

○ The following up activity:

For all proposed program

○ Cooperation:

With civil society institutions and international agencies

○ The summer activity plan:

Include Env. and Population seminars, following up the Env. Population and health awareness network clubs, Env. And population competitions follow up of the summer plan.

(5)- Highlights of obvious achievements:

- 1- Training teachers comes through direct or indirect approaches using videoconference at the main training centers, because there is no EE modules therefore the training only for the way of handling the environmental concepts within delivering the study curriculums.
- 2- “SEMEP School” program carried out the network clubs for Population, Health, and Environmental Awareness was established at the preparatory and secondary schools in most Governorates.
- 3- There is environmental program currently working in cooperation with the Egyptian Environmental Affairs Agency (EEAA), has the following activities:
 - Environmental awards project that been carried out in Cairo in 2003&2004.
 - El-masry project for environmental policies with the cooperation of the Academy for Educational Development.
 - At Red Sea work shop with a subject named “Environmental Education for Better Life” 118 teachers were attended.
- 4- “SEMEP School” program for South East Mediterranean Sea countries, launched a training for teachers from 89 prep, and sec. schools of 4 Governorates.
- 5- G. Directorate General Manager attended the Nile Basin workshop, which was held in Khartoum, Jan 2005.
- 6- Participating with the association of environment protection in the implementation of “work shop” in which 185 teachers from 4 Governorates were trained on environmental management and recycling of the solid waste.
- 7- Using the above mentioned publication as appropriate as learning materials.

(6)-Type of EE&A learning methods& materials currently being used

- Environmental, population and health awareness network
- The National program for Health and Environment, for Promoting Schools in co-operation with the World Health Organization.
- Awareness programs by The Electronic Education for preparatory schools through multimedia rooms in co-operation with the World Health Organization.

- Electronic competitions among students of preparatory stage in all Governorates in cooperation with the Ministry of Communications.
- Environmental education guide for basic education.
- Booklet& pamphlets explain environmental and population issues.
- Environmental, population and health concepts to enrich modules of different studying subjects.
- Atlas containing drawings, which express students' awareness with environmental issues.
- Population education guide for teachers training.
- Magazine (first Edition) for National Program for Health and Environment Promoting School
- Teachers training programs with Video Conference and Chinese hall.
- Seminars of Environmental and Health Education program
- Competitions on environmental information.

2- Informal EE&A Activities

Regarding to the informal EE&A activities, there is no policy or strategy in Egypt to guide, support, supervise and organize it, therefore all the efforts in this field from any of the community agencies (governmental. or non governmental) derived from thinking and working individually.

Media plays a significant role in EE&A activities, but not organized under such strategy or policy, it works upon request to cover events and activities, while the assigned TV& Radio programs and newspapers to environmental information address issues through dialogues with the concerned persons with no planned framework

The following are examples present the principle Ministries, which concern obviously with EE&A activities and one NGO working for Nile River protection.

**(A) MINISTRY OF WATER RESOURCES AND IRRIGATION,
The Information Center:**

Background:

The environmental awareness started its activities through a unit for environmental information work, directed its efforts to the water users and water problems. Then the Center was established on 2000 with a budget from USAID in the field of water information, for three projects stayed 6 month, 6 month and 2.5 yrs.

The overall objectives of these projects were:

- (1) Water conservation.
- (2) Protect water from pollution

The center staff now includes 16 persons, ten of them are graduates from the Faculty of Information, while the other have different degrees, and ten of the staff has been training on the EE&A work and some of them had training at USA.

The formal speaker for the Ministry is Dr. Atfee who is the Deputy Chairman of the informal Committee of irrigation. Dr. Agwa the famous information expert is the consultant of the center. Both support the work of the center.

Center's achievements:

Since its establishment, the center produced various kinds of informational materials to be used in seminars, campaigns and mass media.

❖ ***Printed materials:***

- (1) Many kinds of brochures and pamphlets and 20 posters.
- (2) Books for children.
- (3) Monthly newsletter "Water Information" magazine every 3 month "Water and Development"

❖ ***Audio Visual materials:***

- (1) 20 TV ad, 12 Radio ad, a TV serial contains 18 episodes with 45 min each with the name of "Hearts Thirsty", 30 episodes at religious program introduced religion experts to explain the verses of the holy book about water.

- (2) 10 educational films directed to farmers to be used in seminars, the irrigation engineers held it at Governorates and to be used at Tv program. There is a documentary film about the Ministry, and the national projects that the Ministry.
- (3) 2 audiocassettes, with one hundred thousand copies each, one has explanation about Koran's verses have relation with water, while the other has stories and songs directed to children about water.
- (4) The center produces films about projects, which the Ministry is involved with, for presentation to the president and officials in the formal visits to these projects.

❖ ***Give away gifts:***

- (1) Wall calendars with daily dates pages; each page has special information about water.
- (2) The center produce T-shirt, capes for children and adults, and students' brief cases all have the center's slogan and logo

❖ ***Center produced*** also seeds bags to be used by farmers in their work or their wives in her shopping.

❖ ***The center give present carpets*** to farmers who supported its campaigns and to the village mosques, these carpets have slogan and logo.

❖ ***Billboards:***

The center produced billboards calling people to protect the Nile and for water conservation. These billboards to be hanged in bus and train stations, beside the canals banks and the place of the crowd.

Center participation and coordination:

- ❖ The center participates with TV in its program that concerned with water, it supports these programs with information and materials and it does the same with the radio. The center produce once a series of competitions aired on Ramadan (holy month).
- ❖ The center has effective communication with the press, each week it holds meeting to give information to help in advertising the water and Nile basin news.
- ❖ The center's has good coordination with ministries of information, Education and Agriculture, enable it in his activities especially the seminars and campaigns.

Budgeting and Equipment:

- ❖ The center has a digital camera and montage unit to produce films used internally, while the center calls for professional production companies for the films, which will be used on national and international levels.
- ❖ The center has its own budget from the Ministry depend on the yearly work plan it presents.

(B) MINISTRY OF ENVIRONMENT:

The Information efforts targeting group of objectives such as:

2. Information dissemination, which highlights the ministry activities and unique efforts regarding the environmental issues.
3. Develop the needed environmental awareness among the environmental issues, beside supporting the public awareness and enhancing the environmental education, in accordance with the current issues.
4. Help in behavior control toward environment, especially in pollution man-made.

5. Activate the public participation in environmental issues and activities, with positive interaction and controlled behavior. These target students, NGO's, Privet sector.

a- In order to implement these objectives, Ministry collaborates with information methods such as:

❖ *Press:*

- To disseminate news, information reports, and investigation reports, through newspapers and magazines.
- Messages in press dissemination target the literate citizen and the decision maker.
- * Ministry deals with 20 newspapers and magazines through its 20 representatives.

❖ *Radio Broadcasting:*

There is a good cooperation with most of the stations the Ministry provides them with news, shares them in programs of environmental awareness, and participates with broadcasting investigations. The Ministry produces two Radio series recently and will be on air soon.

- * There are 3 radio stations work constantly with the Ministry, beside 30 environmental programs at 10 local radio stations deal with the Ministry when they need technical assistance.

❖ *TV:*

There are many different shapes of the collaboration with TV, which include TV news, information reports, series, interviews and media coverage. All aim (1) to clarify the efforts been done (2) guide citizens to the required role (3) call the decision maker for his assistance and support.

- * There are 3 programs work constantly and 3 programs work regularly with the Ministry, while there is semi constant 3min. weekly item in "Good Morning Egypt" program

❖ *3 TV spots:*

Which been produced to address one important environmental issue in each of them which are interested to the public and will be on air soon.

❖ *Internet:*

The Ministry has its own website which covers its activities regularly and update the information about environment.

b- Central Directorate for EE&A:

To handle these activities, the Ministry has this departments which consists of two sections for:

- a-Students Awareness
- b-Public Awareness

Both of them pay a great attention to raise the EE&A within the student at all levels, and the general public. This aim, to be achieved, uses campaigns, seminars conferences, workshop and exhibitions within which dissemination of information materials and give away gifts is carried out.

c- Training Department:

Its activities are mainly directed to raise the staff performance.

d- Cooperation, collaboration and coordination:

This can be explained as follow:

- 1- With Mass media.
- 2- With Universities (Projects- conferences and seminars) .
- 3- With Schools (journeys to protectorates, seminars).
- 4- NGO's (Training, campaigns, seminars).
- 5- Donors and Foreign agencies.
- 6- With other ministries- such as the cooperation with 9 ministries and 4 Governorates to face the black cloud. Army, got helpful assistance in some missions which impossible to be carried out by government, such as treated the big problem of domestic solid waste which was around half million Quebec meter, in four informal settlements.
- 7- Ministry of Interior, participating in monitoring air pollution. Whether from cars or factories or farm's waste burning.

e- Future Plan Principles:

1. Comprehensive strategy
2. Environmental analysis report covers cortical of environment, as a subject and the environmental concepts within the school modules, and EE&A activities in general.
3. A participatory committee will establish to carry out the Ministry plan of action.

(C) Informal EE Initiatives:

(1) Association of Nile guards and Environment Defenders:

❖ Introduction

- (1) It is already known the role of the civil society organizations and how it is necessary for the development in any country because this role integrates with the Government role.
- (2) NGO's have to support the Government in dealing with public problems and to help in solving it.
- (3) One of the serious problems is the Nile conservation, which needs to be loved and respected by keeping him clean.
- (4) World proud of the Nile River, and lately an agreement for brotherhood been signed by counselor shafee, between Nile River and Kityage River in Japan.
- (5) To day we suffer from the aggression on the lands and the river while we had from both food and water we need.

❖ About the Organization:

- (1) 1997, a study figured out that 549 million-m³ waste from the factories, which allocated on the Nile banks, this was the motive to establish the organization.

- (2) Till now the organization has not had its full chance to be with remarkable effective, because of many factors one on the top of them, is unwilling Gov. authorities concerns with NGO's because they don't understand the NGO's role.
- (3) In 1998, the organization carried out a national program had a call for erasing "*Environmental Illiteracy*", which is very dangerous for the community as a whole.
- (4) There is no donor's budget for the organization only one it had a budget from Finland Government for Training.

2.Environmental Education, and Awareness Training (EEAA)

Awareness is an important tool for the sensitization of public opinion to environmental issues and challenges. In this respect, MSEA, together with its executive institution, the EEAA, regard this issue as a priority, realizing the significant role public awareness can play in promoting sound environmental practices. Moreover, putting principles of sound environmental management and protection into practice requires the presence of a solid base of capacities, both within the MSEA and EEAA, as well as within other governmental, academic, private and voluntary organizations. To this end, continuous support is provided to environmental training and awareness activities and initiatives.

During 2000/2001, the successful partnership between the MSEA and EEAA on one hand, and the Media on another was carried further. In this respect, programs targeting the general public were conducted, including the broadcasting of 13 environmental television programs and 35 radio programs, as well as a number of competitions. Moreover, 28 national newspapers and magazines are now engaged in environmental awareness, in close cooperation with the MSEA and EEAA, featuring regular environmental pages. Various EEAA publications and brochures were prepared and disseminated through national and regional environmental exhibitions and events, such as the "Waste 2001" conference and trade fair held in Cairo, focusing on solid waste management technologies and practices, as well as the "Environment 2001" exhibition held in Abu Dhabi. Yearly public events also organized by the MSEA and EEAA during 2000/2001 include the International Ozone Day (16th September),

Earth Day (22nd April), and the International, Arab and National Environment Days (5th June, 14th October, and 27th January, respectively).

Children present a primary target group for public awareness activities. One of the most significant of these initiatives is the Green Corner Libraries, launched as a pioneering initiative by H.E. Mrs. Suzan Mubarak in 1998 to promote environmental literacy and awareness among children. The pilot phase of the program was initiated in the Children's Museum and 6 libraries belonging to the Integrated Care Associations, all of which offer a green space to allow the interaction of children with nature. Currently, the program includes 62 libraries nationwide.

In accordance to the importance accorded to reaching youths, support was provided for the development and establishment of environmental groups in forty youth centers, as well as the establishment of an environmental youth camp on Lake Bardawil, Northern Sinai, under construction. Moreover, and with the objective of raising the awareness of youths to the dangers of smoking, an anti-smoking awareness campaign was organized in collaboration with the Ministry of Health.

In addition to the above, a wide range of other initiatives is carried out in partnerships with a large number of partners. These include the Ministries of Education, Youth, Health, and Communication, as well as the Integrated Care Association, universities, NGO's, Development Assistance Organizations, and the Private Sector. One of the largest of such initiatives is the "Friends of the Environment" Festival, an annual summer event held in low income urban and rural communities, and carrying out shows, competitions and environmental debates for children. Another initiative is the "Khadra campaign", where "Khadra", depicted as a special friend of the environment, represents the central character in the campaign. The campaign's focus during its first year is on solid waste management, in line with national needs, as expressed by the priorities of the MSEA.

As with regards to capacity building and environmental training activities, various training programs have been conducted during 2000/2001. One such program for youth focused on the linkage between health and environment. To date the program has outreached 2220 students and 200 health officials nationwide. Another training program was especially designed for developing environmental leadership skills for 885 young leaders, selected from youth centers and secondary schools in Egypt's 26 Governorates.

Other activities were primarily targeting the workforce associated with environmental education, management and protection. In this respect, 17 training courses were conducted for governmental authorities and organizations in the fields of environmental education, media, solid waste management, healthcare waste management, and judicial impoundment. Moreover, and following the priority of the MSEA and EEAA in building their own capacities in order to best carry out their responsibilities, a number of training courses were held during 2000/2001 for staff members, in a wide variety of technical and administrative fields.

Capacity Building Activities

As for EEAA staff, 46 local training programs were delivered to 711 staff member, while a total of 44 staff member received overseas environmental training programs in About Dhab, Canada, Denmark, Finland, France, Italy, Japan, Jordan, Lebanon, Netherlands, Saudi Arabia, South Africa, Sweden, Turkey, the United Kingdom, and the United States. These training programs addressed different environmental issues including:

- Air Quality Control
- Wastewater Treatment Technology
- Environmental Monitoring
- Treatment and Recycling of Industrial Liquid Waste
- Environmental Management Systems -ISO 14000
- Management of Industrial Hazardous Waste
- Environmental Inspection on Industrial Establishments
- Solid Waste Management
- Biodiversity Information Systems
- Recycling of Industrial Solid Waste
- Environmental Management

Management of Natural Areas in the Mediterranean Sea Basin

3. Aswan Environmental NGO's Federation's initiatives (Examples from activities been implemented at schools)

- ❖ Camping activity: 73 Environmental camps were carried out with 2960 participants. The camps' focus was on Environment protection and trees planting within an integrated program which had lectures on Environmental awareness and cleaning campaign for the school beside

- visit to garbage collection points with explaining of its pollution hazards. This activity as a networking one tied the students with the NGO's, which they come from its served areas.
- ❖ Environmental Friends Group activity: this activity was implemented by the cooperation of Atwani Org. and the Femal Rawda org. after the accomplishment of the camping activity, the two NGO's selected 30 students from schools which participated in the camps, and trained them in a program focus on skill development, voluntary work, cooperation, leadership and awareness.
 - ❖ Environmental Education lessons: in Fawaz org. new activity was mad which is Environmental education lessons and seminars to be carried out in a school when any class is free (with no teacher) and on the classes of school activities. This was implemented with CARE support and by a voluntary team from the organization.
 - ❖ Drawings competitions: at schools where it was advertised and at NGO's of the Environmental Federation, the drawings subjects were about Environment and pollution and its hazards. A large number of students participated in the competitions from many of villages' schools, many of them won rewards, which were given to them at school day opening (the morning queue). Some of the winners' drawings were selected and printed as posters with the name of the winner.
 - ❖ Booklet for children drawings: a booklet fro children drawing was developed and printed its name is "read and paint", the target is 500 copies to be distributed for schools students. That was an activity of Meniha Org.
 - ❖ Environmental education training for teacher: 25 teachers were trained on an Environment education module at some schools in Meniha village for three days. The training included topics on Environmental issues, pollution, health issues and the psychology and behavior disturbances of the children at different stages. After the training a commitment was made with the trained teachers to make this module in use. That was Meniha Org.'s activity.
 - ❖ Environmental exhibitions: this activity integrated with the previous training activity, the teachers announced the exhibitions for drawings and artwork, which depends on the waste. That activity been done by Meniha, Manshia and Fatera org.
 - ❖ Research competitions: by drawings and research students addressed the Environmental problems at their villages as well as the bad habits and in correct behaviors. The winners were recognized in a school party which had activities such as Environmental Parliament, the role of the organist

- in facing the environment problems, Environmental songs and puppet theater which introduced a show named “water Drop” that activity was presented by El-Masry Farm Org. the new Manshia Org. carried out some Environmental conferences at schools, wall paintings in schools (3 schools), recognition for the best teacher interested with Environmental activities in his school as well as the best student in the Environmental behavior inside the school and the best class at the school.
- ❖ Kom Ombo and El-Masry Farm Org.: a booklet was designed named “*Together for better environment for us and for our children*”, it includes environmental control pollution’s hazards, this book was revised by the health & Social Affairs Departments.

4. Pilot project for Water and sanitation (CRS Experience in Environment Projects)

CRS/Egypt has been working in the area of health and environment programming since 1996. During this period CRS implemented different projects in twelve villages in Minia and Assiut Governorates. Those projects provided services to more than 2000 families. These included installation of water supply networks, installation of environmentally safe latrines, in addition to the training programs. CRS will draw on this strong partnership and its significant experience in the area of community mobilization and institutional capacity development in implementing this project. Also, CRS will draw on its vast international experience in the field of water and environmental sanitation, with an international network of program quality experts, in order to provide the necessary technical assistance and backstopping as needed. For example, CRS/Egypt recently participated in a Water and Sanitation training in Kenya, which brought together experts and technicians from more than ten countries. CRS has also contracted an experienced local W&S Technical Advisor, in order to develop and oversee the technical aspects of the implementation.

