

GRAD
GE
160
.S64
R431
2001

Regional Environment Assessment Programme
IUCN Asia

South Asian Strategic Environment Assessment Workshop



IUCN-The World Conservation Union

**Proceedings of the Regional Strategic Environment
Assessment Workshop for Senior Planners,
Islamabad, Pakistan, Oct.30- Nov.1, 2000**

AM 0307591 Code N-E-2001361991

15 UNIVERSITY OF MICHIGAN

IUCN
The World Conservation Union

Digitized by Google



JAN 14 2004

**Regional Environment Assessment Program
IUCN Asia**

Regional
1

**South Asian
Strategic Environment Assessment
Workshop for Senior Planners**

IUCN-The World Conservation Union

**Proceedings of the Regional Strategic Environment
Assessment Workshop for Senior Planners,
Islamabad, Pakistan (Oct.30-Nov.1, 2000)**

IUCN
The World Conservation Union

GKAV

GE

160

.564

Proceedings of the Regional Strategic Environment Assessment Workshop for Senior Planners, Islamabad, Pakistan (Oct. 30 - Nov. 1, 2000)

K731

Published By: REAP, IUCN-Asia

7001

ISBN: 99933-93-00-2

**Available at: REAP,
IUCN Nepal
PO Box 3923,
Kathmandu, Nepal.
Tel: 977-1-528781, 527781, 526391
Fax: 977-1-536786
E-mail: reap@iucn.wlink.com.np**

Sponsored By: The Netherlands Ministry of Foreign Affairs

**Edited By: Parvaiz Naim
Neera (Shrestha) Pradhan**

March 2001

Good
CC - Delhi
2/17/04

FORWARD

It was encouraging to see the keen interest amongst senior planners for integrating environment into development at the Regional SEA Workshop for Senior Planners, October 29 - November 1, 2000, Islamabad, Pakistan. As expected, there was some initial skepticism about the use of the Strategic Environment Assessment (SEA) approach to integrating environment into development in the early stages of formulating a policy, plan or legislation. But as the workshop and the discussions progressed, a consensus began to emerge on the utility of the approach. The climax came when the planners identified certain policies in their countries through which they could test the usefulness of SEA.

Most heads of planning in governments in South Asia responded to IUCN's invitation to attend. The first prompt reply came from Dr. Alailima, Director General of the National Planning Department of Sri Lanka. She and her staff were all busy in their national budget process and could not attend. Regrets were also received from the Maldives.

From Bangladesh, Dr. Towfique Elahi Chowdhury, Secretary, Ministry of Planning sent Mr. Shamsuz Zaman, Joint Chief of Planning. From His Majesty's Government of Nepal came Dr. Jagadish Chandra Pokharel, Member National Planning Commission.

From India, Dr. D. N. Tewari, Member, Planning Commission sent his country report, but he himself was unable to come. Similarly, Mr. Daw Tenzin, Secretary, Planning from the Royal Government of Bhutan had to change his plans at the last moment as issues that needed his urgent attention arose. The SAARC Secretary General, H.E. Nihal Rodrigo nominated Mr. A.I.A. Azeez, Director, Treaty, Environment & Law Division, SAARC. He sent his paper but was unable to participate due to a problem in travel bookings.

From the host country Pakistan, the Chief of Environment, Mr. Shahid Iqbal Rana headed the delegation.

Since SEA requires public consultation, members of the South Asian Regional Environment Assessment Association (SAREAA) were also invited. Its President, Mr. Syed Shah Tariquzzaman headed the SAREAA team representing four countries, Bangladesh, Nepal, Pakistan and Sri Lanka.

Two of the resource persons came from the Netherlands Commission for EIA: their Technical Secretary, Mr. Reinoud Post, and the Adjunct Secretary, Mr. Rob Verheem. Their patience in handling some of the tough questions raised at the workshop was admirable.

The financial support of the Netherlands Ministry of Foreign Affairs and the Canadian International Development Agency also needs to be acknowledged. And I must thank Pakistan's Secretary, Planning Mr. Fazlullah Qureshi and his team for their excellent workshop arrangements.

The recommendations of the workshop were posted on the Internet. It generated a wider debate on the issue and highlighted some additional points. I am pleased to report the emergence of a commitment to apply SEA to formulating or revising selected policies in South Asian countries. In the wake of global climate change, I think this commitment needs to be supported towards a tangible outcome. On our part, we would like to continue our SEA capacity building efforts for senior planners. From our partners, I look forward to their continued support.

Aban Marker Kabraji
Regional Director, IUCN Asia
Bangkok February 2001

TABLE OF CONTENTS

LIST OF ANNEXES ii

LIST OF TABLES ii

LIST OF FIGURES ii

LIST OF ACRONYMS / SYNONYMS..... iii

EXECUTIVE SUMMARYIV

1.0 INTRODUCTION..... 1

 1.1 THE WORKSHOP1

 1.2 METHODOLOGY AND PROCESS.....2

2.0 INAUGURAL SESSION 4

3.0 TECHNICAL SESSION 5

 3.1 COUNTRY REPORT PRESENTATIONS (BY HEADS OF DELEGATIONS).....5

 3.2 ROUND TABLE DISCUSSION: STATE OF THE ART IN THE COUNTRIES PRESENT8

 3.3 CASE STUDY PRESENTATION.....10

4.0 GROUP ASSIGNMENT 11

5.0 CONCLUDING SESSION..... 15

6.0 WORKSHOP EVALUATION & RECOMMENDATIONS..... 18

ANNEXES 20

List of Annexes	Pg. No.
Annex 1: Workshop Agenda	21
Annex 2: List of Participants	23
Annex 3: Inaugural Speech	25
3.1: Welcome Address by Ms. Aban Marker Kabraji	25
3.2: Welcome Remarks by Syed Shah Tariquzzaman	26
3.3: Key Note Address by Mr. Reinoud Post	27
3.4: Welcome Address by Mr. Fazllulah Qureshi	29
Annex 4: SEA Manual	31
4.1: Strategic Environmental Assessment: A Macro-level Planning Tool for Sustainable Development	31
4.2: A Short Introduction on SEA - Rob Verheem	35
Annex 5: Country Reports	45
: Bangladesh - Shamsuz Zaman	45
: India - Dr. D. N. Tewari	53
: Nepal - Dr. Jagadish Chandra Pokharel	56
: Pakistan - Dr. Mushtaq Ahmad	60
: Sri Lanka - Mr. Lalanath de Silva and Mr. Hemantha Withanage	67
Annex 6: Case Study Presentation - Mr. Hemantha Withanage	70
Annex 7: Group Assignment	76
Annex 8: Newspaper clippings	80

List of Tables	Pg. No.
Table 3.1: Summary of Country Reports	6
Table 3.2: The elements in National Conservation Strategy process which come close to the Key Principles of SEA	9
Table 4.1: The Netherlands' Experience: By Mr. Rob Verheem	12

List of Figures	Pg. No.
Figure 1: Workshop - Technical Aspects	18
Figure 2: Workshop Logistics	18

List of Acronyms / Synonyms

CDEAP	Capacity Development in Environment Assessment Project
CEB	Ceylon Electricity Board, Sri Lanka
CIDA	Canadian International Development Agency
DDC	District Development Committee, Nepal
DOE	Department of Environment, Bangladesh
EIA	Environmental Impact Assessment
EPC	Environment Protection Council, Nepal
IUCN	The World Conservation Union
M/o	Ministry of Environment, Local Government & Rural Development,
ELG&RD	Pakistan
M/o F&A	Ministry of Food and Agriculture, Pakistan
MOEF	Ministry of Environment and Forest, Bangladesh
MOPE	Ministry of Population and Environment, Nepal
NEAA	National Environment Assessment Association
NGO	Non Government Organization
NPC	National Planning Commission, Nepal
P&D	Planning and Development, Pakistan
PARC	Pakistan Agricultural Research Council
PEAA	Pakistan Environment Assessment Association, Pakistan
REAP	Regional Environment Assessment Program
SAREAA	South Asian Regional Environment Assessment Association
SEA	Strategic Environment Assessment
UNESCO	United Nations Educational, Scientific and Cultural Organization
VDC	Village Development Committee, Nepal

Executive Summary

- 1- A Regional Workshop on Strategic Environment Assessment (SEA) for Senior Planners was organized in Islamabad Pakistan October 30 - November 1, 2000. Thirty delegates from Bangladesh, Nepal, Pakistan and Sri Lanka participated. The Workshop was organized by the Planning Commission of Pakistan and the Regional Environment Assessment Program of IUCN Asia with input from the South Asian Regional Environment Assessment Association (SAREAA) and Pakistan Environment Assessment Association. Technical support came from the Netherlands Commission for EIA. Sponsors were the Netherlands Ministry of Foreign Affairs and the Canadian International Development Agency.
- 2- The purpose of the workshop was to share SEA techniques with the senior planners and decision makers, for possible SEA use in the formulation of national policies, plans, programs and legislation with due attention to cross-compatibility and harmony with other national policies, plans and programs, and the Multilateral Environmental Agreements signed by their respective countries. An additional objective was to promote linkages between senior planners and SAREAA for possible joint activities in the future.
- 3- The target audiences included senior planners from South Asian countries and SAREAA representatives. The lead resource person was Mr. Rob Verheem, Adjunct Secretary the Netherlands EIA Commission. He was supported by Mr. Reinoud Post the Technical Secretary of the Netherlands Commission for EIA and Dr. Parvaiz Naim of IUCN Asia.
- 4- Speakers at the Inaugural Session included Ms. Aban Marker Kabraji Regional Director IUCN Asia, Syed Shah Tariqzaman, President SAREAA, Dr. Parvaiz Naim, Mr. Reinoud Post, Mr. Shahid Iqbal Rana, Chief of Environment P&D Pakistan and Mr. Fazlullah Qureshi, Secretary Planning & Development Division, Government of Pakistan. The speakers highlighted the significance of using a strategic approach to integrating environment and development at the upstream level so as to minimize problems downstream in sustainable development.
- 5- The Technical Session was chaired by Mr. Reinoud Post and facilitated by Dr. Parvaiz Naim. Country reports were presented by Mr. Shamsuz Zaman, (Bangladesh), Dr. Jagadish Chandra Pokheral (Nepal) Dr. Mushtaq Ahmed (Pakistan), and Mr. Lalanath de Silva and Mr. Hemantha Withanage (Sri Lanka). It was clear from the presentations that all participating countries had legal provisions, strong institutional structures and international commitments to integrate environment and development.
- 6- Mr. Rob Verheem made a presentation on the state-of-the-art in SEA. He also shared the Netherlands experience of applying SEA to different sectors of economy.
- 7- Dr. Parvaiz Naim facilitated a discussion. It emerged that in developing their respective National Conservation Strategies, all participating countries had applied approaches that came very close to the key principles of SEA. This indicated that these countries could easily adopt SEA.
- 8- Mr. Hemantha Withanage presented a case study on the crisis in the electricity generation and distribution in Sri Lanka. He pointed out that in such a situation, SEA could be the best way to overcome the energy crisis. The issues that needed attention included alternate sources, use of new technologies, distribution efficiency, and finding suitable sites for new power plants.
- 9- The Group Assignment focussed on analysis and identification of economic sectors where a country could test/apply SEA. Bangladesh chose the Power Sector. Nepal and Sri Lanka selected the Water Sector. Pakistan favored applying SEA to Power and Forestry Sectors. The groups made presentations of their selected sectors and discussed the issues related to possible SEA application. The overall consensus was that it could be done but needed a step by step approach.
- 10- They all require EIA at the project level and should be able to make use of SEA approach to integrate environment and development in formulating or revising policies, plans and legislation.
- 11- Those speaking at the concluding session included Dr. Jagadish Chandra Pokharel (Nepal), Mr. Rob Verheem, Dr. Parvaiz Naim, Mr. Mohammad Rafiq, Country Representative IUCN Pakistan, and Mr. Omer Asghar Khan, Federal Minister for Environment, Pakistan. The take home message was that the workshop was a useful experience. The SEA approach offered a useful way of integrating environment and development while formulating or revising policies, plans and legislation. And given the existing institutional strengths in South Asian countries, the SEA approach could be applied with relatively less problems.
- 12- The take home messages from the Workshop were circulated via Internet. Responses received included those from Prof. Clive Briffett (Singapore), Dr. Ron Bissett (UK), Mr. Peter Croal (Canada) and Dr. Maria do Rosario Partidario (Portugal). Their recommendations included making SEA a legal requirement; demonstrating the cost-effectiveness of SEA. It was also pointed out that the success of SEA depended on the nature of local/national decision-making processes.
- 13- A field visit to Ghazi-Barotha Hydropower Project (1450MW) was organized for the participants.
- 14- The workshop evaluation survey revealed that an overwhelming majority of participants found the workshop useful for their professional work and felt satisfied with the opportunities they got for openly expressing their views in the discussions.



1.0 INTRODUCTION

Regional SEA Workshop
Islamabad, Pakistan
30 Oct. - 1 Nov. 2000

Planning is like a game of chess. Each move, big or small, can have far reaching impacts. The success therefore lies in anticipating the impacts of various moves and mobilizing the available resources in a manner to gain maximum grounds with minimum loss. Strategic Environmental Assessment (SEA) is one of the planning tools that help in achieving success.

By definition, SEA is a systematic process for evaluating the environmental consequences of proposed policy, plan, program and legislation. The approach ensures that the environmental concerns are fully included and appropriately addressed at the earliest appropriate stage of decision making at par with economic and social considerations. Stakeholder consultation is an integral part of the process.

The Regional SEA Workshop organized in Islamabad brought together senior planners and representatives of the South Asian Regional Environment Assessment Association from four South Asian countries.

Regional SEA Workshop for Senior Planners

Venue : Hotel Holiday Inn, Islamabad, Pakistan
Date : October 30-November 1, 2000
Organized by : Planning Commission, Government of Pakistan and IUCN-Asia
Sponsored by : The Netherlands Ministry of Foreign Affairs; CIDA

The 3-day workshop was mainly focused on issues related to energy sector policies and plans. The following was the timetable:

Day 1: Technical Session (Country report presentation and round table discussion)
Day 2: Group Assignments and discussions
Day 3: Field Visit

1.1 The Workshop

The Workshop aimed at providing the state-of-the-art approaches in the use of Strategic Environment Assessment. Target audiences were the senior planners from the governments. Representatives of the South Asian Regional Environment Association (SAREAA) also participated in the workshop to establish linkages with the senior planners.

Target Audience:

Senior planners from South Asian countries and representatives of SAREAA

Workshop Objectives:

1. Sharing SEA techniques with the senior planners and decision makers, for possible SEA use in the formulation of national policies, plans, programs and legislation with due attention to cross-compatibility and harmony with other national policies, plans and programs, and the Multilateral Environmental Agreements signed by their respective countries.
2. Promoting linkages between senior planners and SAREAA for joint activities.

1.2 Methodology and Process

The Workshop was organized by the Planning Commission of Pakistan and IUCN Asia. Part of the organizational efforts was shared by the Pakistan EA Association (PEAA) and IUCN Islamabad Office. The Netherlands Commission for EIA provided technical support in the form of 2 resource persons for the Workshop, Mr. Reinoud Post and Mr. Rob Verheem. Financial support came from The Netherlands Ministry of Foreign Affairs and the Canadian International Development Agency (CIDA).

The Commission indicated October 29 - November 1, 2000 as suitable dates for holding the Workshop in Islamabad. These dates and venue were then agreed by all concerned.

1.2.1 Announcement of the Workshop:

The Workshop was announced to the SAREAA Executive Board Members during the SAREAA Convention in Kathmandu, 18- 19 August 2000. By the third week of August, the tentative date and venue was formally announced to NEAA members via respective NEAAs in their country.

1.2.2 Pre-Workshop preparation:

With the circulation of the workshop dates and venue, NEAAs were requested to provide names of their members interested in presenting SEA Case Studies at the Workshop, along with the suggested topics of presentation.

Aug.3 rd wk.	- Announcement of Workshop (tentative date and venue)
Sept.1 st wk.	- Request for suggesting topics for presentation
Sept.1 st wk	- Draft workshop agenda prepared
Sept. 9 th	- Draft workshop agenda approved by SAREAA president
Sept. 15 th	- Deadline to submit abstracts
Oct. 10 th	- Deadline to submit the full text
Oct. 12 th	- Circulation of final workshop agenda
Oct 20 th	- Deadline to submit country report
Oct. 29 th	- Arrival of participants
Nov. 2 nd	- Departure of participants

Draft of the workshop agenda was prepared and revised taking into consideration the convenience of the resource persons. The workshop agenda was circulated after getting approval by the SAREAA President.

At the same time, NEAAs were requested to encourage their members in providing the abstracts of their Case Studies. The Planners were requested to prepare the Country Report for presentation. Full text of the paper was requested only after the approval of the abstract. The head of delegations from the participating countries and the resource persons were provided guidelines for their presentations.

All participants were encouraged to bring along case studies from their respective countries. For maintaining a common thread in all presentations, they were requested to include case studies related to energy sector policies and plans.

Pakistan's Planning Commission made all the Workshop arrangements that included lodging, food, airport pick & drop for participants, field visit and other logistics. A Workshop Banner, bag and certificates were also designed and prepared by the Commission.

1.2.3 At the Workshop:

The Workshop began with recitation of some verses from the Holy Quran followed by a welcome address by Ms. Aban Marker Kabraji, Regional Director IUCN Asia. The Federal Secretary Planning & Development Mr. Fazlullah Qureshi delivered the Inaugural Address. The Key Note speech came from Mr. Reinoud Post, Technical Secretary the Netherlands Commission for EIA. Other speakers included Mr. Syed Shah Tariquzzaman, President SAREAA, Mr. Shahid Iqbal Rana, P&D Pakistan, and Dr. Parvaiz Naim, IUCN Asia. After the inaugural session, the participants were provided a bag as souvenir and Workshop materials at the Registration Desk. The staff at the Registration Desk also provided secretarial services and general support to the participants.

Mr. Reinoud Post chaired the technical session. The Heads of Delegations from the participating countries, Bangladesh, Nepal, Pakistan and Sri Lanka presented Country Reports on the state of integrating environment and development.

A Sri Lankan case study on Mismanagement of the Energy Sector and the need for a SEA was presented by Mr. Hemantha Withanage. This was followed by country-wise group assignment on Energy Policy.

SAREAA members conducted separate side meetings with the Regional Director IUCN Asia, Ms. Aban Kabraji and the Technical Secretary of the Netherlands Commission for EIA, Mr. Reinoud Post regarding the issues related to SAREAA.

Mr. Reinoud Post conducted a special session exclusively for the senior planners on the first day of the Workshop.

At the end of the Workshop, the senior planners and policy makers presented their views and commitment for making use of SEA in their respective countries.

Discussion focus:

- ❖ State of the art in the countries present;
- ❖ Experience so far;
- ❖ What goes well;
- ❖ What needs improvement;
- ❖ What are the questions to answer

An evaluation sheet was distributed to all participants for expressing their views and comments about the organisation of the Workshop, and to give any suggestions for improving the quality of forthcoming similar Workshops. At the closing ceremony, certificates were distributed to the participants.

1.2.4 Miscellaneous:

The sessions had regular tea breaks with refreshments. The participants were served with delicious lunch and dinner. A special Welcome Dinner was hosted on the 29th of October after the arrival of participants at Hotel Holiday Inn. Also, a dinner was hosted at the end of Day 2. On that occasion, the Federal Minister for Environment, Mr. Omar Asghar Khan distributed the Workshop certificates to the participants.



Interested participants enjoyed the scenic beauty of Islamabad from Daman-e-Koh and also visited Faisal Mosque, one of the largest mosques in the world. In addition, a field trip to Tarbela Ghazi-Barotha area was organised. This provided the participants with a good opportunity to see the environmental problems and the mitigation measures taken by the Ghazi-Barotha Hydropower project (1450 MW). It is a major run-of-the-river environmentally sustainable power project, designed to meet the peak power demand in the country.



1.2.5 Post-Workshop Activities:

An evaluation was made at the close of the Workshop. The Workshop Summary was posted on the Internet for generating a wider debate. Selected views of experts from around the world were included in the proceedings.



2.0 Inaugural Session

Venue	: Hotel Holiday Inn, Islamabad, Pakistan
Date	: 30 Oct. 2000
Time	: 9:00 am to 10:00 am

The Inaugural session began with the recitation from Holy Quran. **Ms. Aban Marker Kabraji**, Regional Director IUCN Asia in her welcome speech briefly reviewed the long-term efforts and interest of IUCN in integrating environment and development. She pointed out that implementation of the various Multilateral Environmental Agreements signed by the South Asian countries required a concerted effort. She urged the senior planners to make use of SEA approach in formulating national policies, leading to a meaningful output for reporting at the Rio + 10 summit.



The President SAREAA, **Syed Shah Tariquzzaman**, in his welcome remarks said that this landmark workshop would provide opportunity to planners and environmental assessment exponents to mutually enrich each other through interaction and exchange of ideas. He expressed the hope that the workshop would provide a tremendous opportunity to planners in learning how to "green" national plans, policies, and programs. Environmentalists on the other hand, he said, could learn more about the planning process from the planners.

Presenting the outline of the Workshop, **Dr. Parvaiz Naim**, the Regional Environment Assessment Program Coordinator IUCN Asia, said that this interactive workshop would help sharing information and learning from the experiences. He expressed optimism in finding ways and means to overcome hurdles in transforming theory into practice.

In his Key Note Address **Mr. Reinoud Post**, Technical Secretary Netherlands Commission for EIA, congratulated all the participants for having decided to attend the workshop and for wanting to consider the use of SEA for decision making on policies, plans and programs. He also suggested that in order to formulate a Poverty Reduction Strategy for submitting to the World Bank and the IMF for debt relief or adjustment lending, a country might develop a pilot SEA exercise and ask the bank to fund it.

The Inaugural Address was delivered by the Secretary of Planning & Development Division, Government of Pakistan **Mr. Fazlulah Qureshi**. Lack of knowledge and capacity, he explained, were the main reasons why environment and sustainability concerns could not be given collective treatment at various stages of policy and project cycles. This workshop, he said, would facilitate the Governments with concrete recommendations to strengthen ongoing initiatives by making use of SEA in national, regional and local policy and project cycles, and at all levels of decision making.

Mr. Shahid Iqbal Rana, Chief of Environment P&D Pakistan delivered the vote of thanks. Refreshments were provided to participants at the end of the Inaugural Session.

After the Inaugural Session, SAREAA Board members organized a side meeting with Ms. Aban Kabraji and discussed the issues related to NEAAs and sustainability of SAREAA.



3.0 Technical Session

Date : 30 -31 Oct. 2000

- ❖ Country Report Presentation
- ❖ Round Table Discussion
- ❖ Case Study Presentation

3.1 Country Report Presentations (by Heads of Delegations)

Session Chair: Mr. Reinoud Post

Facilitator: Dr. Parvaiz Naim

The country report presentations were made by:

Mr. Shamsuz Zaman (Bangladesh)
Dr. Jagadish Chandra Pokharel (Nepal)
Dr. Mushtaq Ahmed (Pakistan)
Mr. Lalanath de Silva,
& Mr. Hemantha Withanage (Sri Lanka)



The Country Report on India was prepared by Dr. D.N. Tewari, Member Planning Commission of India. He was unable to attend the Workshop.

Country Report Presentation Guidelines

Country Paper should briefly cover the following points:

1. Institutional setup for planning at the national level (organogram)
2. List of Multilateral Environmental Agreements signed by the country and the ministries/Departments responsible for fulfilling the obligations under these agreements.
3. List of national legal instruments for addressing environmental issues
4. Institutional mechanisms for integrating environmental concern in national policies plan and programs. (Focus of oral presentation)

Time allocated for presentation 5-7 minutes

Use of up to 4 overhead slides is encouraged for the presentation.

