

PN-ACE-669
100941

Task Order No 1602
Contract No PCE-I-00-96-00002-00

Report

Evaluation of the Environmental Impact Assessment Training Course

By
Ariyaratne Hewage and Pradeep Liyanamana

The Natural Resources and Policy Project Project (NAREPP)
International Resources Group Ltd

April 1997

For
United States Agency for International Development/Sri Lanka
and the Government of Sri Lanka

Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ)
Partners International Resources Group Winrock International
and Harvard Institute for International Development

Subcontractors PADCO Management Systems International and Development Alternatives Inc

Collaborating Institutions Center for Naval Analysis Corporation Conservation International KNB Engineering and Applied
Sciences Inc Keller-Bliesner Engineering Resource Management International Inc
Tellus Institute Urban Institute and World Resources Institute

TABLE OF CONTENTS

| | | |
|---|---|----|
| 1 | Purpose of Paper | 4 |
| 2 | Background | 4 |
| 3 | Legal and Institutional Framework for EIA | 5 |
| 4 | Establishment of EIA Training | 6 |
| 5 | Process of Transferring the EIA Training Responsibility | 8 |
| 6 | Survey Analysis | 10 |
| 7 | Conclusion | 14 |
| 8 | Recommendations | 14 |

TABLES AND FIGURES

| | | |
|----------|--|----|
| Table 1 | Mid-decade Population in Sri Lanka | 4 |
| Table 2 | Participant Break-down of Eight EIA Courses | 9 |
| Table 3 | Comparison of Participants by Sector for all 10 day EIA Courses in proportion to the Survey Respondents | 11 |
| Table 4 | Usefulness of the Course in Improving EIA Skills | 14 |
| Table 5 | Orientation of Proposed EIA Courses and Suggested Participants | 15 |
| Figure 1 | Course Participants by Sector 1992 to 1996 | 11 |
| Figure 2 | Usefulness of Course by Employment Sector | 12 |
| Figure 3 | Participants' Involvement in EIA Work | 13 |

APPENDICES

| | | |
|--------------|---|--|
| Appendix I | Guidance for Implementing the EIA Process A General Guide to PAAs CEA 1993 | |
| Appendix II | First EIA Intensive Course (1992) Program | |
| Appendix III | List of Participants of the Eight EIA Intensive Course 1992 to 1996 | |
| Appendix IV | List of Resource Persons Involved in the Eight EIA Intensive Courses | |
| Appendix V | Current EIA Intensive Course Program | |
| Appendix VI | Table of Contents of EIA Intensive Course Source Book | |
| Appendix VII | Questionnaire Used in the Evaluation of Intensive EIA Course | |

Executive Summary

The purpose of this paper is to 1) discuss briefly the process of development of the EIA related training in Sri Lanka 2) the organization and administration of such training by various relevant agencies and 3) to evaluate its effectiveness through a mail questionnaire survey of participants for improving its quality in future

Sri Lanka has faced with serious challenges of rapid economic development and environmental protection in its endeavours to provide required needs of the people. What is advisable in the context of population growth and industrial development is to strike a desirable balance between the economic development and environmental protection. However, Sri Lanka is fortunate in this regard as it had introduced fairly satisfactory legal and institutional base for balancing of development and environmental protection.

Sri Lanka's Legal and Institutional Framework in the field of environmental management is quite satisfactory.

National Environmental Act (NEA) No 57 of 1980 as amended by Act No 56 of 1988 laid down a broad legal framework for the EIA process in Sri Lanka. EIA regulations published in the Govt Extra Ordinary Gazette of 24th June 1993 provides detailed operational procedures for implementing the EIA process.

There are several public sector institutions directly involved with the EIA approval process. Central environmental Authority (CEA) is the main agency which is responsible for the administration of the EIA process. 18 Government agencies have been listed as Project Approving Agencies (PAA) in the EIA regulations and are empowered to enforce the provisions spelt out in the regulations.

After the passage of EIA regulations in June 1993 a vacuum was created due to the lack of professionals in this field. Realizing the need need to develop professional skills in the field of EIA the Ministry of Environment and CEA requested NAREPP to help develop and organize EIA related training in Sri Lanka.

In March 1992 NAREPP commissioned a study on identification of training needs and development of environmental impact assessment and environmental management training for Sri Lanka. The services of two US experts (Dr Peter Meier and Prof Frank McCormick) were obtained for this purpose. The consultants submitted their recommendations on the environmental management training for Sri Lanka in April 1992. NAREPP which had decided to reprogramme its activities with a strong component on environmental education and training considered these recommendations carefully and took necessary steps to support environmental education and training in Sri Lanka. The main objective of NAREPP assistance was to build the capacity of local institutions to undertake environmental education and training. A significant outcome of this process was the establishment of the Centre for Environmental Studies (CES) at the University of Peradeniya. NAREPP had taken action to channel all its EIA related training through the CES.

NAREPP organized a short training of trainers workshop to help improve the training skills of the trainers with the focus on adult learning techniques. The CES was contracted to organize EIA intensive courses and they have been conducted successfully.

NAREPP assistance to provide partial funding for the EIA course will end after the 8th course as the NAREPP project will come to a close the following year. The 8th and the final NAREPP sponsored EIA intensive course was conducted at the In-service Training Institute of the Department of Agriculture at Angunukolapallessa in Hambantota District.

The EIA intensive course which had been evolved over a period of time is now considered as a quite comprehensive, strong and appropriate training programme that caters to the EIA training needs of the country. This hypothesis is further confirmed by the EIA evaluation survey conducted in 1996. The questionnaire was mailed to all participants (288) of the seven intensive EIA courses held from 1992 to 1996. This questionnaire consisted of 12 questions.

The response rate of the EIA evaluation survey carried out amongst the EIA participants were significantly high. Out of the 288 questionnaires mailed, 158 had responded with a 54 percent rate of return. The response rate was relatively an accurate representation in proportion to the total population of EIA course participants.

57 percent of the respondents were directly involved with environmentally related work. 48.8 percent of the total respondents felt that the course was extremely useful at work. In assessing the number of respondents with prior EIA experience it was evident that 59.5 percent of the respondents had associated themselves with one or more environmental impact assessments. 38.6 percent were not involved in any EIAs at all. Further analysis of the respondents involvement with EIAs indicated that 34.2 percent of them have participated as a team member or a manager in one or more EIAs while 23.4 percent have participated as a reviewer/manager. Only 5.1 percent of the respondents have participated as Team Leader on an EIA. More than 75 percent of the respondents have found the EIA Intensive Course to be helpful/very helpful/extremely helpful for improving their skills in the fields of EIA TOR preparation, consultant selection, scoping, enlightening communities, incorporating environmental concerns in the planning process, EIA teaching and EIA consulting.

It is evident from the survey that most of the participants have found the course to be helpful or very helpful in developing their work related environmental skills. Over 40 percent of the respondents felt that the course was very helpful in incorporating environmental concerns in their planning activities. In addition, over 70 percent of the respondents felt that the course was helpful to extremely helpful in developing overall EIA skills.

EIA applications are evolving annually not only in Sri Lanka but through out the world. Therefore, it is important to keep the EIA course participants up-to-date on the latest EIA methods and issues. This objective could be accomplished by conducting short follow up courses for participants who continue to be involved in environmental work.

It is evident from this evaluation that the series of EIA courses conducted jointly by the Ministry of Transport, Environment and Women's Affairs (M/TEWA), Central Environmental Authority (CEA) and the Centre for Environmental Studies (CES) with the assistance of NAREPP has been extremely successful. To further ensure the rate of success an introductory workshop on EIA for participants to be for the ten day course would eliminate the people who find the EIA course not very useful to them. This workshop could also be used as a tool for organizing the ten day EIA course and also to distribute EIA course material.

A draw back in current EIA training is that it is very much project-focused. This may not be a realistic approach to managing real-life development programs and projects. Therefore, it is necessary to improve the capacity of incorporating environmental dimensions in sectoral, regional planning and finally in the policy formulation process. This aspect should also be taken into consideration when designing EIA training courses in the future.

It is also useful to conduct EIA related training on specific subject areas such as EIA TOR preparation, scoping, EIA methods, incorporating EIA into planning process and EIA monitoring for the purpose of developing job-focussed skills of different sectors of participants (Govt, private, NGO, University etc). However, it is important that all relevant personnel should follow the EIA Intensive Course as it provides a good orientation to the broad subject of environmental management.

EVALUATION OF NAREPP EIA TRAINING PROGRAM

1 Purpose of the Paper

This paper attempts to 1) discuss briefly the process of development of the EIA related training in Sri Lanka 2) the organization and administration of such training by various relevant agencies and 3) to evaluate its effectiveness through a mail questionnaire survey of participants for the purpose of improving its quality in future

2 Background

Magnitude of the economic problems prevailing in Sri Lanka is getting enlarged mainly due to the rapid increase of population at a continuously increasing trend

The total population as at December, 1995 is 18.1 million with a land-man ratio of 289 persons per sq. km. The trend of this growing population over the past decades is illustrated in the table 1 below

Table 1 Mid-Decade Population in Sri Lanka

| Year | 1948 | 1955 | 1965 | 1975 | 1985 | 1995 | 2005 | 2025 |
|--------------------------------|------|------|------|------|------|------|---------------------|---------------------|
| Total Population (in Millions) | 7.1 | 8.6 | 11.2 | 13.5 | 15.9 | 18.1 | 19.5 (Projected) | 26.7 (Projected) |

Source: Dept. Of Census & Statistics

Improvement of global technology in general and particularly the development of communication systems have caused the increase of demand for various new goods and services beyond the basic needs. This phenomenon has compelled the successive Governments that came to power in Sri Lanka to introduce a plethora of development programs particularly in the industrial sector. However, the traditional approach to development through agricultural production will not be sufficient to achieve the current challenging goals.

Enormous attempts for industrial development will end up with an unanticipated set of problems if they are not properly planned. Particularly, the environmental problems will be very difficult to resolve once the damage is done. The exploitation of natural resources will lead to degradation and loss of productivity. Industrial development may create problems of generating air and water pollution which will affect the human health adversely. What is advisable in this context is to strike a desirable balance between the economic development and environmental protection. Some economists argue that the rapid economic development should proceed without any hindrance such as environmental requirements and restoration of environmental conditions to be done later. However, this argument of economic development first and environmental protection next is not valid when one considers the experiences of some industrially developed countries. Some East European Countries had proceeded with the industrial development programs without due consideration for environmental concerns and now find it is not only difficult to restore but also much costlier than the planned process of development.