Before the project starts

CRS will cooperate with The Fekreya ASSOCIATION in implementing this project, which has Six Main Components:

Component #1: Building the institutional capacity of The Fekreya Association in the area of managing and implementing sustainable water and sanitation programs in its community, in addition to enhancing its capacity to undertake an integrated environmental management system

Component #2: Providing families with access to piped potable water through the installation of additional street pipes, and replacing the old underground pipes with new ones to be environmentally safer since that the current pipes are made of steel that turns into oxidation and pollutes the water, considering the fact that the diameter of current pipes is only four inches, which can't bear the pressure of serving the needs of the community. The project will also provide the families with loans necessary for water connections.

Component #3: Providing the targeted families with an environmentally safe on site sanitation system in the form of either Pour Flush Latrines (PFL) or Septic Tanks (ST), and renewal of exhausted draining systems as well as the installation of a sewerage and wastewater collection system based on the type of soil, Ground Water Table and landscape. Part of those sanitation facilities will be provided to the villagers on a grant basis with their in-kind contribution in excavation and other work contribution.

Component #4: Improving the health education and environmental awareness (HEEA) for families through lectures and classes to the women, school camps, public seminars, and other community activities.

Component #5: Draining the polluted stagnant water through sewerage vehicles in the targeted villages to get rid of the unclean and unsanitary water in an environmentally safe manner.

Component #6: Undertaking activities aiming at improving the conditions of housing of the Villagers, depending mainly on two main parts; implementation inside the house helping the very poor people to (amelioration) improving the living room, and outside the house:

Inside The House

- Cleaning the livestock bins
- Optimizing the storage on the roofs (50%)
- Improving the ventilation efficiency
50% of the Community
- Improving the lighting efficiency (50%)
- Improving the quality of the walls

Outside The House

- Children gardens.
- Clubs for women and school children
- Social Club of the Association
(Awareness classes)
- Improving the conditions of the roads (4 roads
for each community)
- Planting trees and changing the

- Improving the quality of floors
- Designs in different locations
- lighting, maintenance and repair
- Services

The implementation approach will be highly participatory where the community will be involved in all the project implementation phases starting from design to actual implementation, management and finally monitoring and assessment.

Some activities implemented in this project (water connections to houses and houses improvement) are designed to sustainable continue after the first two years of receiving grants and assistance.

Fekreya and Atleedem Area / Abou Korkas District:

Abou Korkas District is located 25 kms to the south of Minia City. Fekreya area is the central area of Abou Korkas. **Its total population is about 61000 inhabitants, living in 30000 households.** The total area of Fekreya is 640 feddans, and the main economic activity in the village is agriculture, where the total agriculture land in the village is 600 feddans (1 feddan = approximately 1 Acre). About 90% of its population works in the agriculture sector. Also, The village of Atleedem's population is 630.020 inhabitants and its total area is 2.420 Feddans. 90% of the population works in agriculture.

As most Egypt Association villages, the Fikreya local village unit is divided into a central (mother) village and a number of smaller settlements or hamlets. So, Fekreya includes:

- **Safay: with a total population of 10,554 living in 2850 houses.**
- **Azzou and alfawerika : with 18600 residents living in 3720 houses.**
- **Sameh Mousa: with 3,500 residents, living in 500 houses.**
- **Manshaat Al-Nasr with a total population of 3992, living in 820 houses**
- **Sakiet Moussa: with 7813 residents, living in 1548 houses**
- **Saleh Pasha: with 4500 residents, living in 950 houses**

Project Implementation pilot project (From September 2003- September 2004):

Implementation is currently underway in the Safay Village of Abu Kirkas, and it is funded by the CRS. Safay is a small hamlet in the area. By the end of this pilot project, 100 families will have environmentally safe latrines and/or septic tanks. Moreover, underground water pipes will be installed to the targeted areas that have

no access to such networks, as well as installation of new pipes to replace the exhausted street pipes. Also, 210 families will have access to piped water network through installation of water connections to their houses. Also, an intensive HEEA component will be implemented in Safay hamlet in year one. The pilot project will help CRS to consolidate the systems used in the project, train the ASSOCIATION staff and board and raise the awareness of the community towards environmental issues, thereby ensuring the long-term sustainability of the project.

The pilot project will be followed by a full-scale 2-year implementation phase that will be funded by the donor partner.

During this phase the project services will cover larger villages in Abu Kirkas District. Those are:

Manshaat Al-Nasr, Azzouz, Sameh Fahmy, Sakiet Moussa, Saleh Pasha)

The project's activities will be fully coordinated with the local government authorities that are responsible for the health and environmental conditions of the village. This includes the Ministry of Irrigation and Water Resources (responsible for the piped water), Ministry of Health and Population (responsible for ensuring the quality of the piped water), Ministry of Local Development, Ministry of Social Affairs and the Governorate of Minia, as well as the Environmental Affairs Authority, to enhance the community awareness, and train the female environmentalists. This coordination will help gain the commitment and support of those entities in the form of financial and/or logistical and political support.

Activity of the project:

Project Justification:

Minia governorate is located 220 KM to the South of Cairo. It is one of the poorest governorates of Upper Egypt. According to the 2001 UNDP human development report, Minia ranks on the top three poorest governorates in Egypt. In addition, when it comes to the statistics of the Water and Environmental Sanitation (WES), Minia is clearly one of the least served governorates in Egypt. Only 43.1% of Minia population has access to clean piped water services, while close to zero percent (0.1%) has access to sanitation networks. These low coverage and access figures combined with a low awareness of personal hygiene and environmental protection illustrate the urgent need of Minia Governorate for improved W&S services. Accordingly, it is not surprising that the ministry of water resources and irrigation and Child Mortality Rates in Minia are among the worst indicators

throughout Egypt.

Abou –Kirkas is considered as one of the districts deprived from developmental interventions in Minia, despite the existence of a number of agencies and NGOs that work in the field of integrated development in the governorate and a number of its districts and villages. Still the district of Abou Kirkas has been left for long periods without developmental projects and initiatives which had a negative impact on the lives of the poor, and resulted in increasing rates of unemployment, and poverty there. As a consequence of this negligence of the crucial needs of the community, terrorist groups bred inside the district and repelled NGOs and development agencies from implementing any activities. This also led to the weak role of local associations and the lack of ties amongst them and the targeted community.

Meanwhile, the government started to direct its efforts to develop the district, and encourage aid agencies to invest in Abou Kirkas.

Justification for the choice of the area of Fekreya and Atleedem:

During the implementation of the above mentioned micro finance project it has become clear to CRS and different evaluators and visitors that the village suffers from another critical problem with regard to the deteriorating environmental and health conditions. (Less than 43% have access to potable water and about 38% of the population has no access to sanitation system). The Fekreya Association and the local authorities in the village have expressed this need several times to CRS.

CRS and The Fekreya Association conducted a field survey in the village in September-November 2003 to measure the extent of the problem in the area, identify the basic needs of the community and study the possible intervention in the area of Water and Environmental Sanitation. As will be explained later on in this document, the results of the surveys demonstrated the great and critical need for W&S services in these villages.

While examining the conditions of the different areas, in the six targeted villages. (Safay, Manshaat el Nasr, Sakiyet Mousa, Azouz and azbet alforeka , Saleh Basha). The survey was based on two main components:

- a) Questionnaire for governmental authorities
- b) Questionnaire for individual families

CRS team has been trained on efficiently conducting the survey. While designing the survey questionnaires, each governmental authority had a particular survey reflecting its scope of work (Education, Health, Agriculture, etc...)

130 questionnaires for families, and 35 questionnaires for governmental authorities were examined, through random samples of targeted families and individuals from different classes of the local community.

The survey results emphasized the priorities of the community needs as the following:

- 1- The lack of clean drinking water inside houses.
- 2- The problem of solid waste and water waste in the streets
- 3- The lack of environmentally safe sanitation whereas old latrines leak and affect the walls and structure of houses
- 4- The lack of street underground water pipes, that cross before the majority of community houses
- 5- The problem of houses built of mud-bricks which are inappropriate for human living
- 6- The problem of unclean and polluted public tanks, therefore leaving the water loaded with sediments that are unsafe for the human health and safety.

The field survey in the villages has shown reference points that should be taken into account during The Implementation Phase. Therefore a List of Interference Priorities was duly prepared for the villages, number of population in each village, percentage of the general health conditions, percentage of public opinion concerning the quality of water and sanitation systems.

Despite the government's continuous efforts to improve the WES all over the country, these efforts have been so far limited largely to the urban governorates, especially Cairo and Alexandria. The majority of the governorates in Upper Egypt are still not served, and the WES conditions in these governorates have reached alarming levels. Much of the disparity can be attributed to the poor water and sanitation conditions.

The situation is even worse in the villages than in the cities. For example the access to potable piped water in Minia city is over 70 %. A survey carried out by CRS in Fekreya/ Atleedem area has shown that only 43% of the houses in the village have access to the potable water network. The majority of the villagers supplement the piped water through taking water from shallow (5-10 m depth) wells using traditional hand pumps. Although the government had installed water pipes in most streets of the villages, 57% of the families do not have access to this piped water because of lack of financial resources. A water connection costs about 400 L.E. that has to be paid beforehand as fees to the government and to install the

connections. Most of the families cannot afford this beforehand payment. Therefore, families depend on shallow wells to meet their water needs, although the water of those wells is of low quality as obvious from its taste and odor.

The results of the survey reveal that there is no wastewater sanitation network in the entire village. More than 50% of the villagers use shallow holes of 1.0 x 1.0 x 1.5 meters to meet their very basic needs. Because the shallow holes would get easily filled in a day or two and poor people cannot financially afford to continuously clean them, villagers tend to avoid using them other than for their very basic needs. They prefer throwing their other domestic wastewater (like the laundry and bath water) either into the streets or in the canals. The shallow holes create the problem of bad odor, flies and leakages into the house walls that affects its structural safety.

Moreover, 38% of the villagers do not have any mean to meet their human basic sanitation needs. They either use the fields, inside the house or canals to meet their basic and hygienic needs. Those very poor families will be the first direct beneficiaries of the sanitation component in this project.

Implementation Methodology:

This project provide a model of cooperation between an international organization, CRS (The Sponsoring Agency), working in partnership and providing technical assistance to another grass roots implementing agency, Al-Taqwa Al-Islamiya Association in Fekreya, in order to provide very needed environmentally safe W&S services to the rural poor and marginalized communities. The core implementation strategy is to build the institutional capacity of Fekreya ASSOCIATION in order to be able to organize its community so that they themselves can improve the access and use of water and sanitation. The project can then be replicated in other needy areas.

The project will deliver the following main services to the target group:

- Provide access to potable piped water to 200 families in the village through providing them with access to the government managed piped water networks.
- Provide environmentally safe sanitation facilities to 100 families in the village in the form of Pour Flush Latrines (PFL) or single or twin compartments Septic Tanks (ST).

- **Address a health education campaign, which focuses on women as key community members when it comes to water resource utilization. This education campaign will promote behavioral change.**
- **Raise the HEEA of the school children and use them as health and environmental ambassadors carrying HEEA messages to their families.**
- **Raise the HEEA awareness of the whole community through the influent Association community religious and secular leaders.**
- **Plantation of trees at the entrances and exits of the villages, schools, government departments in the villages, and also planting trees on some roads.**

In order to reach the above stated project objectives, and to secure the necessary funding, this project will be implemented and lasts from September 2003-Sep. 2004.

CRS has started the implementation of the project in Safay Village. As mentioned earlier, the target community has a population of about 10,554 inhabitants from 2850 households. The total area of this hamlet or community is 80 Feddans and is located at a distance of 5 km of the center of Al-Fekreya Village. During the pilot phase, 100 households shall have septic tanks (ST) or pour flush latrines (PFL). Moreover, 210 families will gain access to fresh potable water pipe connections. Also, the project will provide underground pipes to 7 main roads about (2250 m) , and supply the necessary overhauling to the exhausted existing pipes in 4 other roads in the village. Awareness campaigns shall be launched on the entire village level, in schools, and in youth clubs. Community service camps shall be launched to promote public awareness, with plantation work and small gardens in schools.

By the end of July, many activities have been accomplished:

- 1- The implementation of 79 environmentally safe latrines to 85 families in the community
- 2- The implementation of 120 internal drinking water connections inside the targeted houses
- 3- The provision of 2250 of street ground pipes, which are being installed in deprived areas.
(2000 Meter has been already installed by the end of March)

- 4- 80 awareness classes for women were held in the targeted village
- 5- 13 public meetings were held for different groups of the community
- 6- An environment camp was held in an elementary school with the participation of school children and in coordination with the government education authority.

During pilot project CRS and Association build and consolidated the necessary systems, recruited and trained the necessary project staff that will continue later-on working during the full implementation of the pilot project.

3-EE and A at Tertiary Institutions

There are no tertiary institutions teaching environmental education as a stand-alone course in Egypt except the Institute of Environmental Studies and Sciences, beside the Faculty of science where they teach EE within the sciences of zoology, botany and geology. The all universities undertake EE&A as an activity only named “environment and community service”.

There is an EE unit at the Industries Union serving the factories from the environmental view. At the NGOs the Arab Office for Youth & Environment and the Association of Environmental Writers used to organize training courses in that field from time to time. The Organization of Hospitals day has a project for doctors training on “Infection Control and Hospital Waste Management” within which they have a topic about EE.

4-Recent Projects& Programs, and Planned Environmental Education Out Reach Program

a) Introduction:

Public Awareness and Education Programs:

Environmental awareness is key to obtaining and maintaining public support for environmental protection and nature conservation. The extraordinarily large number of stakeholders involved in the basin requires multi-level awareness programs targeting different groups. The agenda for Environmental Action anticipates broad based participation by representatives of the general public, private sector associations and local community based organizations and NGO's. The active participation of these parties will promote effective dissemination of

information to a wide audience, allowing the program to benefit from the experience of others.

The most important effect of improves information and environment education is to change behavior. Well-informed citizens are in a better position to put pressure on government agencies and on polluters and other resource misuse, and are most likely to accept the short-term costs and inconveniences of policies for environmental conservation and sustainable use.

Public Participation and Conservation:

Many environmental problems cannot be solved without the active participation of local people. Participation can help with reforestation, wildlife conservation, park management, improvement in sanitation systems and drainage, and flood control. Local people can provide the manpower and knowledge for dealing with aftermath of environmental disasters.

Participatory approaches ensure that development options are pursued that meets the needs and aspirations of the stakeholders in the project. It is offer planners a better understanding of local values, knowledge and experience.

Among the strength of community groups and NGO's are their ability to reach the rural poor in remote areas and to promote local participation. They have an important function in awareness and advocacy activities. But the weak financial base, administration and limited technical capacity hider NGO's to engage effectively in such activities.

Knowledge and Information Sharing:

The use of broad based dialogue, discussion and participation improves the quality, effectiveness and sustainability of programs, and it provides the opportunity to shape the development activities as the interested parties want,

The transboundary environmental Analysis has benefited from the use of these approaches, which will be used at variety of levels to support the program.

An important element in preparation of the transboundary Environmental Analysis was the use of consultation process, which contributes to development of better strategy that is more firmly based on “*Facts on the Ground*”.

The process also demonstrated effective collaboration between representatives of the Nile basin’s national and local governments, academic and research institutions and NGO’s in developing program activities.

The major challenge is to find cost-effective and replicable methods of combining local knowledge with experience from other sources and locations, whether national or international. Closing knowledge gaps is not easy and access to communication technology within the Nile basin is limited. Rather than re-create existing knowledge, the riparian countries have the possibility to communicate much knowledge. Transfer of knowledge should be facilitated as communication cost fall.

NGO Involvement:

The participation of international, national and local NGO’s will be important for realization of the long-term goals of the Agenda for Environmental Action. The transboundary Environmental Analysis has benefited from environmental information development develop by national and international NGO’s.

The preparation of the country reports benefited from the NGO’s participation in provision of data, review of threats and identification of recommended actions. NGO’s representatives participated in national workshops supporting the transboundary Environmental analysis.

b) Aid Programs:

1-Donors Assistance

Egypt receives large amounts of aid from many bilateral and multilateral organizations such as USAID the World Bank, France, Germany, the European Union, and the African Development Bank Fund. In total, Egypt receives \$2-3 billion in foreign grants and loans each year. While at least 26 bilateral and multilateral organizations work in Egypt, the United States remains the largest donor with the most comprehensive program.

2-UNDP Egypt's Projects in Environment:

- 1) Gabal Elba Protected Area Project (GEPA) Egyptian Italian Environmental Cooperation Program, Phase II
- 2) Institutional Support to the Supreme Council for Antiquities Egyptian Italian Environmental Cooperation Program, Phase II
- 3) Capacity Building and Institutional Support to Nature Conservation Sector (NCS) Egyptian Italian Environmental Cooperation Program, Phase II
- 4) Global Environment Facility Small Grants Programme
- 5) Energy Efficiency Improvement and Greenhouse Gas (GHG) Reduction
- 6) Introduction of Viable Electric and Hybrid-Electric Bus Technology in Egypt – phase I
- 7) Conservation of Wetland and Coastal Ecosystems in the Mediterranean Region
- 8) Lake Manzala Engineered Wetland
- 9) Egypt-Conservation and Sustainable Use of Medicinal Plants in Arid and Semi-Arid Ecosystems
- 10) Developing Renewable Groundwater Resources in Arid Lands: A Pilot Case – The Eastern Desert in Egypt.
- 11) Siwa Environmental Amelioration Project (SEAP) - Phase II
- 12) A Systemic Approach to Solid Waste Management in Rural Governorates of Egypt: A Pilot Development of a Comprehensive Scheme in El Menya Governorate
- 13) Wadi el Rayan Protected Area Project (WRPA) – Phase II
- 14) Decision Support System for Water Resources Planning Based on Environmental Balance – Phase II

3-UNDP Activities in the Glocal Program

(Transboundary Waters)

Strengthen transboundary river initiatives through piloting activities in the Nile River Basin and with the Southern Africa Development Community, SADC.

Provide technical assistance to ongoing regional efforts of global significance.