The full text of the Country Report is given in the Annex 5. The summary of the presentations is tabulated as follows:

Table 3.1: Summary of Country Report Presentation

	Bangladesh	India	Nepal	Pakistan	Sri Lanka
Central Planning Institution	Bangladesh Planning Commission	Planning Commission of India	National Planning Commission	Planning Commission of Pakistan	National Planning Department
Chair Person	Prime Minister	Prime Minister	Prime Minister	Prime Minister	Secretary, Ministry of Finance and Planning
Vice Chair Person	Minister for Finance/State Minister for Planning	Deputy Chairman	Vice Chairman	Deputy Chairman	Director General, National Planning
Members	5	6	8	4	---
Division	6	11	9	1	---
Section	29	30	28	27	---
No. of Multilateral Environmental Agreements signed by the country	45	21	16	18	36
No. of national legal instruments for addressing environmental issues	44	15	15	141	48
Ministries/Departments/agencies responsible for fulfilling the obligations under Multilateral Environmental Agreements	<ul style="list-style-type: none"> Ministry of Environment & Forestry Department of Environment 	<ul style="list-style-type: none"> Ministry of Environment & Forest 	<ul style="list-style-type: none"> Ministry of Population & Environment Parliament Cabinet of Ministers Sectoral Ministries National Planning Commission 	<ul style="list-style-type: none"> Plant Protection Department M/o F&A PARC Pakistan National Commission for UNESCO Inspector General Forest M/o ELG&RD National Institute of Oceanography, Karachi Ozone Cell 	<ul style="list-style-type: none"> Ministry of Forestry and Environment Central Environment Authority

Discussion:

Each Country Report presentation was followed by a discussion. The following is a summary of the discussion on Country Reports:

Bangladesh:

1. Environmental awareness work should be done at political level
2. There is a need for increasing interactions among and across the divisions and wings
3. Significant measures have been taken to mitigate the major environmental hazards in Bangladesh by Disaster Management Bureau. These strategic measures add to sustainable development efforts.

Nepal:

1. There is a commitment to incorporate SEA in the 10th five year plan
2. Educating elected politicians/leaders responsible for linking SEA in planning process is needed.
3. Environmental curriculum is already used in schools up to 10th grade. Diploma and Degree courses are also offered in the field of environment.
4. The importance of local self-governance act for equality/ responsibility among local body (DDC, VDC, and municipality) is well recognized. It also gives access to use of natural resources.
5. The Environmental Units within different Ministries serve as a focal/contact point for environmental issues in that particular sector; to make sure that environmental concerns are incorporated in the sectoral plans and programs and to sensitize respective Government departments about environmental issues.
6. The major challenge is to build capacity for managing environmental resources at local level
7. It is necessary to have a conflict resolving council in a developing country, eg. EPC (Nepal), for bridging gaps between the views of environmentalists and proponents of development in formulating environment friendly developmental activities.

Pakistan:

1. All stakeholders need to play their respective roles for incorporating environmental aspects in a project.
2. Instead of increasing the no. of partner organizations, it may be more effective to have one body with appropriate manpower for managing the decision making process.
3. There is a need to have a neutral body responsible for resolving conflicts amongst the various stakeholders.
4. Integration of environmental aspects at the grass-root level is needed while planning.
5. Establishment of an Environment Section in the Planning Commission is the right step.

Sri Lanka:

1. National Planning Department is playing the role of a Planning Commission.
2. No concrete actions has been taken to use SEA in Sri Lanka

3.2 Round Table Discussion: State of the art in the countries present



Mr. Rob Verheem chaired the session and made a presentation on SEA (for details refer to Annex 4). The structure of the presentation was as follows:

What is SEA?

1. Which types of SEA exist?
2. How many countries have SEA?
3. What is the Best SEA process?
4. How to integrate SEA in existing planning processes?
5. When will SEA be effective?
6. How to introduce SEA?
7. Is there sufficient methodology?



Major Discussion points:

1. First you need to look at the existing planning system/process and then you know what the SEA process should look like - it's not the other way around.
2. EA is not about making decisions, rather it is about giving information about the actual situation and the alternatives.
3. The best way to find out the latest ongoing SEA process is to contact SEA experts.
4. SEA helps planners in avoiding any mistakes in the planning process
5. SEA is not a substitute of EIA but makes EIA easier by giving a lot of information.
6. Use of EIA at a strategic level depends upon the situation.
7. In majority of countries, SEA is not mandatory but it is used extensively, nonetheless.



Dr. Parvaiz Naim facilitated a discussion on the experience of participating countries in the use of approaches that had elements of SEA. Since all participating countries had developed National Conservation Strategies (NCS), the discussion focussed on finding the extent to which the NCS process came close to the SEA process. The summary of discussion is presented in Table 3.2.

Table 3.2: The elements in National Conservation Strategy process which come close to the Key Principles of SEA

Key principles of SEA	Bangladesh	Nepal	Pakistan	Sri Lanka
1. Lead agency designated for the process	Yes	Yes	Yes	Not Sure
2. Application as early as possible	Several strategies made but not applied	Quite behind	A little bit behind	Not Sure
3. Consideration of alternatives	Insufficient	Insufficient	Insufficient	Insufficient
4. Provision for public involvement	Extensive public consultation	Extensive public consultation	Extensive public consultation	Extensive in 1980s; not much in 1988-1998.
5. Public reporting on decision and how the environment was taken into account	Draft available in Bengali and English	Document available in English only	Summary available in the national language	Some material translated in local language
6. Independent quality review	No	Mid Term Review	Mid Term Review	No
7. Precondition: Clear environmental policy and objectives	Clear environment policies and objectives exist	Clear environment policies and objectives exist	Clear environment policies and objectives exist	Clear environment policies and objectives exist

3.3 Case Study Presentation



The second day of the workshop began with a case study. This Study highlighted the issues related to the management of energy production and distribution in Sri Lanka. The Study summarized the main problems and then pointed out the possible benefits of applying SEA approach to addressing these problems. This Case Study was presentation by Mr. Hemantha Withanage. Mr. Reinoud Post facilitated the session. The presentation and the discussion are summarized as follows (For details refer to Annex 6):

Summary of the presentation:

Electricity is a very political commodity in Sri Lanka, which is monopolized by the Ceylon Electricity Board (CEB) owning 96% of the power generation. A comparative analysis shows that 94% of the population uses firewood for cooking. For lightening, 65% of them use fossil fuel and 35% use hydropower. 70% of energy used by industries come from firewood. Likewise, 100% of energy used for transport is from fossil fuel.

Sri Lanka does not own any fossil fuel resources, oil, coal or natural gas. The Ceylon Petroleum Corporation has monopoly for the importation of petroleum products. Diesel is the main transport fuel as the petrol price is three times higher than its cost, which in turn increases the air pollution. Biomass extraction is not a big burden to the forests except in dry zone.

There is unequal consumption and distribution of electricity in Sri Lanka. In addition, the technical transmission loss is about 22% and the loss in consumption is another 20%. A comparison shows that the unit price of hydropower is cheaper. From the viewpoint of environmental pollution, coal has a very high cost.

At the moment electricity generation is in a crisis. In such a situation, SEA could be the best way to overcome the energy crisis. The issues that need attention include alternate sources, use of new technologies, distribution efficiency, and finding suitable sites for new power plants.

Discussion Points:

1. Often governments are unable to react to public comments because of:
 - political influence and corruption
 - poor quality of comments/issues brought up by the public
 - large number of comments to deal with
2. Public consultation is sometimes avoided because of:
 - Interest of multinationals
 - Politicians changing the public views
3. Awareness raising among the public is necessary.
4. Success and failure of public participation in project EIA has a direct link with SEA
5. It is possible to introduce EIA and SEA in a country at the same time; EIA is a bottom up process whereas, SEA is a top down process.
6. SEA is learning & improving process for government officials.
7. Temptation of NGOs to keep environmental regime under their control needs to be broken or overcome for avoiding conflict.
8. Governments, having the power on their hands, do not want to be dictated. Therefore, to get the things done, the basic question asked should be "what can facilitate the government to take the kind of decisions that I would like it to take".
9. Identification of stakeholders is a very critical point.



4.0 Group Assignment

Date : 31 Oct. 2000
 Groups : Bangladesh, Nepal,
 Pakistan, Sri Lanka
 - Presentation
 - Discussion

The second half of the session on the 31st of October was devoted to group assignments. The participants were grouped according to their country. Taking into consideration the large number of participants from Pakistan, they were divided into two groups according to their fields of interest.

Mr. Rob Verheem explained the 'rules of the game' for the assignment. He stressed that the participants needed to focus the discussion on the practical aspects rather than the theoretical side of SEA. He urged the participating senior planners to choose and analyze one specific sector in their country that they felt was of major influence to the environmental conditions in next 5-10 years.

Mr. Verheem also shared the Netherlands' experience of applying SEA to different sectors (given in the Annex). According to him, the important decisions with environmental relevance in any planning process were as follows:

Why: Need/purpose/long term objectives/principles/preconditions
 What: Methods/capacities
 Where: Locations
 How: Design/mitigation/compensation

The major focus of the assignment was as follows:

- Which sectors are the most relevant to integrate SEA (is it sufficiently clear who decides what in these sectors)?
- Analyze one sector as an example**
- What would be the most effective level in that sector for SEA integration?
 - Which steps need to be taken to initiate a pilot project in this sector in our country?

For conducting pilot SEA studies, the following sectors were preferred by senior planners and decision-makers from South Asian countries attending the Regional SEA Workshop:

Bangladesh: Power Sector
Nepal: Water Sector
Pakistan: Power Sector and Forestry Sector
Sri Lanka: Water Sector

The summary of the presentation and discussion are given below. (For details, refer Annex 7)

Table 4.1: The Netherlands' Experience of SEA Application to different sectors

Sector	Plans/Programs	Key decisions in planning				How	Integration of SEA in planning
		Why	What	Where	How		
Electricity Sector	National electricity Plan (Min. of Economy + Min. of Environment)	energy saving policy / maximum generation capacity	strategic fuel choice	spatial reservations for power stations		<ul style="list-style-type: none"> Spatial reservations Strategic fuel choice Generating capacity 	
	Sectoral Electricity Plan (Private electricity sector)		concrete proposals on fuel and capacities	concrete proposal on sites		<ul style="list-style-type: none"> Concrete proposals Within framework of national plan 	
	Provincial Spatial Plan (Provincial government)			decision on site		<ul style="list-style-type: none"> Decision on site Within reservations of national plan 	
	Operating License (Provincial government)				decision on fuel, capacity, technology, design, mitigation and compensation	<ul style="list-style-type: none"> Fuel, capacity Technology, design Mitigation, compensation 	
						E-test	
Waste Management	Legislation (parliament)	principles, standards				No SEA	
	National environmental plan (ministries)	objectives, long term goals				SEA	
	National 10 Year program (WMC)		methods, capacities			SEA	
	Provincial plan (provinces)			locations		SEA	
	License (provinces)				design, mitigation, compensation	SEA	

Group 1:**Pakistan: Forestry Sector****Presentation summary:**

1. There are 4 levels of decision making in forestry sector: National level, Provincial level, District level and Local level.
2. The group proposed SEA at national and provincial level and EIA at local level
3. SEA at national level needs open and comprehensive process.

Discussion Points:

1. The participants had different views on the issue of choosing an appropriate level for SEA application. Nonetheless, it was agreed that the choice of level would depend on the type of issue and the priority attached to it.
2. SEA should also be included at the District level if the issue has focus on district level.
3. At present in Pakistan, all the policies are prepared at the National level. Therefore, the national level should be the first target for applying SEA. Subsequently, it can be applied to other levels depending on the experience gained and the felt need for such an exercise.
4. In general, possibilities of applying SEA to formulating policies, plans and legislation would need to be viewed carefully, choosing each case based on its own merits.

Group 2:**Bangladesh: Power Sector****Presentation summary**

1. Different sectors of Bangladesh economy where SEA can be applied include: Power; Transportation, Industries; Physical Infrastructure; Water and other natural resources etc.; and the impacts of world trade agreements
2. Levels of Decision making: National level, Sectoral level, Regional level, Operating license for specific projects
3. In addition to the EIA requirement for projects, The group proposed that SEA needed to be applied at the national level. Given the limited resources, the group felt that it might not be feasible to apply SEA at any other level.
4. The SEA process should be very comprehensive encompassing Social considerations, public involvement, independent review panel, management and monitoring plan, and compensation and resettlement plans.

Discussion Points:

1. There is a need for the use of SEA technique for making a decisions on gas sector development in Bangladesh
2. The current thinking is that the natural gas in Bangladesh should be used exclusively within the country for at least 50 years. Any export can be allowed after that period. This would ensure wider benefits of gas availability to all Bangladesh citizens.
3. There is a high external pressure on Bangladesh from multinational agencies and world bodies for exporting natural gas. This pressure needs to be factored in SEA.

Group 3:**Sri Lanka: Water Sector****Presentation summary**

1. Basically there are two levels: (a) Water Law: It has been prepared but not yet enforced (b) Water Polity Plan: It consists of two key players, Water Secretariat and Water Council
2. SEA should be carried out for Water Polity Plan and it should be a very simple procedure
3. Four key principle that should be part of SEA procedure are:
 - Good scoping process with full public involvement;
 - Detailed analysis of alternatives;
 - Focused public participation on specific issues at later stages; and

- Putting in place an effective monitoring mechanism

Discussion Points:

The participants shared the following divergent views on the policy making process for water sector:

- Water has different utilities. Therefore, SEA for drinking water and irrigation should be different.
- Since this is a comprehensive policy, it might be difficult for the Water Council to break up different areas for different SEA
- In case of Sri Lanka, it is a very small country. Therefore, there is a tendency to lump together several related issues. The same magnitude of differentiation may or may not exist for irrigation and drinking water supply. Therefore, the problem may not be that much big when it comes to making separate or combined policies.
- SEA should cover all the relevant and important possibilities of water use in all sectors. Conducting SEA separately may not be practical.

Group 4:

Nepal: Water Sector

Presentation summary

The situation of water sector in Nepal is similar to that of Sri Lanka. The only difference is that Nepal has Water and Energy Commission, whereas, Sri Lanka has Water Council.

Nepal is very rich in water resources but the problem lies in its inaccessibility. Therefore, in practice it is costly to have access to those resources. This situation leads to poor per capita accessibility of water.

Discussion Points:

1. Of the three major sectors seen in Nepal as growth sectors for poverty alleviation through economic growth are (a) agriculture; (b) tourism; and (c) hydropower.
2. SEA should not be considered by the level of governance, rather we need to go to sectoral levels and prioritize issues.
3. SEA is a decision-making tool, helping in consensus building and in conflict resolution at the policy and program level.
4. SEA should be used as a generic tool wherever it fits, depending on the situation.

Group 5:

Pakistan: Power Sector

Presentation summary

1. In the planning process, the highest level is the Cabinet decisions followed by the joint decision of the Ministry of Finance, Ministry of Water and Power, and the Planning Commission. The third level is the decision made by the concerned province.
2. The appropriate and effective platform to apply SEA is the Planning Commission.
3. SEA should focus on setting the needs and finding alternatives for the least cost options.

Discussion Points:

1. The SEA process would be of use in power generation management.
2. Least cost options consist of all the externalities, social and environmental costs.
3. SEA should be arranged at the Planning Commission level with appropriate input from the relevant ministries and other stakeholders.



5.0 Concluding Session

Date	: 31 Oct. 2000
Place	: Hotel Holiday Inn Islamabad, Pakistan
Time	: 8:00 pm

At the concluding session, **Mr. Shahid Iqbal Rana** of P&D Pakistan presented a welcome note. Then **Dr. Parvaiz Naim** of IUCN Asia presented a summary of the Workshop and pointed out that the participants first took a skeptic view of the utility of SEA in their planning work. But over the course of the Workshop, we were able to reach a consensus on taking one step at a time and applying the SEA approach to those select policies and plans that may be comparatively easy to manage.

Dr. Jagadish Chandra Pokharel Member Planning Commission Nepal spoke on behalf of the Workshop participants. He thanked the organizers for holding a useful workshop on SEA. Sharing his experience, he pointed out that this workshop would surely help the senior planners and decision-makers in integrating SEA in the planning process.

Mr. Rob Varheem, Adjunct Secretary the Netherlands Commission for EIA presented his views as the lead resource person for the workshop. He appreciated the open discussion and expression of candid views by all participants that made it possible to learn from each others experience. Assuring full support for any follow up actions, he expressed satisfaction over the commitment of the participants that they would indeed make a sincere effort in making their colleagues aware of the SEA approach, and in fact apply SEA at an appropriate level.

The Federal Minister for Environment **Mr. Omer Asghar Khan** distributed the certificates to the participants on the closing ceremony. Making the closing remarks, he expressed his full support to making use of approaches that allowed effective integration of stakeholders' views in the decision making process. He appreciated the support from the Workshop sponsors and organizers, and thanked all the participants, especially the foreign delegations for coming to Islamabad and enriching the discussions at workshop.

Mr. Mohammad Rafiq Country Representative IUCN Pakistan presented the vote of thanks.



TAKE-HOME-MESSAGES

A- Why SEA?

The workshop participants agreed to use SEA because SEA:

- 1- Helps in developing policies and plans that would integrate environmental and development
- 2- Enhances decision making capacity of the Government
- 3- Helps to prioritize options based on perspective choice



B- Where to start?

The participants agreed to:

- 1- Follow the gradual and incremental approach to using SEA
- 2- Start with convincing the colleagues in the department
- 3- Make best use of the existing institutions playing key roles in the decision making process (no additional institution is required)
- 4- Provide SEA manual (broad guidelines) and revise it as per experience and suggestions from the respective Planning Commissions.
- 5- Provide checklists
- 6- Simplify the procedure to make it acceptable at grass root level
- 7- Enhance information dissemination
- 8- Conduct a Pilot SEA Study in a small (manageable) sector to build confidence in planners
- 9- Form a body for conflict resolution
- 10- Emphasize elaboration on environmental issues and/or annex environmental fact sheets and circulate it for review

C- Capacity Building / awareness raising

- 1- Educate or raise awareness among the elected politicians and leaders who are also responsible for linking strategic process in planning.
- 2- Create political will through awareness raising of decision-makers and politicians
- 3- Arrange training workshops for provincial government, federal government and line agencies etc.
- 4- Build capacity of consultants and other relevant professionals
- 5- Strengthen institutional mechanisms for supporting SEA
- 6- Preferred sectors for SEA application target sectors

COMMENTS VIA INTERNET□ **Clive Briffett, Professor, Singapore**

I suggest below a few additions to your list:

1. Encourage mandatory legislation for SEA with associated lists of defined policies, plans and programmes that need to be subjected to SEA
2. Increase environmental awareness amongst the top decision makers Identify environmental, economic and social benefits that can be derived from using SEA
3. Prepare case study material that demonstrates how SEA can be implemented in developing countries Look forward to the proceedings in due course

□ **Ron Bisset, Director, Cordah Limited, UK**

I have no comments on the recommendations as they agree with "best" international practice in SEA. Good luck with your EIA/SEA endeavors and best wishes for the coming New Year.

□ **Peter Croai, Senior Environment Specialist, CIDA - Canada**

It looks quite good. A few comments:

1. SEA good to address cumulative effects issues. SEA also allows for choosing policy alternatives etc.
2. To get people to buy in: Show that SEA is a cost neutral or negative exercise...that is does not cost a lot to do SEA and that benefits are huge downstream. Need to have in respective institutions some high level champion...minister or otherwise to ensure SEA gets done in respective institutions.
3. I agree, start small with SEA and show that it works!
4. Need some high level direction from a central agency to ensure SEA implemented. In Canada, our federal cabinet issued an SEA directive in November 99. Now all departments must do SEA.
5. I am managing the development of an SEA guide for CIDA. Would be pleased to share with you when I can!!!

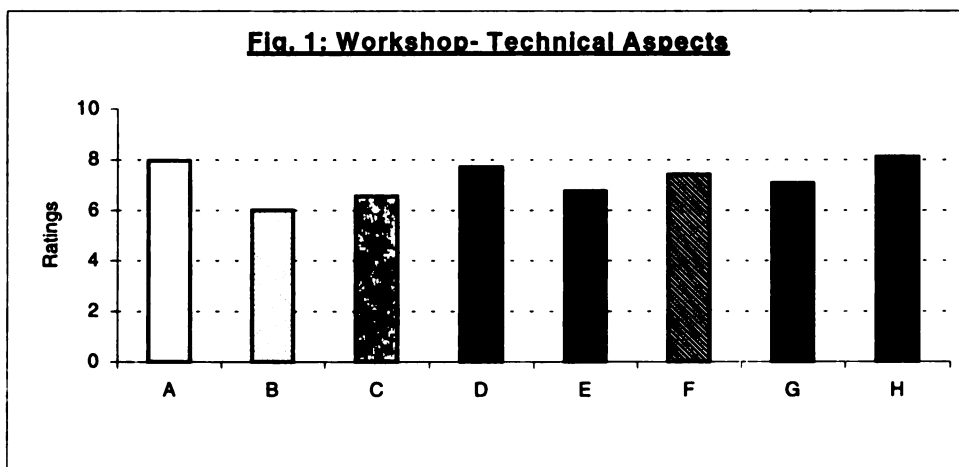
□ **Maria do Rosario Partidario, Assistant Professor, Portugal**

1. I read with interest the recommendations formulated and they show naturally recommendations of good practice that we can see in the forum discussions and literature on SEA. It is a good set of recommendations which corroborates on-going international discussions and which I am pleased to see get increasingly stronger as they are enunciated in regional fora.
2. However, except for the identification of pilot studies in specific countries, in section D, I see very little that is country specific that would not apply anywhere in the world. While such conclusions would normally be achieved in an IAIA context, I would like to see concrete and operational actions that relate to actual policy and planning decision-making contexts in the countries, and region, involved.
3. A third comment is that I see certain recommendations that I understand well defer from the Dutch excellent experience on SEA, and which work very well in the Dutch context, but which country culture is certainly different from that in Pakistan, Nepal, Bangladesh and Sri Lanka. SEA is more a political than a technical tool and therefore the success of its implementation depends above all on the nature of local / national decision-making processes.

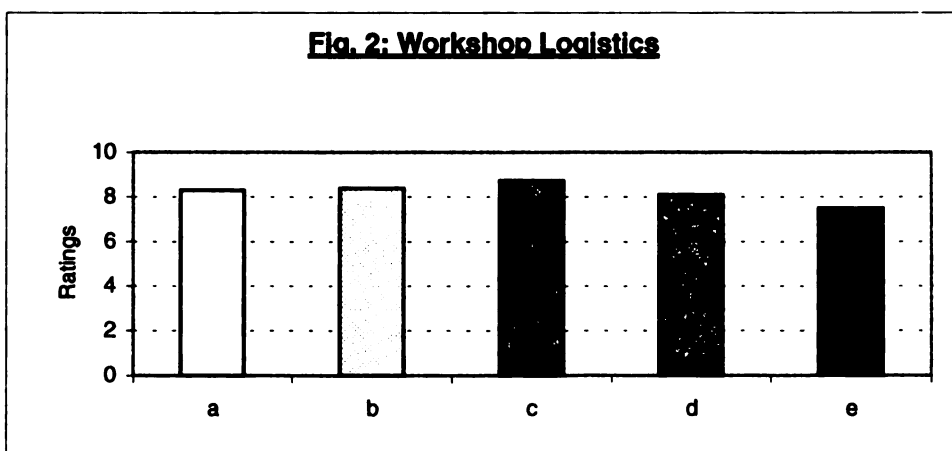


6.0 Workshop Evaluation & Recommendations

A Workshop Evaluation sheet was provided to each participant for his/her views and comments about different aspects of the workshop. The participants were requested to provide ratings from 1-10 according to their level of satisfaction. (1- I totally disagree; 10- I fully agree). Given below are the results of the evaluation:



- A - Topics were relevant to my work
- B - The Participants' Kit carried useful information for me
- C - Country Reports provided a good basis for subsequent discussion
- D - Presentation on SEA State of the Art was clear and comprehensive
- E - The case study presentation was clear and comprehensive
- F - The Group Assignment was a useful exercise for me
- G - The Round Table discussion on the way forward was useful for me
- H - I got sufficient opportunities in the discussions to express my views



- a - The Workshop Venue was appropriate
- b - The Audio-Visual facilities were appropriate
- c - The Lunches and Dinners were well organized
- d - The sightseeing visit was enjoyable
- e - Over - all the workshop was well organized

IMPRESSIONS...