Sri Lanka has already experienced some serious environmental problems which affect the people quite adversely. However, Sri Lanka is fortunate in this regard as it had introduced fairly satisfactory legal and institutional base for balancing of development and environmental protection.

3 Legal and Institutional Framework for EIA

National Environmental Act (NEA) No 57 of 1980 as amended by Act No 56 of 1988 laid down a broad legal framework for the EIA process in Sri Lanka. The regulations published in the Govt Extra Ordinary Gazette of 24th June 1993 provides detailed operational procedures for implementing the EIA process. Under this legal framework, it is required that all project developers submit an Initial Environmental Examination (IEE) report or Environmental Impact Assessment (EIA) report in respect of the projects listed under the "prescribed list" of the regulations. The concept of integration of development and environment is recognized in the NEA. The major legal provisions in this regard cover the use of EIA as an important decision-making tool in the public sector, the right of the public for the protection of environment, and the opportunities of public participation in the EIA process. A detailed account of the EIA process practiced in Sri Lanka is given in the CEA Guide Book in General Guide for Project Approving Agencies.

The requirement of EIA in the project approval process has been introduced in 1981 by the Coast Conservation Act No 57 of 1981 before the NEA. This enables the Coast Conservation Department to issue a "permit" for a prescribed development activity within the coastal zone.

There are several public sector institutions directly involved with the EIA approval process. Central environmental Authority (CEA) is the main agency which is responsible for the administration of the EIA process. 18 Government agencies have been listed as Project Approving Agencies (PAA) in the EIA regulations and are empowered to enforce the provisions spelt out in the regulations. Ministry of Environment and CEA had supported the process of establishing "Environmental Cells" in all the PAAs.

CEA and PAA regularly obtain the assistance of external consultants to perform various EIA related tasks in addition to the permanent staff members of their agencies. The key tasks to be performed by these agencies are summarized below.

- a) Preliminary data gathering on proposed projects
- b) Organize scoping meetings
- c) Preparation of Terms of Reference for EIA/IEE
- d) Selection of Consultants
- e) Organize Public Hearings
- f) Review of EIA Reports
- g) Announce final decision (approve, reject, approve with conditions)
- h) Monitor the proposed plan according to the approved EIA
- i) Hear and decide on appeals if developer has applied against the earlier decision

The key personnel involved in the process of EIA are large in numbers and diverse in their roles. They can be identified as follows:

- a) Public officers who are directly involved in the EIA process mainly those in the PAA environmental cells,
- b) Public officers who are responsible for incorporating environmental dimension in the development planning process, mainly those in the Planning Divisions and those with project management responsibilities of the Government Agencies
- c) Private Sector Consultants (individual Consultants and those in the consultancy firms),
- d) University teaching staff members who are and will be involved in teaching environment-related subjects and work as members of EIA Consultancy teams
- f) Members of Private Sector who are directly involved in project management (industry, hotel, infrastructure etc), and
- g) Members of NGOs who will be involved in the public participation process

4 Establishment of EIA Training

After the passage of EIA regulations in June 1993, a vacuum was created due to the lack of professionals in this field. Realizing the need to develop professional skills in the field of EIA, the Ministry of Environment and CEA requested NAREPP to help develop and organize EIA related training in Sri Lanka.

In March 1992, NAREPP commissioned a study on identification of training needs and development of environmental impact assessment and environmental management training for Sri Lanka. The services of two US experts (Dr. Peter Meier and Prof. Frank McCormick) were obtained for this purpose. The consultants submitted their recommendations on the environmental management training for Sri Lanka in April 1992.¹

The report was based on the discussions the consultants had with the members of relevant government agencies and the universities. Their draft report was refined by inclusion of suggestions made at these discussions.

The main findings and recommendations of the report were as follows:

- a) The officials of relevant government agencies with the CEA at the forefront need to be provided with required job skills in EIA immediately.

¹Peter Meier and Frank McCormick. Training Needs for Environmental Impact Assessment, Pollution Control and Natural Resource Management in Sri Lanka. April 1992.

- b) Some agencies such as the Board of Investment (BOI) and the Ceylon Electricity Board (CEB) are already assigned the responsibility for environmental assessment, they desperately need EIA training within the quickest possible time
- c) The need to strengthen university level education in environmental fields is quite evident
- d) A 9-10 day intensive EIA course may be offered for the key officials in public sector agencies This may be planned for one week (five working days) plus two weekends as most senior officers can be spared for an absence of one work week than an absence of two work weeks
- e) The proposed course may be offered on a residential basis in a hotel outside Colombo to secure maximum participation
- f) An important element of the course is to provide hands on experience to participants by way of doing a mini-EIA on a real project proposed by a developer The participants should be taken to relevant field sites and provide with opportunities to study the probable impacts of the proposed project
- g) The participants should be given a set of comprehensive reading materials including a few books in two separate docketts (source book and course materials)
- h) The proposal to establish a Centre for Environmental Studies within the university system should be supported and
- i) The development of university environmental education programmes particularly at master's degree level should be supported

NAREPP which had decided to reprogramme its activities with a strong component on environmental education and training considered the above recommendations carefully and took necessary steps to support environmental education and training in Sri Lanka The main objective of NAREPP assistance was to build the capacity of local institutions to undertake environmental education and training The first ten day EIA intensive course was held in September 1992 at the Coral Gardens Hotel Hikkaduwa a coastal town about 100km south of Colombo The course was conducted by two US consultants Professor Craig Davis and Dr Peter Meier Several local experts delivered lectures on their areas of expertise 43 persons from various agencies followed the entire first EIA intensive course while 5 persons followed parts of it

There were several senior officers from a number of government agencies including the CEA and several senior staff members from Sri Lankan universities followed the course The main subject areas covered in this programme were

History and purpose of US/National Environmental Protection Act The EIA decision-making process Ecological constraints Agricultural development in Sri Lanka lessons learned Wells Springs Case Study (Video) Lessons of Wells Springs

Basic concepts of environmental economics, Pollution control technology, the Trincomalee coal power plant, Incorporating environmental issues into planning and policy-making, Public participation and scoping, Environmental problems in the USSR, (Video) Nuclear waste management problems in the USSR

Valuation techniques The EIA process Plenary briefing Case Studies, Group briefings, (Video) Remnants of Eden,

Methods of EIA, TOR (Case Study)

Conflict resolution Workshop (Video) It needs political decisions Urban environmental problems Group sessions, (Video) Waste Not Want Not and

Group Work Sessions prepare presentations (Video) Save the earth feed the world Only one atmosphere Group presentations Closing session (A detailed course agenda is attached in appendix II)

5 Process of Transferring the EIA Training Responsibility

Another useful development was taking place during this time in the local university system. With NAREPP personnel, four universities initiated action to establish environment related education and training activities. Some universities commenced undergraduate and graduate programmes. A significant outcome of this process was the establishment of the Centre for Environmental Studies at the University of Peradeniya. NAREPP had taken action to channel all its EIA related training through the CES. At several meetings held with the university faculties under the leadership of the CES and the officers of the Ministry of Environment (MOE) and CEA, the question of developing the local capacity to conduct EIA training was discussed at length. It was observed that some subjects covered in the first EIA course lacked local background. Legal and institutional background of the US in relation to EIA was considered to be dealt in too great detail. It was therefore decided to introduce much more of the Sri Lankan background into the course.

Two more intensive EIA courses were conducted in January and June 1993 with the same two US consultants. However, several changes were introduced in the content of the course to reflect the local perspective and more local trainers were involved in conducting it. Participants' evaluations of the courses were considered and further course modifications were made. By this time NAREPP was convinced that the course could be conducted entirely by local trainers. A firm decision was taken to conduct the fourth course with only local trainers. NAREPP organized a short training of trainers workshop to help improve the training skills of the trainers with the focus on adult learning techniques. The CES was contracted to organize the fourth EIA intensive course in April - May 1994 and it was conducted successfully. The core team of trainers discussed the strengths and weaknesses of the previous courses and introduced improvements to the course. NAREPP helped in organizing the EIA course and provided financial and other assistance. All administrative arrangements were handled by the MOE. The EIA Inter-Agency Coordinating Committee of the PAA which meets every other month under the chairmanship of the secretary of MOE discusses EIA training as an important agenda item. The members of the committee considered EIA training as quite useful to the PAA members and the intensive course was of high quality. The fifth EIA course was conducted in September 1994 with partial funding from MOE out of its NAREPP counter-part funds and with full participation of CEA in

organizing the course in conjunction with the CES. As the government had agreed to consider funding of future EIA courses, the EIA inter-agency coordinating committee decided to hold the courses in government institutions with residential and other facilities rather than in expensive hotels. Accordingly, the seventh EIA intensive course was held in March 1996 at Randenigala TREE (Training, Research, Education & Extension) Centre, which is a semi-government facility. NAREPP assistance to provide partial funding for the EIA course will end after the 8th course as the NAREPP project will come to a close the following year. The 8th EIA intensive course was conducted at the In-service Training Institute of the Department of Agriculture at Angunukolapallessa in Hambantota District.

The number of participants from various agencies who participated at eight EIA intensive courses during the last five years (1992 - 1996) is given according to the main sectors in table 2.

Table 2 Participant Break-down of Eight EIA Courses

| | 1st Sept '92 | 2nd Jan. '93 | 3rd June '93 | 4th April '94 | 5th Sept '94 | 6th Sept '95 | 7th Feb '96 | 8th Sept '96 | Total |
|--------------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|----------------|-----------------|------------|
| Public Sector | 30 | 12 | 22 | 21 | 37 | 40 | 33 | 37 | 232 |
| Private Sector | | 3 | 3 | 2 | 3 | 1 | 3 | | 15 |
| University Faculty | 11 | | 5 | 9 | 18 | 2 | 10 | 11 | 66 |
| NGO | 2 | 4 | 4 | 5 | 4 | 2 | | 4 | 25 |
| Donor | | | 1 | 1 | | | | 1 | 3 |
| Total | 43 | 19 | 35 | 38 | 62 | 45 | 46 | 53 | 341 |

Note: Details on the above eight EIA intensive courses including the names of participants, the agencies they represent, and venues are given in Appendix III. The names of resource persons who conducted lectures/discussions in these courses are indicated in Appendix IV.