Cooperative Framework Project:

It aims at providing the necessary technical and management support for the Nile River Basin countries in defining an acceptable and

adequate framework for cooperation that may pave the way for equitable and legitimate use of the Nile River Basin water resources.

-The project will enhance the capacity of the Governments of the Nile River Basin in aspects of regional cooperation and water resources management.

The Nile is chosen as a piloting project on transboundary issues since it is one of the "hot spots" of international water disputes in the world. Its complexity as well as the large number and composition of riparians provide opportunities for lessons to be learned and applied in other river basin settings.

-Among the mechanisms for sharing experiences will be the GWP Water Forum (Objective 1.1) and the pilot project of the International Center for Capacity Building (Objective 1, Output 1.3).

-One of the initial focal regions of this center will be the fostering of education and training in the Nile Basin to improve the knowledge base in integrated water resources management. Improving the education of women in this area will likely expand opportunities for the hiring and promotion of women in these fields.)

-Provide technical assistance to the SADC Round Table, scheduled to take place in October 1998. The project provided support to the SADC Water Sector Coordination Unit to help it prepare a Round Table Conference on integrated water resources development in the SADC region. The SADC members consist of 14 States. Tasks will include preparation of Country Situation Reports, a regional water resources strategy, designing a regional strategic plan and drafting a document to present to the Roundtable Conference. Additional preparatory work includes mounting two regional workshops and a sensitization mission to the capitals of the potential donors. In most SADC countries water resources management is in its infancy.

-This project will encourage member states to establish a regional strategy and a coordinated approach to the development of the river basins of Southern Africa. It will involve sharing information and responsibilities, and promote the sustainable utilization of water resources.

-Lessons learned from this integrated approach will be valuable for other large regional efforts and are expected to have positive impacts on the livelihoods of the people in the targeted regions. Expand the impact of UNDP's worldwide work on International waters. Draw lessons from UNDP experience in international river basin issues, especially ongoing

pilot activities carried out under Output 1, that other UNDP offices and SURFs could draw on for future endeavors.

-Facilitate exchange of information among ongoing programs in international waters, and develop and disseminate information to SURFs and country offices on key trans-boundary resource institutions and their programs as well as on successful international river basin organizations.

-Facilitate the development of innovative capacity building efforts aimed at increasing the ability of professionals and institutions in developing countries to examine complex trans-boundary resource issues from an integrated perspective. This will be enhanced by the International Centre for Capacity Building (Objective 1, Output 3).

-Mobilize cost-sharing resources to further develop and expand the impact of UNDP's global programmes in this area.

4-Current USAID Program:

USAID/Egypt currently has as its strategic goal, the development of a globally competitive economy benefiting Egyptians equitably. The two sub-goals are "creating private sector jobs" and "sustaining the human and natural resource base." The new strategic plan will continue to address Egypt's fundamental development challenges through six strategic objectives (SOs) and one special objective (SpO). They are: (SO16) Environment for Trade and Investment Strengthened; (SO17) Skills for Competitive Developed; (SpO18) Access to Sustainable Utility Service in Selected Areas Increased; (SO19) Management of the Environment and Natural Resources in Targeted Sectors Improved; (SO20) Healthier, Planned Families; (SO21) Egyptian Initiatives in Governance and Participation Strengthened; and (SO22) Basic Education Improved to Meet Market Demands.

Environment and Natural Resources:

Through policy reform, capacity building, public-private partnerships and citizen awareness activities, USAID is focusing on assisting Egypt to improve environmental and natural resource management in four areas: 1) Nile water; 2) Red Sea natural resources; 3) urban/industrial pollution; 4) energy efficiency. This work is fundamental to development and sustained prosperity in Egypt.

5-GEF- Egyptian Project Portfolio

GEF Country Dialogue Workshop Cairo, June 2000`

Context of Portfolio

- Selected Global Challenges
- Multilateral Environmental Agreements
- National Environmental Policy Framework

General Features of the GEF-Egyptian Portfolio

- Significant government contribution
- Participatory design and planning of projects
- Technology transfer in the field of climate change
- Limited no. of projects under international waters
- Emphasis on capacity building in all projects

INTERNATIONAL WATERS

- Lake Manzala Engineered Wetland
GEF Implementing PARTNER: UNDP
 - GEF: US\$ 4.5 million
 - GoE:US\$ 0.74 million
- River Nile Basin Cooperative Framework
- Red Sea and Gulf of Aden Strategic Action Program

BIODIVERSITY

Conservation of Biodiversity and coastal ecosystems in the Mediterranean Wetland

GEF Implementing PARTNER: UNDP
GEF: US\$ 2.8 million
GoE:US\$ 1.5 million

Conservation and sustainable use of Medicinal Plants in Arid and semi arid ecosystems of Egypt "GEF: US\$ 4.1 million

GEF Implementing PARTNER: UNDP

"GoE:US\$ 3 million "UNDP: US\$0.5 million

BIODIVERSITY

GEF Implementing PARTNER: UNEP

- Country study of biological diversity
- Bidovisersity data management project

- National strategy and action plan for conservation of biodiversity
- First national report to the Convention of biological Diversity
- National Framework of biosafety

CLIMATE CHANGE

Solar thermal project GEF Implementing PARTNER: World Bank
 "GEF: US\$ 40-49 million "GoE/private sector:US \$ 81-90 million

Energy efficiency improvement and GHG reduction GEF
 Implementing PARTNER: UNDP
 "GEF: US\$ 4.1 million "GoE:US\$ 0.9 million "UNDP: US\$0.8 million

CLIMATE CHANGE

GEF Implementing PARTNER: UNDP

Zero or reduced emission fuel cell systems for Cairo buses

"-PDF A AND PDF B " GEF: US\$ 0.75 million

Introduction of electric and hybrid electric vehicle systems in Egypt
 "GoE:US\$ 0.3 million

Building Capacity for Egypt to respond to UNFCCC communication obligations " GEF: US\$ 0.4 million
 "Counterpart capacity

And finally,

GEF SMALL GRANTS PROGRAM Phases 1 and 2 GEF
 Implementing PARTNER: UNDP

GEF- Egyptian Project Portfolio

- Total no. of projects: 10
- Total investment: US \$ 160 million
- GoE co-financing: US \$ 96 million

GEF National Focal Point:

- Endorsement of project applications to the GEF
- Representation on GEF council

Responsibilities

Regional networking

- National communication and coordination
- Review of national GEF portfolio

- Liaising with GEF implementing agencies and counterpart organizations

GEF National Focal Point and Supporting Secretariat

ADDITIONAL SUPPORT REQUIREMENTS

- Need to strengthen dialogue with implementing agencies
- Regular communication with the GEF Secretariat
- Networking experience among regional partners
- Development of a qualified human resource base to facilitate project formulation process

From Pilot Phase to Second Operational Phase (1991 - 2000)

- Egypt as a DONOR during GEF pilot and first operational phases (US \$ 4.5 million)
- Egypt as a STAKEHOLDER among 165 countries forming the GEF Assembly
- Egypt as a MEMBER of the 16 representatives forming the Governing Council until 1998 in the North Africa constituency
- Egypt as a PARTNER to the GEF in co-financing and implementing projects with a budget exceeding US \$ 6 million excluding projects in the pipeline

GEF -Egypt Experience

LESSONS LEARNT

- Average timeframe for project preparation: may reach 3 years medium-sized project window may offer a short cut, but...
- Lengthy revision and clearance procedures
- Tendency to rely on international consultants may sometimes shadow experience of national professionals and national institutions.
- Methodology for incremental cost calculation projects is cumbersome and complicated
- Information flow between NFP, GEF Secretariat and implementing agencies should be enhanced
- Better participation of countries in GEF policy formulation
- Communication material should be designed in a simple and clear language
- “National Level Support” required by the GEF should consider delicate balance between developmental priorities and co-financing

potential of a single nation to address global environmental challenges e.g. FUEL CELL PROJECT

- Institutional and policy interventions serving environmental causes should be considered within the “National Level Support” as an investment toward the sustainability of GEF projects
- An expedited access to capacity building mechanisms within each thematic area to capture global and national momentum
- Success stories should be better communicated and evaluated
- Support to the NFP should not be delayed by bureaucracy
- Capacity building assessment should consider integrative capacity of government to enforce environmental legislations and address global challenges
- The need for clear and independent GEF criteria for project implementation.

GEF -Egypt Experience From Pilot Phase to Second Operational Phase (1991 - 2000)

Country Level Dialogue: WHAT NEXT?

National inputs to a shared vision:

- More efficient partnership
- Mobilizing private sector investment
- Strengthening the role of the NFP
- Benefiting from GEF experience in other countries
- Accessing capacity development mechanisms
- Effectively integrating civil society as a real partner in GEF - Egypt portfolio

6-The CIDA program:

The development assistance that CIDA provides around the world translates into jobs, contracts, and export sales for Canadians. This section provides links to the various projects in Egypt that are currently in operation, as well as those that are in the planning stage.

Egyptian Environment Initiatives Fund (EEIF)

CIDA Contribution: \$20,000,000, EG/ 19608, Duration: 1997 - 11/2004
Canadian Executing Agency: Vaughan International

Project Overview

This project aims to encourage small and medium enterprises (SMEs), non-governmental organizations (NGOs) and entrepreneurs to

implement environmental projects, which help preserve Egypt's natural resources, especially soil and water. It provides both technical and financial assistance.

The Egyptian Environmental Initiatives Fund (EEIF) is a responsive financing mechanism to support SME and NGO initiatives which offer a high potential for sustainable success, innovation and replication, and which strengthen the role of these organizations in environmental policy development and implementation. The Fund has three components supported by environmental awareness and promotion efforts: 1) Environmental Management and Technology; 2) Community Participation; and 3) Green Enterprise.

Expected Results

- Strengthened capacity of SMEs, NGOs and entrepreneurs to realize concrete and sustainable environmental improvements.
- Increased SME adherence to environmental laws and regulations and cleaner production.
- Increased environmental awareness and collaboration between SMEs and NGOs.
- Development of new and viable "green" businesses.
- Strengthened capacity of entrepreneurs and intermediaries (i.e. banks, loan guaranty companies) to finance environmental cleanups and develop and expand green businesses.
- Improvements environmental practices are gender sensitive.

Progress to Date

The project is in the first year of the national implementation. Sub-projects were selected in Sept/Oct 2000 for each component. The process of capacity development within intermediary organizations identified is initiated.

c) Projects and Planned EE&A Activities

1. Previous Projects at EEAA

- 1)- Promotion and Development of Environmental Tourism in Egypt.
- 2)- Institutional capacity building for EEAA.
- 3)- Environmental Information and monitoring.
- 4)- Developing Environmental work plane for North of Sinai Governorate for nature conservation.
- 5)- Environmental Education and training program to enable EEAA to maintain his role as coordinating agency in Egypt.

- 6)- National program for drinking water conservation.
- 7)- support to Environmental Evaluation and Management to develop two work plans at 2 Governorates and industrial reviews at some factories in these.
- 8)- Environmental initiatives Fund Project to promote and spread out the Environmental concept and for natural resources conservation.
- 9)- Technical Cooperation Program with the Freadrich Ibert, one of its objectives is the participation in the EE programs for the Education's People.
- 10)- Technical support programs for Mediterranean Sea countries- the project of Environmental management units' support at two Governorates.
- 11)-Coastal resources management at Red Sea International Environmental Fund.
- 12)- The experimental project to provide 3 villages with drinking water by using High technology from American Company.

2. EE&A Project of Arabic Office for Youth and Environment Organization

Background

The Arab Office for Youth and Environment organization, since it was established at 1978, interested with the environmental issues as a civilization dimension. In 1979, the organization carried out the environmental education program with UNESCO coordination for 400 Youth from 4 Governorates; this program lasted till 1981,

Since that time the organization carried on the implementation of Environmental Education programs yearly for the youth from secondary school and universities, and these programs helped a lot of them in implementing such activities at their residents, schools and universities.

From the point of view of youth participation in their environment management, therefore, the organization complies with the extension of this program to include most of the universities in different Governorates, to cover the greatest number of the universities youth and help them on participation that aiming for problem solving and decision making, investing their capacity and energy to prove their selves in what benefit them and their communities.

The organization believes that the selection of development models should be completed within economic criteria caring with the necessity

and importance of achieving the sustainable development goals. But each activity in this regard should come from essential interest to improve the living standard, and the live circumstances for the whole population who has to participate in their daily life.

It is true that giving chances to youth to influence his living circumstances, consider as a development direction's tool. The youth should know that development and environment concepts are not conflicting with each other, and their integration is possible.

The organization held the annual meeting for the leaders of universities youth about the environment and the sustainable development for fourteen years, these meetings included subjects as “*environmental citizenship*”, woman and environment and in this year 2004-05 in the 15th annual meeting subject will be “*The Sustainable development and Nile River*”

Project objectives:

- 1- Inform Youth about the environmental problems in Egypt and the importance of the youth role in the sustainable development in general and the sustainable development of the Nile river.
- 2- Acquainting with the importance with the environmental policy planning, and its role in the national economic.
- 3- Preparing the youth leaders to work in the environment protection and national resources reservation.
- 4- Forming environments friends groups at university.
- 5- Motivate the youth for the active participation in the national projects for environment improvement and protecting its resources.

The target universities:

There are target 14 governmental universities.

The target students yearly:

2100 are the target students from the universities with 150 students (male and female) from each university of those engaged in the project.

Project activities:

- **Booklet:** prepared by experts about the sustainable development of the Nile River, to be distributed for the

students who are participated in the meeting, beside keeping copies at universities libraries.

- **Conferences:**

- Hold a conference at each university under the title of the 15th meeting of youth leaders of universities about the environment and sustainable development, and under the slogan of the sustainable development of the Nile River, and invite.
- Deputies of the universities for the education and students affairs.
- The universities staff members who are concerned with cultural activities.
- The managers of the youth care.

- **Conferences aim:**

- Introduce the experiences of the organization in the filed of universities youth work, through presentation of the 14 years experiences of the annual meeting.
- Youth Ministry efforts in the environmental awareness for the Egyptian youth.
- Lectures about Nile Basin from specialists.
- Open discussion with students to answer their questions.

3. Aswan Environmental NGO's Federation's initiatives

(Examples from activities been implemented at schools)

- ❖ Camping activity: 73 Environmental camps were carried out with 2960 participants. The camps' focus was on Environment protection and trees planting .
- ❖ Environmental Friends Group activity: this activity was implemented by two NGO's which selected 30 students from schools, and trained them in a program focus on skill development, voluntary work, cooperation, leadership and awareness.

- ❖ Environmental Education lessons: in Fawaz org. delivered Environmental education lessons and seminars in a school. This was implemented with CARE support and by a voluntary team from the organization.
- ❖ Drawings competitions: at schools, the drawings subjects were about Environment and pollution and its hazards. Successful drawings were selected and printed as posters with the name of the winner.
- ❖ Booklet for children drawings: its name is “read and paint”, the target is 500 copies to be distributed for schools students.
- ❖ Environmental education training for teacher: 25 teachers from some schools were trained on an Environment education module. After the training a commitment was made with the trained teachers to make this module in use in their schools
- ❖ Environmental exhibitions: it is announced about exhibitions for drawings and artwork, which depends on the waste.
- ❖ Research competitions: by drawings and research students addressed the Environmental problems at their villages as well as the bad habits and in correct behaviors.
- ❖ Kom Ombo and El-Masry Farm Org.: a booklet was designed named “*Together for better environment for us and for our children*”, it includes environmental control pollution’s hazards, this book was revised by the health & Social Affairs Departments.
- ❖ EUF: carried out a competition about Nile river protection was advertised schools, requesting a drawing address the problem of Nile pollution, , on the celebration of the international water & environment day with participation of AOYE, LIFE, and UNDP an agreement was made to introduce environment issues on school broadcasting.
- ❖ Monitoring & evaluating the initiatives:
 - **Reports**: monthly from NGO’s to CARE and Social Affairs Dep., and periodically to be presented on the meetings of the project consultancy committee.
 - Participatory evaluation from women and children who participated in the projects activities.
 - Subjective evaluation from NGO’s with the strengths and weaknesses and lessons learned.
 - Evaluation from Aswan department fro Social Affairs.
 - Evaluation from CARE agency.
- ❖ Constraints among EE at Governmental Schools:
 - 1) The High density of school classes.
 - 2) Over burden modules, a high dose of the daily study.
 - 3) Weaken budget of EE at activities.

- 4) How recognition towards EE at school management and the study members.
- 5) The environmental dimension is not included as one of the educational pivots in Egypt.
- 6) No competitions for EE.
- 7) The protectorates are not included the school Journeys program.
- 8) There is no active participation between NGO's and the other agencies working with schools on EE.
- 9) The environmental activities are not included in the activities fields as the agricultural field and the industrial field.
- 10) Many of the schools don't welcome the work with NGO's in the environmental projects.
- 11) Most of the schools gave high interest to the school study process only.
- 12) No spaces or rooms at schools can be used for environmental activities.
- 13) No recognition been given to the agriculture education which consider as entrance to EE.
- 14) The evaluation and exam system doesn't give priority privilege to the EE active students.
- 15) No environmental friends group at school.
- 16) The evaluation for teacher and efforts on EE.
- 17) The schools don't take seriously the importance of environmental awareness insertion into student's knowledge and attitudes. And as one of the essential educational values.

❖ Recommendations:

- 1- Working on environmental projects & competitions implementation with motives whether for teachers or for students.
- 2- Create an active participation within NGO's and the federations working in environment field with schools aiming to insert EE values to students' behavior.
- 3- Some projects should be computer to schools from NGO's donors.
- 4- Attention has to be given to Agriculture education with specifics of environmental activities.
- 5- Care with establishing school broadcasting program for environmental awareness.
- 6- Identify one day/week in school broadcasting program for environmental activity.