Positive

- 1- The workshop was an excellent opportunity to learn and share views about SEA in the international context.
- 2- The workshop provided very good information exchange and interaction among the planners and EIA professionals from the region.
- 3- The concept and application has become clear to me after attending the workshop.
- 4- The case studies made very good basis for discussion.
- 5- SEA was something new for me in my working in the field of environment. It was very useful and informative
- 6- I am very impressed by the quality of participation by both resource persons and ordinary participants.
- 7- Got most of what I wanted.
- 8- It was excellent.



Negative

- 1- Local coordination was poor.
- 2- Lack of cooperation from some organizing staff.

RECOMMENDATIONS:



- 1- Broad and generic difference between EIA & SEA if spelt out upfront would have made the perceptions more clear as to the their applications.
- 2- The Workshop was attended by the government officials and representatives of the South Asian Regional Environment Assessment Association, comprising leaders of the National Environment Associations of Bangladesh, Nepal, Pakistan and Sri Lanka. I will ask the organizers to kindly also invite other NGOs at such workshops in the future.
- 3- Chair should have been shared; more high level officials should have been invited.
- 4- I wish the per diem was paid in US\$ rather than PK Rs. It is not easy to get it converted into US\$.

ANNEXES

ANNEX - 1

Workshop Agenda

Regional Strategic Environment Assessment Workshop for Senior Planners
 Hotel Holiday Inn
 Islamabad, Pakistan
 October 29-Nov. 1, 2000

Sunday Oct. 29, 2000

19:30 : Welcome dinner

Monday Oct. 30, 2000

9:00-10:00 : Inaugural Session

- Recitation of Holy Quran
- Welcome address: Ms. Aban Marker Kabraji, Regional Director, IUCN-Asia
- Welcome remarks: Syed Shah Tariqzaman, President SAREAA
- Workshop outline: Dr. Parvaiz Naim, Regional Program Coordinator, REAP, IUCN- Asia
- Key Note: Mr. Reinoud Post, Technical Secretary, The Netherlands EIA Commission
- Address by the Chief Guest: Mr. Fazlullah Qureshi, Secretary of Planning & Development Division, Government of Pakistan
- Vote of Thanks: Mr. Shahid Iqbal Rana, Chief of Environment P&D, Government of Pakistan

10:00 : Tea Break

10:30 : SAREAA Executive Board side meeting with Ms. Aban Marker Kabraji

11:00 - 13:00 : Technical Session: Country Report (by Heads of Delegations); State of the art in SEA, including questions and discussion

Session Chair: Mr. Reinoud Post (The Netherlands)

- Mr. Shamsuz Zaman (Bangladesh)
- Dr. Jagadish Chandra Pokheral (Nepal)
- Dr. Mushtaq Ahmed (Pakistan)
- Mr. Lalanath de Silva & Mr. Hemantha Withanage (Sri Lanka)

13:00 - 14:00 : Lunch Break

14:00 - 15:50 : Technical Session: Round Table Discussion: State of the art in the countries present; experience so far; what goes well, what needs improvement, what are questions to answer?

Resource Person: Mr. Rob Verheem, Adjunct Secretary, The Netherlands EIA Commission

15:50 : Tea Break

16:00 : Senior Planners side meeting with Mr. Reinoud Post

17:00 : Visit to Daman-e-Koh & Faisal Mosque

20:00 : SAREAA Executive Board side meeting & dinner party at Islamabad Club organized by PEAA

Tuesday Oct. 31, 2000:

9:00 - 11:00 : Technical Session: Case Study Presentation and Discussion

Session Chair: Mr. Reinoud Post (The Netherlands)

Presenter: Hemantha Withanage (Sri Lanka)

11:00 - 11:30 : Tea Break

11:30 - 12:45 : Group Assignments:

Focus on the following questions:

- Which sectors are the most relevant to integrate SEA (is it sufficiently clear who decides what in these sectors)?

Analyze one sector as an example:

- What would be the most effective level in that sector for SEA integration?
- Which steps need to be taken to initiate a pilot project in this sector in our country?

12:45 - 13:00 : Group Assignment Presentation - Group 1 (Pakistan) - Forestry Sector

13:00 - 14:15 : Lunch Break

14:15 - 14:30 : Group Assignment Presentation - Group 2 (Bangladesh) - Power Sector

14:30 - 14:45 : Group Assignment Presentation - Group 3 (Sri Lanka) - Water Sector

14:45 - 15:05 : Group Assignment Presentation - Group 4 (Nepal) - Water Sector

15:05 - 15:15 : Group Assignment Presentation - Group 5 (Pakistan) - Power Sector

15:15 - 15:40 : Discussion on how to move forward with SEA. This included strategies and recommendations to overcome hindrances

15:40 - 16:15 : Tea Break

16:15 - 17:40 : Concluding Session: Recommendations; Impressions from the participants; key resource persons Verheem and Post

20:00 : Closing Ceremony

Closing Speech

- Dr. Jagadish Chandra Pokharel (Nepal)
- Mr. Rob Varheem (The Netherlands)
- Mr. Mohammad Rafiq (Pakistan)

Certificate distribution and Concluding Remarks

- Mr. Omer Asghar Khan (Pakistan)

Wednesday Nov. 1, 2000

: Field Visit to Tarbela Ghazi-Barotha area

ANNEX - 2**List of Participants****Bangladesh:**

Mr. Shamsus Zaman
Joint Chief
Planning Commission
Government of Bangladesh

Mr. Syed Shan Tariquazzaman
President, SAREAA
House # 54, Road # 3/A, Dhanmondi R/A
Dhaka – 1209
Tel: 8621950
Bangladesh
E-mail: eda@citechco.net

Nepal:

Dr. Jagdish Chandra Pokharel
Honorable Member
National Planning Commission
Government of Nepal
P. O. Box: 1284
Singha Durbar, Kathmandu, Nepal
Tel: 977-1-228287

Mr. Surya Man Shakya
Vice president, SAREAA
P.O. Box 3929,
Kathmandu, Nepal
Tel Off: 977-1-526789
Tel Res: 977-1-525263
E-mail: kcds@wlink.com.np

The Netherlands:

Mr. Reinoud Post
Technical Secretary
Commission for EIA
Arthur van Schendelstraat 800
P. O. Box: 2345, 3500 GH Utrecht,
The Netherlands
Tel: +31.30.2347649
Telefax: +31.30.2304382
E-mail: rpost@eia.nl

Mr. Rob Verheem
Adjunct Secretary
Commission for EIA
Arthur van Schendelstraat 800
P. O. Box 2345, 3500 GH Utrecht,
The Netherlands
Tel: 31.30.2347636
Telefax: 31.30.2331295
E-mails: rverheem@eia.nl
<http://www.eia.nl>

Pakistan:

Mr. Asif Hameed Khan
Programme Coordinator
Pakistan Environmental Protection Agency
44-E, Office tower, Blue Area

Islamabad
Tel: (051) 9204375
Fax: (051) 9206343

Dr. S. Asif Hussain
Director, AJK, EPA
Muzaffarabad

Mr. Shahabuddin Memon
Planning Officer
Singh Secretariat, P& D Department
2ne Floor, Tughlaq House
Karachi, Sindh
Tel: 2636471

Mr. Bilal Syed
Environmental Specialist
World Bank
20-A, Shahrah-e- Jamhuriat
G-5/1 Ramna, Islamabad
Pakistan
Off Tel: 5831628, 0300-467027, 819781-6
E-mail: bsyed@worldbank.org

Dr. Mirza Arshad Ali Beg
President, PEAA
1 Bath Island Road
Karachi 75530, Pakistan
Fax: 92-21-4591854
E-mail: arshadalibeg@usa.net

Dr. Khangia
Director General
Federal EPA Islamabad
Dr. S. Asif Hussain
Director, AJK EPA
Muzaffarabad

Mr. Javed Qureshi
Deputy Chief
Government of Pakistan
Ministry of Environment
National Energy Conservation Centre
ENERCON BLDG,
G -5/2, Islamabad
Tel: 9209024; 9206005; 9206001
Fax: 9206003

Mr. K.B. Nasir
Chief, Environment Lahore

Mr. Irfan Saeed
Federal
EPA

Dr. Iffat Qamar
Assistant Chief Environment Section
Planning Commission Government of Pakistan
Chughtai Plaza, Blue Area, Islamabad
Tel: (92-51) 9208590
Fax: (92-51) 2822418
E-mail: giffat@hotmail.com

Dr. Mushtaq Ahmad
Environmental Assessment Specialist
Environment Section
Planning and Development Division
Chughtai Plaza, Fazl-ul-Haq Road, Blue Area
Islamabad Pakistan
Tel: 9215702
Fax: 822418
E-mail: dpep@comsats.net.pk

Mr. Saadat Ali Khan
Natural Resource Specialist
Government of Pakistan
Planning Commission Environment Section
Off Tel: 051-2826582, 051-9204926 (Ext.520)
Fax: 051-2822418
E-mail: dpep@comsats.net.pk

Ms. Nayar Almas Kazmi
Data Base Manager, Environment section
Planning and Development Division
Chughtai Plaza, Fazl-ul-Haq Road, Blue Area
Islamabad Pakistan
Off Tel: 9215702
Fax: 822418
E-mail: dpep@comsats.net.pk

Mr. Ahmad Saeed
Deputy Programme Director
Environment assessment Service
IUCN - The World Conservation Union
1 Bath Island Road
Karachi-75530, Pakistan
Off Tel: (92)(21) 586 1540; 586 1541;
586 1542
Fax: (92)(21) 587 0287; 586 1448
E-mail: ahmad.saeed@iucnp.org

Dr. Mahmood A. Khwaja
Sustainable Development Policy Institute
P. O. Box : 2342, Islamabad
Pakistan
Tel: ++(92-51)270674-6, 277146, 278134
Fax: ++(92-51) 278135
E-mail: khwaja@sdpi.org
Website: <http://www.sdpi.org>

Zia-ud-Din Khattak
Deputy Director, Research and Investigation
Government of Pakistan
Pakistan Environmental Protection Agency
3rd Floor, 44-E- Office Tower
Blue Area, Islamabad
Off Tel: 9204498
Fax: 051-9217882
E-mail: ashuja@pakepa.sdnpc.undp.org
E-mail: pakepa@isb.compol.com

Syed Ahsan Raza Gilani
Chief Executive
Pakistan Energy & Environment Management
Centre (PEEMAC)
193, St # 1, Korang Road,
1-10/3, Islamabad
Off Tel: 4436091-2, Res: 2851902
Fax: 299448

E-mail: ahgilani@hotmail.com
Dr. Alidur Rai
Sr. Scientific Officer
Aqua Cultureal and Fisheries Institute
NARC, ISL

Arif Allauddin
Md ENERCON
ENERCON Building
G-5/2, Islamabad Pakistan
Off Tel: 9202657
Fax: 9206003
E-mail: ferfs@apollo.net.pk
E-mail: enercon2000@hotmail.com

Mr. Shehid Iqbal Rama
Chief
Environment Section

Bahadar Khan
Institute of Environmental Eng. and Sciences
National University of Science and Technology
Rawalpindi
Pakistan
E-mail: bahadur-khan@yahoo.com
Phone: 092-51-59271598

Sri Lanka:

Mr. Withanage Don Hemantha Ranjith Sisira
Kumara
Environmental foundation
3, Campbell Terrace, Colombo 10
Srilanka
Off Tel: 074-616474, 697226
E-mail: hemantha@ef.is.lk

Mr. Allenisheo Lalanath Mark de Silva
Vice President SLEAA
No 50/2, Vajura road
Colombo 5, Sri Lanka
Res Tel: 94-1-502099
E-mails: lalanath@lc.is.lk

REAP- IUCN, Asia

Dr. Parvaiz Naim
Regional Program Coordinator
Regional Environment Assessment Program,
IUCN - Asia
P. O. Box: 3923
Kathmandu, Nepal
Tel: (++977-1) 528781, 527781, 526391
Fax: (++977-1) 536786
E-mail: naim@iucn.wlink.com.np

Ms. Neera (Shrestha) Pradhan
Project Officer
Regional Environment Assessment Program
IUCN-Asia
P. O. Box: 3923
Kathmandu, Nepal
Tel: (++977-1) 528781, 527781, 526391
Fax: (++977-1) 536786
E-mail: neera@iucn.org

ANNEX - 3

Inaugural Speech

Annex - 3.1: Welcome address

Sustainable Development: thinking strategically, acting strategically

Ms. Aban Marker Kabraji
Regional Director, IUCN Asia,
IUCN Asia Regional Office, AIT, Bangkok Thailand

Despite the efforts by national governments and support from the international community, there is a steady increase in environmental deterioration and the absolute number of people living below the poverty line in South Asia.

Why is that so? Is it that the process of development robs people of their traditional sources of livelihoods - the natural resources?

To address this question, world leaders gathered in Stockholm in 1972. The outcome was a clear message that all countries needed to give priority to environmental issues.

In consequence, a document was developed that put a strategic emphasis on integrating environment and development. This document is well known as the World Conservation Strategy, published in 1980. IUCN, UNEP and WWF played a key role in its development.

IUCN and other agencies then embarked with national governments and NGOs on a long and painstaking process of working with several countries and development cooperation agencies. This was a strategic planning process, part bottom up, part top down. Asking people at the grass root level how they wanted to ensure a better life for their next generations. Asking professionals, technical experts and scientists what were their recommendations for across the board development to meet the needs of today and tomorrow. Asking the decision-makers how a policy could have peoples' voice in it to maximize the benefits to all. Asking the bureaucracy how the institutional structure could be positioned to ensure environmentally sound implementation of developmental plans. And asking the national developmental agencies how they could proceed with their work without damaging the integrity of the natural wealth of the country. This process led to the formulation of national conservation strategies. Some of the countries participating in this Workshop know the value of these strategies. (I see many familiar faces present today who made valuable contribution to the development of national conservation strategies in Pakistan, in Bangladesh, in Nepal and in Sri Lanka. And I know that in India there are state level strategies).

At the Rio Earth Summit in 1992, the world leaders agreed that all countries needed to develop and implement National Strategies for Sustainable Development. At the United National General Assembly, (where IUCN has an Observer's status) a resolution was passed to introduce NSSD by the year 2002. For implementation, the Development Assistance Committee of the OECD has set the target date of 2005. From South Asia so far, two countries have taken steps in this direction. These countries are Nepal and Pakistan. They have already developed their National Conservation Strategies and now plan to move forward with the development of convergence between these and NSSD's. Yes, there have been ups and downs but the fact is that there is a demonstrated willingness of these countries to move on a strategic trajectory that leaves behind less environmental scars along the developmental path.

Over the years, I have seen a gradual shift in the development cooperation approach - from project specific to sector specific cooperation and now cooperation for strategic approach across the board. This shows an increasing level of maturity in global thinking for moving towards sustainable development.

Given IUCN's long-term commitment to strategic planning, we welcome the opportunity of cooperation from two of our leading supporting countries Netherlands and Canada for sponsoring this important Regional Workshop on Strategic Environment Assessment. Both of these countries have demonstrated considerable skill in strategic environmental development in their own policies. I would also like to thank the Government of Pakistan for its generous support in hosting this Workshop. I must thank the Secretary Planning & Development and his team for putting together this initiative. I would like to extend my thanks to the Deputy Chairman Planning Commission for his support for this workshop. It is a well-known fact that Pakistan developed one of the best National Conservation Strategies, in the world, and the planning and environment ministries played key role in the process.

I am thankful to the Netherlands Commission on EIA, especially Mr. Reinoud Post, who is with us today. They have been a source of constant assistance to our Regional Environment Assessment Program over the years.

This Workshop is designed to discuss the state of the art in strategic planning, and should help us all in reporting something meaningful at Rio+10.

I thank all the senior planners who have joined us in Islamabad for this important Workshop. Let me leave you with the following thought. You represent a fraternity of influence in South Asia. Your recommendations translate into policies that directly impact upon the lives of millions. From this Workshop, if you took home something useful and translated it into at least one national policy, it would make a difference to the quality of air, water, soil and biodiversity in your country and possibly, move it up one notch on the Human Development Index!

I wish you all best with the workshop.

Annex - 3.2: Welcome Remarks

Syed Shah Tariquzzaman
President, SAREAA

Honorable Minister, Secretary, Ministry of Planning, President of Pakistan Environmental Assessment Association, Mr Reinoud Post of the Netherlands EIA Commission, Dr Parvaiz Naim of IUCN, Distinguished Participants and Guests, Ladies and Gentlemen,

I am delighted to join with the Secretary of Planning and Dr Mirza Shah Shaheb, the President of Pakistan Environment Assessment Association, in welcoming you, the distinguished participants and guests of this workshop being held here today in a country with the oldest known heritage of environmental management and services ---- the very developed sewerage and irrigation systems and other environmental amenities of the ancient civilizations of Harapaa, Mohanjo Daro and Taxila. Today, Pakistan is once again taking the lead by holding what, in my knowledge, is the first ever Regional Workshop on Strategic Environmental Assessment in South Asia.

I trust that this landmark workshop would provide opportunity to planners and environmental assessment exponents to mutually enrich each other through interaction and exchange of ideas. The workshop is a tremendous opportunity for planners to learn how to 'green' national plans, policy programs. Environmentalists can learn, first hand, from planners more about the planning process.

The precautionary principle requires decision-makers of all levels to give due consideration and weightage to environmental factors. National planners who do not exercise due care in relation to environmental realities are liable for negligence. Using Strategic Environmental Assessment, planners can apply the precautionary principle and incorporate environmental considerations right from the beginning in the top-down planning process. At the individual project stage, available options are after severely restricted by earlier decisions at the higher level. Difficulties arise at the project stage for a power plant on an irrigation dam of the higher

levels (e.g energy policy or irrigation policy) is not subject, beforehand, to environmental assessments. SEA, as a top-down tool, can help avoid, avert and mitigate adverse environmental and social impacts of individual projects and also facilitate advance allocation of necessary resources for mitigating adverse impacts.

SEA, which is another step forward towards fuller realization of the vast potential of environmental assessment, can also be applied historically. Historical Environmental Assessment (HEA) is the application of SEA over time. HEA can help the evaluation and assessment of the impacts of the activities and life-styles of particular nations or groups of nations on the global environment and natural resources. HEA can help ascertainment and fixation of national rights and obligations in the negotiations relating to Global Climate Change. Through historical environmental assessment developing and vulnerable countries can demand and earn financial and technical assistance from developed nations whom through their wanton life-styles and consumption patterns polluted the global environment shared by all nations.

I take this opportunity to quote a historical environmental assessment from the scriptures wherein it is said : "Corruption doth appear on land an sea because of (the evil) which men's hands have done, that He may make them taste a part of that which they have done, in order that they may return" (Koran, 30:41 translation by Mohammed Marmaduke Pickthall)

I take pleasure in welcoming you all once again and wish you most fruitful participation in the workshop.

Thank you.

Annex - 3.3: Key Note Address

Mr. Reinoud Post
Technical Secretary,
The Netherlands EIA Commission

Honourable secretary of the Pakistan Planning and development division, Honourable representatives of the Bangladesh and Nepal Planning Commission, colleague Environmental Impact Assessment experts, invitees, ladies and gentlemen.

For the Netherlands Commission for EIA it is an honour to be asked to address an audience of such distinguished personalities. Personally, I am incapable to express in words the proud that I feel to be given the opportunity to voice, on behalf of the Commission, this keynote address.

In your respective countries and organisations you are influential people. And influence, as we are all well aware, goes hand in hand with responsibility. Your prime responsibility is the well being of the people in your respective countries. As we all know, well being of people is a combination of material well being and a healthy environment. A healthy environment is an environment free of threats to the physical and mental shape of the people. An unhealthy environment compromises the productive capacity of people and, thus, their material well being and a countries economic development. Environment and Economy are mutually dependent.

A healthy environment can only be sustained if we avoid or control the negative effects of human activity on the environment. By signing and ratifying International treaties and conventions on environmental issues, the governments you are representing have formally recognised the importance of environmental care and have committed themselves thereto. World Wide, the scope of this commitment is not yet fully understood by all segments of governments. Its fulfilment factually implies the undertaking of a legal and institutional effort of which many governments now only start to realise the importance.

Of course, the required efforts cost a lot of money and conditions economic expansion, especially in areas of high natural value. Experience shows that authorities responsible for the environment face difficulties in convincing other segments of government to set aside adequate funds to implement environmental legislation. The necessary action is not taken without problems and at a slow pace.

Environmental Impact Assessment is one of the instruments all of your governments use to express their environmental dedication. You have developed legislation and attributed the responsibility to enforce this legislation to specialised institutions.

These institutions do what is within their possibilities to have as many project proposals as possible go through an EIA process. Success in terms of avoidance of environmental damage, however promising, is still variable.

In many countries the legislation, meticulously enforced, would generate such a bulk of EIA reports that a massive investment in institutional capacity would be required to have all these EIA procedures accomplished successfully. Many EISs that should be written are never written. In some Asian countries only projects proposed by foreign investors go through EIA, leaving environmental impacts of local investors' and government projects inassessed. In other countries political pressure to grant environmental clearance to investment projects frustrates the EIA process and those that are responsible for its implementation and that, in do a good job. In again other countries EIA results are not used in decision-making.

The existing EIA systems alone, although EIA in itself is a good instrument, do, in practice, not completely succeed in mitigating or controlling the environmental damage done by human activity. On the one hand this is due to its lower that full level of application and the not complete level of use of EIA results. On the other hand EIA is not designed to assess the joint impacts of the multitude of human activity taking place these days, nor does EIA assess the environmental impact of policy decisions, plans and programmes. EIA does not cover everything. With EIA alone, the environmental toolkit is not complete.

The result of the inadequacy of the environmental toolkit is illustrated by alarming reports that are sometimes written about the degradation of the environment and the natural resources in Asia.

And EIA practitioners reveal the deficiencies in the practice of EIA in their publications. A review of 115 articles on EIA identify as the top 6 weaknesses of EIA systems in developing countries:

1. The lack of application of strategic Environmental Assessment
2. Lack of adequate public participation
3. Lack of monitoring and enforcement of environmental requirements
4. Incomplete or contradictory legislation on EIA
5. Insufficient capacity of institutions implementing EIA
6. EIA done when decisions have already been made

Let us now look at the challenges that face the national EIA systems:

Globalisation, initiated and pushed by the Structural Adjustment Programmes linked to IMF and WB loans, have thoroughly altered the entrepreneurial landscape in many countries. The Structural Adjustment Programmes have opened up the nations for external investors and these investors come or will come in quantities in many countries.

Although its impacts are immense, Structural Adjustment in itself has never been subject to Environmental and Social Impact Assessment. The IMF and the World Bank have always declined the responsibility for these impacts, arguing that assessing them is the task of the lender.

Lenders never did assess impacts of Structural Adjustment. They just needed the loan and impact assessment might result in not accepting the conditions of the IMF and the Bank and thus might result in not achieving agreement on the loan.

As I said, Structural Adjustment has altered the entrepreneurial landscape. Formerly, governments were almost always stakeholders in big projects that in most cases were funded by the Development Banks. In these projects the environmental and social policy of these banks were applicable. Although not perfect, these policies provided a guarantee that social and environmental impacts were assessed and that their mitigation was put on the agenda.

Today and in the near future, with countries opened up for foreign investment, the development banks are, and will be, less and less involved in the funding of projects. This implies that compliance with acceptable environmental and social standards is to be guaranteed by national legislation and its enforcement by effectively working national agencies.

We have just concluded that the present environmental (and social) toolkit and institutional infrastructure of many governments is not fully adequate to address the environmental consequences of the present level of investment. It is clear that governments will not be able to cope with the environmental and social consequences of increasing numbers of private investment projects, unless a considerable effort is done to review the existing environmental toolkit and make it complete and effective.

In several ways Strategic Environmental Assessment can contribute in making the environmental toolkit more effective:

1. SEA allows to select development strategies (policy, plans, programmes) that avoid or minimise environmental and social damage. Experience shows that environmental and social gain can be maximised or damage can be minimised if, at the planning level, the right strategy is chosen;
2. SEA may assess the cumulative impacts of all projects carried out under a certain policy, plan or programme. In this way it gives insight in the impacts of strategic choices that project EIA cannot give;
3. SEA at the planning level reduces the intensity of environmental attention that needs to be given to projects developed under the plan. This alleviates the administrative burden for the government.

It will be clear now: I congratulate you all for having decided to attend this workshop and for wanting to consider the use of Strategic Environmental Assessment for decision making on policies, plans and programmes.