The EIA intensive course which had evolved over a period of time is now considered as a quite comprehensive, strong, and appropriate training programme that caters to the EIA training needs of the country. The agenda of the current course is condensed as follows:

Introductory Session Introduction of Participants and Course Expectations
Description of Workshop and Assessment of Participants' Environmental Knowledge Base
Introduction of Course Materials/Source Book

Concepts in Environmental Protection & Management Issues of Sustainable Development Specific to Sri Lanka
Environment & Development - An Overview
Ecological Foundations for Environmental Management
Bio-diversity and its significance in Sri Lanka

EIA Process and Techniques Planning as an alternative to EIA
EIA Process in Sri Lanka, Legal Issues in EIA, Conducting Environmental Scoping
Setting of Terms of Reference for EIA - Criteria for Evaluation of EIAs
Public Participation in EIA Process

EIA Process and Techniques Environmental Economics and its Application in Extended Cost-Benefit Analysis, Social Impact Assessment, Application of GIS in EIA, Team Management in EIA, Case Studies Briefing, Small Groups Discussion with Case Study Writers and Facilitators, Rehearsals of Presentations

Post EIA Process Revision of Presentations Group Presentations and Critique, Simulation of Public Hearing Debriefing Case Studies and Public Process Participants' Evaluation Post-Course Assessment
(A detailed course agenda is attached in appendix V)

In addition to classroom lectures/discussions, field work and hands on work on preparing a mini-EIA report all participants of EIA Intensive Courses were issued with a comprehensive set of reading materials on the subjects related to sustainable development and EIA. These reading materials were in two parts, Part I - Source Book, which contains selected articles and chapters on relevant subjects (a table of contents of the Source Book is given in appendix VI) Part II - Course Materials, all resource persons provided a set of comprehensive handouts and other relevant materials on the subjects they discussed at the Training Course were compiled in a separate docket by the participants

The responsibility of conducting the 10 day EIA intensive course has successfully transferred in the following manner

- a) teaching the course solely by the local trainers
- b) preparation of reading materials, case studies and other documents by local resource persons
- c) coordination and organization of the course by the local institutions mainly CES and CEA
- d) funding of the course from the local sources

6 Survey Analysis

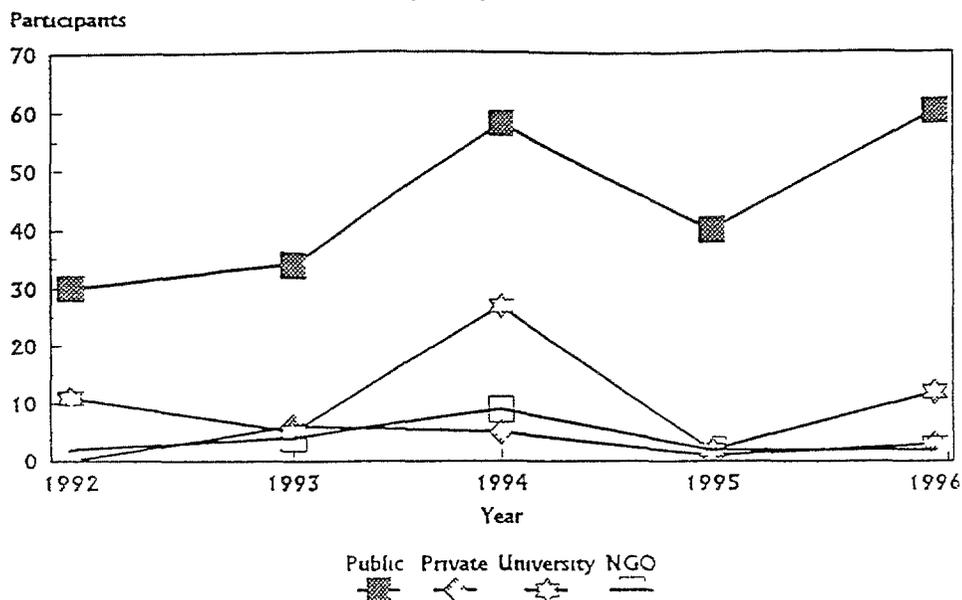
Objective of Survey

The objective of the Environment Impact Assessment Evaluation was to evaluate the impact of training received by the participants over a five year period for the purpose of improving the training course for better and more effective achievements in the future

Methodology

The questionnaire was mailed to all participants (288) of the seven intensive EIA courses held from 1992 to 1996. This questionnaire consisted of 12 questions. Eleven of them evaluating the course and the 12th optional question requesting personal data. A sample questionnaire is attached in Appendix VII. Statistical Analysis System (SAS) was used in analysing the data

Figure 1 EIA Course Evaluation
Course Participants by Sector-- 1992 to 1996



Analysis of Findings

This analysis will attempt to find out whether there has been an impact on the trainees and if so the employment sector in which it has made the most impact. The Environment Impact Assessment (EIA) participants by sector as illustrated in Figure 1 indicates that the participants from the government sector have been the highest followed by Universities, NGOs and Private Sector respectively.

The reason for a sudden increase in the number of participants in years 1993, 1994, and 1996 is because two EIA courses were held during these years. However, when considering all sectors together, participants of the EIA course have been increasing steadily over the years from 1993 to 1996.

The response rate of the EIA evaluation survey carried out amongst these participants were significantly high. Out of the 288 questionnaires mailed, 158 had responded with a 54 percent rate of return. The response rate was relatively an accurate representation in proportion to the total population of EIA course participants (see Table 3). The Government sector was represented 60.8 percent, while 23.4, 7.6, and 2.5 percent were from Universities, NGOs, and the private sector respectively. 1.3 percent of the respondents had not identified themselves with any of the sectors.

Table 3 Comparison of Participants by Sector for all 10 day EIA courses held in Proportion to the Survey Respondents

| Sector | Percent Total Participants by Sector from 1992 thru 1996 | Percent Survey Respondents by Sector |
|------------|--|--------------------------------------|
| Government | 67.70% | 60.8% |
| University | 19.09% | 23.4% |
| NGO | 7.29% | 7.6% |
| Private | 5.23% | 2.5% |
| Other | 0.69% | 4.4% |

Note: 1.3% of the respondents have not identified themselves with any of the sectors.

Out of the total respondents of this survey only 44.3 percent had received other environmental related training while 54.5 percent had not received any prior environmental related training at all. 1.3 percent of the respondents had not answered this question. In addition, out of the respondents received other training, 4.5 percent had received environment related training out side of Sri Lanka.

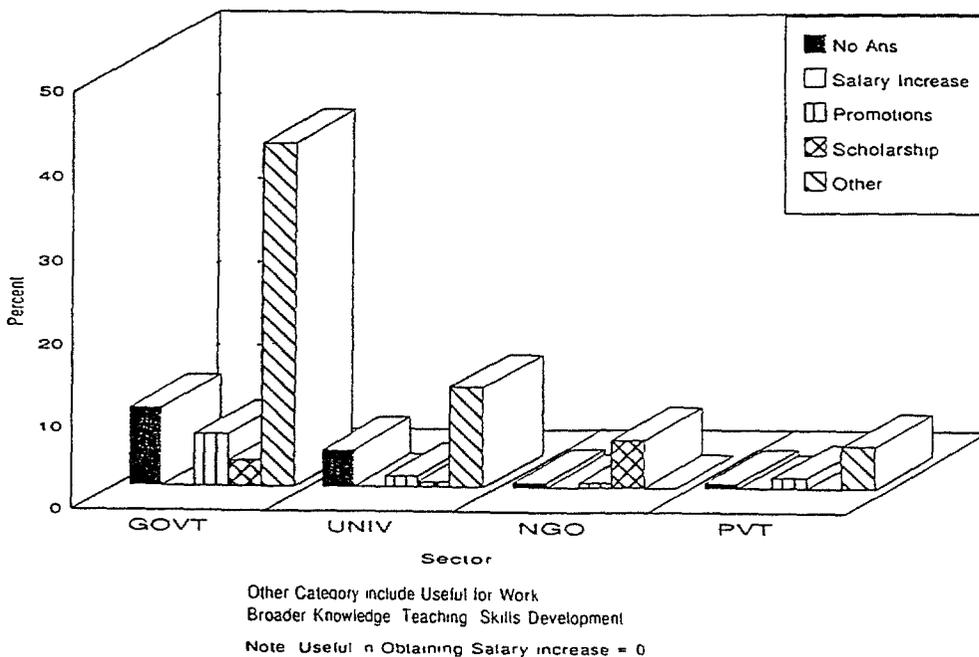
The question to evaluate the usefulness of the course in career development was structured in the following manner:

In what way the certificate of completion received in this course useful in your career development?

- 1 Get salary increases
- 2 Useful in promotions
- 3 Useful in getting foreign scholarships
- 4 Any other remarks

9.5 percent felt that this course was useful in getting promotions while 4.4 percent felt that it was useful in obtaining foreign scholarships. 69.6 percent had answered number 4 (Other Remarks). Not a single respondent felt that the course was relevant to obtaining salary increases (see Figure 2).

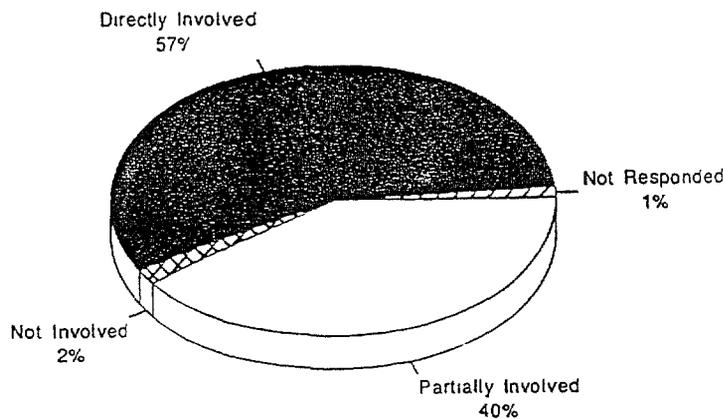
Figure 2 EIA Evaluation
Usefulness of Course by Employment Sector



Further analysis of answer number 4 (other remarks) indicate that 48.8 percent of the respondents felt that this course was extremely useful at work while 10.8 percent felt that the course was of no use to them. 8.1 percent had answered that the course helped them to increase their awareness in the field of environmental management. 32.3 percent had not made any additional remarks.