- 7- Caring out journeys to protectorates and other places and agencies concerned with environmental issues.
- 8- NGO's and other agencies working in environment field have to call for introducing EE as a stand alone module at schools.
- 9- Schools, which have computers, can present CDs that include environmental learning materials as documentary films about protectorates, Ozone, climate change and any other subjects.
- 10- Caring with EE activities at summer vacation..
- 11- Environmental activities have to be taken in to account within the evaluation process.
- 12- NGO's and other agencies working in environmental field have to implement such a part of their work plan into schools.
- 13- EEAA, NGO's and other agencies have to provide schools with the needed learning materials, which support EE activity.
- 14- Implementing training courses for Education people to raise their awareness with the importance of EE.
- 15- NGO's and other agencies, which carry out training on EE, have to invite a good number of teachers to attend the courses.
- 16- High committee for EE has to be established in each Governorate to motivate and supervise EE activities and stimulate schools in this regard.

4.About Environmental Education and Evaluation (In CARE- Egypt)

What is 'Good' Environmental Education?

Environmental education has been defined and redefined over the last twenty-five years. Definitional issues are inherent in a field this broad and encompassing. It is generally agreed that environmental education is a process that creates awareness and understanding of the relationship between humans and their many environments – natural, man-made, cultural, and technological. Environmental education is concerned with knowledge, values, and attitudes, and has as its aim responsible environmental behavior.

A major outcome of CARE-Egypt Environmental projects was detailed descriptions of the **objectives** of environmental education. Most environmental educators have since universally adopted these objectives.

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

Excellent environmental education programs...

- Are credible, reputable, and based on solid facts, traditional knowledge, or on science. Values, biases, and assumptions are made explicit.
- Create knowledge and understanding about ecological, social, economic, and political concepts, and demonstrate the interdependence between a healthy environment, human well-being, and a sound economy.
- Involve a cycle of continual improvement that includes the processes of design, delivery, evaluation, and redesign.
- Are grounded in a real-world context that is specific to age, curriculum, and place, and encourage a personal affinity with the earth through practical experiences out-of-doors and through the practice of an ethic of care. Like the environment itself, programs transcend curricular boundaries, striving to integrate traditional subject areas and disciplines.
- Provide creative learning experiences that are hands-on and learner-centered, where students teach each other and educators are mentors and facilitators. These experiences promote higher order thinking and provide a cooperative context for learning and evaluation.
- Create exciting and enjoyable learning situations that teach to all learning styles, promote life-long learning, and celebrate the beauty of nature.
- Examine environmental problems and issues in a all-inclusive manner that includes social, moral, and ethical dimensions, promotes values clarification, and is respectful of the diversity of values that exist in our society.
- Motivate and empower students through the provision of specific action skills, allowing students to develop strategies for responsible citizenship through the

application of their knowledge and skills as they work cooperatively toward the resolution of an environmental problem or issue.

- Engage the learner in a long-term mentoring relationship, transforming them as they examine their personal values, attitudes, feelings and behaviors.
- Promote an understanding of the past, a sense of the present, and a positive vision for the future, developing a sense of commitment in the learner to help create a healthier environment and a sustainable home, community, and planet.

characteristics of high quality environmental education programs:

1. They support their parent organizations' mission, purpose, and goals.
2. They're designed to fill specific needs and produce tangible benefits.
3. They function within a well-defined scope and structure.
4. They require careful planning and well-trained staff.
5. They are built on a foundation of quality instructional materials and thorough planning.
6. They define and measure results in order to improve current programs, ensure accountability, and maximize the success of future efforts.

Formative and Summative Evaluation for Environmental Education Programs applied by CARE-Egypt.

These two terms, formative and summative, to describe the evaluation of educational curriculum. *Formative evaluation* produces information that is fed back during the course of a program to improve it. *Summative evaluation* is done after the program is finished, and provides information about its effectiveness. Scrivener later simplified this distinction, as follows: "When the cook tastes the soup, that's formative evaluation; when the guest tastes it, that's summative evaluation."

Programs are seldom "finished;" they continue to adapt and modify over time, in response to internal and external conditions. Therefore, the need for "formative" information continues – to be fed back to program staff to improve the program.

Outcome and Process-Based Evaluation

Focusing on the results of a program or its outcomes is still a major aspect of most evaluations. Outcomes refer to the end results of a program for the people it was intended to serve – students, teachers, and volunteers – whoever your audience is. The term outcome is often used interchangeably with result and effect. Some

outcomes of a program are the results the program planners anticipated. Other outcomes however are effects that nobody expected – and sometimes that nobody wanted – yet are important information for program improvement. Change is a key word here – what is the change that results from a particular program? Is it an increase in something, such as knowledge? Or a decrease in something, such as environmentally detrimental behavior?

The process of a program is also important to evaluators – a systematic assessment of what is going on. Evaluators need to know what the program actually does – what is actually happening on the ground. Sometimes process is the key element of success or failure of a program – how is it delivered, what services does it provide, is there follow-up, do students like it? Studying program process also helps one to understand outcome data.

Initially, there seems to be a lot of similarity between formative-summative and process-outcome evaluations. However, the two sets of terms have quite different implications. Formative and summative refer to the intentions of the evaluator in doing the study – to help improve the program or judge it. Process and outcome have nothing to do with the evaluator's role, but relate to the phase of the program studied. Often there is a combination of evaluations going on – the study of a program's process or what goes on during a program, in a formative sense, combined with a look at outcomes – the consequences for participants at the end.

Measuring Behaviour Change

It is a common ambition of education programs that some new behavior arises as a result of activities. In the case of Mary described above, not only did the program act on her value system but it also helped her 'make the jump' across the very significant divide between thought and action.

It is important to remember that not all new behavior can be classified as environmental action (for example, Mary bought bear slippers for her mother – a new behavior, certainly, but not one that helped the environment). Environmental action involves students in tackling an environmental issue or problem, or working to improve an environmental setting. Actions can be as simple as making and maintaining a community notice board of environmental events or as complex as developing and implementing a plan for walking school buses. Environmental action is behavior that intentionally tries to do something to help the environment, and is a subset of other behavior change. Note that actual benefits to the environment do not necessarily follow; the next section deals with environmental benefits and how to evaluate them.

So, which types of behavior can be classified as environmental action? Following are a summary of the primary methods through which a person may engage in action:

- Persuasion: educating or lobbying other members of the public.
- Consumerism: either changing one's own consumer habits or encouraging others to do so.
- Political Action: action that is aimed at influencing a decision-maker.
- Eco-management: actions to restore, remediation, or improve a natural area.
- Legal Action: action taken through legal avenues.
- CARE - EGYPT suggest that any behaviour change focusing on the environment that falls into one of these five categories can be classified as "environmental action."
- A new difficulty presents itself when measuring behavioral outcomes: time. Whereas changes in values tend to occur during or shortly after a program, it may take longer for behaviors to manifest them. This not only calls for a long-term approach to evaluation that spans a number of years, but also opens the door to the possibility that some influence other than the program caused the behavior.

5.The Environmental Projects which executed in Egypt (By Co-Operating with CRS & NGOs)

Through working with NGOs in rural and urban areas in Upper Egypt and also through studies, which we made, it was discovered that the environmental problems are principal problem, which they face. The followings are the important environmental interferences, which it can successfully assume.

The important projects:

- ***Benefiting from agricultural, animals and house garbage in fertilizing the agricultural land:***

The principal craft in Egyptian countryside is agriculture, which is related to middle, and poor class. The real problem in the houses of these class is the

animal manure and also the house and field garbage. Actually, we executed models inside houses to collect this garbage and benefit from it in side field by simple way, and we also executed it with farmers inside their fields.

- ***Saving clear water for poor houses which used the water pump:***

The Egyptian countryside is not supported completely with clean water for drinking, therefore CRS is concerned with saving clean water for drinking and also setting network for water in poor streets, because unclean water causes many diseases.

- ***Getting rid of liquid drainage through building environmental tanks and other methods:***

There are many houses inside communities deprived of environmental toilets and also the unclean water, which is throw in streets. We find many ways to get rid of it though the networks of drainage .

- ***Environmental awareness:***

The environmental education is very important inside communities, because it changes some bad manners and raises environment awareness inside community. We made many symposiums and awareness classes and attitudes inside community and also co-operate with primary and secondary schools.

- ***Improving the state of houses:***

The beneficiaries are of the poorest families. The state of the poor houses is very bad, roofs are from bad wood and floors are not paved and rooms are not good, so we can inter to improve these houses.

- ***Technologies suitable for environment:***

These projects concerned with of environmental problems like; existing polluted ovens, which used the garbage in burning. We made new models to decrease the pollution with some specialist's centers. And also how to benefit from solar powers for daily life.

Example of the technologies:

- 1- Solar heaters.
- 2- Local ovens.
- 3- Pottery ovens.
- 4- Compost in the field and in side the house.

Through all of these interventions the project is implemented with local community and the NGOs and with specialists of the research center in the Egypt.

C) The National Nile Basin Discourse Forum (NNBDF) EGYPT:

Upon the official launching of the Nile Basin initiative, the participation of the civil society in this initiative became highly important. From this perspective, the idea of organizing the International Nile Basin Discourse to include representatives of the civil society concerned with the water issue on the level of the Nile Basin Countries has started. For the purpose of establishing the Civil Society Forum and exactly in January 2001, the first workshop, which discussed the possibility of establishing the forum as an independent entity, was held in Gland - Switzerland.

In June of the same year, the second workshop was held in Entebbe - Uganda and agreed that the International Union for conservation IUCN to host the NBD.

The special objectives of the Forum:

- Supporting the participation of the civil society in the Nile Basin throughout establishing national forums on the national level.
- Contributing in the special activities of the Nile Basin Initiative, throughout concluding a Memorandum of Understanding between the Forum and the Nile Basin Initiative.
- Participating in the international meetings on water issues for the purpose of presenting the perspective of the civil society, which aims for encouraging the sustainable development in the Nile Basin.
- Providing members of the Forum, in particular on the national level, with the information on the projects implemented through the Nile Basin Initiatives.
- Studying the positive and negative impacts of the implemented projects of the initiatives on the citizens of the Nile Basin.
- Establishing a forum for discussion on the internet on the following address: <http://www.nilediscourse.org/registration.cfm>
- Raising the awareness of the civil society organizations, media representatives, beneficiaries of the activities performed by the Forum.
- Establishing a dialogue between the different parties on the national levels on mutual water resources and the importance of preserving such.
- Establishing a National Forum in every country concerned with the environmental and the developmental issues regarding the Nile River.

- Improving the activities of partnership with similar organizations within the neighborhood countries.
- Highlighting the most important issues of much concern to citizens such as poverty, Scarcity of water, food security and deterioration of environment.

The process of establishing the National Forum in Egypt:

Due to the great importance of the Nile to the nation of Egypt and due to the demography of population distribution in Egypt, it can be realized that the area of the Nile Basin is an area of attraction to the population, for about 96% of Egypt population is centered on this area. Therefore, the plan of establishing the National Forum mainly depended on holding regional meetings in order to cover all the Governorates overlooking the Nile.. The overall goal was to define and highlight all the thoughts and views presented in the national document and represent the point of views of the civil society in Egypt regarding the development of this great river.

The general frame of the Forum was discussed during the general meeting where the main objectives, activities, terms of membership, policy of management and the hosting secretariat was defined as follows:

The objectives:

1. Spreading the awareness and developing the concept of preserving the Nile.
2. Creating a partnership between the civil society organizations and the Governmental Authorities.
3. Participating in implementing and monitoring the projects aiming for protecting and developing the Nile.

The activities:

It was agreed to consider all the recommendations resulted from the Preliminary Meetings and the General Meeting as areas of activities of the forum and to work on implementing them.

Terms of membership:

The membership of the Forum shall be granted to all sectors of the civil society whether individuals or institutions. It was also agreed on approving the membership of those interested in joining the Forum of the media, private and government sectors, on condition that such will join the Forum in their personal and not official capacity.

The Secretariat:

It was agreed that the Arab Office for Youth and Environment AOYE would perform the responsibility of the Secretariat of the Forum.

The National forums:

A number of 15 requests to form local forums in the governorates working under the umbrella of the National Forum and adopting the same objectives were received.

Constitution and Policy of NNBD Management:

It was necessary to reach an agreement on having a complete mechanism to organize and manage the National Forum, under the condition of observing the social diversity and the geographic dimension within this committee. After a long discussion on the size of the Steering Committee, it was agreed that the number of this committee will be 19 members including women and media representatives, experts, in addition to the CSOs from the different geographical areas, and they are as follows:

1. Six members representing the civil society organizations, taking into consideration the geographic distribution.
2. Three women representatives.
3. Three representatives of the Media Sector.
4. Seven members representing the experts.

VII. OPPORTUNITIES AND CONSTRAINTS
For Transboundary Environmental Education
and Outreach Program

A) Opportunities:

- There is collaboration between schools and the ministry of Environment and the ministry of Water resources, within which the school gets printed materials, updating information, and specialized persons share in seminars.
- There is a budget for population and environment for school's activities.
- The mass media has a critical responsibility to provide people with the necessary information in a simple and easy way.
- EE&A activities have to start from pre-school age as a part of socialization process, these enable the child in this age to adopt positive values and attitudes which control his behavior when he grows up.
- Through training, teachers can be mobilized, active and persuaded, there for, he can present the information about environment with fully understanding and interesting.
- Feeling that all kinds of pollution are responsibility of the whole community as well as ways of facing it.
- Rewards and punishment is essentially required for behavior.
- Celebration of the annual event of the Nile River, which called the "*Nile Sincerity*", has to be special occasion to inform people about the Nile importance, and the necessity of its conservation. And in this event, and through mass media, the Nile problems, his future, the important achievements to protecting him, have to be introduced, besides rewarding individuals and institutions that did obvious care of Nile Basin.
- The occasion of Nile celebration should be directed to help the river and let him avoid the harm, the occasion should be called the "*sincerity for the Nile*" not the "*Nile Sincerity*".
- Nile River is on the top of the public opinion's issues, and the press makes investigations around the river at the national and Tran boundary levels.

- The working cadre at the General Directorate of Environmental and population Education, Ministry of Education is professionally trained and keens to work.
- Population Education's projects include the environmental issues when it is related.
- Community participation such as the financial contribution from students' parents is available.
- School's Coordination with the Ministry of Environment such as training and journeys to the protectorates, when it is financed from WHO and Population Activities fund, as well as technical support and cooperation from concerned agencies.

- Constraints:

- Although the environmental concepts are included in school curriculums, but it is introduced with the same teaching approach. Handling these concepts and information needs practice, which lead to better understanding about environment protection, and help in creating the correct behavior.
- All the efforts gained from self-motive and personal relations with the supported agencies. The Ministry of Education doesn't inform about her effective efforts and doesn't care enough with the Directorate's work, it focuses mainly on school curriculums and the awareness activity come in the second place.
- The budget allocated for the EE&A activities at Ministry of Education is not enough to cover the ambitious needs in this field.
- There is no relation work between Ministry of Education and the Ministry of Environment unless funds been allocated to carry out participated activities
- The Geography curriculum is a science only, giving pure information about Nile basin, and according to the teacher's abilities, he can ad environmental information to make students aware with pollution and its hazards, and in most cases that could be answers for raised questions, suggestion is made to add this information to the curriculum.
- Very short and simple information in school books, for instance biology curriculum reefers that bilharzias grows in help of the weed in the Nile river, and the resources of pollution mainly is the industrial waste which leads to sickness.

- EE&A efforts mainly are library, researches, seminars and journeys to protectorates, most of these activities are carried out with school finance which is limited, sometimes parents council support these activities and cover small deal of the expenses.
- EE&A activities still unorganized, or it is directed sometimes for a special aim, the current activities are not adequate, specially when it targets the rural people and the illiterates, whom has their own habits, life styles, and behavior and most of it are incorrect.
- There is no special program in TV or Radio to handle the environmental issues, these programs deal with it when a problem comes out. It is helpful for the teacher when adequate information disseminated in mass media, to teach and inform his students about they read or watched already.
- People feel with no responsibility towards the environment and natural resources.
- EE&A activities are very limited in schools and not integrated with the outsiders, to link between students, family and community.
- Ministries should support each other and integrate together in EE&A work.
- About the state of EE&A activities, parents don't feel that their children have adequate information about the Nile basin and its problems.
- There is no clear strategy and framework for both policy and institution.
- Need for effective planning and coordination and through mass media, all schools level, NGO's, to bring about the needed awareness.
- There are no fixed items to be addressed in newspapers calling people to protect the Nile and monitor aggression.
- The religious leaders has no role in motivating people to Nile protection and water conservation through mass media and mosques and churches.
- No regular programs special for Nile Basin in the radio broadcasting.
- Need planned repetition for messages on the Nile awareness, which would lead to behavior change.

- The mode of message delivery should be deferent from one segment to another, according to the differences of the target audience.
- The absence of NGO's role.
- The concerned Ministries and related Governmental agencies have to support NGO's and give them sort of authorities and free movement.
- If the Nile River were a human, he will scream from the pains we caused to him and he will say you people ignore my favors and meet it with offenses (message).
- The correct behavior towards the Nile River derives from the right conscience, which unfortunately absent now.
- There is no EE&A planned program gives the excellent model to be followed, and strength having the positive value, which supports the behavior change, needed in dealing with the Nile basin's issues.

VIII. **LESSONS LEARNED**

Around EE&A Project Experiences at
Transboundary and National Levels

Introduction:

Provide a good environmental educator to design the project training and public awareness campaign using non-formal training techniques and local resources and subjects. This person can also serve as a focal point for shepherding the numerous visitors through a project: consultants, experts, evaluators, study-tours, and eco-tourists). The Argentina project found that visitors were important for building awareness about the project and its goals but taking care of visitors created a large burden on project staff. The demands for logistics arrangement and translation often fell to a few key individuals.

Awareness building at the top level needs to be a long-term continual effort. Argentina, Belize and Dominican Republic found that a high level of turnover occurred at the senior levels of political leadership in many counterpart agencies. For instance, many of the Patagonian governors whose approval was necessary in order to submit the GEF project request have since been deposed and replaced. This was accompanied by a change in many department heads and permanent secretaries, thus the approving authority or authorizing environment for the project keeps changing. The new persons must be infused with the ideas for conservation of biodiversity and ICM.