Allow me to end my address with a suggestion:

Countries in search of debt relief or adjustment lending must submit to the World Bank and the IMF a Poverty Reduction Strategy paper. Without an approved strategy paper, no debt relief or adjustment lending is achievable. Again, the responsibility of the assessment of the environmental and social impacts of these strategies is attributed to the asking party. If your country is to formulate a Poverty Reduction Strategy, it might be a good suggestion to develop this strategy in a pilot exercise with a Strategic Environmental Assessment (and ask the bank to fund this SEA).

I thank you for lending me your ear and I wish us all a fruitful workshop.

Annex - 3.4: Address by the Chief Guest

Mr. Fazlullah Qureshi,
Secretary of P&D Division, GoP

Ladies and Gentleman!

I am delighted to welcome national policy, makers, and decision-makers of South Asia, in this Workshop. This memorable event offers us an opportunity to share regional experiences in

the formulation of policies, plans and programmes for achieving sustainable development goals. This is the crucial time for South Asia to re-orientate, amend and re-design respective sectoral policies, plans, programs and projects through their strategic analysis for ensuring sustainable development. Lack of knowledge and capacity is the main reason why environment and sustainability concerns could not be given collective treatment at various stages of policy and project cycles. I hope the contribution of learned participants from across the Region would facilitate us devising mechanisms to attain environmental integration in our policies and plans towards broader goal of sustainable development.

The South Asian region extends from Himalayan peaks in Nepal to islands of Sri Lanka and Maldives, from low lying floodplains in Bangladesh to vast deserts in Pakistan, and from landlocked Bhutan to extensive coastline in India. The Region accommodates on the fourth of World's population, of which about 30% lives below the poverty line. Increasing population pressure, poverty and haphazard development collectively contributed to depletion and degradation of natural resources at a rate significantly faster than their replenishment. Economic development is the legitimate right of all the nations, including our Region's; and this process must not halt at any cost. The South Asian countries are implementing various programmes of poverty alleviation, employment, resource development and provision of social services. Parallel to these developments, these countries are facing serious environmental threats including air pollution, deteriorating water regime and quality, ozone depletion, and climate change which are all result of uncontrolled human activities such as fossil fuel consumption, deforestation, agricultural mismanagement and industrial expansion.

Strategic environment Assessment (SEA) is being used worldwide, particularly in European countries, as an instrument to integrate environmental and sustainability factors into policy and at all levels of decision making. The Netherlands has the most stringent approach for integrating environmental assessment into national industrial and waste treatment policies. The world experiences have shown that SEA is most successfully applied at a meso scale. For Regional countries good opportunities exist where linkage of SEA can be made with ongoing decentralization processes. Government of Pakistan has conceptually perceived the importance of stream lining the development process with the environment, and fixed the objectives of implementing SEA at all levels during the coming three years.

In this regards we are fortunate to learn from Dutch experience through their experts namely Mr. Rob Verheem and Mr. Reinoud Post of Netherlands Commission for EIA. I also appreciate effort of IUCN Asia, South Asian Environment Assessment Association & Regional Environment Assessment Programme. Here is important to acknowledge the cooperation and contribution of CIDA, UNDP, World Bank, ADB, JICA and other such donors in the field of environment in Pakistan.

I hope this consultative workshop will further facilitate our governments with concrete recommendation to strengthen ongoing initiatives on implementing SEA in national, regional and local policy and project cycles, and at all levels of decision making. We all wish that during 21st century development process in the Regional countries would be sustainable and ensuring healthy living environment for the coming generation.

ANNEX - 4**SEA MANUAL****4.1 Strategic Environmental Assessment: a macro-level planning tool for sustainable development****SEA Process**

The SEA approach to planning is based on a thorough examination of various alternatives. It essentially looks at two types of alternatives: (1) Needs alternatives; and (2) Approach alternatives to fulfill the needs. Other parameters can be included depending on the nature of policy, plan or program. For each alternative, its impacts are examined at primary, secondary and tertiary levels. SEA thus provides the rationale in the shortest possible time for choosing the best alternative for sustainable development.

Around the world, SEA has been used for developing policies, plans and programs.

SEA Training Manual

This Training Manual is developed by the Regional Environment Assessment Program, IUCN Asia, using material largely from a publication of the EIA Commission of the Netherlands, "Strategic Environmental Assessment: Status, Challenges and Future Directions", 1996. It contains information on various SEA components and some useful tips for conducting a successful SEA.

What is going to be covered in this workshop

1. What is SEA? (definitions);
2. Why is SEA useful? (rationale);
3. How is SEA related to policy making? (boundaries);
4. When and where is SEA useful? (applications);
5. What is a good example of SEA application in the South Asian context?
6. How can I use SEA in my work? (group exercise)

SEA Definition

SEA is a systematic process for evaluating the environmental consequences of proposed policy, plan or programme initiatives in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision making on par with economic and social considerations

Points of clarification

- SEA is a decision-aiding rather than a decision making process
- SEA as an instrument (or tool) for policy-making, planning and programming

The 3Ps of SEA

Policy: a general course of action or proposed overall direction that a government is, or will be, pursuing and which guides ongoing decision making.

Plan: a purposeful, forward-looking strategy or design, often with coordinated priorities, options and measures, that elaborates and implements policy.

Programme: a coherent, organized agenda or schedule of commitments, proposals, instruments and/or activities that elaborates and implements policy.

The Advantages of SEA include:

- identifying and offsetting cumulative effects of various activities at an early stage;
- enhancing overall benefits of 3Ps for all stake-holders;
- strengthening and streamlining project EIA.

How to begin SEA?

- start and learn, rather than wait
- take a flexible approach, avoid rigid/over-detailed procedures
- relate SEA process design to planning process, not vice versa

Principles of SEA

- initiating agencies are accountable for assessing the environmental effects of new or amended policies, plans and programs;
- the assessment process should be applied as early as possible in proposal design;
- scope of assessment must be commensurate with the proposal's potential impact or consequence for the environment;
- objectives and terms of reference should be clearly defined;
- alternatives for each step should be clearly stated. For each alternative, its negative and positive impacts on primary, secondary and tertiary levels should be identified;
- other factors, including socio-economic considerations, to be included as necessary and appropriate;
- evaluation of significance and determination of acceptability to be made against policy framework of environmental objectives and standards;
 - cross-impact matrices
 - consistency analysis
 - sensitivity analysis
 - 'decision trees'
- provision should be made for public involvement consistent with potential degree of concern and controversy of proposal;
- public reporting of assessment and decisions (unless explicit, stated limitations on confidentiality are given);
- need for independent oversight of process implementation, agency compliance and government-wide performance;
- SEA should result in incorporation of environmental factors in policy, plan and programme;

SEA Procedural Steps

- **Initiation:** determine the need for SEA, by means of a list, a screening mechanism or both
- **Scoping:** identify alternatives and likely impacts. Exclude irrelevant information
- **Outside review:** seek input and advice of other governmental agencies, independent experts, interest groups and the public during scoping and after completion of the SEA
- **Public Participation:** involve the public in the SEA process, unless limited by legitimate confidentiality or timing requirements
- **Documentation:** present the information, either in a separate document or a chapter or paragraph of the policy proposal
- **Decision making:** take SEA conclusions and recommendations into account
- **Post decision:** identify follow-up measures of overall impact of projects and measures resulting from the policy, plan or program

Initiation (Screening)

- Screening allows practitioners to decide, early in the process, on:
 - the necessity for SEA
 - the stage at which assessment should take place
 - the extent and type of involvement of outside parties, in the light of planning; and
 - requirements for data, personnel, time, etc.

Scoping

- In an 'objectives led' approach, scoping:
 - has a focus on environment;
 - identifies the issues that require particular attention;
 - sets standards and targets;
 - draws attention to alternatives and impacts;
 - helps identify the relationship between objectives and priorities, including possible trade-offs and conflicts among them.

Scoping: Alternatives

- Demand alternatives
- Approach alternatives
- Compatibility with:

- National/provincial policies and laws
- International conventions signed by my country
- Local customs and traditions

SEA Methods: Impact Identification

Literature search:

- state of knowledge surveys
- case comparisons

Expert judgement:

- Delphi survey
- Expert workshops

Analytical techniques:

- scenario development
- model & mapping
- checklists
- use of indicators

Consultative tools:

- Interviews
- Selective consultation

SEA Methods: Impact analysis

- Extended use of identification methods:
- literature survey
- case comparison
- expert judgement
- scenario development
- models & mapping

Matrices

Computer modeling

GIS

Life Cycle Analysis

Application of Various Methods to SEA

Step	Examples of Methods
Baseline Study	SOE reports/similar documents environmental stock/setting points of reference
Screening/ Scoping	formal/informal checklists survey, case comparison effects networks public/expert consultation
Defining Alternatives strategies	(by reference to): environmental policy, standards, previous commitments/precedents national/provincial/local plans public values/preferences
Impact Analysis	scenario development risk assessment environmental indicators/criteria policy impact matrix simulation/prediction models GISs capacity/habitat analysis benefit/cost analysis and other economic valuation techniques multi-criteria analysis
Documentation for Decision making	cross-impact matrices consistency analysis sensitivity analysis, decision 'trees'

Life Cycle Analysis

Life Cycle Analysis is generally used by industry to systematically assess the environmental impacts of a product, process or activity from its introduction to final deposition

Life Cycle Analysis (LCA) and its application to SEA

Step 1: goal definition and scoping

Step 2: inventory analysis of the total life cycle

Step 3: impact assessment - classification

Step 4: impact assessment - evaluation

Step 5: improvement analysis

How to deal with uncertainties?

- There is always a significant uncertainty factor to deal with
- Uncertainty does not preclude an effective SEA
- Therefore, focus on:
 - choice of alternatives
 - identification of mitigating measures

Following aspects are important for public involvement:

- setting clear time limits for public involvement;
- providing relevant information for the parties involved; and where relevant,
- ensuring all participants have appropriate opportunity to provide inputs.

What are Effective SEA review mechanisms?

- important role for the public and environmental agencies
- possible role of P&D's Environment Section at provincial and/or federal level
- establishment of an independent review body

SEA Documentation for Decision-making

- SEA report should present a concise and clear description of:
- the proposals and its overall policy/planning context;
- the environmental consequences of policy options and how these alternatives compare;
- the difficulties encountered in the assessment and what is the resulting uncertainty in the SEA results;
- (where appropriate) recommendations on terms for approval and implementation of the proposal, together with, where appropriate, clarification of trade-offs; and
- arrangements for monitoring and post decision analysis.

When will SEA be effective?

SEA can only be effective when:

- Clear environmental policy and objectives
- Well structured planning process
- Good State of the Environment Reporting

4.2 A SHORT INTRODUCTION ON SEA

Rob Verheem
Commission for EIA in The Netherlands

1 What is SEA?

Definition:

A systematic process for environmental evaluation in the preparation of strategic decisions¹, meant to incorporate environmental issues, on par with socio-economic and technical issues

A good quality SEA process informs planners, decision makers and affected public on the sustainability of strategic decisions, facilitates the search for the best alternative and ensures a democratic decision making process. This enhances the credibility of decisions and leads to more cost and time effective EA at the project level.

In practice, very diverse SEA processes and procedures can fit within this definition. Ranging from very simple, short and flexible processes to complex, comprehensive and lengthier processes. However, international consensus exists on what any good quality SEA process should *achieve*:

A good quality SEA process:

- ensures an appropriate assessment of all relevant strategic decisions
- addresses both biophysical, social and economic interrelationships
- is tiered to other policies and project EIA
- identifies whether more sustainable alternatives are available
- provides sufficient, reliable and usable information
- concentrates on key issues
- is customised to the characteristics of the planning process
- is cost and time effective
- is the responsibility of the lead agencies for the strategic decision
- is carried out with professionalism, rigor fairness, impartiality and balance
- is subject to independent checks and verification
- justifies how sustainability was taken into account
- involves interested and affected publics/agencies and addresses their inputs and concerns
- has clear information requirements and sufficient access to info
- provide results early enough to influence/inspire planning
- provides sufficient information on impacts of implementation of the plan

2 What is the best SEA process, procedure or method?

The best SEA process, procedure or methodology as such does not exist. On the basis of the properties of a specific planning process the appropriate SEA process should be selected.

Key criteria for the design/selection of SEA processes

- 1 the *level* of decision making, i.e. legislation, policy or plan/programme level
- 2 the *characteristics* of the planning process in which the SEA process should be integrated, i.e. open or closed to the public, short or long time available
- 3 the *culture/tradition* of strategic decision making in a specific country or region, for example consensus or conflict oriented, informal or formal.

Specific design for specific purpose has lead to a multitude of different SEA processes (all with their own name) that exist today in countries around the world. For example:

- | | |
|--|--|
| • <i>Policy, Plan and Program EIA</i> (California) | • <i>Environmental Appraisal</i> (UK) |
| • <i>Program EIA</i> (USA) | • <i>Class Assessment</i> (Ontario) |
| • <i>Policy EA</i> (New Zealand) | • <i>E-test</i> (The Netherlands) |
| • <i>Sectoral EA</i> (Worldbank) | • <i>Environmental Overview</i> (UNDP) |

¹ Strategic decisions are all decisions above the concrete project level, e.g. proposals for new legislation, national and regional policies or sectoral and physical plans and programs.

3 At which level of decision making should SEA be integrated?

First analyse a planning process in terms of *where* and *by whom* key decisions are taken. Then apply SEA for the most crucial decisions from an environmental viewpoint. Important decisions in any planning process are:

Why do something? What to do?	Where to do it?	How to do it?
need/purpose	methods	design
long term objectives	capacities	mitigation
principles		compensation

In general, SEA is applied for the *why*, *what* and (sometimes) *where* questions; EIA is applied for the *how* questions. As an example below the planning process on waste management in The Netherlands is analysed, including the policies, plans and programmes for which SEA and EIA is carried out and those responsible for the assessment.

1.1 Impact assessment in the Dutch waste management planning process

National level

Why do something?

need objectives principles	<i>legislation/policy plans</i>	<i>E-test carried out by responsible ministries</i>
----------------------------	---------------------------------	---

What to do?

methods capacities	<i>10 years waste management programme</i>	<i>SEIA by the national Waste Management Council</i>
--------------------	--	--

Regional level

Where to do it?

locations	<i>provincial waste management plan</i>	<i>SEIA by provincial government</i>
-----------	---	--------------------------------------

Local level

How to do it?

design mitigation compensation	<i>licensing process</i>	<i>EIA by proponent</i>
--------------------------------	--------------------------	-------------------------

4 How to design an effective SEA process for a specific level of decision making?

First analyse the characteristics of the planning process for which the SEA is meant, e.g.:

- *quick and confidential* (e.g. as is often the case in drafting legislation, budget proposals and tax policies)
- *comprehensive and open* (e.g. as is often the case in preparing sectoral plans and programs)
- *quick and open* (e.g. as is often the case in development programs under annual budgets)

Then design an SEA process with the same characteristics. An SEA process that matches the characteristics of the planning process in which it should be integrated is more likely to be accepted (and thus used) by planners. However, all SEA processes should follow a number of key principles for process and procedure that in practice have been found to be essential to their effectiveness.

Key SEA process principles

- 1 agencies responsible for the policy/plan/programme should be accountable for the SEA
- 2 application as early as possible
- 3 consideration of alternatives should be mandatory
- 4 provision for public involvement during the process
- 5 public reporting of SEA, decision and how the environment was taken into account
- 6 independent quality review should be part of the process

1.2 Key SEA procedural steps

Procedural steps some issues relevant at each step

- | | | |
|---|-----------------------------|--|
| 1 | <i>Initiation</i> | -is there a need for SEA?
-what type of SEA is needed (e.g. simple or comprehensive)? |
| 2 | <i>Scoping</i> | -what are the key environmental issues?
-what alternative options do exist?
-which are most important impacts to assess?
-which information is irrelevant and should be excluded? |
| 3 | <i>Outside review</i> | -which government agencies should review?
-which interest groups should be involved?
-is there a need for review by independent experts? |
| 4 | <i>Public participation</i> | -when would public participation be most effective?
-is there reason for confidentiality? |
| 5 | <i>Documentation</i> | -should the environmental information be in a separate document or included in the plan itself? |
| 6 | <i>Decision making</i> | -it should be mandatory to take the SEA into account
-the role of the environment should be explained in a public report |
| 7 | <i>Post decision</i> | -monitoring management plan
-which follow up measures should be taken? |

Furthermore, practice shows that the following recommendations can be made on quality review, the role of environmental agencies and the role of the public in SEA procedures.

SEA quality review mechanisms

- the public and environmental agencies should play an important role in quality review
- in cases where their role is limited because of vested interests the establishment of an independent review body is an effective solution

Role of environmental agencies

- environmental authorities should be fully engaged in both SEA and planning process
- final responsibility for the SEA should stay with the lead authority

Role of the public

- public participation is essential to most SEA processes
- however, there may be exemptions for reasons of confidentiality
- in all cases careful selection of methods, timing and extent is needed, because of:
 - * *character of strategic planning (continuous, complex, iterative)*
 - * *cultural/traditional background*

5 What are examples of SEA processes?

Below three examples are given of existing SEA processes, according to the characteristics of the planning process (quick and confidential; comprehensive and open; quick and open).

Example of an open, quick SEA process: The UNDP Environmental Overview

Characteristics:

- one (or more) one day workshop(s) during formulation stage of plan or policy
- interdisciplinary group, representing all actors involved (including the public), addressing 8 standard questions
- preparation of plan or policy recommendations on the basis of the results of the workshop

Standard questions are:

- 1 Existing environmental and social conditions?
 - 2 Main existing environmental and social issues?
 - 3 Current economic situation and forces?
 - 4 Current environmental management capabilities and mechanisms for poverty and gender issues?
 - 5 Major natural and socio-economic impacts and opportunities of plan/policy proposal?
 - 6 Which alternatives or potential modifications of the plan or policy are available?
 - 7 What operational strategy can be formulated?
 - 8 Which are the monitoring requirements?
-

Example of an open and comprehensive process: Strategic EIA in the Netherlands

Characteristics:

- detailed procedure
- integration in multiple steps of plan/programme development
- full public involvement in scoping and reviewing
- mandatory advising by an independent group of experts
- mandatory examination of alternatives
- mandatory evaluation and monitoring

The Dutch Strategic EIA procedure is:

Screening on the basis of a list
-
Start of the process by means of publication
-
Scoping, including the public, environmental authorities and review body
-
Study preparation including alternatives
-
Quality review, including the public, environmental authorities and review body
-
Decision on plan or programma, taking the SEA into account
-
Monitoring and evaluation, report sent to review body

1.3 Example of a quick and confidential process: the Dutch E-test of draft legislation

Characteristics

- selective: draft legislation is carefully screened for the necessity of an E-test and the environmental questions to be answered
- confidential: no public participation or independent review
- client orientated: a help desk supports in the preparation of the E-test and reviews its quality
- flexible: a simple procedure is applied

The E-test procedure is:

- screening of legislation proposals by an
interdepartmental working group
-
- Council of Ministers adopts the list of selected legislation
for which an E-test is mandatory
-
- responsible ministry carries out the E-test, supported by the helpdesk;
results of the E-test are documented in the Explanatory Note^{1]}
to the draft legislation
-
- Joint Support Centre reviews the quality of the E-test and
Decides whether the draft can be sent to the Council of Ministers^{1]}

6 When will an SEA process be effective?

SEA practice shows that, regardless of the quality of the SEA process itself, certain preconditions to the planning process itself should be met before SEA can play an effective role in this planning process.

Preconditions for SEA effectiveness

- 1 existence of clear environmental policies and objectives
- 2 a good State of the Environment reporting
- 3 the planning process is well structured
- 4 there is a political will and bureaucratic responsiveness to use SEA effectively

Politicians and high level government officials will only endorse the use of SEA when they are convinced of its advantages. An important part of any SEA implementation should be to explain these advantages to them.

Some examples of advantages of SEA for politicians and government officials:

For politicians:

- higher credibility of their decisions in the eyes of the voters
- proven democratic character of the decision making process

For high level government officials:

- the application of SEA will build up of professional expertise within their staff
- avoidance of unnecessary delays because of unforeseen environmental problems
- avoidance of costs related to unnecessary mitigation and compensation

7 How to introduce SEA in existing planning processes?

Guidelines for the introduction of SEA:

- 1 take a flexible approach, avoid rigid/over-detailed procedures
- 2 relate SEA process design to planning process, not vice versa
- 3 take different approaches at policy level than at plan/programme level
- 4 start and learn, rather than wait

8 How to prepare SEA studies?

5 steps to prepare an SEA

1. list objectives and constraints of the planning process
2. analyse the existing environmental context
3. specify policy alternatives and impact identification

2 In case of an Act called the >Memorandum=.

3 Following this last step of the E-test, the Council of Ministers finalises the draft legislation, taking into account the results of the E-test, and sends the draft to Parliament. The final decision on the proposed legislation is taken after discussion in Parliament.

4. analyse and identify impacts and mitigating measures
5. specify monitoring arrangements and evaluate

9 What should be the content of an SEA report?

General SEA information requirements

- 1 What the planning process is all about
 - 2 The context of the planning process
 - *existing environmental problems*
 - *environmental protection objectives, including sustainability*
 - 3 Alternative options and their environmental consequences, including sustainability assessment
 - 4 Arrangements for monitoring and post decision analysis
 - 5 Any difficulties and uncertainties
 - 6 Recommendations for decision making
 - 7 A summary understandable for decision makers and the public
-

On a case by case basis it should be decided whether the SEA report should:

- *in- or exclude socio-economic effects*
- *in- or exclude related policy instruments, such as risk assessment or cost-benefit analyses*
- *carry out a qualitative or a quantitative assessment (or a mix).*

If socio-economic effects or related instruments are not included in the SEA, safeguards should be built into the planning process that environmental and other information is integrated during the process.

10 How to identify and analyse impacts and consequences?

Practice shows that almost all methods and techniques needed are available already. These are developed either in project EIA or as policy instruments. Sometimes these methods may be applied directly, sometimes these have to be fine-tuned to the need of the particular SEA.

SEA methods: Impact identification

- | | | |
|-------------------------------|---|----------------------------|
| <i>Literature search:</i> | - | State of knowledge surveys |
| | - | Case comparisons |
| <i>Expert judgement:</i> | - | Delphi survey |
| | - | Expert workshops |
| <i>Analytical techniques:</i> | - | Scenario development |
| | - | Model mapping |
| | - | Checklists |
| | - | Use of Indicators |
| <i>Consultative tools:</i> | - | Interviews |
| | - | Selective consultation |
| | - | Policy dialogue |

1.4 SEA methods: Impact analysis

- | | | |
|--|---|----------------------|
| <i>Extended use of identification methods:</i> | - | literature survey |
| | - | case comparison |
| | - | expert judgement |
| | - | scenario development |
| | - | model mapping |

*Matrices**Computer modelling**GIS**Cost Effectiveness Analysis**Cost Benefit Analysis**Multi Criteria Analysis**Aggregation methods:*

- index methods
- monetary methods
- source methods

Life Cycle Analysis

A point of attention is that at the strategic level there will almost always be significant uncertainties to deal with. Often more than in EIA at the project level. However, practice shows that this uncertainty does not preclude an effective SEA. The environmental information will usually be sufficient to choose the best alternative and to identify appropriate mitigating measures.

14 How to analyse effect on sustainable development?

As yet there is still much uncertainty about carrying capacity and what constitutes a truly sustainable development. However, as with uncertainties, this does not preclude an effective sustainability assessment. As a first step, select appropriate sustainability indicators. Then judge, on the basis of these indicators, whether a policy option will go in a 'wrong' or 'right' direction as to sustainability and which option is best in this perspective. Ideally, the results of the assessment of indicators should be compared to standards and objectives on sustainable development in national or regional environmental policy plans. Several checklist of indicators exist; below an example is given.

Example: checklist of sustainability indicators and rules

1 Indicator: Renewables

Rule: harvest rates within regenerative capacity of the natural system that generates them

SEA: Identify effect on use of renewables, such as timber, fish etc.

2 Indicator: non renewables

Rule: depletion rates equal to the rate at which renewable substitutes are developed by invention and investment

SEA: Identify effect on non-renewable resources, such as energy, minerals and raw materials.