An assessment of the participants relationship to environmental related issues at the current job (see figure 3) indicated that 57 percent of them were directly involved while 39.9 were indirectly or partially involved with environmental related work 1.9 percent of the respondents indicated that they had no involvement with environmental work at their present job 1.3 percent had not responded to this question Further analysis by sector of respondents who were directly involved with environmental work indicated that 62.22 percent of them were from the government sector and 20.12, 22 and 2.22 percent were from universities, NGOs and the private sectors respectively

Figure 3 EIA Course Evaluation
Participant's Involvement in Environmental Work



In assessing the number of respondents with prior EIA experience it was evident that 59.5 percent of the respondents had associated themselves with one or more environmental impact assessments 38.6 percent were not directly involved in any EIAs Further analysis of the respondents involvement with EIAs indicated that 34.2 percent of them have participated as a team member or a manager in one or more EIAs while 23.4 percent have participated as a reviewer/manager Only 5.1 percent of the respondents have participated as Team Leader on an EIA

The question on usefulness of EIA skill enhancement in the course was structured as 1 Not at All helpful 2 Only slightly helpful 3 Helpful 4 Very helpful 5 Extremely helpful This question was asked in respect to preparation of EIA terms of reference (TOR) selection of consultants, scoping organizing public hearings enlightening communities Inputs on EIA approvals incorporating environmental concerns in planning activities using EIA knowledge in day to day decisions teaching/training activities consulting related activities The following Table 4 illustrates the responses

It is evident from the Table 4 that most of the participants have found the course to be helpful or very helpful in developing the above mentioned skills Over 40 percent of the respondents felt that the course was very helpful in incorporating environmental concerns in their planning activities As mentioned above 38 percent of the respondents have not been involved with any EIAs at all

Table 4 Usefulness of the Course in Improving EIA Skills

| Usefulness of the EIA course in improving the following skills | | | | | | |
|--|------------------------|----------------------|-------------|------------------|-----------------------|-------------------|
| Skill | Not at all helpful (%) | Slightly helpful (%) | Helpful (%) | Very helpful (%) | Extremely helpful (%) | Not responded (%) |
| EIA TOR Preparation | 2.50 | 3.80 | 39.21 | 34.80 | 8.20 | 11.40 |
| EIA Consultant Selection | 8.20 | 15.20 | 32.90 | 20.90 | 3.20 | 19.60 |
| EIA Scoping | 1.90 | 5.73 | 29.10 | 38.60 | 12.70 | 12.00 |
| Organizing Public Hearings | 5.70 | 12.70 | 30.40 | 23.40 | 11.40 | 16.50 |
| Enlightening Communities | 3.80 | 12.70 | 30.40 | 27.20 | 11.40 | 14.60 |
| Provision of Inputs for EIA Approvals | 7.00 | 5.10 | 29.10 | 27.20 | 12.70 | 19.00 |
| Incorporating Environmental Concerns in Planning Activities | 2.50 | 6.30 | 19.61 | 43.00 | 17.10 | 11.40 |
| Using EIA knowledge in day to day decision making in job | 4.40 | 8.90 | 22.20 | 37.30 | 15.80 | 11.40 |
| EIA in teaching/training | 5.10 | 9.50 | 26.60 | 27.80 | 19.00 | 12.00 |
| EIA in consulting | 5.10 | 10.80 | 25.90 | 24.10 | 15.90 | 20.30 |

7 Conclusion

The acquirement of skills mentioned in Table 4 vary depending on the sector a participant belongs to. For example, preparation of TOR, EIA scoping, organizing public hearings etc. is generally done by the government sector, specifically the Project Approving Agency (PAA), while EIA training and/or consulting work is done by Universities or the private sector. Due to the varied mix, some participants found the course to be most useful in developing certain set of skills while others a different set of skills. However, over 70 percent of the respondents felt that the course was helpful to extremely helpful in developing overall EIA skills. Further, more 43 percent of the respondents felt that the course was extremely helpful in incorporating environmental concerns in planning activities. This is an indication that the course is not only geared for persons directly involved in EIA activities but also for people involved in planning and management activities.

In summary, the EIA course has made an impact on the participants. It is evident from the analysis that over 72 percent of the total respondents who felt that the course was very useful to them were from the government sector. In addition, one could conclude that it is only because an impact has been made that 93 percent of the respondents felt the need for a short follow-up workshop to update knowledge/skills on EIA.

8 Recommendations

EIA applications are evolving annually not only in Sri Lanka but through out the world. Therefore, it is important to keep the EIA course participants up-to-date on the latest EIA methods and issues. This objective could be accomplished by conducting short follow-up courses for participants who continue to be involved in environmental work. A news letter of EIA activities in Sri Lanka would also be a method of discussing issues relevant to Sri Lanka.

It is evident from this evaluation that the series of EIA courses conducted jointly by the Ministry of Transport, Environment and Women's Affairs (M/TEWA) Central Environmental Authority (CEA), and the Centre for Environmental Studies (CES) with the assistance of NAREPP has been extremely successful. To further ensure the rate of success an introductory workshop on EIA for participants to be for the ten day course would eliminate the people who find the EIA course not very useful to them. This workshop could also be used as a tool for organizing the ten day EIA course as well. In addition, distribution of EIA course material during this workshop would enable the participants to better prepare themselves for the ten day course.

This EIA intensive course is a generic program designed for persons from various sectors. It can only provide an orientation type introduction to a comprehensive EIA process and its application. However, it is very important to continue this program as a basic course for the benefit of new entrants to the field of environmental management in various agencies and for any one who would need to obtain training in any special areas as a foundation course. It is therefore quite important at this juncture to organize job specific EIA training. The following job specific short-term training is recommended for various sectors.

Table 5 Orientation of Proposed EIA Courses and Suggested Participants

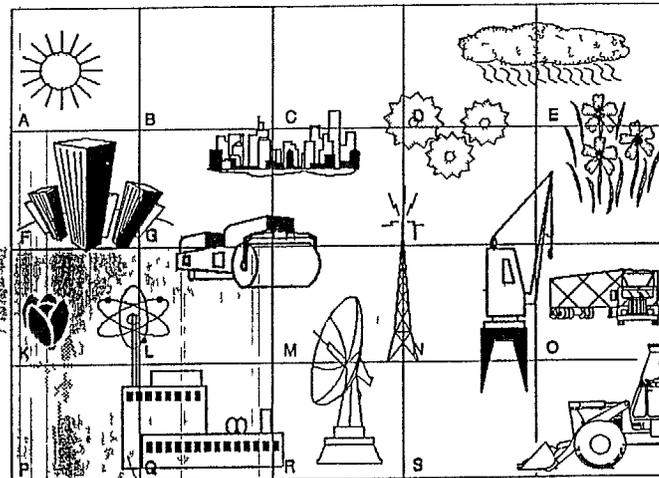
| Orientation of Proposed Training Course | Targeted Participant |
|--|--|
| EIA TOR Preparation EIA Scoping | Public sector participants working with PAA and are involved with EIAs |
| EIA Consultant Selection EIA Preparation/Methods | Private sector consulting firms and individual consultants in EIAs |
| Organizing Public Hearings Enlightening Communities on EIAs | NGOs, Public Sector as well as Private Sector participants |
| Incorporating the EIA in the Planning Process | Public and Private Sector participants at the Senior and Mid level Management level involved in Development Planning and Project Management |
| LIA Teaching/Training | University Faculty and Relevant Persons involved in Environmental related Training from Public, Private and NGO sectors |
| EIA Monitoring | Public Sector: Those responsible for Project Management, PAA staff and related Provincial Public Officers Private Sector: Involved in Project Management Research Institutes NGOs |

Another serious draw back in current EIA training is that it is very much project-focused. This may not be a realistic approach to managing real-life development programs and projects. Therefore, it is necessary to improve the capacity of incorporating environmental dimensions in sectoral, regional planning and finally in the policy formulation process. This aspect should also be taken into consideration when designing EIA training courses in the future.

APPENDIX I

GUIDANCE FOR IMPLEMENTING THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS

No 1 A General Guide for Project Approving Agencies (PAA)



Central Environmental Authority
(Ministry of Environment and Parliamentary Affairs)

1993

Central Environmental Authority
Parisara Mawatha
Maligawatta New Town
Colombo 10
SRI LANKA

Telephone No 449455/6, 437487/8/9
Fax No 01 446749

Printed By United Merchants Ltd Colombo 13

17

Natural Resources Management Division

New Secretariat Building
H R. Uthupala Mawatha
Colombo 10

Tel 439073 74 75 76
Fax 94 1-439076

Central Environmental Authority



With Our Compliments

A GUIDE FOR IMPLEMENTING THE EIA PROCESS

A Standard Agreed EIA Procedure Based on the Gazette
(Extra ordinary) of the Democratic Socialist Republic of
Sri Lanka No 772/22 dated 24th June 1993



This document shall be referred to as

"A Guide for Implementing the EIA Process, No 1, 1993
Central Environmental Authority, Sri Lanka"

ACKNOWLEDGEMENT

This document has been prepared by the Central Environmental Authority (CEA) with the assistance of the Natural Resources and Environmental Policy Project / International Resources Group, Ltd (NAREPP/IRG), a project of the United States Agency for International Development and the Government of Sri Lanka

Compiled and edited by

Natural Resources Management Division
Central Environmental Authority

Published by

Central Environmental Authority
Malgawatte New Town
Colombo 10
Sri Lanka

FOREWORD

Environmental Impact Assessment has gained wide recognition as an useful tool for promoting environmentally sound and sustainable development. In Sri Lanka the EIA process was first introduced through the legislation of the Coast Conservation Act No 57 of 1981. This was confined to only a 300 meter strip of land along the coastal zone of the island. Subsequently an EIA system for the whole country was administratively introduced in January 1984 by a decision of the Cabinet of Ministers. It was made applicable to all development activities including public and private sector projects.