Emphasize in-country training and on-the-job training rather than international long-term fellowships so that people develop capacity using local models and case studies. This prevents draining of technical cadre for long periods of time and is less expensive also. Summer Institutes, Coastal Zone annual conferences and visits to other projects are also useful methods. Belize lost staff for long periods while Cuba and Black Sea used short-term training effectively.

A good strategy is required for filling the duty vacancy created when a person leaves for long-term fellowships and also for placement of the person standing in after the study fellow returns. The fill-in generally is less senior but now has much more project experience and practical skills obtained on-the-job when the “scholar” returns. The Belize project used personnel from other affiliated ministries so that knowledge of their work was carried to other compatible agencies. This created focal points within other ministries or departments and enhanced cross-department communication.

On- the- job training requires a longer-term presence of specialty international consultants. Projects may need to increase the consultant’s time in country and to specify training in their TOR along with a projected amount of time required to fulfill that achievement. Too often it is just added on as a

casual item without much thought to what is really needed to be effective as a mentor. (Lake Tanganyika, Gulf of Guinea)

Develop a project plan that allows for the shift of project responsibilities to the national staff administrator and other key focal points at an early enough juncture so that there is sufficient time for them to learn the job and to obtain follow-up support under the auspices of the project. This was a key occurrence in building a feeling among Belizeans of national ownership of the project.

Need to provide good bridging between follow-on projects to ensure that key core staff doesn't leave while waiting for the next project to start. Develop a follow-on strategy in advance so that operational plans can be formulated and so that staff can plan accordingly. Begin discussion of a follow-on project early enough that staff and counterparts are not raising undue expectations and can make realistic plans. If it is evident that a follow-on phase is necessary from the beginning then it should be stated in the project document along with adequate provisions requiring achievement of specific outputs and process indicators before the next phase begins. (Belize, Black Sea, Cuba, Gulf of Guinea)

Although civil unrest can greatly inhibit regional coordination, national programs are still keen to work on developing their own internal capacity. The Gulf of Guinea project has now invited Togo to participate as an observer as a prelude to discussion about assuming a role as an active participant. Civil unrest during project development prevented Togo's participation in the original project.

Capacity building is not just for the project beneficiaries. In addition to building institutional capacity of counterparts, the project implementation staff also needs support in order to ensure timely delivery of their expertise and outputs.

Lessons learned at Transboundary level

Provide an opportunity for EE&A projects to share experiences and to develop linkages and support systems both in -country, in the region and perhaps even globally. Egypt always expresses a desire to learn from the experiences of other projects in the region. It may be useful for projects to schedule or host a regional conference on Nile Basin management so that representatives from different projects can come together and share ideas, problems and best practices. Grouped by program types; this could be funded in each project as "regional project evaluation". Other UNDP initiatives that may complement this suggestion.

Project facilitation and coordination requires sufficient time and well-trained staff. Experience in Lake Tanganyika suggested that an inadequate number of staff accountable to the project were included in the project design. Such staff is necessary to facilitate work of counterparts in focal point institutions particularly in a trans-national situation where distance, and civil conditions make communication, outreach activities and other project logistics extremely difficult.

A capacity building as an objective usually based on the assumption that there is insufficient local or national capacity, this prevent not to place great emphasis and expectations on using local consultants to produce major outputs, and assume that poor assessment of national consultant capacity can result in a faulty project design.

Develop a handbook for a project, which summarizes the topics listed below that be demanded by any one engage the work. Especially, if it is not already annexed to the project document then UNDP should provide the appropriate program manual references on:

- UNDP and UNOPS funding, procurement and payment procedures.
- Responsibilities of the UNDP Country Office in project support/ implementation; what services and support are available from them.
- How to handle reporting, monitoring and evaluations procedures, such as PIR, PPER, Tripartite reviews and evaluations
- Protocols for handling visitor missions
- Project design with emphasis on assessing project implementation and preparing for follow-on project
- Working with national experts and national executing agencies
- How to find key resources back in NY headquarters
- How to find resources “*on-line*” via the Internet.

At Nile basin level, there are significant issues within the lessons learned as follows:

- Decisions concerning land or water use in the Nile basin have often been made in the *absence of environmental awareness* or basic information. Lack of awareness and concern for environmental issues permeates all levels of decision making, from local communities to key agencies of the national governments. Therefore, *lack of awareness, is an important cause of environmental damage* and a serious impediment to finding solutions. When the public, the private sector and politicians have a well-informed grasp of environmental issues, there is a better chance of developing proactive policies rather than reacting defensively after damage has been done.

- It is realized that *improving people's lives*, especially the poorest, requires a solid foundation of information, learning and adaptation.
- *Rapid population growth* may make development more difficult to address many environmental problems. Seven of the ten Nile basin countries are expected to double their populations between 1995 and 2025. Rapid population growth increases pressures on the national resources and contributes to environmental damage. A major pull toward *urban migration* associated with rapid population growth and poverty, the urban poor are most severely impacted by the negative environmental and social trends.
- Although the various challenges face the riparian countries, there was *no effective cooperation and coordination* between them.
- The *influence of various important aspects on transboundary environmental management*, such as capacity building, training, education and awareness raising, knowledge and information sharing, communication, environmental monitoring and activities.
- Human behavior has low contribution in environmental problem solving.
- The need for *stakeholder participation*, and work for their own countries and with counterparts in other riparian countries, in order to build mutual understanding, relationships, and trust, which all were weak in the past and their collaboration is needed now for problem solving in the future.
- *Nile basin countries have worked in isolation* while their plans depend on the use, conservation of the Nile basin resources.
- *Absence of independent Networks*, which make lack of the contacts between stakeholders and decisions makers in the riparian.

Lessons learned at National level (Egypt):

In particular, the followings are the most important outcomes from the learned lessons:

- (1) Absence of EE&A system, make lack of participation integration between community institutions.
- (2) Finance is not the big issue, because the most critical constraint is the absence of clear strategy that control EE&A activities derived from all concerned institutions.
- (3) There is no real cooperation between the partners of the civil society who are government, private sector and NGO's.
- (4) EE&A information system for all institution in Egypt is not available as integrated one. That helps all who work in the field.
- (5) Reward and punishment system is not existed, while it is vital for controlling behavior.
- (6) Difficulties face behavior change, because people's behavior tied with long time habits linked with in correct attitudes.

IX. MAIN INDICATORS

And How the Indicators can be Measured

Introduction

In order to support effective evaluation of the programs, environmental indicators need to be established to assess trends and evaluation of progress in addressing environmental management issues at the national and regional levels. It should include measures of progress in establishment of a regional framework, as well as curative and preventive measures.

The following suggested indicators deal with Environmental Education and Awareness in order to be used as M&E indicators in this field measure the progress of the activities implementation in this field:

(1) Creating awareness on Nile Transboundary environmental issues:

This indicator is measured by:

- 1- The ability to establish basin-wide environmental cooperation, which supports collaborative actions to plan.
- 2- EE&A program materials and implement EE&A activities.
- 3- Evaluates activities, and measures its impact.
- 4- An assessment of students learning, teachers ability to integrate with EE&A process, and modules.
- 5-Transboundary schools environmental projects and exhibitions.
- 6- Assessment of mass media involving as well as practitioners.

(2) Communication management:

This indicator can be measured by:

- 1- Availability of sharing database.
- 2-Preiodical newsletter covers the Nile basin. Transboundary news.
- 3-upating websites.
- 4- Regularly reports.
- 5- Regional workshops.

Suggested measures that support M&E indicators of EE&A program

A) Preventive Measures:

To reduce the risk of major environmental education and awareness impacts (cost effective approach):

- Environmental assessment for project design planning.
- Integrated approach and collaborative mechanisms.
- Information system and network.
- Identification of the main risks to the Nile transboundary EE&A program that may hinder the implementation.

- Policy reforms and institutional changes, both required for accelerated development and better environmental management

B) Curative Measures:

Curative actions are needed to address current resource degradation and pollution, and that helps EE&A efforts:

- Better management resource and quality protection of potable water.
- Wastewater treatment and pollution prevention should focus on technologies.
- Appropriate pesticide and fertilizer use and disposed.

(3) An improved live hood and quality of life of the Population of the riparian states:

This indicator is measured by:

- 1- The governmental, private sector, NGO's efforts assessment,
- 2- Appropriate reports, and
- 3- Visits of focal points.
- 4- Assessment of the degree of awareness of the linkage between sectoral polices and the environment.

(4) Environmental Education and Awareness expanding activities:

To be measured by:

- ❖ Periodical reports covering project monitoring and evaluation for its activities.
- ❖ Quarterly workshop to be held in rotation at the reparian countries to those who are assigned to EE&A activities.
- ❖ Before and after studies on EE&A activities to be administered on sample group of beneficiaries and participants to measure its impact.

(5) expanding information that based on knowing how to manage the natural resources (Land & Water) and to specialists from formal and informal agencies:

- Net working on learned experiences between riparian countries.
- Increased basin-wide community actions and cooperation in land and water management between the 10 countries.
- Trained media people a total of 30 from each riparian.

(6) Net working of the different schools and universities for EE learning:

To be measured by:

- Trained teacher, 2 teachers from each school of a total of 50 schools in each country.
- One study guide on EE mode of delivery; illustrated and supported with learning materials.
- Separate modules on environmental issues gradually increased/become different from one school level to another.
- Environmental projects to be carried out in collaboration with 10 schools. And in one university each riparian.
- University course in Environmental Issues, at least to be delivered in one university in accordance with related field of study.
- Assessment of student learning periodically.
- 50 students graduated on EE/ yr, and 10 diplomas, 5 masters in each country within the project life.

(7) Increased number of EE&A knowledgeable specialists on environmental affairs:

To be measured by:

- Assessments of extensionists and practitioners ability to integrate with EE&A.
- Trained 100 persons/yr in each country from NGO's and Media to increase their knowledge on environment in general and on basin issues in particular.
- Annual evaluation report on those who are exposed to training and practice in the files of EE&A.
- Exchange program for the specialists between the riparian countries, at least a group of 10 from each round the year.

(8) Enhanced public awareness and understanding of Nile transboundary environmental threats and development challenges:

To be measured by:

- At least 2 environmental programs to be developed by experts and delivered in each riparian through various communication methods.

(9) Increased number of basin-wide networks of environment:

To be measured by:

- One National steering committee at each country works as a basin-wide network. Each composed of environmental professionals from related fields and concerned agencies.

(10) Increased regional cooperation in environmental fields and creating the awareness on the Nile environment issues:

To be measured by:

- At least one conference in each country of a total 6 countries which gather the professionals, NGO's, Media representatives, EE&A providers in formal and informal sectors and the Net work members.
- And each conference should cover a part of the project concerns.
- The ability to establish basin-wide environmental cooperation, which supports collaborative actions to plan and implement EE&A activities.

X. CONCLUSIONS AND RECOMMENDATIONS

A) Report Outcomes

1- Over View of Key Findings

a) From Checklist Interviews

b) From the Derived Viewpoints

2- Consultancy Viewpoints

3- Options to be Taken Into Account

B) Conclusions

C) Recommendations

A) Report Outcomes:

As the various reviews reports approach the conclusion of its implementation periods, it face challenges to maintaining the momentum and outputs of the report. In many cases, this includes:

- 1-Implementing the policy outputs of the report.
- 2-Maintaining the information resources and technology links, and
- 3-Functioning in an authorizing environment that may be subject to certain difficulties (time frame, interview's appointments, persons, getting formal reports and dealing with formal procedures, etc.).

The challenges faced this report reinforce the idea that an important country report with significance information and broad outputs cannot be achieved through a bounded time. Besides, taking into consideration that the report is being viewed as a step in a long continuum towards developing an environmental education and awareness component that provides sustained and effective activities and environmental communication management.

In the following are the report outcomes which been introduced in groups.

1- Over View of Key Findings:

a) From Checklist Interviews:

This method was administered in interviewing 50 persons from various categories, and its most important results were been illustrated in a table and presented as an annex.

2290 answers were obtained from administrating the checklist, analyzing the mentioned answers (about Nile river information, its pollution sources and effects, its protection EE&A status, opportunities and constraints). Came out with the followings:

- 1- There are 1440 answers of yes/I know about the suggested answers or about the sub-title of the questioned subject:

A) Out of these answers there is

- 850 correct answers with a percentage of 49.7%.
- 590 incorrect answers with a percentage of 50.3%

B) Distribution of yes answers, by type of source information:

- formal 300 answers (20.8%)
- Informal 630 answers (43.8%)
- by one self-510 answers (35.4%)

- 2- There are 850 answers of no/ I don't know:

Distribution of No- answers by type of reason:

- Not important to me 50 answers (5.9%)
- Don't care 40 answers (4.7%)
- No information to get 760 answers (89.4%)

- 3- About comments and viewpoints (suggested)
 - Agree 270 answers (73%)
 - Don't agree/or doesn't understand 100 answers (27%)
- 4- About recommendations (opportunities):
 - Monitoring and punishment 30 answers (25%).
 - Project and research 50 answers (41.6%).
 - Increasing budget 40 answer s (33.4)
- 5- Constraints:
 - Bad habits and traditions 10 answers (16.6%).
 - Weak of finance 30 answers (50%).
 - No policy or special activity 20 answers (33.4%)

b) From the Derived Viewpoints:

These viewpoints came up from concerned persons tied with EE&A activity, and it derived from their own perspectives towards the field and the institution where they work in particular and towards EE&A activities in general.

The followings are the obvious points of their views which been presented separately to know about the state of EE&A in Egypt as it came from key persons regarding principal sources. Out comes of these viewpoints are summarized and categorized in a table and presented as an annex:

1- from GDE, Ministry of Education:

1. Population projects include environmental issues when it related.
2. Community participation comes as a financial contribution only from students' parent's councils.
3. All the efforts gained from self-motive and personal relations. The Ministry of Education doesn't care enough with the Directorate's work; it focuses mainly on school curriculums.
4. The budget allocated for EE activities is not enough to cover the ambitious needs in this field.
5. There is no relation work or co-ordination with the Ministry of Environment unless funds been allocated to carry out participated activities.

2-From Ministry of Water Recourses:

- (1) Water awareness was absent for a long time, and then starts now to be spread through mass media,

campaigns and seminars at localities and schools in particular.

- (2) To achieve water awareness goals, long time is needed beside sufficient finance,
- (3) The current activity is directed only for awareness about conservation benefits and pollution hazards, and not for behavior change.
- (4) There is coordination with the concerned ministries, but the Ministry of Information comes first, while Ministry of Education and Agricultural come in the second place.
- (5) The cooperation comes in from the Ministry of Environment is weak.
- (6) There are no constraints or difficulties hinder our current activities now.

3-From NGO (Nile Guards & Environment Defenders Ass.):

1. Nile River is on the top of the public opinion's issues, and the press makes investigations around the river's issues at the national and transboundary levels.
2. The Nile River screams from the pains we caused to him and say "you people ignore my favors and meet it with offenses".
3. The occasion of Nile celebration should be directed to save the river, the occasion should be called the "Sincerity for the Nile" not the "Nile Sincerity".
4. The correct behavior towards the Nile River derives from the right conscious, which unfortunately absent now.
5. There is no EE&A planned program gives the excellent model to be followed, and strengthening the positive value, which supports the behavior change

4-From the dialogue of group discussion interview with 3 Radio Broadcasters

- 1) There is no policy or framework for radio program to specialize in EE&A or the Nile Basin subject in particular. The current programs, sometimes present the subject in case of something happened with the Nile River and has the public's attention.
- 2) About the state of EE&A activities at schools, as parents they don't feel that their children have adequate information.

- 3) With the effective planning and through mass media, and coordination NGO's, it is possible to bring about the needed awareness.
- 4) Need for fixed items to be addressed in newspapers calling people to protect the Nile.
- 5) The religious leaders have to motivate people to Nile protection and water conservation through mass media, mosques and churches.
- 6) With planned repetition the Nile awareness messages would lead to behavior change.
- 7) The absence of NGO's role affects EE&A efforts.
- 8) The concerned Ministries and related Governmental agencies have to support NGO's and give it sort of authorities and free movement.

5-Opinions from Mr. Abd El-Maksood, Environ. Journalist and General Secretary of Env. Writers Association:

- 1) About Ministry of Environment: it has an important concept for awareness through phases; its activity in year 2000 focused on Nile protection, and tied with industrial and information people. In the following phase the focus was on water treatment and forest plantation, and the previous subject Nile protection went to the potion, now in this current phase, we are waiting because the Minister is newly appointed.
- 2) About Ministry of Education: the curriculums changed every year, and the educational process is not controlled, and there are no school activities. The school now for studying only, even though, the only curriculum deal with environment is very complex and doesn't attract the student. When can we use simple ways to enable students to contain the environmental information?
- 3) About Ministry of Information: the information is activated only to cover events; it deals with issues through TV& radio programs by dialogue approach only. The exposure percentage to environmental programs is very weak, and there is no program for the Nile issue.
- 4) People can come in touch with the Nile information, when a problem related to the river comes out. But how the information people deal

with the Nile Basin issues while they don't have any information about it. Even NGO's has no clear strategy to work with. In fact we don't have policy or a framework whether on the national level or the Transboundary level for the awareness.

- 5) About Ministry of Water resources and irrigation: this ministry has a great role on the local level and on the Transboundary level, it cooperates with the Nile basin countries to avoid conflict and have effective cooperation.
- 6) Awareness policy should be developed and activities should follow it, all-institutions, whether governmental one or non-governmental, has to participate and to integrate together to carry out the needed awareness activities.
- 7) The most critical constraint is not the finance, but it is the absence of strategy and the clear vision, beside the institutional and administrative system, which gather people on one overall aim.
- 8) There is no real cooperation within government institutions and between it and NGO's.
- 9) Egypt has responsibility towards the Nile basin's countries and through the Nile Basin Initiative it can have a relation built on participation, integration and cooperation. And this can be attained through the technical assistance support and the political area as well.
- 10) It is clear that Egypt call basin's countries leave discussions about water shares, and cooperate to save the loss of Nile water which is about 80% of its income and with its use, all the basin problems can be solved.