Include effects on energy consumption and mobility

3 Indicator: waste flows and emissions

Rule: waste emissions within the assimilative capacity of the environment without unacceptable degradation of its future waste absorptive capacity or other important environmental services

SEA: Identify effect on:

- quantity and quality of waste flows
- emissions to soil, water and air
- effects on quality of products and productions processes, e.g. life span and composition of product

4 Indicator: use of space and existing functions

Rule: No net loss of natural habitat and conservation of biodiversity (e.g. ecosystems, populations, gene pools)

SEA: Identify effect on use of space and existing natural functions, such as agricultural land use and wild life corridors

5 **Indicator: options and intrinsic values**

Rule: Avoid irreversible irreversible changes and maintain future options

SEA: Identify effect on options and intrinsic values

15 **How to assess accumulation of impacts?**

Currently there is not one ideal method for cumulative effects assessment (CEA). Also, there are no specific methods for assessment at the strategic level. However, multiple methods useful for CEA are available at the project level. From these on a case by case basis for each SEA a selection of appropriate methods can be made. Since little practice experience exists on CEA at the strategic level, it is wise to keep the assessment simple.

As a first step in CEA, a simple approach could be to first assess impacts in a more or less traditional way (i.a. seperately). Then assess accumulation by discussing effects integrally per:

- resource
- ecosystem
- community.

Useful methods for such integral discussion are matrices and network analysis.

Below general principles of CEA and a more extensive overview of CEA methods is given.

Principles of CEA

- 1 Aggregate past, present and future actions
 - 2 Include all actions, both direct and indirect, irrespective of who has taken the actions
 - 3 Analyse in terms of the specific resource, ecosystem or human community affected
 - 4 Scope: focus on meaningful effects only
 - 5 Political or administrative boundaries should not be restrictive
 - 6 Two types of accumulation:
 - similar effects
 - different effects
 - 7 Accumulation may occur many years after the action has been finalised
 - 8 Analyse each resource, ecosystem en community in terms of its capacity to accomodate additional effects
-

Overview of primary CEA methods

* **questionnaires, interviews and panels**

Strengths:

- flexible
- can deal with subjective information

Weaknesses:

- no quantification
- subjective

* **checklists**

Strengths:

- systematic
- concise

Weaknesses:

- inflexible
- no interaction or cause-effect relation

* **matrices**

Strengths:

- comprehensive
- good comparison
- address multiple projects

Weaknesses:

- no space or time
- can be cumbersome
- no cause-effect relation

* **network analysis**

Strengths:

- facilitate conceptualisation
- cause-effect relation
- include indirect effects

Weaknesses:

- no secondary effects
- incomparable units
- no space or time

* **models***Strengths:*

- precise results
- cause-effect relation
- quantification
- time and space

Weaknesses:

- need a lot of data
- can be expensive
- can be too complex when many interactions

* **Trends analysis***Strengths:*

- accumulation over time
- problem identification
- baseline determination

Weaknesses:

- need a lot of data
- subjective extrapolation

* **Overlay mapping and GIS***Strengths:*

- spatial patterns
- effective presentation
- facilitate optimisation of options

Weaknesses:

- no effects outside location
- no indirect effects
- difficult to address effects magnitude

* **Carrying capacity analysis***Strengths:*

- true measure of cumulative effect
- system context
- time

Weaknesses:

- capacity rarely measurable
- multiple thresholds complex
- data often absent

* **Ecosystem analysis***Strengths:*

- regional scale
- full range of interactions
- space and time
- addresses sustainability

Weaknesses:

- only natural systems
- use of indicators
- need a lot of data
- still under development

* **Economic impact analysis***Strengths:*

- economic issues
- precise results

Weaknesses:

- need a lot of data
- need a lot of assumptions
- no nonmarket values

* **Social impact analysis***Strengths:*

- social issues
- precise results

Weaknesses:

- need a lot data
- need a lot of assumptions
- variability of social values

16 How to use Life Cycle Analysis in SEA?

Life Cycle Analysis (LCA) is a recently developed new tool to assess total environmental impact of a specific project. The method may also be used in SEA. Although the method is not yet fully developed it has some significant advantages over 'traditional' environmental assessment, i.e. assessing impacts on the basis of indicators. In LCA all environmental impacts are assessed from 'cradle to grave', i.e. resource - product - use - waste - reuse. LCA is a standardised process, consisting of 5 steps, resulting in scores on ten standard issues. In these scores positive effects of prevention and reuse are included, which is one of the main advantages of LCA.

Steps in LCA

- Step 1 *definition* - define specific goal of the LCA
 - define the 'measuring unit' for the assessment;

for example, in the SEA of the Dutch national waste plan the unit was: final processing of one ton of integral waste

Step 2 *analysis of the life cycle*

phase 1: set the boundaries: what should be taken into account?

for example, in the SEA of the Dutch national waste plan the life cycle is:

- collection of waste
- incineration of waste
- cleaning of emitting gases
- production of heat and electricity (+)
- reuse of metals (+)
- reuse of other residuals (+)
- storage of chemical waste

phase 2: for each part of the life cycle identify the following impacts:

- use of space
- use of resources
- emissions

Determine total impact by addition of impacts of individual parts of cycle

Step 3 *classification:* re-calculate total environmental impact by multiplying impacts with 'classification factors' into scores on ten standard environmental issues:

- | | |
|--------------------|----------------------------|
| - human toxicity | - aquatic toxicity |
| - soil ecotoxicity | - greenhouse effect |
| - ozone production | - acidification |
| - eutrophication | - smell |
| - use of space | - use of natural resources |

Classification factors are currently developed and take into account inter alia:

- * transport routes and -processes
- * sensitivities of surrounding environment
- * scarcity of resources

Step 4 *Evaluation*

phase 1: normalisation: put all scores in the same unit;

various normalisation methods exist, e.g.

- * percentage of existing pollution
- * contribution to environmental goals

phase 2: - determine 'relative importance' of issues

- apply 'weight factors' that reflect political and scientific values
- multiply scores by weight factors

phase 3: - add all scores, resulting in one figure: the so called 'environmental profile' of the policy, plan or programme

phase 4: - carry out a sensitivity analysis, taking into account uncertainties and the possibility of different assumptions or weight factors

- do conclusions change?

Step 5 *Improvement analysis:* discuss on the basis of environmental profile whether the plan can be improved.

ANNEX - 5**Country Report Presentation****BANGLADESH**

Shamsuz Zaman
Joint Chief (Forest & Environment)
Planning Commission
Dhaka

I. Institutional Set-up for Planning at the National Level.

Bangladesh Planning Commission is the Central Planning Organization of the Government. The Commission is entrusted with the task of planning socio-economic development of the country. Honorable Prime Minister is its chairperson while Minister for Finance/State Minister for Planning serves as Vice-Chairperson. There are 6 Divisions and 29 Wings in the Planning Commission. It has manpower strength of 168 consisting 5 Members, 6 Chiefs, 29 Joint Chiefs, 33 Deputy Chiefs and 95 Senior Assistant Chiefs/Assistant Chiefs. One Member is in-charge of one or more Divisions while each Division is headed by one Chief. The Organogram of the Planning Commission may be seen at Annex- A.

II. Multilateral Environmental Agreements:

Bangladesh have so far signed, ratified, and acceded to all major international conventions, treaties and protocols (ICTPs) related to environment. The important ones, among them, signed at the UN conference on Environment and Development (UNCED), held at Rio de Janeiro, Brazil in 1992, are the Agenda 21, Climate Change convention and Biodiversity Convention. The Agenda 21 is a basis to attain sustainable development through policies initiated and co-ordinate at the national level. Bangladesh national Conservancy Strategy (BNCS), The Forestry Master plan, and the National Environment Management Action Plan (NEMAP) all reiterate Bangladesh's commitment to implement the international conventions and treaties signed from time to time. List of ICTPs signed, ratified or accessed by Bangladesh is attached herewith (annex_B).

III. National legal instruments for addressing environmental issues:

In tackling the environment problems of the country, various environmental laws have been made from time to time in Bangladesh. There are more than 200 sectoral laws that are in force dealing with environment issues. They focus mainly on land use, air and water pollution, noise, toxic chemicals, solid waste, forest conservation, wildlife protection, mineral resources, coastal zone management, industry, environmental health and sanitation etc. On the basis of broad objectives of environmental laws existing in Bangladesh, laws may be categorized as follows:

- a) Protection of environmental health;
- b) Control of environmental pollution; and
- c) Conservation of natural and cultural resources

List of legislation related to the environmental is given in Annex – C

IV. Institutional Mechanisms for Integrating Environmental Concerns in National Policies, Plans and Programs:

4.1 Environment, as per the Environment Conservation Act, 1995 includes water, air, land and physical properties and the inter-relationships which exist among and between them and human beings, other living creatures, plants and micro-organism. The environment is thus the sum total of all social, physical, biological and ecological factors. Social environment is centered round human beings. It is their institutions, group behavior, habitation and interaction in production and consumption of their wealth. The human activities entail using natural resources and interfering with natural environment, increasingly with the increase in growth. Environmental concerns have, therefore, assumed vital importance. It is now widely accepted that there must be an integration approach between environment and development planning and activities. Environment is where we live and development is what we all do in attempting to improve our standard of living. Bangladesh has many environmental problems, such as frequent natural disasters, industrial pollution, poor health and sanitation, deforestation, desertification,

changes in climatic conditions, salinity, deteriorating habitat of flora and fauna, etc. Which we have to face, solve or compensate for.

Fifth five-year plan (1997-2002)

4.2 Bangladesh is now implementing its Fifth Five Year Plan (1997-2002). In order to promote, protect and expand nature and natural resources and to link all developmental activities with environment for improving the quality of life, the Fifth Plan aims at the following objectives:

- a) promoting sustainable environment management in pursuit of quality livelihood and to alleviate poverty;
- b) promoting participatory, community-based environmental resource management and environmental protection (considering the poor's access, equity as well as gender issues);
- c) ensuring active participation of the poor, especially women, in environment protection activities;
- d) promoting environment-friendly activities in development interventions;
- e) preserving, protecting and developing the natural resources base;
- f) strengthening the capabilities of public and private sectors to address environmental concerns;
- g) controlling and preventing pollution and degradation related to soil, water and air;
- h) creating public awareness for participation in environment promotion activities; and
- i) Conserving non-renewable resources and sustaining into a new generation of renewable resources.

4.3 Sustainable environment management has emerged in response to the need for new co-ordinate approach and practices. There need institutional arrangements, policy making, resources mobilization and initiatives by the society's major actors such as government at all levels, NGOs, leaders of business and civil society and groups. Sustainability is based on decision making which reflects a balance among long term economic growth and efficiency, ecological unity and human well-being including equity. More specifically, the concept seeks to offer an alternative approach to redress the failures of the past development strategies to contain growing inequality and deprivation of decent living. It builds on the lessons learnt in delivering development and the challenges of today's world due to changing nature of work and its multiplicity, and the desire for sustainable well-being and environmental security. The sustainable environment management concept allows the integration of social, gender and environmental equity issues in the search of a better living in a sustainable state.

4.4 Major thrusts for environment protection as envisaged in the plan will include the following:

- a) training of technical personnel for control of pollution;
- b) environment education in schools, colleges and universities, and creation of environmental awareness among people;
- c) land use planning;
- d) optimum utilization of water resources;
- e) coastal and social afforestation;
- f) wildlife preservation;
- g) development of agricultural resource base through bio-diversity and soil conservation;
- h) conservation of coastal and marine resource;
- i) conservation of coastal and marine resources;
- j) industrial pollution control;
- k) preservation of living aquatic resources; and
- l) Disaster mitigation measures.

1.1 National Environmental policy 1992

4.5 Bangladesh National Environmental Policy, 1992 sets out the basic frame work for environmental action, together with a set of broad sectoral action guidelines. Key elements of the policy are:

- a) Maintenance of the ecological balance and overall progress and development of the country through protection and improvement of the environment;
- b) Protection of the country against natural disasters;

- c) Identification and control of all types of activities related to pollution and degradation of environment;
- d) Ensuring sustainable use of all natural resources.
- e) Active association with all environment related international initiatives

Other environment concerned policies are: Industrial Policy 1991, National Water Policy, 1998 National Energy Policy, 1995 Power Policy, 1995 Petroleum Policy, 1995 National Forest Policy, 1994 National Fisheries Policy, 1998 National Health Policy, 1999.

1.2 National Conservation Strategy, 1992

4.7 National Conservation Strategy, 1992 was approved in principle, Final approval of the document is yet to be made by the cabinet. For sustainable development in industrial sector, the report offered various recommendations. Some of those are as follows:

- a) All industries should be subjected to EIA and adoption of pollution prevention/control technologies should be enforced.
- b) No hazardous or toxic materials/wastes should be imported for use as raw material.
- c) Import of appropriate and environmentally sound technology should be ensured.
- d) Complete dependence on imported technology and machinery for industrial development should gradually be reduced, so that industrial development is sustainable with local skills and resources.

4.8 For the 'Energy and Minerals' sector, the relevant strategy recommendations are:

- a) To use minimum area of land in exploration sites.
- b) Rehabilitate sites when abandoned.
- c) To take precautionary measures against Environmental Pollution form liquid effluent, condense recovery and dehydration plants.
- d) Reforestation of hills forming catchments of rivers
- e) Technology assessment for selection of appropriate technology

National Environmental Management Action Plan (NEMAP), 1995:

4.9 National Environmental Management Action Plan (NEMAP), 1995 is a wide-ranging and multi-faceted plan, which builds on and extends the statements set out in the National environmental Policy. NEMAP was developed to address issues and management requirements during the period 1995 to 2005, and sets out the framework within which the recommendations of the national Conservation Strategy are to be implemented. NEMAP has the broad objective of:

- a) Identification of key environmental issues affecting Bangladesh.
- b) Identification of actions necessary to halt or reduce the rate of environmental degradation.
- c) Improvement of the natural and build environment'
- d) Conservation of habitats and bio-diversity
- e) Promotion of sustainable development.
- f) Improvement in the quality of life of the people

4.10 As a follow-up of NEMAP A number of projects have been taken up and are under implementation. Among them, important ones in agriculture sector are the following:

- a) Sustainable Environment management Program (UNDP);
- b) Bangladesh Environment Management Project (CIDA)
- c) Bio-diversity Conservation in the Sundarban Reserve Forest (ADB)
- d) Air Quality Management Project (IDA), and
- e) National Conservation Strategy Implementation Project (NORAD/IUCN).

Environmental Impacts of Development Projects:

4.11 Any sort of development project activities may have environmental impacts, both with in out side the project area. There may also be both direct and indirect impact. These are taken into account while considering the approval of development projects. At present, there are certain regulator guidelines for preparation of project documents and also for environmental impact assessments. Current project documents include Project Concept Paper (PCP) and Project Proforma (PP). PCP is used while proposing a project to be approved by the competent authority and PP is used to implement the project. As more and more development projects are being undertaken for implementation, there has also been a

growing concern to prevent environmental degradation or depletion and so there exists arrangements both in PCP and PP to check on the possible impact of the project on environment.

4.12 Any project entails a set of activities over a period of time. Project activities occur either during the construction period or during the operations or in both periods. Such activities generate some stresses, which may have impacts on the environment. The impacts are classified in four categories: (a) human health impacts, (b) human welfare impact, (c) environmental resource impact and (d) global impacts. The pathway of impacts can be traced from three distinct sources: resource depletion or degradation, pollution and human interests.

4.13 Resources impacts are measured from changes in forest, marine and freshwater ecosystems as well as from changes in plant and animal habitats due to pollution generated from project activities. Pollution impacts are measured through changes in the level of water and air pollution resulting from project activities while human interest impacts are measured through changes in the level of economic activity due to deteriorating environmental condition and through changes in the institutions in a society. Any scoring system should incorporate all these aspects of environmental impacts.

Environmental Guidelines:

4.14 The Environmental Regulations of 1997 provides the directives to conduct Environmental Assessment (EA) for Industries following the 'traffic light' system. The system classifies industries by type and likely seriousness of adverse environmental impacts.

- ❖ Green Industries where clearance is granted without an IEE or EIA;
- ❖ Orange Industries where an IEE is required, and then if warranted a (Full) EIA, for environmental clearance, and
- ❖ Red industries where a (full) EIA is required for environmental clearance.

4.15 There exist other environmental guidelines on water sector, physical planning and waterlands of Bangladesh rural roads. The EIA guidelines for water prepared under flood action plan in 1991. The guidelines on environmental issues related to physical planning were published by LGED in 1992 and related to rural roads by CARE in 1994 and 1998.

1.3 Preliminary Environmental Screening (PES) System

4.16 Recently Government of Bangladesh has started worked for the development of a Manual for Preliminary Environmental Screening (PES) of projects related to agriculture sector. In the proposed manual projects are evaluated in terms of environmental considerations and that the process of this evaluation is as simple as possible and concise. Impact evaluation process generally starts with a checklist, which is used to identify potential adverse effect of the project on environment. The objective of the proposed PES is to evaluate the project using a cumulative score. The higher the score is the better the project is in terms of environment friendliness and a negative value of the score would essentially mean that the project needs further examination. Such scoring method usually lays the foundation of a detailed environmental impact assessment of the project.

4.17 Parameters used in PES vary from country to country. PES is being conducted for development projects in Bangladesh using a scoring method. The advantage of this method is that it can be used easily and at the same time it gives an objective outcome on the environmental impacts of the project. This would help planners to evaluate projects across the sectors and ministries without any prejudices or biases. Particularly when projects have multidimensional impacts, scores would allow impacts to be evaluated in a consistent manner. The scoring method retains all other advantages of the checklist method and hence give a better criterion for evaluating environmental impacts across projects.

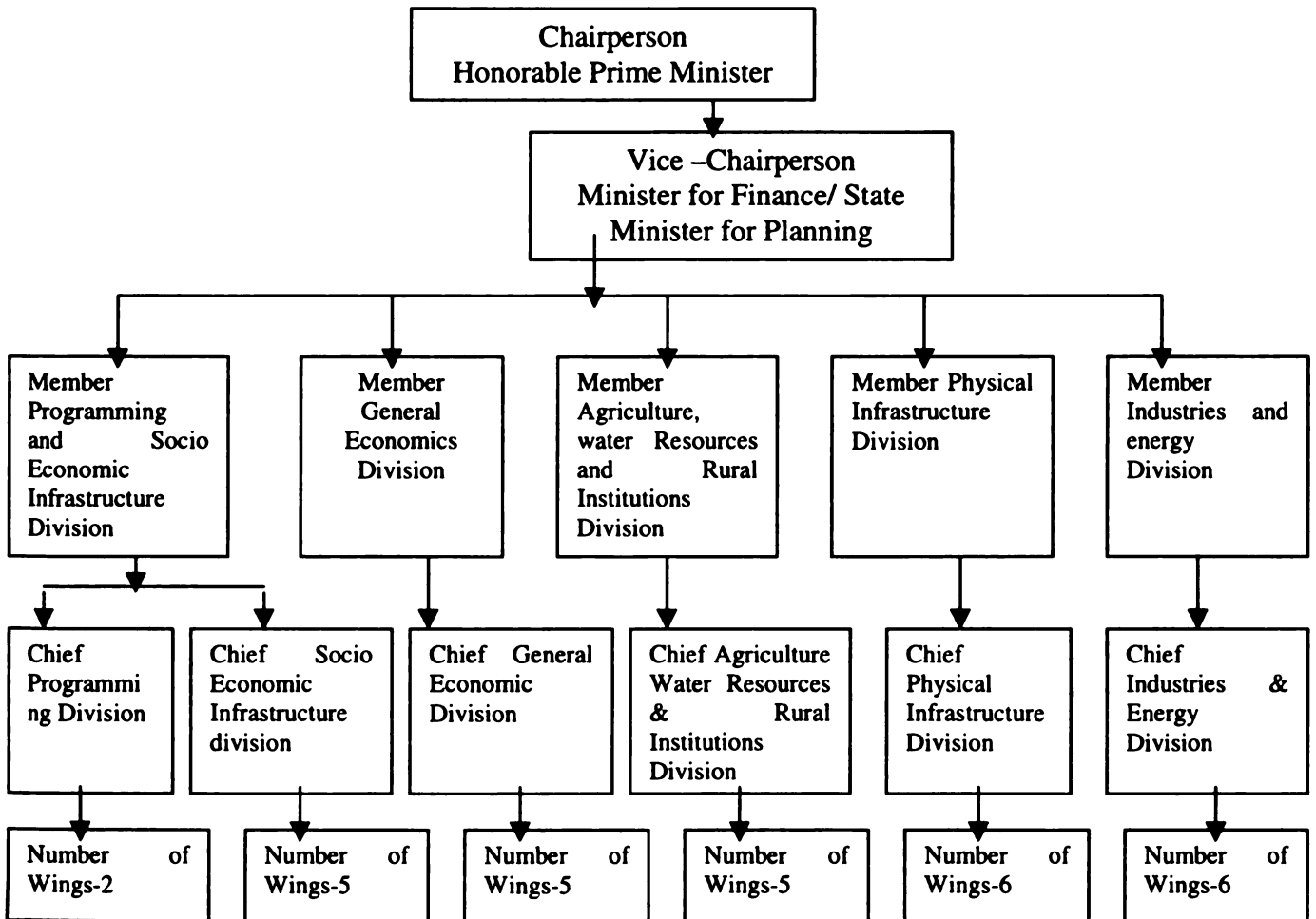
4.18 Environmental concerns are evaluated under three broad categories. Each category has pre- set weights that are fixed across projects. Impacts in each of these categories will be ranked using a scale that ranges from -3 to +3. At the end, a cumulative Environmental Impact Score will be calculated for the project using ranks and weights. If the cumulative environmental score is negative, the project may either go for IEE or EIA. On the other hand,

if the cumulative score is zero or positive, the project does not require going through IEE or EIA.

V. Conclusion:

Initiatives have been taken for institutional development in the field of environment. Bangladesh has Institutionalized environment by forming the Ministry of Environment and Forest (MOEF) in 1989 and upgrading the Department of Environment (DOF) under a Director General. These institutions back – up. However, their tasks are enormous and are expected to mobilize other agencies of the government. The effectiveness of environmental agencies would be as good as the other ministries and government agencies sensitivity, willingness and cooperation. Though there is some progress in the right direction, this is not commensurate with the rapid demands of the global and national environmental agenda. However, there are institutions and individuals who have the capability to undertake necessary research, advocacy, policy formulation etc. What is urgently needed is the development of a wider consensus and prioritization of the ICTPs, which Bangladesh must address promptly and adequately. This implies pulling the existing resources and manpower from all sectors of society.

Bangladesh Planning Commission Organogram



NB: 1. Each Wing is headed by a Joint Chief who is assisted by Deputy Chief and Senior Assistant Chief/Assistant Chief

1. For conduct of administrative and executive matters, there exists Planning Division headed by a Secretary who is assisted by a Joint Secretary and a Joint Chief with necessary supporting Officers and staff.