The statutory introduction was made by an amendment to the National Environmental Act (Act No 56 of 1988). As required by this amendment projects that should undergo the EIA process and the procedures and methods to be adopted were gazetted on 24th June 1993 and are contained in Gazette Extraordinary No 772/22. The process is managed and monitored by the Central Environmental Authority and implemented through 14 State Agencies. A unique feature of the EIA process is that it is an open process allowing for public participation in decision making.

Several guidelines on the implementation of the EIA process have been developed by countries in the region, donor agencies and banks such as the World Bank and the Asian Development Bank. Although these could be made use of to a certain extent in the implementation of the EIA process in Sri Lanka, it should be noted that these have to be adapted to reflect the unique environmental characteristics of the country. In view of this the CEA in association with NAREPP/IRG have commenced the preparation of a series of guidance documents for implementing the EIA process in Sri Lanka. The present guide book is the first in this series and is intended to assist and guide the Project Approving Agencies to successfully implement the EIA process.



G. K. Amarasinghe
CHAIRMAN
CENTRAL ENVIRONMENTAL AUTHORITY

October 12, 1993

CONTENTS

| | | |
|----------|--|-----------|
| 1 | INSTITUTIONAL RESPONSIBILITIES | 1 |
| 1 1 | Purpose of the EIA requirement | 1 |
| 1 2 | Goals of Project Approving Agencies (PAA) | 1 |
| 1 3 | EIA Inter Agency Committee | 2 |
| 1 4 | PAA responsibilities | 3 |
| 1 5 | PAA operating procedures | 3 |
| 1 5 1 | EIA Cell | 3 |
| 1 5 2 | EIA Oversight Committee | 4 |
| 1 5 3 | Technical Sub Committee | 4 |
| 1 6 | PAA is designated appropriate agency | 5 |
| 1 7 | Co operating Agencies | 5 |
| 2 | PROCEDURES FOR COMPLIANCE WITH REGULATIONS | 7 |
| 2 1 | Preliminary information (PI) requests | 7 |
| 2 1 1 | Notice of adequacy of Preliminary Information | 7 |
| 2 2 | Scoping | 7 |
| 2 2 1 | Scoping Guidance Document | 8 |
| 2 3 | Criteria for IEE or EIA Determination of Significant Impacts | 8 |
| 2 4 | Preparing the Terms of Reference (TOR) | 10 |
| 2 5 | Timing of EIA process | 10 |
| 3 | EIA CONTENT AND FORMAT | 11 |
| 3 1 | Recommended Format | 11 |
| 4 | THE COMMENTING PROCESS | 12 |
| 4 1 | Public Notice | 12 |
| 4 2 | Duty to comment | 12 |
| 4 3 | Public comment facilitation and Evaluation | 12 |
| 4 4 | Public Hearings | 12 |
| 4 4 1 | Public Hearings Guidance Document | 13 |
| 5 | IMPLEMENTING THE DECISION | 14 |
| 5 1 | Monitoring of Projects | 14 |
| 5 2 | Timing of agency action | 14 |
| 5 3 | Emergencies | 14 |
| 5 4 | Administrative Charges | 15 |
| 6 | ABBREVIATIONS AND TERMINOLOGY | 16 |
| | APPENDIX 1 | 18 |
| | Preparation of TORs for IEEs | 18 |

| | | |
|-------------------|--|----|
| APPENDIX 2 | | 18 |
| A | EIA CONTENT AND FORMAT | 19 |
| 1 | Recommended Format | 19 |
| 2 | Guidance on EIA content | 20 |
| (a) | Inner Cover sheet | 20 |
| (b) | Summary | 20 |
| (c) | Purpose need and legal actions required by agencies | 20 |
| (d) | Proposed action and reasonable alternatives | 21 |
| (e) | Affected environment | 21 |
| (f) | Environmental consequences and evaluations of proposed action and alternatives | 21 |
| (g) | List of projects | 22 |
| (i) | EIA Appendix | 22 |
| B | TECHNIQUES FOR PREPARING EIAs | 23 |
| 1 | Page limits | 23 |
| 2 | Writing | 23 |
| 3 | Language | 23 |
| 4 | Incorporation by reference | 23 |
| 5 | Incomplete or unavailable information | 23 |
| 6 | Cost benefit analysis | 24 |
| 7 | Methodology and scientific accuracy | 24 |
| C | PROJECT PROPONENT'S RESPONSE TO COMMENTS | 25 |

| | | |
|-------------------|---|----|
| APPENDIX 3 | | 26 |
| Forms | | 26 |
| 1) | Acknowledgement of preliminary information | 27 |
| 2) | Inadequacy of preliminary information | 28 |
| 3) | Scoping notice | 29 |
| 4a) | IEE terms of reference notice | 30 |
| 4b) | EIA terms of reference notice | 31 |
| 5) | Receipt of EIAR/IEER | 32 |
| 6) | Notice of adequacy of EIAR | 33 |
| 7) | Notice of inadequacy of EIA | 34 |
| 8) | Public comments notice | 35 |
| | Notification under section 23 BB subsection (2) of the National Environmental Act | 35 |
| 9) | Public hearing notice | 35 |
| 10) | Notice calling for project proponent to respond to public comments | 37 |
| 11a) | Final decision on EIAR | 38 |
| 11b) | Final decision on EIAR | 39 |
| 11c) | Final decision on IEER (Granting approval) | 40 |
| 11d) | Final decision on IEER (Refusing approval) | 41 |
| 12 | Public notice of final decision | 42 |

APPENDIX 4 43

Projects and undertakings prescribed by the Hon Minister of Environment & Parliamentary Affairs for which approval shall be necessary under the provisions of part IV C of the National Environmental Act (is contained in gazette extra ordinary no 772/22 of 24th June 1993) 43

APPENDIX 5

National Environmental (procedure for approval of projects) regulations No 1 Of 1993 as contained in gazette extra ordinary no 772/22 of 24th June 1993 50

1 INSTITUTIONAL RESPONSIBILITIES

1.1 Purpose of the EIA requirement

The purposes of environmental impact assessment (EIA) are to ensure that sustainable and that environmental consequences are recognised and taken into account early in project design. EIAs are intended to foster sound decision making, not to generate paperwork. The EIA process should also help public officials make decisions that are based on understanding of environmental consequences and take actions that protect, restore and enhance the environment.

The National Environmental Act No 47 of 1980 (NEA) is our basic national charter for protection and management of the environment. The NEA was amended by Act No 56 of 1988 to include a provision relating to environmental impact assessment contained in Part IV C of the statute entitled Approval of Projects. Under the provisions of section 23 Z of the NEA the EIA process applies only to Prescribed Projects (PP) which have been specified by the Minister of Environment and Parliamentary Affairs in Gazette Extraordinary No 772/22 of 24th June 1993 and will be implemented through designated Project Approving Agencies (PAA) as prescribed by the Minister under Section 23 Y of the NEA. Under Section 23 CC of the NEA regulations have been made by the Minister stating the procedures that should be followed in order to achieve the EIA requirements of the NEA.

The Central Environmental Authority as the agency charged with the responsibility of implementing the above provisions of the NEA will promptly advise PAAs of any amendments to the NEA relevant to Part IV C and/or the orders and regulations included in Gazette Extraordinary No 772/22 of 24th June 1993.

1.2 Goals of Project Approving Agencies (PAA)

At present 14 state agencies have been specified as Project Approving Agencies (PAA) by the Minister under Section 23Y of the NEA. The EIA practices and procedures of every PAA should ensure that high quality environmental information is available to public officials and citizens before decisions are made and before the government makes any significant commitment of environmental resources. To achieve this goal Project

Approving Agencies should to the fullest extent possible

- ◆ Interpret and administer the applicable provisions of the NEA and the National Environmental(Procedure for approval of projects) Regulations as gazetted from time to time, to implement the EIA process
- ◆ Subject all Prescribed Projects to the EIA Process
- ◆ Make the EIA process useful to decision makers and the public by emphasizing real environmental issues and alternatives resulting in concise clear well focussed assessments
- ◆ Integrate EIA requirements with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively
- ◆ Facilitate public involvement in decisions which affect the quality of the environment
- ◆ Use the EIA process to identify and assess reasonable alternatives to proposed actions that may avoid or minimize adverse effects on the quality of the environment
- ◆ Use all practicable means consistent with NEA requirements and other essential considerations of national policy to restore and enhance the quality of the environment and avoid or minimize any possible adverse environmental effects of their actions

1 3 EIA Inter-Agency Committee

The CEA will help PAAs meet these objectives through an EIA Inter Agency Committee, established under the chairmanship of the Secretary Environment Ministry of Environment and Parliamentary Affairs (M/EPA). The Committee will be convened by the CEA. The Committee is intended to help M/EPA and the CEA to oversee and facilitate the EIA process. The Committee shall include representatives of all PAAs and participation of NGOs will also be invited. The functions of this committee will be

- (a) to review the positional status of the implementation of the EIA process
- (b) to advise and guide the PAAs
- (c) to recommend approaches for integrating EIAs into national policy and planning frameworks

This committee will meet every quarter or as and when required

1 4 PAA responsibilities

It is the responsibility of every Project Approving Agency (PAA) to carry out the requirements stated in section 1 2 effectively and practically. Primary responsibilities of the PAA are to

- ◆ subject all prescribed projects to IEE/EIA requirements
- ◆ ensure and guide proper scoping processes for EIAs/IEEs
- ◆ draft Terms of Reference for IEEs or EIAs
- ◆ establish conduct and participate in technical evaluation and reviews during and after EIA preparation
- ◆ ensure public notification of availability of IEE/EIA for public review
- ◆ evaluate and respond to comments received from the public or other agencies
- ◆ establish necessary mitigatory measures and ensure that they are incorporated in any permit or approval conditions
- ◆ ensure implementation of the conditions through effective monitoring
- ◆ help investors and EIA preparers to apply information to EIAs that is available within the PAA and its components
- ◆ obtain concurrence of the CEA prior to making an EIA project decision

1 5 PAA operating procedures

To carry out these responsibilities each PAA should establish its own operating procedures that match its own organization and meet its own particular needs. PAAs are advised to establish the following procedures and management practices

1 5 1 EIA Cell

- (1) Legal responsibility for all decisions of the PAA respecting the EIA process is

for a PAA Ministry the Secretary
for a PAA Department the Head
for a PAA Authority/Bureau the Chief Executive

- (b) An EIA Cell should be established within each PAA. The EIA cell will be responsible for administering the EIA process within the PAA. It may have a small permanent staff or it may depend on staff from other components of the PAA. A member of the cell should be designated to interact with CEA, other PAAs, and members of the public on all matters connected with the EIA process.