6- From the dialogue of group discussion interview with 6 Teachers and EE. Activity In charge:

- 1) Although the environmental concepts are included in school curriculums, but it is introduced with the same complicated teaching approach.
- 2) The Geography curriculum is a science only, giving pure information about Nile basin, and according to the teacher's abilities, he can add environmental information.

- 3) Some curriculums have very short EE information, for instance, biology curriculum refers that bilharzias grows in help of the weed in the Nile river, and the resource of pollution mainly is the industrial waste which leads to sickness.
- 4) EE&A activities mainly are library, researches, seminars and journeys to protectorates; most of these activities are carried out with school finance, and sometimes parent's council support.
- 5) There is collaboration with the ministry of Environment and the ministry of water resources, within which the school gets, printed materials, updating information, and specialized persons to share in seminars.
- 6) EE&A still unorganized, or it is directed sometimes for a special aim, the current activities are not adequate.
- 7) There are no special programs in TV or Radio to handle the environmental issues; these programs can be helpful for the teacher.
- 8) The mass media has a critical responsibility to provide people with the necessary information in a simple and easy way.
- 9) EE&A activities have to start from pre-school age as a part of socialization process, these enable the child in this age to adopt positive values and attitudes which control his behavior when he grows up.
- 10) Through training, teachers can deliver the information about environment with fully understanding and interesting.
- 11) All kinds of pollution are responsibility of the whole community as well as ways of facing it.
- 12) People feel with no responsibility towards the environment and natural resources.
- 13) EE&A activities are very limited in education sector and not integrated with the external sectors, to link between students, family and community.
- 14) Rewards and punishment is essentially required for correcting behavior.
- 15) Ministries should support teacher and integrate together in EE&A work.

2- Consultancy Viewpoints:

1-Behavior change:

People go through a certain number of internal stages before they change their behavior. They start by being unaware, and progress to a stage of awareness. Next, they become concerned and seek information; they learn and become more knowledgeable. They then become motivated to change, try the new behavior, assess it, and decide whether or not to sustain it. However, both external and internal factors may impede this process, and people sometimes drop out at one of these stages.

2-How to protect the Environment?

Primarily means protecting the environmental resources from human violence and aggression, thus safeguarding our own rights and those of future generations through maintaining and preserving the purity of these resources.

Following are suggested approaches for environmental protection :

1. Compulsory/legislative approach:

Through the application of legislation and compelling people to abide by a mandatory public behavior.

2. The approach by Model/Example:

By introducing new environmentally sound behavioral habits practiced by leading and prominent figures in society. These habits should be presented to the public without any interference or compulsion to change behavior.

3. Direct inculcation and preaching:

By inculcating people directly with information, focusing on a haphazard repetition of specialized complicated without due consideration to the public's comprehension.

4. Slow Gradual Approach:

This is unlike that of direct inculcation, or model. It is unique in that it combines components from all approaches for dealing with environment, and considered by far the most successful approach for raising environmental awareness.

3-Key points formulations of civil society role needed for EE&A projects activities:

- It is important for the government and civil society to work more closely together with shared understanding, and to work cohesively toward executing EE&A project.
- Proactive actions are required:
 - 1) Effective experience to be documented.
 - 2) Knowledge base developed through cross-fertilization of experiences.
 - 3) Knowledge to be translated in terms of framework and mechanisms needs to be promoted to enhance civil society role in up scaling innovations.
- Framework for operational sing civil society role, has areas where government and civil society have role:
 - o Creating shared understanding.
 - o Addressing social sensitivity.
 - o Promoting the role of women.
 - o Advocacy for developing an appropriate policy frame work, and
 - o Operational sing the role of the private sector.

3- Options to be Taken Into Account:

A) Ways to get information to the public:

The most common complaint from citizen about governments is “*Nobody Told Us*”, “*Haven’t Got Any Information*”. That may frustrate the officials who are responsible about EE&A activities for which they spent time, money and efforts. The citizen complaint maybe well founded few people read environmental articles in newspaper and magazine. And only experts, professionals and interested/engages people attend meetings and conferences on environmental issues.

The followings are some suggested ways to make EE&A message heard more widely:

- Post notice about important meetings in conspicuous places.
- Enhance summaries of important documents that are too long or complex, in a simple way to be understood readily by the average citizen.
- Produce flyers or booklets that describe environmental issues and the citizen role among it.
- In the governmental departments, which are engaged in environmental affairs, develop and maintain a newsletter.

- Hold a contest to stimulate public's interest, such as photo contest about Nile River Pollution, bad use of drink water, etc.
- Consists of well-informed persons Organize a speakers bureau in the Governmental Departments engaged in environmental affairs who are willing to speak before people, clubs, schools, answer telephone calls, E-mails and give information to interests.
- Develop a pamphlet on citizen involvement addressed to all levels of people to encourage them cooperate with and practice EE&A activities.
- Write a "*White Paper*" to explain the reasons behind a controversial policy proposal; simply this paper answers the citizens' question "why?" This paper helps to shape and inform public opinion about formal, and legal decisions.
- Set up a citizens environmental information center or website (permanent or temporary), can be maintained by Ministry of Environment.
- Using sophisticated advertising techniques are more effective than a standard typed materials.

B) EE&A should focus on children: because:

- 1- The environment is an investment for the future and for children.
- 2- Any concern for children has similar concern for the environment. The environmental deterioration will lead to depletion of the basic resources of life, thus exposing the children lives to unforeseeable danger.
- 3- Children are most ready to absorb messages through communication. And with their purity, spontaneity, and innocence are more malleable than adults whose ideas; attitudes and behavior are firmly entrenched. To change adult behavior efforts has to eliminate old harmful habits and then to introduce new attitudes.
- 4- The success of any environmental awareness program is measured by the number of generations embracing the ideas and values, and sponsoring the models it advocates. The age duration of childhood does not exceed 15 years for every generation. If suppose that the average age in Egypt equals 55 years, this means that three generations exist today only one generation can be targeted.

C) An effective EE&A strategy:

A strategy for "*A Happier Child in Better Environment*" depends on the following components:

The formation of competent communication cadres, fully aware of the importance of environmental issues and the mean of implementing environmental policies.

- 1) The production of “*Information Materials*” necessary for the implementing action plan in the field of raising environmental awareness.
- 2) Concluding agreements with mass media to address messages on the environment.
- 3) Establishing a documentation working team, the records would serve as “*Resource Material*” for informational productions on environment.
- 4) Launching a mobile art exhibit on the environment, to visit the various Governorates, and present the materials produced on environment.
- 5) Supporting the establishment of several simple environment museums, which feature various environmental themes and elements and sere educational purposes.
- 6) Selecting some school in the various Governorates to serve as a nucleus for “environment-friendly school” initiative.
- 7) Production of colored slides, videotapes films, and simplified materials on various environmental issues focus on illustration rather than words.

B- Conclusions:

The Nile River is one of the world’s great assets, its basin is home to about 160 Million people, and it includes parts of ten countries, one of them is Egypt with a population about 73 million people lives in 3.7% of its area which is around one million square KM. This 3.7% of Egypt’s area is almost the area of Delta and River Valley, which are lands surround the Nile and its branches.

The Nile basin countries face development challenges such as food security, human health, decline of aquatic environment, and poverty comes as over all challenge, which is in combination with the very rapid social economic, growth, and the efforts to reduce it are undermined by variety of environmental problems. As a result, an urgent need rose to integrate environmental concerns into poverty alleviation and economic development strategies.

The development challenges provides an opportunity to promote regional economic development in one of the poorest region of the world. That could

enable basin countries to participate as partners in emerging regional and global trade.

To evolve regional cooperation a Nile River Basin Action Plan was prepared and then the dialogue and cooperation among the riparians started to create a climate of confidence. It is recognized that cooperative development brings mutual benefits to the region, and following extensive consultations, the Nile Basin states adopted a shared vision and policy Guidelines for Nile Basin Initiative under which the Nile Transboundary Environmental Action Project is one of its projects.

NTEAP has six components one of them is the Environmental Education & Awareness which focus on creating awareness on the River Nile environmental threats, while stimulating behavioral change.

In order to design EE&A component, this reviews report was carried out to address the environmental issues and the existing state of EE&A through a rapid assessment, which is summarized in the mentioned statement below:

- 1) Decisions concerning land and water use in the Nile Basin have often been made in the absence of environmental awareness as well as the basic information. Besides the lack of EE&A is an important cause of environmental damage and a serious impediment to finding solutions.
- 2) The report has specific parts about policy and capacity strengthening beside the Egyptian laws, and legal decisions and defines which curb the environmental deterioration with concentration on the Egyptian Environmental Affairs Agency (EEAA) as a mandate broadly and on EE&A specifically. This concentration includes EEAA coordination and implementation mechanisms and collaboration with other players on EE&A, beside its framework, duties, main activities and achievements.
- 3) Education is the most effective method for introducing behavioral change, but it is not restricted to teaching, hence, the environmental education follows two methods:
 - (a) Formal environmental Education, and the Egyptian Ministry of Education has alone this responsibility, but as it should in the key finding, its EE efforts comes in the second place after the school studies, and no effective support was given to recognize EE as it deserves.
 - (b) Informal environmental Education, for which many Ministries and Agencies work, but with no policy or framework gather them on one clear target. The report introduced the obvious and principle sources that carry out EE&A activity informally, which are the Ministry of

environmental, water resources and irrigation, beside an organization working in the filed of Nile protection and some initiatives as case studies as in Asswan, CDR, and AOYE activities, are included in this part.

EE&A in informal sector has the same situation as in the formal sector, because each of its institutions works individually and with no settled policy or framework guide them over and above that the cooperation and collaboration between them is weak.

- 4) Highlight EE&A at tertiary institutions, and which is engaged in this activity, and how it offers EE, is it stand alone course or a topic or module or within environmental subject. The fact is, the universities don't teach EE, it deal with it as an activity only except the institute of environmental studies which sponsored by a university, while NGOs and other related agencies engaged with EE teach it as a subject in its environmental training courses.
 - 5) Projects in relation with EE&A, whether previous or recent one were summarized and listed, these include the donors' roles as UNDP, WORLD BANCK, CIDA, GTZ. The projects and planned outreach activity are introduced as examples could learn from or collaborate with.
 - 6) The opportunities cover the points of collaboration, mass media responsibility, the necessity of starting EE from pre school age, the importance of training, recommendation of rewards punishment for behavior, community participation.... etc. while constraints include criticizes against the mode of EE delivery, the recognition for the paid efforts, budget, policy, framework, cooperation and coordination between EE&A deliverers...etc.
 - 7) In the lessons learned around EE&A project experiences came in two parts, first as transboundary level which explained:
 - Need for opportunity for EE&A projects to share experiences and to develop linkages and support systems both in country, in region and perhaps in global level.
 - Rejects need sufficient time and well-trained staff to facilitate work.
 - A capacity building based on the assumption that there is insufficient local or national capacity.
 - Develop a handbook for a project which summarizes the topics that be demanded by any one engage the work.
- At the Nile Basin level (there are significant issues within the lessons learned):
- Absence of environmental awareness.

- Lack of awareness is an important cause of environmental damage.
- Improving people's lives requires a solid foundation of information, learning and adaptation.
- Rapid population growth increase pressure on the national resources and contributes to environmental damage.
- No effective cooperation and coordination.
- Stakeholder's participation.

(See more in section 8)

The second part about the lessons learned at Egypt level:

- Absence of EE&A system.
- Absence of clear strategy.
- No real cooperation.
- EE&A information system for all.
- Institutions are not available.
- Difficulties face behavior change, because the bad habits and incorrect attitudes.

8) Main indicators and how it can be measured were suggested according to the collected information and Awareness expanding to the collected information, the indicators were:

- 1- Creating awareness on Nile transboundary environmental issues.
- 2- An improved live hood and quality of life of the population of the riparian states.
- 3- Community cation management.
- 4- Environmental Education and Awareness expanding activities.
- 5- Expanding information that based on knowing how to manage the natural resources and to specialists from formal and informal agencies.
- 6- Net working of the different schools and universities for EE learning.
- 7- Increased number of EE&A knowledgeable specialists on environmental affairs.
- 8- Enhanced public awareness and understanding of Nile transboundary environmental threats and development challenges.
- 9- Increased regional cooperation in environmental fields and creating the awareness on the Nile environmental issues.
- 10- Creating awareness on Nile transboundary environmental issues.

- 9) The report ended with conclusions and recommendations that refers to its out comes which includes the results of check list interviews and the findings from the derived viewpoints besides the consultancy view points and suggested options and a section specified for the overall conclusions of the report which are gathered from the all sections of the report as well as the recommendation.
- 10) Annexes were attached which integrated with the report sections and complete its information, the annexes are a copy of checklist, a table of the interviewed sample group, key findings which came up from the administration of checklist, and from the derived viewpoints, a list of active practitioners, EE&A products, background documents and website and a list of key persons in Egypt.

C- Recommendations:

- 1- Raising the levels of understanding in the beneficiary community of the importance of water conservation, good water use habits, good hygiene practices, and the adverse impacts on health, is so far failure to change existing water use and hygiene practices.
- 2- Improving services to urban poor areas and provide it to the informal settlements.
- 3- Developing an outreach program (EE&A practitioners) that can effectively engage the informal communities in dialogues and then in participation regarding EE&A objectives accomplishments.
- 4- NGO's facilitate community participation and educate the community in appropriate behavior towards environment protection, and better people understanding on the nature of environmental inter-relatedness within the Nile Basin effects on their community.
- 5- Needs for training and Environmental Education:
- 6- Start early with needs assessment for technical training for practitioners and for building public awareness. Strongly integrate technical training, environmental education and awareness building components based on participatory learning styles (non-formal adult education) throughout the project strategy. An environmental educator skilled in these education techniques should be a key part of the early project team in order to develop a trainer's strategy and to assist with early efforts to publicize the project, its goals and objectives.
- 7- On-the-Job training requires regular and frequent contact between mentors and trainees. It may mean longer terms for technical inputs by consultants or more trips and more repetition in order to maintain continuity in

technical training content and to improve transfer of subject matter. Timely selection and placement of counterparts by government is essential.

- 8- Public education can influence the political decision-makers by building a constituency of support for the project and its objectives. Since it is the repetition, clarity and constancy of the message that builds awareness, the education process needs to start as early as possible.
- 9- Use new skills in applied exercises, which incorporate the information and outputs into the planning processes

Critical Recommendation Comments:

Taking these following comments into consideration, can support the EE&A acceptance and participation:

- (1) Establishment of basin-wide water quality monitoring program.
- (2) Need for pollution prevention and cure measures.
- (3) Environmental monitoring system for the riparian.
- (4) Information system for the Transboundary Nile basin.
- (5) Improve wastewater treatment.

XI. ANNEXES

- 1) Checklist
- 2) Interview sample group.
- 3) Key Findings:
 - *From the Administration of Checklist, and*
 - *From the Derived viewpoints.*
- 4) Active Practitioners
- 5) EE&A Products.
- 6) Background Documents and Websites
- 7) List of Key Persons (Egypt)

1- Checklist: Assessment Checklist for Interviewing Sample Group About EE&A

Name:.....

Gender:

Age:

Social Status:

Education Status:

Professional Status:

Address:

Tel., No:

E-mail:

Category of EE&A Issues	Yes/ I know	The Answer	Source of knowing	Score of knowing	No/I don't know	If not knowing, what is the reason?
1- <i>About The Nile River:</i> A) <i>General information:</i>						
• Do you know the length of the Nile River? (6690 KM)						
• Do you know its area? (About 3 million.km3)						
• Do you know how many countries of Nile basin? (10 countries)						
• Do you know countries names? (Tanzania, Ken. Congo, Burundi, Rwanda, Eth, Eriteria, Uganda, Sudan, Egypt)						
• Do you know how those countries distribute the Nile water shares? (by an agreement)						
• Do you know Egypt's share of the Nile water? (55,5 Billions m ³ /yr)						

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Yes/ I know	The Answer	Source of knowing	Score of knowing	No/I don't know	If not knowing, what is the reason?
<u>B) About the Nile water consumptions:</u> <ul style="list-style-type: none"> • Do you know the individual share? - 1950 2370 m³/yr - 1993 1035 m³/yr - 2002 						
<ul style="list-style-type: none"> • Do you know the water consumption limit for the individual? (1000 m³/yr) 						
<ul style="list-style-type: none"> • Do you know the industry share? (412 million m³/yr) 						
<ul style="list-style-type: none"> • Do you know the percentage of waste from the clean water? (50%) 						
<ul style="list-style-type: none"> • Do you know the international percentage of waste from the clean water? (15%) 						
<ul style="list-style-type: none"> • Do you know how much Government spends yearly for water treatment? (pillion LE) 						

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Yes/ I know	The Answer	Source of knowing	Score of knowing	No/I don't know	If not knowing, what is the reason?
<u>2-About Nile Water Pollution Sources:</u> Do you know what are the pollution sources? Name it/inform about it						
-Domestic Waste (Waste of house)						
-Industrial Waste (Heavy metals)						
- Agricultural Waste (From pesticides & fertilizers)						
- Human & Animal Waste (Washing both & cloth... and get rid of animal dead bodies)						
- Weed (Hinder navigation, consume water, help in growing aquatic organisms which cause disease and cause death for fish)						
- Drainage (Possibility of mixing with water supplies& wastewater discharged by tracks in canals)						
-Navigation (Tourist& sailing boats, public trans., Floating housing units)						

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Yes/ I know	The Answer	Source of knowing	Score of knowing	No/I don't know	If not knowing, what is the reason?
<u>3-About Nile Water Pollution Effects:</u> <ul style="list-style-type: none"> • What do you know about the effects/results of Nile water Pollution? Inform about it 						
- On Human Health						
-On Animal /Birds/Poultry						
- On Agriculture /Plants						
- On Navigation						
- On Country Budget						
- Others, to be mentioned						

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Yes/ I know	The Answer	Source of knowing	Score of knowing	No/I don't know	If not knowing, what is the reason?
<u>4-About Nile Water Protection:</u>						
<ul style="list-style-type: none"> • Do you know that there are efforts to protect the Nile Water? Name sources 						
- By law						
- By Government /Ministries						
Environment						
Water Resources						
Health						
Agriculture						
Industry						
Education						
Information						
Culture						
Youth and Sports						
- By NGO's & CBO's						
- By international agencies						
- By Private sector						

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Yes/ I know	The Answer	Source of knowing	Score of knowing	No/I don't know	If not knowing, what is the reason?
<u>5-About EE&A Activities Status:</u> From where you get/can get the environmental education and awareness? (Identify: Formal/Informal)						
<ul style="list-style-type: none"> • Mass Media: 						
- TV (F/INF)						
- Radio (F/INF)						
- Newspaper & magazine (F/INF)						
- Printed Materials (F/INF)						
-Web sites (F/INF)						
<ul style="list-style-type: none"> • Interpersonal 						
- Conferences (F/INF)						
- Exhibitions (F/INF)						
- Outreach (F/INF)						
<ul style="list-style-type: none"> • Education: 						
- School modules. (F/INF)						
- Study courses. (F/INF)						
- Training programs. (F/INF)						

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Opinion about the suggested answers
<u>6-About Comments and View Points:</u> <ul style="list-style-type: none"> • What do you suggest for effective and improved EE&A activities within the Nile basin? 	
- The basic institutional, legal and financial framework.	
- Monitoring and information system/network.	
- Abate pollution of the most urgent sources.	
- Institutional capability to maintain water treatment.	
- Enhancing awareness on the nature of environmental inter-relatedness within the Nile basin and effects on communities.	
- Water conservation and the role of community (people & institutions)	
- Need for EE&A efforts by various means to all people at all levels.	
-Other: to be mentioned.	