A Comprehensive List of Legislation's directly or Indirectly Related To the Environment

The main sectoral environmental legislation's in Bangladesh are:

1. The Environment Conservation Act, 1995 and Environment Conservation Rules, 1997
2. Pesticide Ordinance of 1971 and 1983 and Pesticide Rules, 1985
3. Petroleum Act, 1984
4. Factories act, 1965 and the Factory Rules 1979
5. Motor Vehicle Ordinance, 1939 (modified upto 1983)
6. Mines act, 1927
7. Dangerous Drugs Act 1930 and Dangerous Drug Control Order, 1982
8. Forest Act, 1927
9. Local Government Ordinance, 1982 (Upazilla Parishad and Upazilla Administration Reorganization)
10. Pourashava Ordinance, 1977.
11. Water Supply & Sewerage Authority Ordinance, 1963 (With amendment of 1989)
12. The Boiler act, 1923
13. Agriculture and Sanitary Improvement Act, 1920
14. Water Hyacinth Act, 1936
15. Tanks Improvement Act, 1939
16. Embankment and Drainage Act, 1952
17. Opium Act, 1978
18. Dangers Drugs Act, 1930 (Amended upon 1988).
19. Chittagong Hill Tracts regulation, 1900
20. The town Improvement Act, 1953
21. Labour laws (Amended upon 1987)
22. The Municipal Ordinance, 1983
23. The Explosive Substance Act, 198 (modified upto May 1983)
24. The Explosives Act, 1884
25. Poisons Act, 1919
26. The Factories Rules, 1979
27. Bengal smoke nuisances Act, 1905
28. Local Government Ordinance (Union parishads) 1983
29. Bengal Irrigation Act, 1876
30. Bangladesh Water and Power Development Boards ordinance, 1972
31. Wildlife (Preservation) Order, 1973
32. East Bengal Conservation and Protection of Fisheries Act 1950 (amended 1982).
33. The Bangladesh Fisheries Development Corporation Ordinance, 1973
34. Marine Fisheries Ordinance, 1983
35. Shops and Establishments Act, 1965
36. Bangladesh Pure Food Ordinance, 1953
37. The Bangladesh Penal Code 1860 (as amended from time to time)
38. Antiquities (Amended) Ordinance, 1976
39. Antiquities Act, 1968
40. The Tea Plantation Labour Ordinance, 1962 and Rules of 1977
41. The Forest (Amended) Ordinance, 1989
42. Merchant Shipping (Amendment) Ordinance 1989
43. The Inland Shipping (Amendment) Ordinance 1989
44. The Dhaka Municipal Corporation Ordinance 1983

ICTPs SIGNED, RATIFIED OR ACCESSED BY BANGLADESH

S. No	Convention /Treaty / Protocol related to environment	Signed	Ratified/ Accessed Accession	In the process of ratification
1	International Convention for the Protection of Birds, Paris, 1950		01.09.78	
2	International Plant Protection Convention Rome, 1951		28.12.81	
3	International Convention for the Prevention of Pollution of the Sea by oil , London, 1954 (as amended on 11 April 1962 and 21 October 1969)		(entry into force) 04.12.74 (AC)	
4	Plant Protection Agreement for the South East Asia and Pacific Region (as amended) Rome, 1956		(entry into force)	
5	Convention on the Continental Shelf, Geneva, 1958.			
6	Convention Concerning the Protection of Workers Against Ionizing Radiation's, Geneva 1960			
7	Vienna Convention on Civil Liability for Nuclear Damage, Vienna, 1963			
8	Treaty Banning Nuclear weapon Tests in the Atmosphere, in Outer Space and under Water Moscow, 1963	13.03.85		
9	Treaty on Principles Governing the Activities of States in the Exploration and use of outer Space Including the Moon and other Celestial Bodies, London , Moscow, Washington, 1967		14.01.86 (AC)	
10	International Convention on Civil Liability for oil Pollution Damage (as amended), Brussels, 1969			
11	International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Brussels, 1969		04.02.82	
12	Protocol Relating to Intervention the High Seas in Cases of Marine Pollution by Substances other than Oil, London, 1973		(entry into force)	
13	Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar, 1971 (Popularly known as Ramsar Convention).		20.04.92 (ratified)	
14	Protocol to Amend the convention on Wetlands of International Importance Especially as waterfowl Habitat, Paris, 1982			
15	Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other weapons of Mass Destruction the Sea Bed and the Ocean Floor and in the Subsoil thereof , London, Moscow, Washington, 1971			
16	International Convention on the establishment o f an international fund for compensation of oil pollution damage (as amended) Brussels, 1971			
17	Convention on the Prohibition of the development Production and Stockpiling of Bacteriological (Biological) and Toxic Weapons, and on their Destruction, London, Moscow, Washington, 1972		13.03.85	
18	Convention Concerning the Protection of the World cultural and natural Heritage, Paris, 1972.		03.08.83 (Accepted) 03.11.83 (ratified)	
19	Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (as amended). London, Mexico City, Moscow, (Washington), 1972			
20	Convention on International Trade in Endangered Species of Wild Fauna and flora, Washington, 1973 (Popularly known as CITES)	20.11.81		
21	International Convention for the Prevention of Pollution form Ships, London, 1973			
22	Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, London, 1973.			

S. No	Convention /Treaty / Protocol related to environment	Signed	Ratified/ Accessed Accession	In the process of ratification
23	Convention Concerning Prevention and Control of Occupational Hazards Caused by Carcinogenic Substances and Agents, Geneva, 1974			
24	Convention on the Prohibition of Military or Any other Hostile use of environmental Modification Techniques, Geneva, 1976.03.10.79 (AC) (entry into force same day)		10.12.82 (AC)	
25	Convention Concerning the Protection of Workers Against Occupational Hazards in the Working environment Due to Air pollution, Noise and Vibration, Geneva, 1977		02.08.90 (AC)	
26	Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979		31.10.90 (entry into force)	
27	Convention Concerning Occupational Safety and Health and the Working Environment, Geneva, 1981.		18.03.94 (AC)	
28	United Nations Convention on the Law of the Sea, Montego Bay, 1982		16.06.94 (entry into force)	
29	Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985		07.01.88 (ratified)	
30	Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal 1987.		07.02.88 (entry into force)	
31	London Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, London, 1990		07.01.88 (ratified)	
32	Convention Concerning Occupational Health Services, Geneva, 1985		07.02.88 (entry into force)	
33	Convention on Early Notification of a Nuclear Accident, Vienna, 1986		07.01.88 (ratified)	
34	Convention on assistance in the Case of a nuclear Accident of Radiological Emergency, Vienna, 1986		07.02.88 (entry into force)	
35	United Nations Convention on Convention for the registration of ships, Geneva, 1986		15.05.90 (ratified)	
36	Agreement on the Network of Aquaculture Centres in Asia and the Pacific, Bangkok, 1988		01.04.93 (AC)	
37	Basel convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, Basel, 1989			
38	International Convention on Salvage, London, 1989			
39	Convention on Civil Liability for Damage Caused during Carriage of Dangerous Goods by Road, Rail and inland Navigation Vessels, Geneva, 1989			
40	Convention Concerning Safety in the Use of Chemicals at Work, Geneva, 1990	30.11.90		
41	International Convention on Oil Pollution Preparedness, Response and Cooperation London, 1990	09.06.92		
42	United Nations Framework Convention on Climate Change, New York, 1992	05.06.92		
43	Convention on Biological diversity, Rio de Janeiro, 1992	21.06.94		
44	International convention to Combat Desertification, Paris 1994.			Ratified by cabinet during Oct 1995..

INDIA

Dr. D. N. Tewari
Member, Planning Commission of India
Yojana Bhavan, Parliament Street, New Delhi

I. Environment Assessment

Environment assessment in India was started in 1976-77 when the Planning Commission decided that all river valley projects would be considered only on the basis of environmental appraisal of these projects. The work of environment assessment was assigned to the then Department of Science & Technology, which later on transferred to the Department of Environment when it was created in 1980. Though initially it started with the river valley projects, the environment assessment was extended to other sectors such as industry, mining, power, transport etc. In 1994, environment impact assessment became statutory for about 30 selected activities covering different sectors of the economy. In this process individual projects are being appraised and decisions taken.

The main emphasis of environment assessment was to incorporate mitigation measures in the projects so that a certain degree of harmony is achieved between the developmental requirements and environmental necessities. The environment assessment of individual projects has proved to be inadequate in the long run due to the following reasons:-

1. While the individual projects were assessed for their environmental impacts, secondary developments induced due to these projects were not being assessed. For example, setting up of a steel plant in a green field area leads to other activities, which change the entire landscape and also the land use. The impacts of these are not taken into account.
2. While taking a decision on a project without understanding the implications on the upstream and downstream activities a fait accomplis situation arises. For example, in an export oriented cement project if the project has been approved without understanding the implications of the opening up of a new limestone mines/which may be located in an ecologically sensitive area and or setting up of port facilities to export products where the port is subjected to various ecological pressures would lead to irreversible damages.
3. The third major defect in the assessment of the individual projects is that cumulative impacts are not taken into account. When there is significant time gap between the time of a project is approved and goes into operation and in the meantime if number of projects are approved in the same area, it will have tremendous impact on the resources such as water, electricity, raw material as well as on the Ecosystem both biotic and abiotic.

1. Strategic Environmental assessment

Strategic environmental assessment has been introduced in number of countries. Basically it is environment assessment of policies, plans and programmes of either by States or Central Government. A number of definitions of strategic environmental assessment exist. Some of them are outlined below:

“The formalized, systematic and comprehensive process of evaluation the environmental impacts of a policy, plan or programme and its alternatives, the preparation of a written report on the findings, and use of the findings in publicly accountable decision-making.”

“EA of strategic actions – all government actions at higher level of organization than the construction project, including policies, plans and programs and non-binding guidelines.” (European Commission, 1994)

“Consideration of environmental impacts on policies, plans and programmes applied to higher levels of decision-making with the object of attaining ecologically sustainable development” (Commonwealth of Australia EPA, 1994)

Both strategic environment assessment and the environment impact assessment following the same objectives namely assessment of a project or a policy or plan or programmes for their environmental impacts and incorporate suitable mitigation measures. In a strategic environment impacts and incorporate suitable mitigation measures. In a strategic environment assessment, different policies are assessed for the environment implications. These may include land use policy, transport policy, energy policy, tourism policy. Besides this, different regional plans are subjected to environment assessment so that based on a carrying capacity study, the environment concerns are interaised in the regional plans. Many programme both economic as well as social welfare creates enormous stress on environment. These are needed to be assessed from environmental angle. For example, the issue of globalization, trade policies, social welfare programmes taken up number of countries which include free supply of energy, free education, housing, etc.

In Indian conditions, the policies are decided at the Cabinet level. The cabinet takes a decision on a policy issue after getting inputs from the different Ministries. The procedure laid down in this case is the user Ministry prepares a broad policy note which is subjected to scrutiny by different departments which examines them keeping in view the objective of the department. The Ministry of Environment scrutinises these proposals from environmental aspects keeping in view the environmental implications of a particular policy and gives its views. These are further discussed at the level of secretaries of Government of India and thereafter, it is placed the Cabinet for a decision. Some of the policies which have been examined in the recent past include tourism policy, policy on the acquisition, national water policy etc. The net result of such scrutiny and examination and final cabinet approval has resulted in interalising he environmental concern in the programmes.

India has long tradition of planning which is now 50 years old. We are in the midst of the 9th Five-Year Plan. The plans are prepared keeping in view the availability of resources (both physical and financial). These are further subdivided into sectoral requirements and sectoral plans are evolved. The individual departments of Government of India as well as the State Governments further subdivide the sectoral plans into plans for the region. These regional plans though not subjected to environmental assessment, the individual projects in the regional plan are assessed for their environmental compatabilities, pollution potential etc.

This has bot been satisfactory. Regional plan of one area may not be compatible with another area because while drawing up the regional plan only administrative boundaries are taken into account and not ecological boundaries. This leads to internal friction which could be avoided if the regional plans are assessed from the environmental angle. In order to obviate this the Ministry had taken up a few carrying capacity studies. Each study was to represent a typical Ecosystem. These include:

- a) Doon Valley (Ecologically fragile mountain area);
- b) National capital region (Urban Ecosystem);
- c) Damodar river basin (Riverine ecosystem where mining is a significant activity);
- d) Tapi estuary (Coastal ecosystem with a projected development of ports, harbours near an estuary);
- e) Greater Cochin (Industrialised coastal ecosystem with creeks and developed harbours);

In the above studies base line data regarding the environmental status of different environmental compartments were collected. This data was used for assess the supportive capacity namely availability of raw material, human resources water, energy etc. and assimilative capacity (Capacity to absolve the pollutants and wastes). On this the development programmes proposed for the area was super imposed to find out its impacts, This usually gives the result due to business as usual scenario. But this also indicates what are the limiting factors in respect of development in that area. It has been very place to place. In some areas it was land, some areas it was availability of water, and in some areas the direction of wind, in some areas nearness to the sanctuaries etc. Keeping in view the limiting factors, alternate developmental scenarios have been developed to implement this type of developmental plans. It requires a

change in the strategy as well as availability of resource. While certain corrective measures can be taken up as an interim measure, long term plan can be implemented only when sufficient financial resources are available.

For a developing country, external trade is a very important source of revenue. Keeping in view the trend of restrictive trade policies followed by the many developed countries, it is necessary that the industrial and agricultural practices need to be changed. But this imposes enormous financial burden on the developing countries. Most of the technologies available with the developed countries is based on using less and less of human resources. This may not be suitable for developing countries where human resources are abundant and there is a need to provide employment. This creates further stress on the socio-economic programmes where people below poverty line need to be provided adequate support.

Strategic Environment Assessment as a tool can make a painless beginning in the process of development in harmony with environment but implications of the implementation of strategic environment assessment is large for the developing countries where it requires a long term financial support and technologies which depend on human resources rather than machines.

NEPAL

Dr. Jagadish Chandra Pokharel
Member
National Planning Commission

1. Strategic Environmental Assessment (SEA) and its integration in national policies, plans and programs in Nepal

In Nepal, National Planning Commission is the central level institution responsible for the formulation of periodic development plan, preparation of annual development programs and monitoring and supervision of development programs and projects. It is headed by the Prime Minister and the vice-chairman and to these members of this commission is appointed by the government. The vice chairman and other members are chosen from different professional fields who work in a team spirit but at the same time every member takes the responsibility of their specialized sector (for detail, please see Organogram).

2. Multilateral environmental Agreements to which Nepal is a Party

- Convention on International Trade on Endangered Species of Wild Fauna and Flora (acceded in November 1975)
- Vienna Convention for the Protection of the Ozone Layer (acceded in April 1994)
- Montreal Protocol on Substances that Deplete the Ozone Layer (acceded in 1994)
- London Amendment to the Montreal protocol (acceded in 1994)
- UN Framework Convention on Climate Change (ratified in February 1994)
- Convention to Biological Diversity (ratified in November 1993)
- Convention to Combat Desertification (ratified in October 1996)
- Basel Convention on the control of Transboundary Movements of hazardous Waste and their disposal (acceded in 1996)
- Plants protection agreement for the South East Asia an Pacific Region, Rome 1956 (acceded in 1965)
- Convention on the High Seas, Geneva 1956 (acceded in 1962)
- Treaty Banning Nuclear Weapon Test in the Atmosphere, in outer Space an under Water, Moscow 1963 (ratified in 1964)
- Conservation on Wetlands of International importance Especially as Waterfowl Habitat, Ramsar 1971 (acceded in 1987)
- Treaty on the Prohibition of the Emplacement of nuclear Weapons and other Weapons of Mass Destruction on the Sea Bed an the Ocean Floor an the Subsoil thereof, London, Moscow, Washington 1971 (ratified in 1971)
- Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972 (acceded in 1978)
- Convention on the Prevention of Marine Pollution by Dumping of Wastes other matter, 1972 (ratified in 1973)
- Agreement on the Network of Aqua Culture Centers in Asia and the Pacific, 1988 (ratified in 1990)

3. Major Legal instruments for addressing environmental issues in Nepal

- The Constitution of Kingdom of Nepal 1990
- Local Self-Governance Act, 1998
- Environment Protection Act, 1996
- Forest Act, 1992
- Water Resources Act, 1992
- Electricity Act, 1992
- Vehicle and transport Management Act, 1992
- Industrial Enterprises Act 1992
- Pesticide Act, 1991

- Labour Act, 1991
- Solid Waste (Management and Resource Mobilization) Act, 1986
- Soil and Water Conservation Act, 1982
- King Mahendra Trust for Nature Conservation Act, 1982
- Tourism Act, 1978
- National Parks and Wild life Conservation Act, 1973

4. Institutional set-up Integration of SEA in Nepal

Strategic Environment Assessment (SEA) is a process of systematic evaluation of environmental concerns and incorporating those concerns into strategic decision making. Unlike the EIA process, it is a quite new concept to decision makers and most of the decision makers especially in the third world are unaware of this process. Considering the limitation of project level EIA system and its inability to deal with broader cumulative and strategic issues, SEA has been prescribed in order to integrate environmental concerns in policy planning and strategic decision making level. It requires evaluation of environmental impacts of strategic mechanisms such as policies and programs with the preparation of a written report on the finding of the evaluation for use in decision making. The SEA can be introduced in different tiers of strategic mechanisms so that issues considered at the higher tier do not need to be considered at the lower tiers that reduces assessment at the bottom.

In Nepal, SEA is in its initial stage. For the first time, the Ninth Plan (1997-2002) has mentioned in brief about the possibility of its incorporation in strategic decision making. However a very little has been done in terms of getting this process introduced in practice. In line with the Ninth Plan's environmental policy, Ministry of Population and Environment (MOPE) has for the first time developed a program to carry out study on the possibility of incorporation of SEA process in decision making. This study will also evaluate our institutional set up of planning and decision making and make recommendations how this process can be internalized in various levels of strategic decision making.

As mentioned earlier, most of the decision-makers in Nepal are unaware of the SEA process. Hence, the first need at this juncture in our context is to increase general understanding of Sea process among the decision makers especially on topics such as what is SEA process, what are the benefits? Similarity clarification of procedural issues such as at which decision making level in a planning process should SEA be inserted and how it can be applied in high level policy decision is absolutely essential. In addition, methodological issues need to be clarified among the decision-makers which will strengthen the capacity for the practical application. It certainly requires increased training and research activities and study programs focusing on institutional set up and decision making process and culture of individual country.

In some of the developed Countries SEA has become an internal part of decision making process. In The Netherlands, USA and in some other countries this process has been backed up by statutory provisions making it mandatory in strategic and policy decision. However, in our context it is not feasible and practical to go that far at this early stage. Nevertheless, we can undertake pilot studies, prepare guidelines and provide training to make this process move forward in our context.

In Nepal there are basically four points where strategic and policy decisions are taken. They are:

- The Parliament which involves in drafting legislation and approving annual budget and tax policies,
- The Cabinet of Ministers which involves in a day to day operational and political decision making at national level.
- The Sectoral Ministries involve in the decision making process of sectoral policy making, planning and implementation and
- The National Planning Commission which involves in National development policy formulation, program designing and monitoring and evaluation.

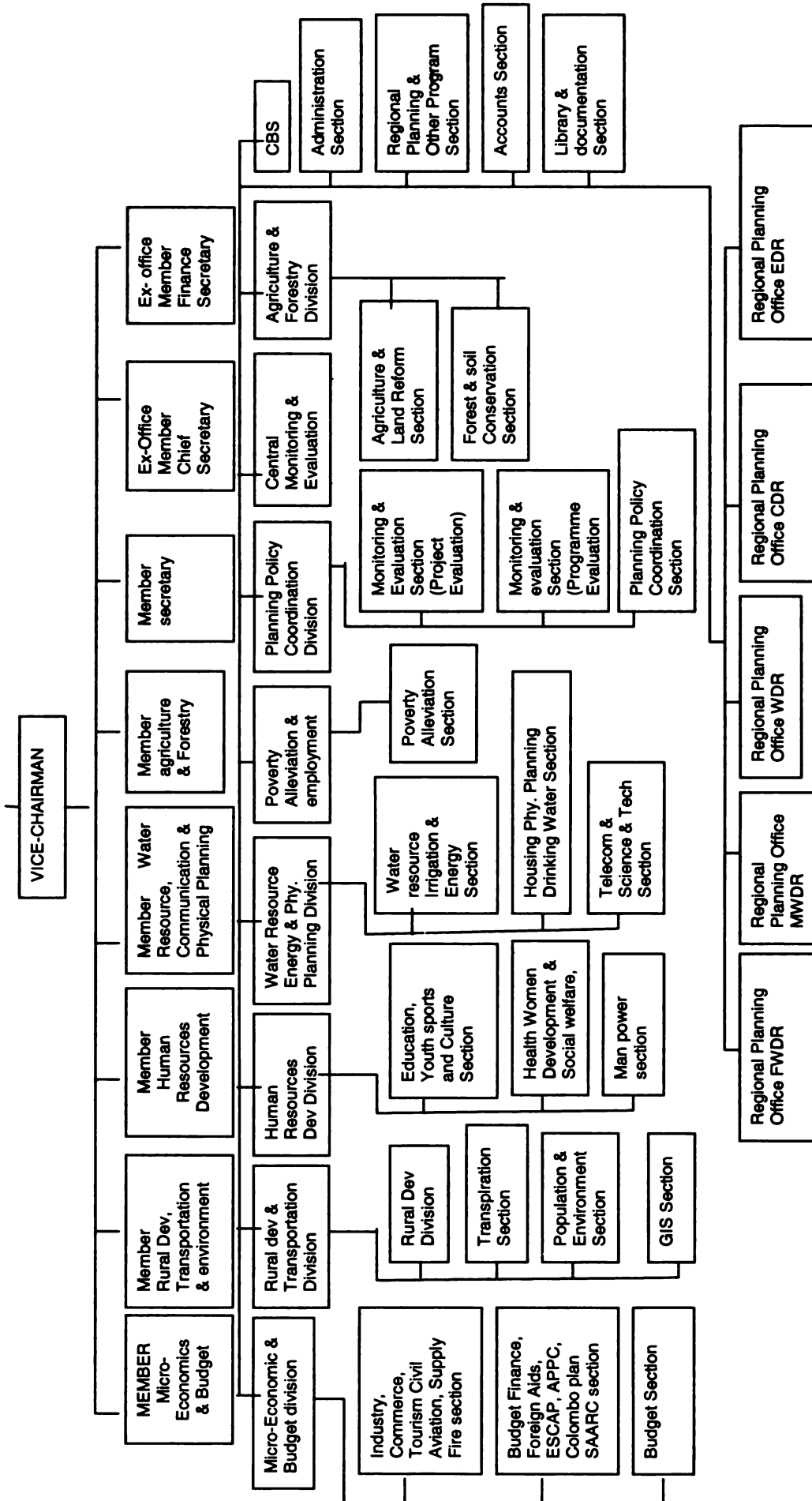
Among these four institutions, parliament is constituted by the popular vote of people. The government formed on the basis of majority in the parliament. These two institutions are political in nature. On the other hand, sectoral ministries and the National Planning Commission operate under the direct supervision and control of the government. The planning commission is a team of professionals and they are primarily involve in national development policy formulation and preparation of annual development programs. In addition, it also acts as an advisor to the government in various development issues. The sectoral ministries are run by bureaucrats under the direct supervision and control of sectoral ministers and they are primarily responsible for the implementation of national development policies and programs. In this respect, these all institutions are interrelated to each others in such a way that the sectoral ministries and the National Planning Commission are accountable to the government but the government as such is accountable to the parliament.

However, at the same time, each sectoral minister is also directly responsible to the parliament.

In addition, to look after the environmental issues at national level, there is an apex body called Environmental Protection Council. The Environmental Protection Act provides for the constitution of this body and it is constituted under the chairmanship of the Prime Minister. This body meets at least twice a year. It reviews and analyses all environmental issues and provides directions with regard to the outstanding environmental issues at national level.

Given this various levels of strategic decision making. We need to have a flexible and adoptive procedure to integrate SEA process in different tiers of decision making. Politicians, bureaucrats and professional all get involved in decision making but they all have different levels of understanding and each group look at the issues form their own perspective. Hence our foremost challenge at this juncture is to develop a flexible and applicable procedure in our specific context. Similarly another equally important issue is to increase awareness and level of understanding of our decision makers with regard to the SEA process. Hence we must put our efforts on increasing research and training activities and developing guidelines and appropriate procedure in this respect.

NATIONAL PLANNING COMMISSION
CHAIRMAN PRIME MINISTER



PAKISTAN

Dr. Mushtaq Ahmad
Environment Section
Planning Development Division
Government of Pakistan Islamabad

INSTITUTIONAL MECHANISMS FOR INTEGRATING ENVIRONMENTAL CONCERNS IN NATIONAL POLICIES, PLANS AND PROGRAMMES

Pakistan has suffered a lot on the environmental front due to unplanned industrial, agricultural and urban activities, Our air, water and land has polluted upto undesirable limits. And our natural resources are depleting at an alarming rate, due to unsustainable pattern of industrial production & consumption of natural resources.