1.5.2 EIA Oversight Committee

The Secretary of the PAA Ministry or the Chairman/Head of the PAA agency/department should chair an EIA Oversight Committee whose administrative secretary will be a member of the EIA Cell of the PAA. The Committee should include a small number of members representing each of the primary (and environmentally important) components of the PAA including components with legal responsibilities affecting project approval. Meetings should be no less than quarterly. A representative of the CEA should be included in the Committee.

Its duties are to

- ◆ Advise the chairman (as the legally responsible person for EIA compliance under the NEA) on EIA process decisions
- ◆ Oversee PAA compliance with EIA requirements and policies of the NEA
- ◆ Identify needs for policy and procedural direction to PAA components to improve EIA compliance,
- ◆ Make project decisions based on completed EIAs
- ◆ Assess problems and make recommendations
- ◆ Facilitate EIA preparation through close liaison with PPs
- ◆ Receive and evaluate compliance monitoring reports

1.5.3 Technical Sub-Committee

A temporary Technical Sub Committee should be formed for each IEE/EIA for which a PAA is the responsible agency. This Sub Committee should be comprised of technical level people charged with all technical aspects of the EIA process. Technical personnel may include members of the EIA Oversight Committee, experts from within the PAA and others from government agencies, NGOs,

academic institutions and elsewhere. However, the PAA must ensure that such technical personnel have no conflicts of interest with the preparation of the EIA by the project proponent. The PAA may wish to establish a list of appropriate technical experts to draw upon. The Technical Sub Committee should be chaired by a member of the EIA Cell of the PAA. It should communicate all technical evaluations and decisions to the EIA Oversight Committee referred to above. It will meet as often as necessary. The Sub Committee may also serve as the PAA's monitoring arm to ensure compliance with EIA mitigation/monitoring requirements.

1.6 PAA as designated appropriate agency

A single PAA will be established as responsible for guiding the preparation of an IEE or EIA. Actual preparation of the IEE/EIA will be the responsibility of the developer or project proponent (PP). If a PP is a state agency within a PAA ministry, that ministry will act as the appropriate PAA. However, determination of the appropriate PAA will be based on the following unranked criteria:

- ◆ the PAA having jurisdiction over the largest area or
- ◆ having jurisdiction over diverse or unique ecosystems or
- ◆ within whose jurisdiction the environmental impacts (resource depletion) are likely to be the greatest
- ◆ the PAA having statutory authority to license or otherwise approve the prescribed project

If PAAs are unable to agree among themselves on which agency will be the appropriate agency or if there is unreasonable delay in making a decision, any of the PAAs or a project proponent shall request the CEA to determine which agency should be the lead agency. The CEA will promptly designate a responsible PAA based on the above criteria and will notify the PP and the PAAs concerned.

If a PAA is the project proponent, the CEA will act as the appropriate PAA.

24

1.7 Co-operating Agencies

It is advisable that upon request of the responsible PAA any other state agency which has jurisdiction by law or has special expertise should be a co operating agency in the IEE/EIA process. In such cases the designated PAA should

- 1 Request the participation of each co operating agency in the EIA process at the earliest possible time
- 2 Use the environmental analysis and proposals of co operating agencies with jurisdiction by law or special expertise to the maximum extent possible consistent with its responsibility as the appropriate PAA

Each cooperating agency should

- 1 participate in the EIA process at the earliest possible time including the scoping process
- 2 Assume (on request of the designated PAA) responsibility for developing information for the EIA process
- 3 Make available staff support at the designated PAA's request and normally use its own funds for this purpose
- 4 Integrate its own permit/licensing or other legal functions relating to the prescribed project into the information gathering, analysis and decision schedule of the IEE/EIA

2 PROCEDURES FOR COMPLIANCE WITH REGULATIONS

2.1 Preliminary information (PI) requests

It is the responsibility of PAAs to obtain information from project proponents at the earliest practical stage regarding the nature, location and impacts of a proposed project that requires an IEE or an EIA. PAAs should prepare preliminary information forms for use by project proponents that can be adapted to different kinds of projects. Information requested should

- ◆ help the PAA determine whether an IEE or EIA is required
- ◆ help the PAA identify questions and issues for attention in the scoping process including whether an IEE or EIA is required and what such documents should require
- ◆ to the extent possible satisfy requirements for an IEE if no EIA is required

PAAs may obtain help from the CEA and other PAAs on preliminary information forms and questionnaires.

2.1.1 Notice of adequacy of Preliminary Information

Once the PAA is satisfied that adequate preliminary information has been received the PAA should acknowledge its receipt in writing within six (6) days. When documents are found inadequate the PAA should so inform the PP as early as possible (Appendix 3)

2.2 Scoping

There should be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process is termed scoping.

As part of the scoping process the appropriate PAA should

- 1 Invite the formal and informal participation of all concerned agencies, the proponent of the action and other interested persons (including representatives of the affected public and others who might not be in accord with the action on environmental grounds)

- 2 Determine whether the PP should be asked to prepare an IEE or EIA unless an adequate IEE has already been presented
- 3 Determine the scope and the significant issues to be analyzed in depth in the IEE/EIA (Reasonable alternatives that should be addressed in the case of an EIA should also be determined at the scoping)
- 4 Determine reasonable alternatives that should be addressed in the IEE/EIA
- 5 Identify and eliminate from detailed study the issues which are not significant or which have been covered by prior studies or environmental reviews,
- 6 Set the Terms of Reference (ToR) for the IEE/EIA
- 7 Communicate regularly with the developer in the preparation of the required document,

As part of the scoping process the responsible PAA may

- 1 Set page limits on the required document
- 2 Set schedules and time periods as necessary
- 3 Identify the sectors of required expertise for preparing the IEE/EIA
- 4 Hold an early scoping meeting or meetings which may be integrated with other early meetings or processes already established by the PAA

2.2.1 Scoping Guidance Document

Detailed guidelines on the scoping process will be issued by the CEA for assistance to PAAs

2.3 Criteria for IEE or EIA -- Determination of Significant Impacts

PAAs should determine whether an IEE or EIA is required for a proposed project based on an assessment of the likely significance of the impacts of the proposed project on the environment. EIAs, rather than IEEs, should be required for prescribed projects under the regulations that are likely to have significant impacts on the environment. PAAs should develop their own criteria for determining significant impacts in the form of checklists and other guides based on USAID, World Bank, Asian Development Bank, and other materials. The following is a basic approach for guidance

Significant impacts Significant impacts should be determined based on considerations of both context and intensity

(a) **Context** This means that the significance of an action should be analyzed in several contexts such as the impacts on the nation as a whole, impacts on a particular region or type of activity, and impacts on a specific community. Significance varies with the setting of the proposed action. Both short and long term effects are relevant.

(b) **Intensity** This refers to the severity, magnitude, or nature of impact likely from a proposed project. The following may be considered among others in evaluating intensity:

- 1 Impacts that may be considered both beneficial and adverse. A significant impact may occur even if the proponent or PAA believes that on balance the effect will be beneficial.
- 2 The degree to which the proposed action affects public health or safety.
- 3 The degree to which a proposed action would affect unique characteristics of a geographic area, such as religious or cultural resources, archeological resources (including those that may exist but have not been legally designated), nature reserves, wetlands, scenic areas, ecologically critical areas, environmentally sensitive areas, or endangered or threatened species of plants or animals.
- 4 The degree to which the impacts on the environment and related social conditions are likely to be highly controversial.
- 5 The degree to which the possible effects on the environment are highly uncertain or involve unique or unknown risks.
- 6 The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- 7 Whether the action is related to other actions whose impacts are individually insignificant but which cumulatively are apt to be significant. Significant impacts may occur if it is reasonable to anticipate a cumulatively significant impact on the environment. These impacts cannot be avoided by terming an action temporary or by breaking it down into small component parts (for example, one segment of a large irrigation project).
- 8 The degree to which a proposed action may affect the right of future generations to benefit from environmental and cultural resources.

2.4 Preparing the Terms of Reference (TOR)

Effective and efficient compliance with the NEA will require that IEEs undergo the simplest possible process of preparation consistent with their basic purpose. In issuing a TOR for an IEE, PAAs should substantially follow the basic format for IEEs included in Appendix 1.

PAAs should prepare the TOR for preparation of an EIA in order to achieve the following objectives:

- a. EIAs should be analytic rather than encyclopedic.
- b. EIAs should discuss impacts in proportion to their significance. There should be only brief discussion of other than significant issues.
- c. EIAs should be concise and should be no longer than absolutely necessary to comply with the NEA and its regulations.
- d. EIAs should serve as the means to assess the environmental impacts of the proposed prescribed project and reasonable alternatives, rather than to justify decisions already made.

TORs should be concise and they should follow a regular format to facilitate compliance by proponents, consulting entities, and efficient IEE/EIA review by the PAA. TORs should ensure that EIAs are prepared to meet the EIA requirements and format discussed in Section 3.

2.5 Timing of EIA process

A project proponent should commence the IEE/EIA process as close as possible to the time that it develops the proposal. By ensuring that project proponents do this, the PAA can ensure that IEE/EIA preparation can be completed in time to meet decision making schedules and deadlines. The IEE/EIA should be prepared early enough so that it can practically contribute to the decision making process and will not be used to rationalize or justify decisions already made.

For projects directly undertaken by public entities, the IEE/EIA should be prepared at the feasibility or pre-feasibility (go/no go) stage. The EIA may be supplemented at a later stage if necessary. For applications by private proponents to the PAA, appropriate environmental assessments should be commenced immediately after the application and preliminary information are received and as early in the planning stage as possible.