Assessment Checklist for Interviewing Sample Group About EE&A

Category of EE&A Issues	Opinion about the suggested answers
What do you suggest as opportunities and constraints for transboundary environmental education and awareness activities within the Nile basin in Egypt?	
7-Opportunities To be mentioned	
8-Constraints To be mentioned	

		<p>G.D. Senior Assistant (As Institutional. Supervisor)</p> <p>B) Environment: tel. 5256452</p> <p>1) Dr Adel Abd El- Ghafar Minister Media Advisor & CEM Danida project Mgr. (As project Mgr.)</p> <p>2) Foaad Megahed C.D. for EE& Inf. Mgr. (As Institutional. Mgr.)</p> <p>c) Water Resources: tel. 5449497 Dr. Hesham Mostafa G. Director of Info. Center (As Institutional. Mgr)</p>		
3	Influential leaders or opinion makers from the private sector, NGO community, CBOs, and religious organizations	<p>A) Private Sector:</p> <p>1) Dalia S. Adeeb 2) Aliaa Mohamed Advertising & Information Co. Tel. 3382529 (As Opinion makers support)</p> <p>B) NGO: Counselor El Shafee Chairman of “Nile Guards and Environment Defenders Association” tel. 5703066 (His view points as influential leader)</p>	2	<p>Interviewed by checklist</p> <p>Interviewed By In-depth interview depending on the issues categorized in checklist</p>

4	School instructors, teachers, extensionists working with school clubs;	<p><u>A) School Instructors:</u></p> <ol style="list-style-type: none"> 1) . Samia Shokri Deputy of “Om El Abtal” School For School Activities 2) Eman Saad Zaghlool Pop. &EE In charge “Om El Abtal” <p><u>B) School Teachers “Om El Abtal”:</u></p> <ol style="list-style-type: none"> 1) Omar Fathy. Geography Teacher 2) Yehia Abd El-Raoaf Khalid. Geography Teacher 3) Arafa Hamed Abd El-latif. Biology, Environment Science and Geology Teacher 4) Mamdouh Abd El-Hakim. Geology Teacher <p><u>C) EEAA Extensionists working with schools:</u></p> <ol style="list-style-type: none"> 1) Heba Matoot 2) Faten Abd El- Fatah 3) Manal Huseen 4) Mai Mohamed Abo Basha 	4	<p>Within a group of 6 persons were interviewed by focus group discussion</p> <p>Interviewed by checklist</p> <p>Interviewed by checklist</p>
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5	Farmers and low-skilled workers	<p>Working at Hadayek El-Mohandseen Compound</p> <ol style="list-style-type: none"> 1) Ramadan E. M. Nassar Office boy 2) Attef Ali Hasanin Gardener 3) Mohamed Abd El-Motee Cleanliness Worker 4) Hasanin Khalaf Building Worker 5) Mohamed Abd El-Baqi Carpenter 6) Mohamed Huseen Workers Supervisor 7) Samer Mahmoud Gardeners Supervisor 8) Abd El-Atee Cleanliness Workers Supervisor 	8	Interviewed by checklist
6	Representatives of environmental journalist at the national, regional, or local mass media (print, radio, and TV as appropriate);	<ol style="list-style-type: none"> 1) Mohamed Abd El-Maksoud Env. Journalist Tel. 5807372 5501348 2) Ismael Gaber Env. Radio Broadcaster Tel. 5771224 4587747 3) Abu Bakr Badawi Head of Radio Broadcasters Tel 3923711 3921437 		Interviewed by In-depth interview depending on the issues categorized in checklist

7	Community members, students, or well-defined groups like women groups, youth groups, scout movements, etc.	<p>Students & scouts from Om El-Abtal Sec. School:</p> <ol style="list-style-type: none"> 1) Merhan Ahmed A. Kamal 2nd level 2) Athar M.T. Fared 2nd level 3) Asmaa A.M. Salem 2nd level 4) Hadel S, Ebrahim 3rd level 5) Aliaa M. A. Sharsher 3rd level 	5	Interviewed by checklist
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8	Institutional /project beneficiaries, recipients, or constituents;	<p><u>A) Institutional beneficiaries& recipients:</u> (Students from Om El-Abtal Sec. School exposed to EE&A)</p> <ol style="list-style-type: none"> 1) Aya H. E. El-Sheref 3rd level 2) Marwa S. Mohamed 3rd level 3) Marwa M. Mohamed 2nd level 4) Marwa A, M. Atta-Allah 2nd level 5) Menat Allah A. Awad 2nd level 6) Mai Abd El-Hady Mahmoud 3rd level 7) Dina M. Safwat 3rd level 8) Nada Samer 3rd level 9) Merhan M. Nawar 2nd level <p><u>B) Constituents:</u></p> <ol style="list-style-type: none"> 1) Mohamed A. Mostafa Governmental Employee 2) Dr. Eng. Anwar Zaki Ahmed Nuclear Bower Agency 3) Hosam El-Deen R, Ismael Accountant 4) Tatek Salah Yosef Lawyer 	9	Interviewed by checklist
			4	Interviewed by checklist

9	Environmental, humanitarian and development NGOs within the basin	<u>Environmental NGO:</u> Nile Guards and Env. Defenders (Attached as an annex)		Interviewed by In-depth interview depending on the issues categorized in checklist
10	Bilateral and Multilateral donors working or planning EE&A activities including UNDP, WFP, CIDA, GTZ, SIDA	UNDP-CIDA & World Bank has been central in the establishment of the Nile Basin Initiative in which Egypt is participating. NTEAP as one of its projects has a component for EE&A GTZ CRS		Project documents (PIP, PAD, TEA) and websites, were used as reference materials.
11	International NGOs agencies like IUCN, WWF, AWF, etc			
12	Others Egyptian National party	Mohamed Abd El-Latif (Lawyer, EEAA)		Gave few comments in an interview, and the party has no permanent role in this regard

3-Key Findings:

I- From The Administration of Checklist

(A) By category of EE&A issues and distributed answers

(By no. of answers)

Category of EE&A issues	Yes /I know						No/ don't know			
	Total	Correct	Incorrect	Source of information			Total	Not important to me	Don't care	No information to get
				Formal	Informal	By one self				
1-About the Nile River information	350	140	210	110	80	160	530	50	40	440
2-about Nile water pollution sources	620	320	300	60	270	290	0	0	0	0
3-about Nile water pollution effects	150	130	20	60	70	20	100	0	0	100
4-about Nile water protection	100	90	10	10	80	10	70	0	0	70
5-about EE&A activities status	220	170	50	60	130	30	150	0	0	150

(B) By distributions of answers about suggested comments, viewpoints, recommendations and constraints

(By no. of answers and percentage)

Category of issues	Total	Agree	Don't agree	Category of issues	Total	Monitoring & Punishment	Projects & Research	Increasing budget	Category of issues	Total	Bad Habits & Traditions	Weak Of Finance	No Policy Or Strategy
6-About comments and view points	370	270	100	7- Opportunities	120	30	50	40	8- Constraints	60	10	30	20
		73%	27%			25%	41.6%	33.4%			16.6%	50%	33.4%

(C) Analysis of the results

(By no. of answers and percentage)

Total answers	Yes I know						No I don't know			
	Sub total answers	Correct	Incorrect	Source of information			Sub total answers	Not Important to me	Do not care	No information to get
				Formal	Informal	By one self				
2290	1440	850	590	300	630	510	850	50	40	760
	62.9%	49.7%	50.3%	20.8%	43.8%	35.4	37.1%	5.9%	4.7%	89.4%

II-From the Derived Viewpoints:

<p>A) REGARDING THE CURRENT STATE OF EE&A</p> <p>1) <u>IN GENERAL:</u></p>	<ol style="list-style-type: none"> 1. Water awareness was absent for a long time, and then starts now to be spread through mass media, campaigns and seminars at localities and schools in particular. 2. EE&A still unorganized, or it is directed sometimes for a special aim, the current activities are not adequate, especially when it targets the rural people and the illiterates, whom has their own habits, life styles, and behavior and most of it are incorrect. 3. EE&A efforts mainly are library, researches, seminars and journeys to protectorates, most of these activities are carried out with school finance, and sometimes parent's council supports these activities and cover small deal of the expenditures. 4. About the state of EE&A activities, as parents they don't feel that their children have adequate information about the Nile basin and its problems. 5. There is no EE&A planned program gives the excellent model to be followed, and strength having the positive values, which support the behavior change, needed in dealing with the Nile basin's issues. 	<p>Inf. C\ M. of Water</p> <p>Group of teachers</p> <p>Group of teachers</p> <p>Group of broadcasters</p> <p>Counselor El-Shafee</p>
<p><u>2) FORMAL ACTIIVITIES:</u></p>	<ol style="list-style-type: none"> 1. Although the environmental concepts are included in school curriculums, but it is introduced with the same teaching approach. Handling these concepts and information needs practice, which lead to better understanding about environment protection, and help in creating the correct behavior. 2. The Geography curriculum is a science only, giving pure information about Nile basin, and according to the teacher's abilities, he can ad environmental information to make students aware with pollution and its hazards, and in most cases that could be answers for raised questions, suggestion is made to add this information to the curriculum. 3. Very short and simple information fore instance, biology 	<p>Group of teachers</p> <p>Group of teachers</p>

	<p>curriculum refers that bilharzias grows in help of the weed in the Nile river, and the resources of pollution mainly is the industrial waste which leads to sickness.</p> <p>4. EE&A activities are very limited in education sector and not integrated with the external sectors, to link between students, family and community.</p> <p>5. Ministry of Education has no clear thinking about the national issues, the curriculum changed every year, and the educational process is not controlled, and there are no school activities. The school now for studying only, even though, the only curriculum deal with environment is very complex and not interesting and doesn't attract the student.</p> <p>6. Population projects include the environmental issues when it related to population.</p> <p>7. All the efforts gained from self-motive and personal relations with the supported agencies. The Ministry of Education doesn't propagate about EE effective efforts and doesn't care enough with the P&EE Directorate's work, it focuses mainly on school curriculums and the awareness activity come in the second place.</p>	<p>Group of teachers</p> <p>Group of teachers</p> <p>M. Maksod, Env Journalist</p> <p>GD\ M. of Education</p> <p>GD\ M. of Education</p>
<p><u>3) INFORMAL ACTIVITIES:</u></p>	<p>1.The current activity is directed only for awareness about conservation benefits and pollution hazards, and not for behavior change.</p> <p>2.<u>Ministry of Environment</u> changes concept for awareness through phases; its activity comes great in year 2000 when it focused on Nile protection, and its activities tied with industrial and information people. In the following phase the focus was on water treatment and forest plantation, and the subject of Nile protection disappeared. Now in this current phase, we are waiting because the Minister is newly appointed.</p> <p>3.<u>The formal Information:</u> is working only to cover events; it deals with national issues through TV& radio programs by dialogue approach only. The exposure percentage to environmental programs is very weak, and there is no program</p>	<p>Inf. C\ M. of Water</p> <p>M. Maksod, En Journalist</p>

	<p>for the Nile issues.</p> <p>4. <u>Ministry of Water resources and irrigation</u>: has a great role on the local and the Transboundary levels, it cooperates with the Nile basin countries to avoid conflict and have effective cooperation.</p> <p>5. There is no constraint or difficulties hinder the current actives of the center (M. of Water Resources) now.</p>	<p>M. Maksod, En Journalist</p> <p>M. Maksod, Env Journalist</p> <p>Inf. C\ M. of Water</p>
<u>4) POLICY AND FRAMEWORK:</u>	<ol style="list-style-type: none"> 1. There is no policy or framework and even no radio program specialized in the Nile Basin subject. The current programs which deal with Environmental issues, sometimes introduce the subject in case of problem happened with the Nile River and has the public's attention. This kind of activity depends on the Broadcaster's self-motive, personal effort, and a good range of relations. 2. Egypt has responsibility towards the Nile basin's countries and through the Nile Basin Initiative it can have a relation built on participation, integration and cooperation. And this can be attained through the technical assistance support and the political area as well. 3. It is clear that Egypt call basin's countries leave discussions about water shares, and cooperate to save the loss of Nile water which is about 80% of its income and with its use, all the basin problems can be solved. 4. NGO's has no clear strategy to work with, and it have seasonable activities but not planned. 5. We don't have policy or a framework whether on the national level or the transboundary level for the awareness. 6. It is necessary to have a clear strategy and framework for both policy and institution. 	<p>Group of broadcasters</p> <p>M. Maksod, Env Journalist</p> <p>M., Maksod Env Journalist</p> <p>M., Maksod Env Journalist</p> <p>M., Maksod Env Journalist</p> <p>Group of broadcasters</p>
<u>B) REGARDING COOPERATION BETWEEN CONCERNED AGENCIES:</u>	<p>1. There is coordination between Ministry of Water Resources and the concerned ministries, but the Ministry of Information comes first, while Ministry of Education and Agricultural come in the second place. The coordination from Ministry of</p>	

	<p>Environment is weak.</p> <p>2. There is collaboration with the Ministry of Environment and the Ministry of Water Resources, within which the school gets, printed materials, updating information, and specialized persons share in seminars.</p> <p>3. There is no real cooperation within government's institutions and between it and NGO's.</p> <p>4. There is no relation work or co-ordination between Ministry of Education and the Ministry of Environment unless funds been allocated to carry out participated activities.</p>	<p>Inf. C\ M. of Water</p> <p>Group of teachers</p> <p>M Maksod, Env. Journalist</p> <p>GD\ M. of Education</p>
<p><u>C) PEOPLE& NGO's CONCERNS:</u></p>	<p>1. All kinds of pollution are responsibility of the whole community as well as ways of facing it.</p> <p>2. People feel no responsibility towards the environment and natural resources.</p> <p>3. People can come in touch with the Nile information, when a problem related to the river comes out. But how the information people deal with the Nile Basin issue while they don't have any information about it.</p> <p>4. Nile River is on the top of the public opinion's issues, and the press makes investigations around the river at the national and transboundary levels.</p> <p>5. If the Nile River were a human, he will scream from the pains we caused to him and he will say you people ignore my favors and meet it with offenses.</p> <p>6. The correct behavior towards the Nile River derives from the right conscience, which unfortunately absent now. .</p> <p>7. Community participation in EE activities comes clear in schools as financial contribution from students' parents.</p>	<p>Group of teachers</p> <p>Group of teachers</p> <p>M. Maksod, Env Journalist</p> <p>Counselor El-Shafee</p> <p>Counselor El-Shafee</p> <p>Counselor El-Shafee</p> <p>GD\ M. of Education</p>
<p><u>D) RECOMMENDATIONS\ OPORTUNITIES:</u></p>	<p>1. To achieve water awareness goals, long time is needed beside sufficient finance, for instance the air time for Ads is free now as a national duty, but has short air time, while if there</p>	

	<p>is an available budget, the frequency would be more, and more activities can be achieved with TV especially the center (Ministry of Water Resources) has a good quantity of materials, which can help in spreading awareness before people.</p> <ol style="list-style-type: none"> 2. There is a small budget for pollution and environment activities in schools. 3. The mass media has a critical responsibility to provide people with the necessary information in a simple and easy way. 4. EE&A activities have to start from pre-school age as a part of socialization process, these enable the child in this age to adopt positive values and attitudes which control his behavior when he grows up. 5. Through training, teachers have to be mobilized, active and persuaded; therefore they can introduce the information about environment with fully understanding and interesting. 6. Rewards and punishment is essentially required for behavior change. 7. Ministries should support each other and integrate together in EE&A work. 8. Awareness system should be developed and activities should follow it. 9. All-institutions, whether governmental one or non-governmental, has to participate and to integrate together to carry out the needed awareness activities. 10. It is possible with the effective planning and coordination and through mass media, all school levels and NGO's, to bring about the needed awareness. 11. The religious leaders have to motivate people to Nile protection and water conservation through mass media, mosques and churches. 12. Fixed program about Nile Basin should be included in the radio broadcasting. 	<p>Inf. C\ M. of Water</p> <p>Group of teachers</p> <p>Group of teachers</p> <p>Group of teachers</p> <p>Group of teachers</p> <p>Group of teachers</p> <p>Group of teachers</p> <p>M. Maksod, Env Journalist</p> <p>M. Maksod, Env Journalist</p> <p>Group of broadcasters</p> <p>Group of broadcasters</p> <p>Group of broadcasters</p>
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	<ol style="list-style-type: none"> 13. With planned repetition the Nile awareness messages would lead to behavior change. 14. The concerned Ministries and related Governmental agencies have to support NGO's and give it sort of authorities and free movement. 15. Celebration of the annual event of the Nile River, which called the "Nile Sincerity", has to be a special occasion to inform people about the Nile importance, and the necessity of its conservation, the Nile problems, his future, the important achievements to protecting him. 16. Rewarding the individuals and institutions that did obvious care of Nile Basin in various fields. 17. We have to deal seriously with the environmental education, and use simple ways to enable students to contain the information. 18. The working cadre at the general Directorate of Environmental and population Education is professionally trained and keens to work. 	<p>Group of broadcasters</p> <p>Group of broadcasters</p> <p>Group of broadcasters</p> <p>Group of broadcasters</p> <p>M. Maksod, Env Journalist</p> <p>GD\ M. of Education</p>
<p><u>E) DIFICULTIES\CONSTRAINTS:</u></p>	<ol style="list-style-type: none"> 1. There are no special programs in TV or Radio to handle the environmental issues, these programs deal with it when a problem comes out. It is helpful for the teacher when adequate information disseminated in mass media, to teach and inform his students about what they read or watched already. 2. The most critical constraint is not the finance, but it is the absence of strategy and the clear vision. 3. The absence of institutional and administrative framework and systems, which can gather people on one overall aim. 4. There are no fixed items to be addressed in newspapers calling people to protect the Nile. 5. The absence of NGO's role. 6. The budget allocated for the EE activities (M. of Education) is not enough to cover the ambitious needs in this field. 	<p>Group of teachers</p> <p>M.Maksod, Env Journalist</p> <p>M. Maksod, Env Journalist</p> <p>Group of broadcasters</p> <p>Group of broadcasters</p> <p>GD\ M. of Education</p>

4-Active Practitioners

A) From Ministry of Education:

General Dep.: tel. 7921392

Samir Abd El-Motee
G.D. General Director
Elham Abu El-Khir
G.D. Senior Assistant

Officers:

- 1) Mosaad M. Maklad.
- 2) Hamdy M. Abd El-Gelel.
- 3) Enas H. Mohamed.
- 4) Abd El-Alim Mohamed.
- 5) Gehan M. Abd El-Aziz.
- 6) Nabila Baheg.