Environmental concerns received minimal mention in the first, second and third Five year plans. However, the fourth Five-Year Plan was indirectly oriented towards the preservation and protection of the environment, but was not implemented as a result of political change. The fifth Five-Year plan, in its chapter on "Physical planning and housing" identified the need of housing and a healthy living. The sixth Five-Year Plan envisaged environmental protection in a real sense and the reclamation of land through control of salinity and water logging, and the improvement of slums and squatter settlements received due priority. The seventh Five-year Plan and the 15-Year Perspective Plan (1988-2003) came together. The two Plans gave full recognition to the interrelationship between population, resources, environment and development. The Environmental Protection Ordinance (EPO) (1983), which was promulgated on 31 December 1983, made it compulsory to carry out EIA/IEE VII. The Environmental Protection Council and the Pakistan Environmental Protection Agency were established and made responsible for the implementation of EPO. For the first time, in the eighth Five –Year Plan a full chapter on the environment was included. The NCS was approved in 1992 as a guiding document on conservation of natural resources and protection of environment. Effective implement of NCS was mandate to an inter-ministerial coordinating committee on NCS, thereafter NCS Unit was established in the M/o Environment to coordinate and monitor NCS implementation at different levels. The programme areas identified in NCS were incorporated in National Development Planning in 1993 i. e. 8th Five-Year Plan.

The future development perspective and deficiencies identified during 8th five-year plan have been taken care of during current plan i. e. ninth five year plan. The current plan lays greater emphasize towards critical areas as compared to the previous plan.

Besides implementation of current plan the present Government has particularly initiated preparation of perspective plan upto 2015, emphasize more on different sectors of economy enabling with definite objective to go along with global developments in general and South Asia in particular

Institutional arrangements for decision-making/development planning at different levels

1. The responsibility for development planning in Pakistan is split between the federal and provincial governments, concomitant with the allocation of function to them under the Constitution of Pakistan. At the federal level, annual and five-year economic and social development plans are prepared by the Planning and Development Division of the National Planning Commission (Annexure-1). The other functions of the Planning and Development Division include monitoring the implementation of major development projects and programmes, evaluation of ongoing and completed projects, and the development of appropriate costs and physical standards for effective technical and economic appraisals of projects. The federal ministries (to the extent of subjects allocated to them under the rules of

business are responsible for the preparation of programs and projects in their respective fields of interest including autonomous organizations under their control. The programmes prepared by the federal ministries are submitted to the Planning Commission, which coordinates all development programmes in Pakistan. The Planning and Development Department is the principal planning organization at the provincial level. It is headed by the Additional Chief Secretary (Development) in each province, including NWFP, who is assisted by professional staff from various fields including economists. The Department coordinates the programmes prepared by the provincial departments concerned with development and prepares the overall Provincial Five-Year Plan and Annual Development Programmes (ADP).

2. Project approving bodies. Development projects and programmes, including in the Public Sector Development Programme (PSDP), are approved at the federal and provincial levels by different approving bodies depending up to the overall capital cost of the financial arrangements of a project (e. g, the source of funding), and the nature and extent of recurring expenditures. Those bodies include:

National Economic Council (NEC)

- a) Executive Committee of the National
 - b) Economic Council (ENCNEC)
 - c) Economic Coordinator Committee
 - d) Central Development Working Party (CDWP)
 - e) Federal Ministry department development working party
 - f) Provincial development working party
 - g) Provincial departmental development working party of the provinces
3. Keeping in view that environment decision making agencies and project formulation activities have already been initiated, there is still a need to mainstream environment concerns into development. For that purpose, that National Conservation Strategy since approved by the Cabinet and the Pakistan Environment Programme as well as the sectoral NGOs/Private Sector like IUCN, have assisted to institutionalize the environmental establishments at federal and Provincial levels. Their capacities would be enhanced by engaging environment trained cadres, in all the organizations.

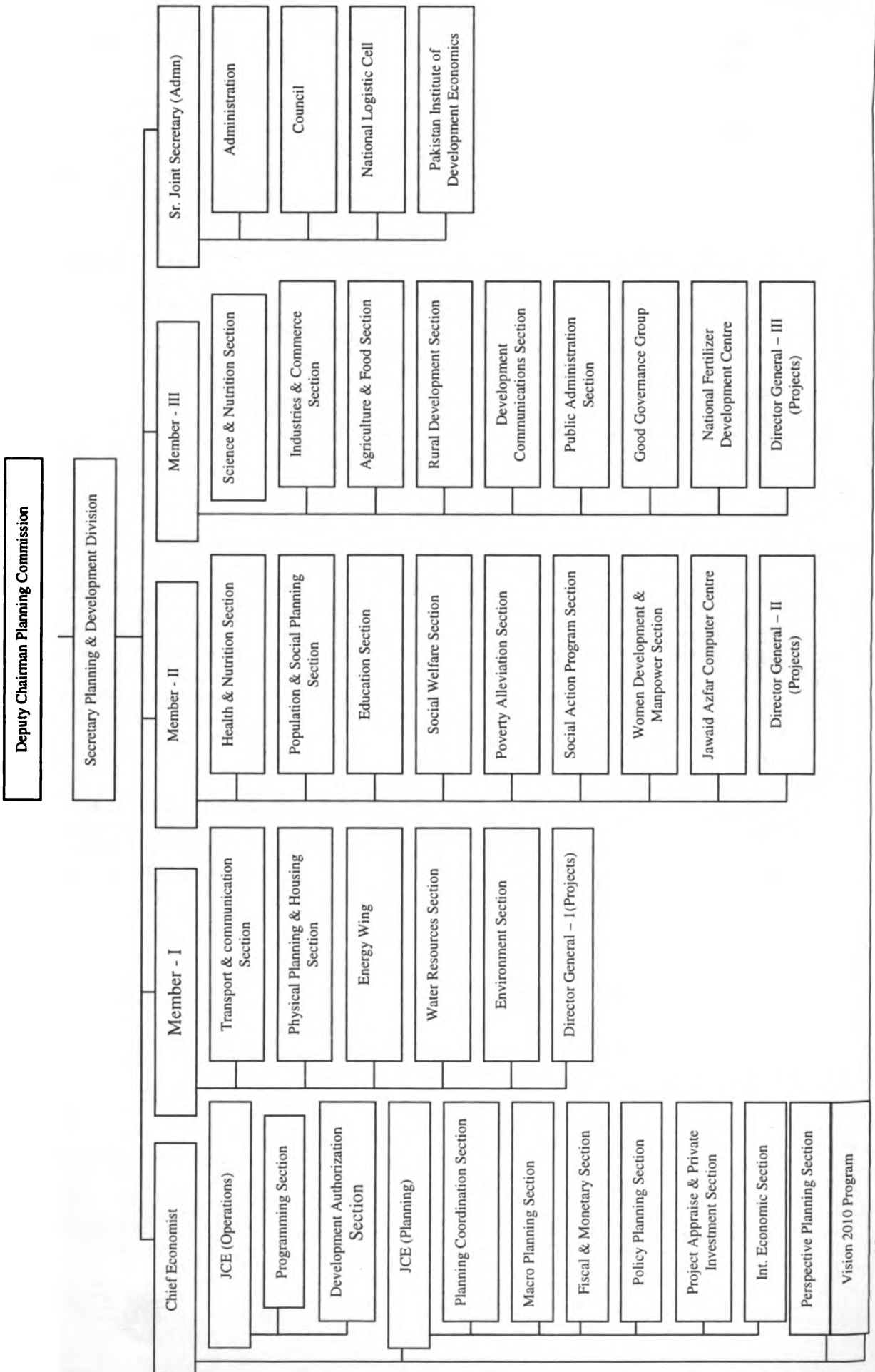
Monitoring/evaluation:

Project Wing of Planning & Development Division is responsible for monitoring and evaluation of development projects approved by CDWP/ECNEC. Environment Section is regular member of the monitoring/evaluation teams. The outcomes of the monitoring/evaluation exercise determine guidelines for planning future development programs with sound consideration of environmental aspects.

Annexes:-

- I. Organogram
- II. Legal instruments for Environmental Protection
- III. Multilateral Environmental Agreements

Annex 1: ORGANIZATIONAL CHART OF PLANNING COMMISSION



Annex 2: NATIONAL LEGAL INSTRUMENTS FOR ADDRESSING ENVIRONMENTAL ISSUES

2000	The Environments Protection Regulation , 2000
1997	The fisheries Act-1997
1997	The Pakistan Environment Protection Act, 1997 (Act XXXIV of 1997)
1995	Agricultural Pesticides (Second Amendment) Ordinance, 1995
1994	Karachi Port Trust (Amendment) Ordinance, 1994
1994	National Fund for Cultural Heritage Act, 1994
1994	Sindh Cultural Heritage (Preservation) Act. 1994
1992	The import Policy Ordinance
1990	The Punjab Land Preservation Act (no II), 1990
1989	Export Control Order 1987/ 89
1989	The hazardous Waste rules 1989
1989	The manufacture storage and import of hazardous chemical Rules – 1989
1988	NWFP salinity control and reclamation of Land Act - 1988
1986	The Pakistan Petroleum (exploration & production) Ord - 1986
1985	The Punjab special premises (preservation) Ord - 1985
1984	The West Pakistan Regulation and Control of Loudspeaker and Sound Amplifiers Ordinance (III), 1985
1984	The Pakistan Nuclear Safety & Radiation Protection Ord – 1984
1983	Pakistan Environment Protection Ordinance, 1983
1983	The Sindh Water Prevention and control of Pollution rules – 1983
1982	The Korangi fisheries harbor Authority Ordinance – 1982
1981	Gas cylinder rules – 1981
1981	The Air prevention and control of pollution rules - 1981 and rules 1982
1980	The Admiralty Jurisdictional of High Court Ordinance - 1980
1980	The NWFP Forest Conservation Ord - 1980
1980	The Sindh Fisheries Ordinance.
1979	The Islamabad wildlife (protection, preservation, conservation Management) Ord- 1979
1979	The Punjab Local Govt. Ord – 1979
1978	Farm Water management and Water users associations Ord – 1978
1978	The grazing of Cattle in the Protected forest (range lands) rules - 1978
1977	Prevention of Smuggling Act – 1977
1977	The NWFP wildlife (protection, preservation, conservation Management) rules- 1977
1976	Northern Wildlife act, 1976
1976	Territorial Waters and Maritime Zone Act, 1976
1976	The drug Act – 1979
1976	The NWFP Fisheries Rules 1976
1976	The Pakistan Plant quarantine Act - 1976
1975	Lahore Development Authority Act, 1975
1975	Land Reforms (Amendment) Act 1975
1975	The antiquities act - 1975
1975	The cutting of trees (prohibition) Act- 1975
1975	The Explosion Economic Zone Act - 1975
1975	The Explosion fisheries Zone Act - 1975
1975	The NWFP Management of Protection of Forest Rules - 1975
1975	The Punjab Land Reforms Appointment of Management of Impartible Joint Holdings Rules, 1997
1974	Land Reforms (Amendment) Act, 1974
1974	Oil and Gas (safety in drilling & production) regulation - 1974
1974	Procedure for Ejecment Suits Rules, 1974
1974	The Balochistan wildlife (protection, preservation, conservation Management) Act 1974
1974	The NWFP wildlife (protection, preservation, conservation Management) Act 1974-75
1974	The Punjab Plantation and Maintenance of Trees act- 1974
1974	The Punjab Wild life (protection, preservation, conservation Management) Act - 1974
1974	The Sindh Wildlife (protection, preservation, conservation Management) Act – 1974

1973	Land Reforms (Amendment) act, 1973
1973	Land Reforms (Punjab Amendment) Act 1973
1973	The Punjab Wild Birds and Wild Animals Protection Act (No. XIII), 1955. Punjab Wildlife (Protection, Preservation, Conservation and Management) ordinance, (No XXI) 1972, especially related Rules, 1973
1972	Land Reforms Regulation Sindh (Amendment) Act. 1972
1972	Land Reforms Regulation Sindh (Second Amendment) Act. 1972
1972	Land Reforms Regulation, 1972 (Repeals 1959 Regulation)
1972	Punjab Land Reforms Rules, 1972 (Amendment)
1972	Sindh Land Reforms rules, 1972
1972	The KDA Zoning Regulations, 1972
1972	Punjab Land Reforms Rules, 1972
1972	The Sindh wildlife (protection, preservation, conservation Management) Act- 1972
1971	Agricultural Pesticide Ordinance, 1972
1971	The Balochistan Sea Fisheries Ord- 1971 and Rules 1971
1971	The West Pakistan prohibition of Smoking in Cinema Houses Ord – 1971
1969	Notification No. 5174-68/155- CRI, National Calamities (Prevention and relief) Rules, 1969
1969	Ordinance No, IV, 1969. The Kabul River Project (Control and Prevention of speculation in Land) (Amendment Ordinance 1969)
1969	West Pakistan Land Revenue (Conferment of Rights of Ownership) Rules, 1969
1968	Land Revenue Act, 1967, rules 1968, Assessment Rules, 1968
1967	Pat Feeder Canal (Control and prevention of alienation of land) Ordinance (No IX), 1967
1967	The Greater Lahore Water Supply Sewerage and Drainage, Ordinance 1967
1966	The Islamabad (prevention of landscape) Ordinance 1966
1966	The West Pakistan Land and water Development Board (Authority for payment form Board Fund) Rules, 1966
1965	Hazardous Occupations rules – 1965
1965	Motor Vehicle Laws – 1965-1969
1965	The West Pakistan regulations to control of Loud Speakers & sound amplifier ordinance – 1965
1965	West Pakistan pure food Act – 1965
1964	Fisheries Rules (No 4(107) S. O. (F&C), 1964, Licenses etc
1964	Grant of Land (Guddu Barrage Area) Rules 1964
1964	The Electricity Act (IX), 1910 Soil Reclamation Act, (No. XXI), 1952. (Amended by Ordinance, 1964, 1965 and amended and extended by Ordinance (No. X), 1964
1964	The West Pakistan fire Wood & Char Coal (restriction Act- 1964)
1963	West Pakistan Hazardous Occupations (Cellulose solution Spraying) Rules, 1963
1963	West Pakistan Hazardous Occupations (Chromium) Rules, 1963
1963	West Pakistan Hazardous Occupations (Miscellaneous) Rules, 1963
1963	West Pakistan Hazardous Occupations (Petrol Gas Generating plant) Rules, 1963
1963	The West Pakistan Fisheries Ord- 1961
1961	West Pakistan Goats Restriction Rules, 1961
1961	West Pakistan Land Reforms (Ejectment of Tenants to provide for buildings) Rules, 1961
1960	Consolidation of Holdings Ordinance (No. VI), 1960
1960	The Balochistan Ground Water Rights Administration Ord – 1960
1960	The Indus Water treaty, 1960
1960	The West Pakistan Agricultural Pests rules – 1960
1959	Determination of Land Revenue and Water Tate Ordinance (No. IV) 1959 (Amended 1961)
1959	The West Pakistan Agricultural Pests Ordinance – 1959
1959	The West Pakistan Factories Canteen Rules – 1959
1959	The West Pakistan Goats (restrictions) Ord – 1959
1959	West Pakistan Land Reform Rules, 1959
1959	West Pakistan Land Reform Regulation, 1959, M. L. R. No, 64
1959	West Pakistan wildlife Protection Ordinance, 1959
1959	Wildlife Protection Rules, 1960, Regulates hunting, (Various License forms attached).

	Wildlife Protection Ordinance (No LVI) 1959
1958	The West Pakistan Epidemic Diseases Act – 1958
1958	The West Pakistan Water and Power Development Authority Act, 1958
1957	Food and Agricultural Department (No, IV (5)/ 17-SOA- VII-F and A/58). Rules for the protection of fish in the waters of the Shikarpur district. (Preceded by a Provincial Constitution Order, 1957)
1956	The Inter-State Water dispute Act, (No. 33) 1956
1956	The Karachi Joint Water Rules – 1959
1954	Rules for the prohibition and Regulation of fishing Burbooster, Labeo Rohita, Catcatla, Cirrhina and Migala less than 10 inches in length. (No 2989/54-6541-D(f), 1954
1953	The dangerous cargoes Act – 1953
1952	The Punjab Betterment Charges and Acreage Rate Act, 1952
1952	The Punjab Development of damaged areas Act – 1952
1952	The soil reclamation Act – 1952
1950	The Imports and Exports Control Act – 1950
1950	The NWFP Tenancy Act (no. XXV), 1950
1949	The Karachi Joint Water Board Ord – 1949
1944	The Public Health (emergency provisions) Ord – 1944
1940	Motor Vehicle Rules, 1940
1939	Motor Vehicle Act, 1939
1936	NWFP Hazara Forest act, 1936
1934	Factories Act – 1934
1930	Dangerous drugs Act – 1930
1927	The Forest act – 1927
1924	Containment Act – 1924
1923	Mines Act – 1923
1923	The Boilers Act – 1923
1919	Poisons Act – 1919
1913	City of Karachi Municipal Act – 1913
1913	The Punjab Forest (sales of timber) Act-1913
1912	The Colonization of Government Lands (Punjab) Act (no. V), 1912
1912	Wild Birds and Animals Protection Act, 1912
1908	The Ports Act – 1980
1908	The Territorial Water and Maritime Zone Act- 1908
1905	The Punjab Minor Canals Act (No VII) 1905
1898	Criminal Procedures Code (Act V), 1898). Section 324 ad 430)
1897	The Sindh Irrigation Act, 1897 (Amendment Ordinance, 1961, 1969)
1884	The Explosive Act – 1884
1883	The Land improvement loans Act – 1883
1873	Canal and Drainage Act – 1873
1860	The Criminal Code 1860 (outlawed killing/ maiming of animals)
1860	The NWFP (conservation & exploitation of certain Forest in Hazara Division) Ord – 1860
1860	The Pakistan Panel Code - 1860

ANNEXURE - 3

S.No	Multilateral Environmental Agreement	Responsible Ministries Departments
1	International Plant Protection Convention, Rome, 1951	Plant Protection Department, M/o/F&A
2	Plants Protection Agreement for the South East Asia and Pacific Region (as amended), Rome 1956	PARC, M/O F&A
3	Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Eastern Region of its Distribution Area in South-West Asia (as amended), Rome 1963	Pakistan National Commission for UNESCO
4	Convention Concerning the Protection of World Cultural and Natural Heritage (World Heritage Convention), Paris, 1972	Inspector General forest, M/o ELG & RD
5	Convention on wetlands of International Importance especially as Waterfowl Habitat Ramsar, 1971, and its amending Protocol 1982	Inspector General forest, M/o ELG & RD
6	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Washington, 1973. (03.03.1973)	Inspector General forest, M/o ELG & RD
7	Convention on the Conservation of Migrating Species as wild Animals, Bonn, 1979	Inspector General forest, M/o ELG & RD
8	Convention on the Law of the Sea, Montego Bay, 1982	National Institute of Oceanography, Karachi
9	Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985	M/o ELG & RD
10	Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 1987 and amendments thereto	Ozone cell, M/o ELG & RD
11	Agreement on the Network of Aqua-culture Centers in Asia and the Pacific Bangkok, 1988	M/o ELG & RD
12	Convention on the Control of Trans-boundary Movement of Hazardous Waste and its Disposal Basel, 1989	M/o ELG & RD
13	Convention on Biological Diversity, Rio de Janeiro, 1992	M/o ELG & RD
14	United Nations Framework Convention on Climate Change, Rio De Janeiro 1994	M/o ELG & RD
15	South Asia Cooperative Environment Programme (SACEP)	M/o ELG & RD
16	Commission on Sustainable Development (CSD)	M/o ELG & RD
17	Global Environment Facility (GEF)	M/o ELG & RD
18	UN Convention to Combat Desertification (CCS) ratified in 1997	M/o ELG & RD

SRI LANKA

Lalanath de Silva
President, SLEAA

Mr. Hemantha Withanage
Executive Director/Senior Environmental Scientist
Environmental Foundation Ltd.

Strategic Environmental Assessment (SEA) and its integration in national policies, plans and programs

National Planning Department plays the role of a Planning Commission. It functions under the Ministry of Planning and Implementation, Government of Sri Lanka. There has been National level Planning Committees. Most recently the National Development Counsel was formed headed by the President. It consists of the membership of some key ministries like industries, agriculture, environment etc. But it is not a statutory body. It is an ad-hoc decision making body.

One of the key functions of the National Planning Department is to process and approve the Public Investment Program (PIP), which is annually up dated. It consist of the program or projects submitted by other government agency for funding. The Central Environmental Authority is the APEX agency established by act of parliament. According to the National Environmental Act of 1980 as amended in 1988 and 1999, this agency functions under the Ministry of Environment. Its function is to operate environmental protection license in program for pollution control and Environmental Impact Assessment process for project.

Multilateral Environmental Agreements

Multilateral agreements signed by Sri Lanka are more or less similar to what the other country has signed. Key among them, would be the real declaration, Biodiversity Convention, the Framework Convention on Climate Change, Basel Convention of Hazardous Waste, Ramsar Convention, World Heritage Convention etc.

Major Legal instruments for addressing environmental issues

National planning department is not a statutory department. It has no support law and therefor has no particular instrument, accept the traditional administrative processes. But the central environment authority has the licensing program and the EIA process.

Policy wise, Sri Lanka has followed the National Conservation Strategy Development in 1988 which was followed in 1990 with the National Environmental Action Plan which identified prioritized key area where interventions were required.

This plan is updated in 1992 and then further new National Environmental Action Plan for the years 94-98 was done out of which a very important program funded by the World Bank has been developed. It is called the Environmental Action-1 program, which is basically capacity building for the Ministry of Environment, Central Environment Authority and also for the National Planning Department. At present, Sri Lanka has the National Environmental Action Plan (1998-2001) from the Ministry of Forestry and Environment.

Institutional set-up for Integration of SEA

The Forestry Master Plan, the Long Term Energy Development Plan, the Coastal Zone Management Plan which is revised every five years and the Greater Colombo Waste Water and Sanitation Master Plan are some of the big plans that have been developed. However, none of these documents have the SEA done.

Under the Asian Development Bank Project, these studies were done in 1998 and these particular studies developed two term of reference:

1. SEA done in Power Sector
2. Regional Development Programme in the South of Sri Lanka called the Ruhunu Pura Development Programme (It is a very big Regional Development Programme that the Government is still working on and the terms of reference were developed but no concrete action has been taken to do SEA in Region).

There was an amendment made under the EIA regulation, which has yet not been brought into operation.

Two important interventions that took place were from 1994-1996 and from 1995-1997 with the National Planning Department to help them, try and integrate environmental concerns into the project planning process. The objective of the program was to help the National Planning Department to integrate environment into development projects.

Basically the objective of this programme was to train the EIA process into the public planning projects. In 1996 systemic procedure was developed called Gunaruwan Strategy (Dr. Gunaruwan) which has five elements

1. A document or a format, which all the departments submitting projects could use or should use. It is eventually to be called Project Submission Format, later, called Project Concept Format. The entire department was required to submit the Project Concept by filling up the Format.
2. To create a Planning and Monitoring Division (PMD) in all line ministries: This proposal, though key element in Strategy, never got done because of administrative problems, and funding problems etc.
3. To establish the environmental group at the National Planning Department for doing the initial screening of the entire project concept that came in from different departments: Six members inter-disciplinary team was set up consisting of resource economist, scientist etc. and that group is functioning in the Department of National Planning so that element of strategy got implemented.
4. To create Project Clearance Community (PCC) to resolve the possibility between the National Planning Department and the Central Environmental Authority as a conflict resolution mechanism
5. To establish a representation from the National Planning Department on all of the technical evaluation committees of ongoing EIAs

Only two of these five elements of the strategy of the project format and environment were implemented.

JICA (Japanese Funding Agency) has focus on National Planning Department and on trend line agencies to help them fill up the project concept format which had been developed in a meaningful way. Funds were also provided to the National Planning Department for the environment group and its secretariat to function.

Outcome of lesson learned through the above processes are:

1. To look at the fact the questions listed in the project tabulation documents are series of possible environment impacts and the question was asked whether the project proponent was to assess the likelihood of each impact based on a waiting skill for highly favorable slightly favorable, highly adverse, slightly adverse and the response of the proponent is bias in the favor of the project. Therefore it is rarely the case that the proponent waited the likely impact as adverse and based on this subjective information the environment group that NPD was unable to form a conclusive assessment of the potential impact of the project.