3 EIA CONTENT AND FORMAT

3.1 Recommended Format

EIAs should be prepared using a format that will encourage good analysis and clear presentation of the alternatives including the proposed action. The following standard format for EIAs should generally be followed unless the agency determines that there is a compelling reason to do otherwise:

- ◆ Inner Cover sheet
- ◆ Table of Contents
- ◆ Executive Summary
- ◆ Proposed Action's Purpose, Need, and Legal Requirements
 - purpose of the EIA, EIA preparation process, legal actions required by government to approve action
- ◆ Proposed Action and Reasonable Alternatives
 - description of proposed action, reasonable alternatives including mitigation measures
- ◆ Affected Environment
- ◆ Environmental Consequences of Proposed Action and Alternatives
 - comparison of impacts, including direct, indirect, and cumulative impacts, insignificant impacts, irreversible and irretrievable commitments of resources, environmental evaluation criteria, application of criteria to proposed project and alternatives, environmentally preferred alternatives, and reasons why other alternatives are rejected in preference to the one's recommended.
- ◆ Benefit Cost Analysis
 - Included if one has been prepared by the Project Proponent
- ◆ Proposed Monitoring Plan
 - including institutional responsibilities and procedures for reporting and analysis
- ◆ Appendices
 - List of EIA preparers, references, backup data and analyses

Appendix 2 provides additional guidance on the contents of the major sections of an EIA.

4 THE COMMENTING PROCESS

4.1 Public Notice

On receipt of the IEE/EIA the PAA should make a preliminary assessment of its adequacy as measured by the TOR. If found adequate on *prima facie* review, the document should be open for public scrutiny for a period of 30 working days and must be so announced in the gazette and one newspaper in English, Sinhala and Tamil. The 30 day comment period will begin from the date of first appearance of the notice.

4.2 Duty to comment

Cooperating agencies with jurisdiction by law or special expertise with respect to any IEE/EIA, and agencies which are authorized to develop and enforce environmental standards should comment on assessments within their jurisdiction, expertise or authority and within the time period specified for comment.

4.3 Public comment facilitation and Evaluation

PAAs should establish procedures for making IEEs/EIAs readily available to the public for reading in Colombo and in the district or division in which the project is proposed. PAAs should establish an efficient process to allow copies of EIAs to be made for the public upon request and upon payment of the full reproduction costs by the requesting party or parties. PAAs should forward all comments received to the PP for review and response. Upon receipt of the PPs written response to comments (See Appendix 2) the PAA should evaluate the responses before making a decision.

4.4 Public Hearings

The NEA states that a public hearing may be held at the discretion of the PAA when it thinks that it would be in the public interest to do so. A variety of situations may fall within the meaning of public interest and these cannot be exhaustively defined. Factors for the PAA to consider are

- ◆ whether a proposed prescribed project is highly controversial, whether more expressions of public views are essential to make decision
- ◆ whether the proposed prescribed project might cause unusual national or regional impacts
- ◆ whether it might threaten a nationally important environmentally sensitive area
- ◆ whether a formal request for a public hearing has been requested by an interested party

If it is decided to hold a public hearing it should be held immediately after the expiration of the 30 day period for public comments and before the PP is asked formally to comment on public and agency comments.

4.4.1 Public Hearings Guidance Document

The CEA will provide guidance to PAAs regarding how public hearings should be conducted, who should hold the hearing, who should be invited to testify, how time should be allocated and how records should be kept, in a separate guidance document.

5 IMPLEMENTING THE DECISION

5.1 Monitoring of Projects

EIA regulations require the PAA to provide a monitoring plan to ensure that its decision is carried out and to submit the plan to the CEA within 30 days of project approval. Mitigation and other conditions established in the IEE/EIA during its review and committed to as part of the decision should be implemented by the developer and monitored by the PAA. The PAA should

- a Include appropriate mitigation conditions in grants, permits or other approvals
- b Conditional funding of government actions on mitigation by the proponent
- c Establish monitoring processes and monitoring responsibilities of public/private entities
- d Establish a means for compensating for monitoring costs by the government through fees, bonds, or other measures
- e Upon request, inform commenting agencies on progress in carrying out proposed mitigation measures adopted by the agency making the decision
- f Upon request, make available to the public the results of relevant monitoring

5.2 Timing of agency action

PAAs should follow the schedule requirements in the EIA regulations. These time requirements, legally only directory, are important to achieve the goals of the EIA process as an efficient management tool. Two other requirements are also critical:

- a No decision on the proposed action should be made or recorded by a PAA during the 30 day public review period
- b No action by the PAA on the proposed action should be taken until the PP has responded to comments received on the EIA

5.3 Emergencies

Consistent with legal requirements, where emergency relief circumstances (for example, land slides or floods) make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the agency taking the action should consult with the CEA about alternative arrangements.

5.4 Administrative Charges

The PAA is responsible for assessing and obtaining all necessary administrative costs from the PP. PAAs should establish budgetary provisions for meeting necessary EIA costs. However, a fund may be established, administered by M/EPA, to help PAAs to meet operational costs of implementing the EIA requirements. Guidelines on levying of administrative charges will be issued by CEA for assistance of PAAs.

6 ABBREVIATIONS AND TERMINOLOGY

ABBREVIATIONS

| | | |
|-------|---|---|
| CEA | - | Central Environmental Authority |
| EIA | | Environmental Impact Assessment |
| IEE | - | Initial Environmental Examination |
| NEA | | National Environmental Act |
| NGO | - | Non Governmental Organisation |
| M/EPA | - | Ministry of Environment & Parliamentary Affairs |
| PAA | | Project Approving Agency |
| PI | | Preliminary Information |
| PP | | Project Proponent |
| TOR | | Terms of Reference |

TERMINOLOGY

Co-operating agency

"Co operating agency" means any agency other than an appropriate PAA agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal project

Cumulative impact

Cumulative impact ' is the impact on the environment which results from the incremental impact of the action when added to other past present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time

Effects

Effects include

- a Direct effects which are caused by the action and occur at the same time and place
- b Indirect effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate and related effects on air and water and other natural systems including ecosystems
Effects and impacts as used in this document are synonymous Effects include ecological (such as the effects on natural resources and on the components structures and functioning of affected ecosystems), aesthetic historic cultural economic social or health whether direct, indirect or cumulative Effects may also include those resulting from actions which may have both beneficial and detrimental effects even if on balance the agency believes that the effect will be beneficial

Appropriate PAA

The appropriate PAA is the ministry/department/authority or other public entity that is responsible for the EIA process for a proposed prescribed project

Mitigation

"Mitigation includes

- a Avoiding the impact altogether by not taking a certain action or parts of an action
- b Minimizing impacts by limiting the degree or magnitude of the action and its implementation
- c Rectifying the impact by repairing rehabilitating or restoring the affected environment
- d Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- e Compensating for the impact by replacing or providing substitute resources or environments

APPENDIX 1

Preparation of TORs for IEEs

IEEs are intended to be brief documents generally no longer than 10 pages to help decision makers to ensure that projects are implemented with appropriate mitigation measures that avoid significant impacts

PAAAs may wish to establish page limits checklists or other guides for PPs to meet IEE requirements effectively and efficiently

In general IEEs should contain the following sections

- ◆ Summary (1 page)
- ◆ Proposed Action's Purpose, Need and Legal Requirements
 - legal actions required by government to approve action,
- ◆ Proposed Action
 - brief description of proposed action including any mitigation measures designed to reduce environmental impacts The IEE may need to contain a description of reasonable alternatives
- ◆ Affected Environment
- ◆ Environmental Consequences of Proposed Action and Reasonable Alternatives (if any)
- ◆ Mitigation and Monitoring Plan
- ◆ Appendices
 - List of IEE preparers references, backup data and analyses

APPENDIX 2

A EIA CONTENT AND FORMAT

1 Recommended Format

Agencies should use a format for EIAs that will encourage good analysis and clear presentation of the alternatives including the proposed action The following standard format for EIAs should generally be followed unless the agency determines that there is a compelling reason to do otherwise

- ◆ Inner Cover sheet
- ◆ Table of Contents
- ◆ Summary
- ◆ Proposed Action's Purpose, Need and Legal Requirements
 - purpose of the EIA EIA preparation process, legal actions required by government to approve action
- ◆ Proposed Action and Reasonable Alternatives
 - description of proposed action no action alternative, other reasonable alternatives including mitigation measures
- ◆ Affected Environment
- ◆ Environmental Consequences of Proposed Action and Alternatives
 - comparison of impacts, including direct, indirect and cumulative impacts insignificant impacts irreversible and irretrievable commitments of resources environmental evaluation criteria, application of criteria to proposed project and alternatives, environmentally preferred alternatives
- ◆ Benefit Cost Analysis
 - Included if one has been prepared by the Project Proponent
- ◆ Proposed Monitoring Plan
 - including institutional responsibilities and procedures for reporting and analysis
- ◆ Appendices
 - List of EIA preparers references backup data and analyses

The major sections are described below

2 Guidance on EIA content

(a) Inner Cover sheet

The inside cover sheet should not exceed one page. It should include

- 1 The title of the proposed action that is the subject of the assessment
- 2 A list of preparers, including the consulting company (if any) responsible for the preparation of the EIAR. The original document should be authenticated by the preparers or by a responsible individual/s from the consulting company (if any)
- 3 The name, address, and telephone number of responsible person at the agency who can supply further information on the document
- 4 A paragraph abstract of the EIA (for use in public notices of EIA availability),

The main text of the document should be translated into Sinhala and Tamil and made available for public scrutiny.

(b) Summary

Each EIA should contain an adequate and accurate summary. It should emphasize the major choices to be made, major conclusions, topics of controversy (including issues raised by agencies and the public in the scoping process), and the issues to be resolved (including the choice among alternatives). Summaries should not normally exceed 5 pages.

(c) Purpose, need and legal actions required by agencies

The EIA should briefly specify the underlying purpose and need to which the preparers are responding in proposing the alternatives including the proposed action.

This section should include a concise description of the legal steps required, and actions that must be taken (and findings that must be made) by specified government agencies in order to approve the project. In this way the EIA can be a management tool to identify all information needed to meet various legal requirements for project approval.