School Instructors:

- 1) Samia Shokri
Deputy of “Om El-Abtal” School
For School Activities
- 2) Eman Saad Zaghlool
Population. & EE In charge “Om El-Abtal”
school

School Teachers “Om El-Abtal”:

- 1) Omar Fathy.
Geography Teacher
- 2) Yehia Abd El-Raoaf Khalid.
Geography Teacher
- 3) Arafa Hamed Abd El-latif.
Biology, Environment Science and Geology
Teacher
- 4) Mamdouh Abd El-Hakim.
Geology Teacher

B) From Ministry of Environment:

Dr Adel Abd El-Ghafar
Minister Media Advisor &
CEM Danida project Mgr

Central Dep.: tel. 5256452

Mr. Foaad Megahed
EE& Inf. G. Mgr.

EEAA Extensionists working with schools:

1. Carolyn A. Eskander.
2. Manal H. Hassan.
3. Mohamed T.M. Afifi.
4. Aliaa M.B. Mahros.
5. Heba Matoot
6. Faten Abd El-Fatah
7. Manal Huseen
8. Mai Mohamed Abo Basha

C) From Ministry of Water Resources:

Information center tel. 5449497.

Dr. Hesham Mostafa

G. Director of Info. Center

Units Officers:

- 1) Ismael Radi
- 2) Atef Abd El-Rahim
- 3) Eman Aly
- 4) Ahmad Naqid

D) Private Sector:

Dalia S. Adeeb

Aliaa Mohamed

Advertising & Information Co.

Tel. 3382529

E) NGO:

Counselor Abd El-Atee El-Shafee

Chairman of "Nile Guards and Environment Defenders
Association"

Tel. 5703066

Dr. Emad Adly

Chairman of Arabic Office for Youth and Environment

Tel. 5161519

Fax.5162961

Dr. Ahmed Zaki

Chairman of Environmental NGOs Federation

Mobile: 0122812770

Mr. Ekram Albert

Program Manager, CRS

Tel 7941360

F) From media:

Mohamed Abd El-Maksoud
Env. Journalist
Tel. 5807372
5501348

Ismael Gaber
Env. Radio Broadcaster
Tel. 5771224
4587747

Abu Bakr Badawi
Head of Radio Broadcasters
Tel 3923711
3921437

Mie El-Shafee
General Program, Radio Broadcasting
Tel. 6358964

G) Active Students from Om El-Abtal Sec. School:

- 1) Merhan Ahmed A. Kamal
2nd level
- 2) Aathar M.T. Fared
2nd level
- 3) Asmaa A.M. Salem
2nd level
- 4) Hadel S, Ebrahim
3rd level
- 5) Aliaa M. A. Sharsher
3rd level

5-EE&A Products

The following are the principle providers' products on public awareness and environmental education, which include films, books, booklets, TV& radio programs contribution, brochures, posters, audiovisual materials, campaigns, training, seminars, competitions, celebrations, awards and give away gifts.

A- Ministry of Education:

All the mentioned products were financed from the Ministry's budget, WHO, AED, Population Activities Fund and supported by Ministries of Health, Communications, Environment and Health Insurance.

Publications:

- Environmental and population concepts for second stage from basic education and secondary education.
- Environmental education guide for second stage of basic education.
- Booklet gives explanation about population and environmental problems and role of the Ministry of Education to face it.
- Modules for different studying subjects rich in environmental, population and health concepts.
- Pamphlets explain some temporary issues.
- Atlas-containing drawings, which express students' awareness with temporary issues.
- A document of National Program for Health and Environment Promoting Schools.
- A magazine (first Edition) of National Program for Health and Environment for Promoting Schools.
- A book of Community participation, Health and Environment for promoting School.

2004 Achieved Activities:

○ Training:

- a. Training programs with Video Conference and Chinese hall. **7 programs for one day** each mainly on environmental pollution,

reproductive health and resources management. **One program for one day** on combating anemia within pre. And Sec. Schools, in cooperation with Ministry of health, and Health Insurance Agency. **3 programs for 3 days** each mainly about community participation, population explosion, Egyptian Family challenges and quality management and sustainable development.

- b. Awareness network in cooperation with the Technological Development Center, for 68 schools in Cairo and Giza Governorates, the over all program's objective is to make a better understanding about environmental, population and health issues, beside exchanging information between schools, which some of it can be carried out through IT investment.
- c. The National Program for the schools that promoting Health and Environment in cooperation with the World Health Organization. This program is directed to 150 schools in 10 Governorates, the main objectives are to: develop the students awareness regarding the environmental and health issues within their communities, to develop the self motive to gain life-practice skills, and to build effective relations between schools and exchanging experiences.
- d. The awareness program by the Electronic Education for prep. School through multi media rooms in cooperation with World Health Organization and Ministry of Communications, this program to be applied on 50 Prep. Schools, the main goal is using the Electronic Education means to gain Health and environment Information, besides developing positive attitudes among the students.

- e. The program for combating anemia in prep. And Sec. Schools in cooperation with Ministry of Health and Health Insurance for the school instructors beside the Environmental Education cadre and school students. The program aims to spread out the health awareness among the students about the anemia problem in Teen-age duration.
 - f. A training program (Workshop), named “Environmental Education for a better Community”, with cooperation of the Academy for Education Development and Egyptian Environmental Affairs Agency. This program targets 150 schools in 8 Governorates to train Environment and Population cadre and reporters in Education Directorates and Developments, Training unit in charge and students. The aim of this program is to train the target people on building and developing awareness to create a better quality life.
- Seminars:
 - a. A program of Environmental and Health Education in cooperation with civil society. This program is directed to 500 schools at 15 Governorates, targeting female teachers and students in order to urge 1500 of them to participate in behavior change and build positive values.
 - b. Local seminars to be carried out in Educational Directorates by Env. And population cadre with the assistance of specialists in these seminars issues.
 - c. The informational days, which are organized and achieved by Ed. Directorates locally according to their circumstances.

- Competitions:
 - a. The cultural competitions (the multi subjects researches)
 - 1- The environment problem between reality and hope.
 - 2- The poor settlements and population problem.
 - 3- The pollution results on human beings.
 - 4- The clean energy.
 - 5- The waste recycles.
 - b. Population competition rallies
 - c. Hand crafts competitions
 - d. The best science and culture' articles.
- Cooperation:
With civil society institutions and international agencies
- The summer activity:
Include Env. and Population seminars, following up the Env. Population and health awareness network clubs, Env. And population competitions follow up of the summer plan.

B- Ministry of Water Resources and Irrigation:

All the mentioned products were financed from the Ministry's budget.

❖ ***Printed materials:***

- (1) Many kinds of brochures and pamphlets for public distribution and 20 posters for public places.
- (2) Books for children.
- (3) Monthly newsletter "Water Information" and magazine every 3 month "Water and Development" to distributed for concerned agencies.

❖ ***Audio Visual materials:***

- (1) 20 TV ad, 12 Radio ad, a TV serial contains 18 episodes with 45 min each with the name of "Hearts Thirsty", 30 episodes at religious

program introduced religion experts to explain the verses of the holy book about water.

- (2) 10 educational films directed to farmers to be used in seminars, the irrigation engineers held it at Governorates and to be used at TV program. There is a documentary film about the Ministry, and the national projects that the Ministry.
- (3) 2 audiocassettes, with one hundred thousand copies each, one has explanation about Koran's verses have relation with water, while the other has stories and songs directed to children about water.
- (4) The center produces films about projects, which the Ministry is involved with, for presentation to the president and officials in the formal visits to these projects.

❖ ***Give away gifts:***

1. Wall calendars with daily dates pages; each page has special information about water.
2. The center produce T-shirt, capes for children and adults, and students' brief cases all have the center's slogan and logo
3. Seeds bags to be used by farmers in their work or their wives in shopping.
4. Carpets to farmers who supported its campaigns and to the village mosques, these carpets have slogan and logo.

❖ ***Billboards:***

The center produced billboards calling people to protect the Nile and for water conservation. These billboards to be hanged in bus and train stations, beside the canals banks and the place of the crowd.

❖ ***Center participation and coordination:***

1. The center participates with TV in its programs that concerned with water, it supports these programs with information and materials and it does the same with the radio. The center produce once a series of competitions aired on Ramadan (holy month).
2. The center has effective communication with the press, each week it holds meeting to give information to help in advertising the water and Nile basin news.
3. The center's has good coordination with ministries of information, Education and Agriculture, enable it in his activities especially the seminars and campaigns

C- Ministry of Environment:

The following is a summary of the achieved activities which are considered as EE& A products of the General Department of Information and Environmental Awareness on year 2004:

First: News Paper and Magazines:

1. Established award competition in the filed of environmental Education in cooperation with Journalists Union.
2. Provided Financial Support for two magazines.
3. Support the environmental pages in some newspapers.

Second: TV programs:

1. Environmental item was aired through "Good Morning Egypt" TV program.
2. EE program was introduced by Cinema Film, which was showed in the culture palaces at 3 Governorates.
3. Provide technical support to 16 TV programs.

4. Executed TV series at “*Our Planet*” program, which is presented by the Nile Station for News.

Third: Radio Programs:

1. Provided technical support to 30 programs at the different Radio Stations.
2. Carried out two competitions at the holy month of Ramadan, which are “*Egypt talk about herself*” & “*Alphabetical of Environment*” programs.

Fourth: Environ. Competitions:

1. Organized group of environmental competitions at culture palaces in various Governorates.
2. Carried out 5 religious competitions.

Fifth: Exhibition:

1. Participated in 7 local & international exhibitions
2. Preparing plans for coming exhibitions.

Sixth: Environ. GJourneys:

Carried out 7 journeys to protectorates for students and information people.

Seventh: Environ. Conferences:

Participated in 17 conferences which given EEAA financial supportive portions.

Eighth: Environ. Seminars:

Carried out 143 seminars at various agencies.

Ninth: Workshops:

Carried out 23 workshops at different places.

Tenth: Different EE&A Activities:

1. Prepared a guide about Environ. Campaign.
2. Provided Schools, NGOs and Youth Centers and other agencies with publications and posters.
3. Implemented multi cooperation program with Ministry of Youth.

4. Prepared and organized Child Cinema Festival at the Opera House and recognized the best film on environment.
5. Carried out the project of “*Environment Street*”, its idea is choosing a street in a such Governorate and cleans it, and makes the necessary beautification and the needed a tree-planting.
6. Cooperated with Gezera Sheraton Hotel to carry out a “*month program of environmental activities*”.
7. Participated in a workshop, which organized by UNICEF about “*The Future of Health and Environ. Education in Egypt*”.
8. Carried out a cooperative Environ. Program with the Ministry of Social Affairs.
9. Coordination been made with Nile Guards Association to carry out a project on EE&A.
10. Cooperation was made with Woman Association at Assuit Governorate to implement the initiative project in some schools.
11. Prepared “*an Environ. Bag*” to be distributed for schools, with cooperation with the Ministry of Education.
12. Prepared “*an Environ. Learning Material bag*” for the children, which been developed by a professional child writer.

Eleventh: Training courses:

Carried out 8 courses for workers at the Central Department for Information& Environ. Awareness.

Twelfth: Environ. Celebrations:

1. Participated in various celebrations and distributed awards in cooperation with AED.
2. Participated in Alexandria University Celebration with “*International Environ. Day*”
3. Participated in the celebration of the awards distribution of the art competition in cooperation with Arab League.

6-Background Documents and Websites:

1- The document& reports were prepared for the Nile Basin initiative shared vision program by the environmental experts, the following documents were reviewed:

- The Transboundary Environmental Analysis (TEA), 2001.
- Transboundary Environmental Action project, project Implementation Plan (PIP), 2002.
- Project Appraisal Document (PAD), 2003.

2- Texts and papers related to Environmental affairs, Nile basin, social sciences and IE&C support.

3- Websites:

- Nile Basin Initiative (<http://www.nilebasin.org>)
- Global Environmental Facility (<http://www.gefweb.org>)
- UNDP (<http://www.undp.org>)
- Water, Environment and Energy <http://www.undp.org/energy>
(<http://www.et.undp.org/energy/undpimpact.htm>)
(<http://www.et.undp.org/energy/environment.htm>)
- The Nile River Basin Cooperative Framework Project (<http://www.undp.org/water/nile.htm>)
- Strengthen transboundary river initiatives through piloting activities (<http://www.undp.org/seed/water/region/#transb>)

7- List of Key Persons (Egypt):

- (1) *Dr. Adel Ab El-Ghaffar*
Media Advisor for H. E the Minister of Environmental Affairs, CEM Component Manager
Cairo POB:11728
Office Tel. No.: 5241280 Ext.7601
Fax No: 5276034

- (2) *Mr. Ismael Gaber*
Under Secretary State, Ministry of Information, Radio Broadcasting Advisor, Env. Prog. Broadcaster
Office Tel. No: 5771224
Home Tel No.: 4587747

- (3) *Mr. Abu Bakr Badawi*
Head of Broadcasters, Greater Cairo Radio Broadcasting
Office Tel., No:3923711 -3921437
Mobile no: 0123332380

- (4) *Counselor Abd El-Atee El-Shafee*
The Chairman of “Nile Guards and Environment Defenders” Association (NGO)
Office Tel. No: 5703066
Mobile no: 0101119099

- (5) *Mr. Samir Abd El-Moutee (General Director)*
- (6) *Ms. Lila Mansour (Senior Assistance)*
- (7) *Ms Elham Abu El-Kair (Senior Assistant)*
General directorate of population and Environmental Education, Ministry of Education
Office No. 7921392

- (8) *Mr. Mohamed Abd El-Maksood (journalist)*
Head of Environmental investigation section, El-Akhbar newspaper
Office Tel. No: 5807372
Home Tel No.: 5501348
Mobile no: 0123792573

- (9) *Dr. Hesham Mostafa*
General Director of the Information Center, Ministry of
Water Resources and Irrigation
Office Tel. No: 5449497
- (10) *Dr. Emad Adly*
Environment Expert
Chairman of National Nile Basin Discourse Forum
Chairman of International Nile Basin Discourse Forum
Chairman of the Arab Office of Youth and Environment
(NGO)
Office Tel. No: 5161245 - 5161519
Fax no: 5162961
E-mail: aoye@link.net
- (11) *Mr. Fouad Mogahed*
- (12) *Ms. Amal Taha*
Central Director for Environmental Information and
Education, Ministry of Environment
Office Tel. No: 5256452 -5256453
- (13) *Dr. Yousria Atta*
Environmental awareness specialist, Canadian Project
Manager, Ministry of Environment
Mobile no: 0123484327
- (14) *Ms. Mie El-Shafee (Radio and TV)*
Main Program, Radio Broadcasting,
Home Tel.6358964
Mobile no.0103378430
E-mail: elzaman2003@yahoo.com
- (15) *Dr. Waheed Hamed*
Chairman of Egypt Environmental NGO's Federation
Office Tel. No: 6851468
Fax no: 6851393
- (16) *Dr. Omima Kamal*
Environmental Information TV Program introducer
Chairman of "The Child and Environment Organization"
Home Tel No.: 5789623.

(17) *Dr. Ahmed Zaki*,
Chairman of Aswan Environmental NGO's Federation,
Mobile no.0122812770
E-mail: aswanef@yahoo.com

(18) *Mr. Mohamed H. Morsy*
Communication, Environmental Awareness Consultant,
Home Tel. No: 8503837
Mobile no: 0101444339
E-mail: mhmorsy3@yahoo.com
mhmorsy@hotmail.com

(19) *Mr. Ekram Albert*
Program Manager,
Catholic Relief Service,
Tel No. 7941360