2. The environment related information from the PCF is not substantial enough to initiate EIA or environment assessment process that is currently implemented through the CEA.
3. The staff at NPD and other line agencies are more aware of the importance of addressing the environmental issue of development projects. However the environmental issue are addressed and monitored by the Central Environmental Authority. This attitude created problem because Government Department sees it as an appendix to the project approval process. Most notable recommendation of these strategies that was not adopted was the failure to establish separate unit within line ministry in departments which was specifically responsible for project planning including environmental analysis. The specific recommendation was to create a unit called planing and monitoring division and these P&D were to be the primary line of communication between NPD and respective line ministries or departments and CEA. However, the strategy has not been functional in a way it was originally conceived.
4. Last but not the least, the strategy was not implemented through a circular of the National Planning department. Perhaps it might have been better if it was done at higher level. The entire strategy for instance was not indorsed officially by former process such as cabinet memorandum or a cabinet paper. Instead there was a new circular and to some extend this has reduce its effectiveness in the eyes of Government Departments.

ANNEX 6**Case Study Presentation:****A Sri Lankan case: Mismanagement of the Energy Sector and the need for a Strategic Environmental Assessments**

Hemantha Withanage,
Executive Director/Senior Environmental Scientist
Environmental Foundation Ltd.

Introduction

People like electricity. The reason is that it is the only luxurious way of getting energy into households. Therefore politicians pledge the masses electricity during the elections. Therefore electricity is a very political commodity in Sri Lanka.

In Sri Lanka electricity generation is monopolized by the Ceylon Electricity Board (CEB). Except for a very few small Scale power plants, CEB owns 96% of the power generation.

However, in reality 70% of the energy in Sri Lanka come from the Biomass, 25% comes from the burning of fossil fuel and only 5% comes from hydropower. When compared according to the efficiencies Biomass gives only 38% of the energy, fossil fuel gives 25% and hydropower gives 37% of the energy. This does not include the solar energy which is used for drying material (food and other), use of gravity such as in the case of water distribution, use of animals in farming, transport of items or the labour etc.

Comparative analysis of various needs and the sources for such needs.

Need	Energy source		
	Fire wood	Fossil fuel	Hydropower
Cooking (%of population)	94%	-	-
Lighting (%of population)	-	65%	35%
Industries (%of energy)	70%	-	-
Transport (%of energy)	-	100%	-

Fossil fuel

This analysis shows that the transport sector totally depends upon the imported fossil fuel. Sri Lanka does not own any fossil fuel resources, coal or natural Gas. The monopoly for the importation is owned by the Ceylon Petroleum Corporation.

This is one way for the government to collect extra revenue for the budget. The Petrol price is about three times higher than the Diesel price. Diesel is the main transport fuel. However, due to this lower price more and more cars, vans and other light vehicles come to the roads increasing the air pollution in the urban areas. Leaded petrol dominates the light vehicles and therefore the lead emission is 3 times higher than the WHO standards.

Although some cars have been converted to the Liquid Petroleum gas (LPG) since 1997, there is no government policy for such conversion and therefore the registration of such vehicles has become a problem.

Government charge Rs 5000 extra fee as a diesel tax for the diesel vehicles other than the public transport vehicles and goods transport vehicles. But it has not given effect to the subsidize price of the Diesel.

The distributions of transport facilities are also unequal. Sixty percent of the vehicles have been registered in the Western province. Therefore this inequity has created disparity between that rural and urban sectors. Therefore energy distribution in the transport sector also inequitable.

Biomass

Cooking is mostly depending on biomass. Except in certain areas e. g. in forest areas and in some parts of the dry zone firewood (about 80%) comes from the surroundings.

Coconut	28%
Rubber tree	18%
Forest	20-25%
Home gardens	28-33%

This means that the biomass is still not a burden to the forests in Sri Lanka except the dry zone. Therefore it does not play a major political role such as fossil fuel or electricity.

However although we burn lot of biomass the efficiency of a traditional 3 stone cooking stove which is mostly available in Sri Lanka is 8-12%. But now some NGOs have introduced Energy efficient stove which can increase the efficiency up to 30-35%. The cooking in 3 stone cooking is therefore unprofitable. This is some times unhealthy.

Seventy per cent of the industries also mainly use biomass for the energy needs.

Electricity

Distribution

A recent CEB study shows that 95 per cent of the urban areas have electricity but only 36 per cent of the rural households get electricity. When you consider the rural Districts such as Monaragala and Polonnaruwa only 10 percent of the house holds have electricity.

When considering the local sales of Kerosene 235,000 MT has been used in 1998 and that is about the 10% of the total local sales. This amount is higher than the total use of petrol i.e. only 203,00 Mt in Sri Lanka.

When considering the lighting 65% of the people still use Kerosene for lighting purposes.

Only 30% of the generated electricity goes to the house holds. Another 30% goes to the commercial sector and Industrial sector gets another 40%. About 50% of the house holds in Sri Lanka get electricity and out of the at 70% of the people use electricity only for lighting. 70% of the energy distributed to the households are consumed by 10% of the population.

A rural household consume only 40 units per month and semi urban households consume 81 units and urban household consume 104 units per month. This shows the unequal consumption and unequal distribution of the electricity.

Generation

The present annual electricity generation is 5700 GWh and is predicted to be around 8650 GWh in the year 2002 (CEB). The annual increase is estimated as 10% according to the CEB, while the World Bank estimate that it is only 7%.

According to the Central Bank given statistics demand for power rose by 12 percent to 4,509 GWh in 1998. And over all power generation capacity increased by 4 percent to 1,636 MW. However the Technical transmission loss is about 22% and the loss in consumption is another 20%.

Therefore there are many proposals to generate electricity through the traditional and non renewable sources i.e. thermal and hydropower. In thermal sector most proposals are for coal power plants.

When compare the unit price, hydro unit is always cheaper. Coal comes next. However when consider the environmental pollution, coal will be expensive than wind, solar or the natural gas.

Why Strategic Environmental Assessment?

At the moment electricity generation is in a crisis. In such a situation a Strategic Environment Assessment (SEA) could be the best way to study the energy crisis which includes distribution, alternate sources, new technologies, improve the efficiencies and even suitable sites for new power plants.

Sri Lanka operates the Environmental Impact Assessment process since 1993. But the recent decision shows that it plays a very bias role. However these EIAs only consider in specific projects. For example

- Construction of hydroelectric a power station exceeding 50 Megawatts
- Construction of thermal power plants having generation capacity exceeding 25 megawatts at a single location etc.

Therefore there is no such a process in National Energy plan, Energy Policy, Electricity Generation Plan, Transport policy, Bio-mass utilization, Energy distribution etc. which comes outside the EIA process.

Therefore there is no impact assessment of such decisions or no coordinated role when making decision. This leads to make bias as –hoc decisions in energy management.

In the National Environmental action plan (1998-2001) following priority areas have been identified:

- Review energy policy and electricity generation plans to address environmental concerns
- Conduct a feasibility study on use of alternative fuels for power generation, industry and transport
- Improve efficiency of Bio-mass utilization through use of fuel-wood gasifiers and energy efficient fuel-wood stoves

Also there is a recommendation that to carry out an environmental assessment for the entire Energy sector.

SEA Process

The above areas are very much suitable for such SEAs and the process could depend on the expected results. For example SEA on Energy Policy could follow the "Simple, flexible process"

But the issues like

- (I) Improve the efficiency of Bio-mass or
- (II) National energy plan

Should follow a participatory process which is called "Comprehensive, detailed process".

This could include a very detailed procedure; i.e. integration of multiple steps of plan development; full public participation / involvement in scoping and reviewing; and mandatory advises of the expert groups. Also there should be examination of alternatives and mandatory monitoring and evaluation by the authorities as well as public.

Even before the preparation of the TOR there should be scoping meetings island-wide, which should cover experts and public separately. There could be one scoping in the rural areas where people totally depend on the Bio-mass and Kerosene.

There should be expertise from electricity, fossil fuel, Biomass sectors as well as transport, environment forestry and agriculture and public opinion sectors for such a SEA team.

Once the Sea is prepared it should open for the public it review and based on the public opinion the final reports could be prepared. Monitoring should be in-built to the SEA.

However unless you get the political commitment for the whole process it will not be effective in Sri Lanka. Therefore such as the Forestry master plan, this also should go to the Parliament through the relevant authority.

In the SEA, clear action should be identified for all stakeholders and they could be directed through the relevant cabinet Ministers.

Who should order a SEA?

- Ceylon Electricity Board has the monopoly for electricity generation.
- Ceylon Petroleum Corporation has the monopoly for importing Fossil fuel i.e. Petrol and Diesel.
- Both these entities come under the Ministry of Irrigation, Power & Energy.
- Shell gas company has the monopoly of importation and distribution of LP Gas
- Transport sector comes under the Ministry of Transport and Highways
- There is no Ministry or authority to take the responsibility for the Biomass production but the Forest Department owns all natural forest while public as well as private companies own the plantations.
- Plantation sector comes under the Ministry of Plantations and Public affairs. Forest Department comes under the Ministry of Forestry and Environment.
- Since the energy sector comes under the Ministry of Irrigation, Power and Energy as well as the Ministry of Forest and Environment it could be both agencies who should take the responsibility for the preparation of such Strategic Environmental Assessment.

According to the Sri Lanka Environmental Law Environmental Impact assessment process comes under the purview of the Ministry of Forest and Environment. Therefore they can also play a major role in doing such an assessment.

Major Stake holders

There are number of primary stake holders in this sector. They could be

- Ceylon Electricity board
- Ceylon Petroleum Cooperation
- Ministry of Irrigation. Power and Energy
- Ministry of Transport
- Ministry of Forest and Environment,
- Forest Department
- Central Environmental Authority,
- Ministry of Plantation,
- Ministry of Land and agriculture,
- Department of wild life (who owns 12% of the land cover as national parks)
- NGOs
- Private sector(specially plantation sector)
- Universities (university of Moratuwa etc)
- Motor traffic Department
- Railway Department,
- General public

Alternatives for energy

There are many alternatives in the energy sector. Introduction of Natural gas renewable such as wind, solar, waves, solar cookers, Bio gas for electricity generation. Some experts suggest that electricity can be produced through the burning of Bio-mass including garbage and even firewood.

Mainstreaming the Bio-mass sector is a vital issue for the future.

However issues such as green transport policy and ways and means to reduce urban traffic will be such issues when considering the alternatives for energy sector.

Also use of gravity in water distribution and use animals in farming will also be good alternatives to consider in energy sector.

Expertise for the preparation of TOR

There is expertise with in the CEA, Ministry of Environment and in the Universities to prepare a TOR for such a SEA. Also reviewing capacity is available in the same organizations. However they need directions for doing such a job and even for writing a SEA since many of the experts have project bias mentality. Therefore a proper unbiased teamwork is vital in such an exercise.

Who turned down the SEA

The traditional approach of the CEB is that they have the sole authority in making the decisions with regards to the energy sector. It is one of the reasons for today's crisis. They are not willing to accept any alternative proposal other than their own proposals. The higher officer of the CEB is responsible for turning down the SEA idea.

Other possible SEAs

There could be a possibility of having SEAs in

- Wildlife policy
- Water pricing policy
- Alternatives for transport sector,
- Expressway development sector, etc.

However these sector also need the political commitment for the implementation of such assessment.

Conclusion

There is a clear energy crisis in Sri Lanka. It is due to the mismanagement of the energy sector. Although we have an EIA process to do the individual Environment Assessment in projects they cannot be treated as unbiased reports.

Most EIAs are pre- decided reports. They justify any bad projects. Therefore people have already lost respect for EIAs.

So, far SEA is a totally new concept to the public. Since there is no pre-decided project this could be accepted by the public more than the EIAs. This could help the developers and decision-makers to make unbiased decisions. Also this will give an opportunity for public to discuss their concerns.

Public opinion is not considered in most EIAs. They only get public comments as a legal requirement. If one want to have a better energy sector which is more green and more sustainable this is a good opportunity for them to promote the concept. If not today's crisis could be tomorrow's disaster.

Annextures**Salient Features of the energy sector**

	Unit	1996	1997	1998
Electricity available capacity	MW	1453	1595	1636
Units generated	GWh	4530	5145	5673
Total sales		3740	4039	4509
Domestic		1046	1213	1368
Industrial		1513	1430	1612
Commercial		592	689	757
Local authorities/LECO		542	657	722
Street lighting		47	50	50
Petroleum products				
Crude oil	MT, 000	2033	1814	2034
Refined products		729	1084	692
LPG		71	87	98

Resulting of Generation Expansion Plan - 1995

Year	Hydro Additions	Thermal additions
1996	-	-
1997	-	Diesel Extension 40MW (Sapugaskanda) Refurbished diesel 2x 18 MW (Sapugaskanda)
1998	-	Gas turbine 140MW Diesel 90 MW Refurbished Diesel 2x 18MW (Sapugaskanda)
1999	-	Combined cycle 150MW
2000		Combined cycle 150MW
2001		-
2002	Kukule 70MW	Coal 150 MW
2003	-	Coal 150 MW Refurbished KPS GT 3X20 MW
2004	-	Coal 300 MW Refurbished KPS GT 3X20 MW
2005	-	-
2006	-	Combined cycle 300MW (Outside Colombo)
2007	-	-
2008	-	Coal 300 MW
2009	-	Coal 300 MW
2010	-	Coal 300 MW
Total	70 MW	2262MW
Total Thermal retirement during this period		296MW

Use of Biomass in industrial sector

Tea Factories	33%
Small Hotels	15%
Brick and tile factories	13%
Coconut industry	11%
Tobacco industry	10%
Bakery	8%
Rubber Industry	6%
Other	4%

ANNEX 7

Group Assignment Presentation

Group 1: Pakistan (Forestry Sector)

Background

At present the total area of Pakistan under Forest is 4%. In Pakistan there is forestry Sector Mater Plan, which is the national document for forestry sector. Although Forestry is a provincial subject but is concurrently dealt by the Federal Government. There are provincial forestry plans of every province of Pakistan. Aazad Kashmir, functioning as a province of Pakistan, has 42% of its area under commercial forest in 1947. At present, only 27% of the area of Aazad Kashmir are under forest and only 13% of which is commercial forest.

In the past 50 years there has been a lot of deforestation and commercial logging. Aazad is all spread on Himalayan Mountain. There are natural forests. Almost all of them are pine forest that are also the habitat of many endangered species including snow leopard, musk deer, back and brown deer. These forest are also providing hundreds of medicinal plants. The forest of Azad Jammu Kashmir (AJK) regulate the climate of Pakistan, provide the life line for the water resources down stream, regulate the life of the big hydroelectric dams including Mangla and act as the protective water shed which is very vital for the down stream irrigation.

In Aazad Kashmir deforestation is the major problem. 80% of the deforestation is due to the commercial logging done by Government, 20% of the logging is due to the fuel and timber requirement of the local people. The reforestation program of Aazad Kashmir requires Rs 300 million every year. Therefore, the Government is spending Rs 300 million for reforestation program every year, while the earning for commercial logging is Rs 330 million. But despite the fact that investment is Rs 300 million a year, the % of forest is going down.

Recommendations:

1. There is a need of SEA at National level in Pakistan and then again there should be another SEA at AJK level because the national level SEA will decide things in comparative term.
2. At AJK level SEA should help to come up with the alternative and to suggest the forestry policy specifically for AJK as well as in the National Scenario. Within AJK, it was felt that SEA should not be done at the Regional or district level and logging at the district council level, which is almost the individual forest jurisdiction.
3. SEA needs to be open and comprehensive.

Alternatives:

1. To provide the alternative income sources to state of AJK, which is earning Rs 330 million per year due to that logging.
2. Alternate fuel and timber sources for the local people, which include liquid petroleum, gas GI etc.
3. Also alternate job opportunities for the people who are involved in logging operation.

Stakeholders:

Politician, Forest Departments, Local People and Community, Forest and Revenue Department and Environment Department.

Group 2: Bangladesh (Energy Sector)

There are different sectors for integrating SEA:

1. The National power sector
2. The Transportation sector

3. The Water sector
4. Industrial Sector
5. Physical Infrastructure Sector
6. Natural Resources Sector
7. Impacts on World Trade Agreement

Background of Power Sector

There are at different Levels:

1. National Power Sector Master Plan
2. Sectoral Power Plan e.g. thermal power generation plans, the hydropower generation plans, the transmission plans and distribution and rural electrification sector plans etc.
3. Regional plans
4. Operating license for specific projects

Recommendation:

1. There should be SEA on National level because, Bangladesh is pretty low generating country and SEA only in Sectoral level is not realistic at this moment.
2. SEA should be done with full public consultation, academics, NGOs, NEAA etc.
3. Panel of experts should do Independent review through adequate prior information.
4. The location ought to be selected on the basis of the regional needs for the country and the availability of infrastructure.

Steps needed to be taken for SEA on pilot project:

1. A project must have a project proposal for financing approved by the Government
2. Appointment of independent consultant for SEA
3. Public consultation
4. Finalization of the study of the project

Group 3: Sri Lanka (Water Sector)

Why Water Sector?

Given the dynamics that are currently operating after the new government and likelihood that there would be people able to consider the idea of doing SEA, water sector was focused.

Background of Water Sector

The water sector has several players/stakeholder/Government Agency both dealing the quality and quantity. These range from:

- Irrigation department which is responsible for all irrigation system including the ancient system,
- The water resources board which is responsible for ground water systems as well as surface water,
- The Maha Valley Authority, which is special authority, set up to manage the largest river basin in the country,
- The water supply and drainage board whose primary responsible to supply drinking water and to take care of drainage in the big cities.

There are numbers of other smaller players:

- the local authorities
- the divisional secretaries
- the central environmental authority

They all have overlapping jurisdiction and they all have shared responsibility in some areas, which made the management of water very difficult in the past. About four or five years ago there was a move within the Government to try and coordinate all these activities. By

administrative order of presidential secretariats, a water secretariat has been set up. It has been operating for last two or three years and very well funded up to now. It is based at the Irrigation Management Institute building which also has input as a consultant and gives it expertise in management. Water Secretariats is actually run by or operated through informal council at this stage constituting all stakeholders.

Water secretariats has drafted a new law dealing with both the quantity and quantity of management of water. This is an important document that has come out but not yet recognized as a law. The document contains some very important policy element, institutional structure, objectives and management tools.

The second document, is the National Water Policy. It has been drafted and accepted by the cabinet at a high level, which would probably be implemented soon.

The policy deals with number of issues

- Water management
- Institutions and Institutional arrangement that are to be set up
- Conservation
- Water allocation including pricing
- Quality of water for different purposes
- Surface water and ground water

It is clear from the draft law as well as the policy that the key institution making the decision would be water secretariat and the water council, both of which function together. So, that is thought to become the focus of Strategy Environmental Assessment.

Recommendations:

1. The process should be kept very simple straightforward
2. Fairly comprehensive and inclusive scoping
3. Stakeholder analysis including Government Agencies that form the council and other important actors in this area, such as farmers organization or key stakeholder in irrigation and water, the industrial chambers, water cooperatives, NGOs on land development and environment etc.
4. The scoping should focus on allocation, pricing, entitlement and different environmental impacts particularly impacts such as erosion, salination and water quality impacts. It also helps in providing clean and affordable drinking water for all; fair allocation for agricultural, industrial and domestic uses particularly in the dry zone where there are competing interest for water; fair procedure for deciding on entitlement and dispute resolution.

Alternatives:

Special emphasis has to be paid in the SEA to issues like

1. Recycling
2. Efficiency
3. Tax incentives and physical incentives rather than regulation
4. Economic incentive
5. Instrument for the management of water
6. Monitoring mechanism particularly mechanisms, which are low cost and self-executing eg. self contouring mechanism, excess the information and data so that stakeholders other than Government Agencies could actually help in enforcement.

Group 4: Nepal (Water Sector)

The situation of water sector in Sri Lanka and Nepal are almost the same. The only difference is that, Sri Lanka has Water Commission where as, Nepal has Water and Energy Commission.

Nepal is very rich in water resources but the only problem is its inaccessibility, which makes it costly. Therefore, per capita accessibility of water is very poor.

Group 5: Pakistan (Power Sector)

Why power sector?

Power generation is needed for the following major reasons:

- To meet daily routine and domestic life
- Commercial and industrial sector
- Increasing economic growth
- For increasing demand

Background of Power Sector

The decisions are taken in the cabinet. The proposal goes to the cabinet through the Ministry of Water and Power. Ministry of Finance, Central Board of Revenue (CBR) and the Planning and Development also plays a major role in making these proposals to the cabinet.

There are two regulatory authorities:

1. Power Regulatory Authorities
2. Power Production Board

The distribution and transmission comes to water and power development authority, which is the main power distribution agency in the country. Karachi Electronic Supply Corporation is the distribution agency for the Metropolitan City.

Recommendations:

- Integration of SEA should done at the planning and development division, which is responsible for consideration of all the aspect of energy generation. It also determines the actual need of the energy that is required. Therefore, any surplus or underestimated energy generation can be avoided. The environmental section is also responsible for consideration of all the environmental implication, which might come out from this sort of development activities.

Alternatives:

- There is a need to meet power demand to keep a pace of development process and economic development.
- Pricing is based on per unit cost of electricity
- Location is based on imported fuel as most of the fuel is imported in the country.
- Design is open-ended with Monitoring and evaluation.
- Mitigation measures are provided to meet the adverse environmental impacts.
- Compensation is mainly for the land requisition problem and the resettlement of the people.

Limitations

- Ministry of Environment as an important stakeholder should be integrating in policing and programming in power sector in terms of identification of alternate resources and compliance to National Environmental Quality at the stage when feasible study is being carried out.
- Power policy is to be based on least cost supply alternative instead of thermal power policy.

ANNEX 8

Newspaper Clippings

Planning, development process needs to be environment conscious: Minister

Copyright 2000 APP (Published under arrangement with Associated Press of Pakistan)

ISLAMABAD (November 2): Federal Minister for Environment, Omar Asghar Khan has stressed the need for incorporating environmental consideration into the planning and development process.

He was addressing a three-day workshop on "Regional Strategic Environmental Assessment," organised by the Planning and Development Division, Pakistan Environment Assessment Association and IUCN Asia here on Wednesday. Pakistan, he said, has suffered a lot on the environmental front due to unplanned industrial, agricultural and urban activities and there was a need for developing a balance between environment and development.

Addressing the concluding session Omar Asghar Khan said that Strategic Environmental Assessment (SEA) was a very scientific approach for the solution of environmental problem. He called for a close co-ordination among various economic ministries for the solution of environmental problems.

The purpose and objectives of the workshop were to address environmental issues and impacts that are best dealt with or can only be considered at policy or programme level and to train the capacity building of planners and senior management officers involved in policy and planning process, so that they can effectively integrate environmental considerations into all levels of decision-making.

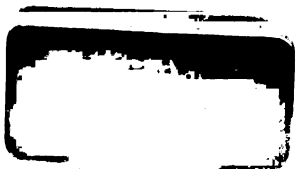
The workshop will also establish an appropriate context for project EIA (Environmental Impact Assessment) including pre-identification issues and impacts. Strategic Environment Assessment (SEA) is a systematic approach for evaluating environmental consequences of the policies, plans and programmes. It ensures that environmental considerations are fully incorporated and properly addressed at early stages of decision making and achieve the objectives of environmentally sound and sustainable development.

It may be recalled here that the importance of SEA has also been recognized in the UN Agenda 21, a plan of action for sustainable development for 21st Century. In the technical session, country reports were presented on SEA by Sri Lanka, India, Bangladesh, Nepal, Bhutan, Maldives and Pakistan. In the end, the Minister gave away certificates to participants of the course.

UNIVERSITY OF MICHIGAN



3 9015 05298 1290



IUCN - The World Conservation Union was founded in 1948 and brings together 79 states, 112 government agencies, 760 NGOs, 37 affiliates, and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership. Its mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. Within the framework of global conventions IUCN has helped over 75 countries to prepare and implement national conservation and biodiversity strategies. IUCN has approximately 1000 staff, most of whom are located in its 42 regional and country offices while 100 work at its Headquarters in Gland, Switzerland.

REAP, IUCN Asia - REAP has a focus on assisting the Asian countries in implementing recommendations of the various international environmental conventions, through the use of impact assessment and auditing techniques, and by screening environment friendly technologies for sustainable livelihoods. The program began to take shape from 1999. Its first major initiative is the establishment of a regional network of EIA professionals in South Asia. This initiative is supported by the Netherlands Ministry of Foreign Affairs and the Netherlands Commission for EIA. It aims to establishing National EA Associations in the South Asian countries and linking them to form a confederation called "South Asian Regional Environment Assessment Association (SAREAA)."

SAREAA Web Site: <http://sareaa.sdnpk.org>