(d) Proposed action and reasonable alternatives

This section describes the proposed action and reasonable alternatives which

- 1 should include those agreed upon in the scoping process. If subsequently determined to be unreasonable, the reasons should be discussed in this section.
- 2 may include reasonable alternatives not discussed at the scoping stage.
- 3 may be more restricted for private proposals than for government proposals because realistic options may be more restricted.
- 4 should always include the 'no action' alternative, meaning one based on current practices without approval of the proposed project.
- 5 should always state clear reasons for rejecting the alternatives in preference to the one recommended.

(e) Affected environment

The EIA should succinctly describe the environment of the area(s) to be affected by the alternatives under consideration.

- ◆ Descriptions should be no longer than is necessary to understand the effects of the alternatives.
- ◆ Data and analyses in an assessment should be commensurate with the importance of the impact.
- ◆ Less important material should be summarized, consolidated or simply referenced.

Preparers should avoid useless bulk in assessments and should concentrate effort and attention on important issues. Verbose descriptions of the affected environment are themselves no measure of the adequacy of an EIA.

(f) Environmental consequences and evaluations of proposed action and alternatives

This key section provides the scientific and analytic basis for comparing and evaluating the environmental impacts of the alternatives, including the proposed action. Impacts include

- 1 Direct and indirect effects and their significance, including biological/ecological, health, historic, or cultural resource impacts
- 2 Means to mitigate adverse environmental impacts
- 3 Natural or depletable resource requirements of various alternatives including any irreversible or irretrievable commitments of resources affected if the proposal is implemented,
- 4 Adverse environmental effects which cannot be avoided if the proposal is implemented,

This section should evaluate alternatives in terms of explicit evaluation criteria. EIAs may contain a separate evaluation section of the EIA, or the evaluation may be included in this section on alternatives. The evaluation should present a means by which decision makers and the public can evaluate the various alternatives based on criteria drawn from existing law and policy. Criteria may concern such topics as industrialization, health, forest and wildlife conservation, and agricultural development.

The EIA should rigorously apply these criteria to each of the alternatives, including the proposed project, and objectively evaluate each one in detail. This analysis and display of basic criteria should sharply define the issues and allow the PAA to identify the environmentally preferred alternative.

(g) List of preparers

The EIA should list the names, together with their qualifications (expertise, experience, professional disciplines), of the persons who were primarily responsible for preparing the EIA or its significant background papers.

(i) EIA Appendix

If an agency prepares an appendix to an EIA it should

- a Consist of material prepared in connection with an EIA (as distinct from material which is not so prepared and which is incorporated by reference),
- b Normally consist of material which substantiates any analysis fundamental to the impact assessment
- c Normally be analytic and relevant to the decision to be made
- d Be circulated with the EIA or be readily available on request

B TECHNIQUES FOR PREPARING EIAs

1 Page limits

The text of EIAs (excluding appendices) should normally be less than 50 pages. For proposals of unusual scope or complexity it should normally be no more than 100 pages.

2 Writing

Environment impact assessments should be written in plain language and may use appropriate graphics so that decision makers and the public can readily understand them. PPs or consulting entities should employ writers or editors to write, review, or edit assessments that will be based upon the analysis and supporting data from natural and social sciences.

3 Language

IEEs/EIAs may be in English, Sinhala or Tamil, but PPs must be advised that it may become necessary for the document to be made available in Sinhala and/or Tamil if so requested by the public at the public inspection stage.

4 Incorporation by reference

PPs should incorporate material into an EIA by reference when the effect will be to reduce bulk without impeding agency and public review of the action.

5 Incomplete or unavailable information

When a PP is evaluating reasonably foreseeable significant adverse effects on the environment in an EIA and there is incomplete or unavailable information, the PP should always make clear that such information is lacking.

- 1 If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the PP should include the information in the EIA.

2 If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because costs of obtaining it are exorbitant or the means to obtain the data are unknown the PP should include within the EIA

- ◆ a statement that such information is incomplete or unavailable,
- ◆ a statement regarding the relevance of the incomplete or unavailable information to an evaluation of reasonably foreseeable significant adverse impacts on the environment
- ◆ an analysis of any significant risks to and impacts on the environment based on a worst case eventuality (such as the bursting of a dam explosion of a refinery or nuclear incident from a nuclear power plant)

6 Cost-benefit analysis

The weighing of the merits and drawbacks of various alternatives need not be displayed in a monetary cost benefit analysis. However if a cost benefit analysis relevant to the choice of alternatives is being considered or prepared for the proposed action it must be incorporated into the EIA to help evaluate the alternatives.

7 Methodology and scientific accuracy

PPs should ensure the professional integrity including scientific integrity of the discussions and analyses in EIAs. They should identify any methodologies used and should make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the assessment. A PP may place discussion of methodology in an appendix.

C PROJECT PROPONENT'S RESPONSE TO COMMENTS

PPs should assess and consider comments made by the public, agencies, and the PAA and should respond by one or more of the means listed below, stating its response in the final assessment. Possible responses are to

- 1 Modify alternatives including the proposed action and/or incorporate mitigating measures
- 2 Develop and evaluate alternatives not previously given serious consideration by the PP
- 3 Supplement improve or modify its analyses
- 4 Make factual corrections
- 5 Explain why the comments do not warrant further PP response citing the sources authorities or reasons which support the PP's position and if appropriate indicate those circumstances which would trigger PP's reappraisal or further response

APPENDIX 3

Forms

- 1) Acknowledgement of Preliminary Information
- 2) Inadequacy of Preliminary Information
- 3) Scoping notice
- 4) TOR notice
 - (4a) For IEE
 - (4b) For EIA
- 5) Receipt of IEER / EIAR
- 6) Notice of adequacy of EIAR
- 7) Notice of inadequacy of EIAR
- 8) Public comment notice
- 9) Public hearing notice
- 10) Notice calling for project proponent to respond to public comments
- 11) Final decision on IEER/EIAR
 - (11a) Granting approval
 - (11b) Refusing approval
- 12) Public notice of final decision

1) ACKNOWLEDGEMENT OF PRELIMINARY INFORMATION

We acknowledge receipt of preliminary information sent by you on the proposed (name of the Project) for which you have sought approval under Part IVC of the National Environmental Act No 47 of 1980 as amended by Act No 56 of 1988. This information will be subjected to environmental scoping in order to determine whether what is required is an IEE report or EIA report and the terms of reference therefor. Our determination will be sent to you in terms of regulation 6 (iii) of the National Environmental (procedure for approval of projects) Regulation No 1 of 1993.

PAA

2) INADEQUACY OF PRELIMINARY INFORMATION

This is to notify you that the information supplied by you on the (name of the Project) for which you have sought approval under Part IVC of the National Environmental Act No 47 of 1980 as amended by Act No 56 of 1988 **is inadequate** to be treated as 'Preliminary Information' for the purposes of the National Environmental (Procedure for approval of projects), Regulation No 1 of 1993. In particular you have not yet submitted the following information

1

2

3

4

It is in your interest to submit this information at your earliest since otherwise we cannot take any steps to process your application for approval

PAA

3) SCOPING NOTICE

The proposed (name of project) initiated by the (project proponent) is pending approval by the (PAA) under section 23 AA (1) of the National Environmental Act. In terms of Reg 6(2) of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993 you are invited to attend a scoping meeting to be held at the (place) on the (date) at (time) in order to enable the (PAA) to determine whether what is required to be prepared by the (Project Proponent) is an IEE Report or EIA Report and to determine the issues to be covered in the IEE/EIA Report

You are welcome to make your contributions orally or in writing. Your special comments on the following issues will be appreciated

1

2

3

4

A description of the project is annexed herewith [Extract from Preliminary Information]

PAA

36

4a) IEE TERMS OF REFERENCE NOTICE

Further to environmental scoping held in terms of regulation 6(ii) of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993 you are required to prepare an IEE report of the proposed (name of Project) the terms of reference for which are attached hereto

The IEE report must address all matters referred to in the TOR. In the case if an EIAR fails to address the matters referred to in the TOR it will render the IEE report inadequate and in terms of regulation no 10 of the National Environment (Procedure for approval of projects) Regulations No 1 of 1993 the (Project Proponent) will be required to make necessary amendments and resubmit the report

Please submit the IEE report together with (number) copies thereof. The main text of the document should be translated into Sinhala & Tamil languages and (number) copies thereof should also be furnished

(PAA)

4b) EIA TERMS OF REFERENCE NOTICE

Further to environmental scoping held in terms of regulation 6(ii) of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993, you are required to prepare an EIA Report of the proposed (Name of Project), the terms of reference for which are attached hereto

The EIA must address all matters referred to in the TOR. In the case if an EIAR fails to address the matters referred to in the TOR it will render the EIAR inadequate and in terms of regulation no 10 of the National Environment (Procedure for approval of projects) Regulations No 1 of 1993 the (Project Proponent) will be required to make necessary amendments and resubmit the report

Please submit the EIA Report together with (number) copies thereof. The main text of the document should be translated into Sinhala & Tamil languages and (number) copies thereof should also be furnished

(PAA)

31

5) RECEIPT OF EIAR/IEER

We acknowledge receipt of the EIA/IEE study of the proposed (name of the Project) submitted by you in terms of the National Environmental Act

(PAA)

6) NOTICE OF ADEQUACY OF EIAR

This is to notify (project proponent) that the EIA submitted by you on (date) is prima facie adequate and will be opened for public inspection and comment in terms of the National Environment (Procedure for approval of projects) Regulation No 1 of 1993

(PAA)

28

7) NOTICE OF INADEQUACY OF EIA

This is to notify you in terms of Regulation 10 of the National Environmental (Procedure for Approval of Projects) Regulation No 1 of 1993 that the EIA submitted by you on (date) is, prima facie inadequate. In particular the EIA has not addressed the following items referred to in the TOR

- 1
- 2
- 3
- 4

Please make necessary amendments to the EIA and re submit the same together with (number) copies thereof and translations in Sinhala & Tamil

(PAA)

8) PUBLIC COMMENTS NOTICE

NOTIFICATION
UNDER SECTION 23 BB, SUBSECTION (2) OF THE
NATIONAL ENVIRONMENTAL ACT

(name of the project)

The Report on the Environmental Impact Assessment study/Initial Environmental Examination Study of the proposed (name of the project) submitted by (project proponent) under section 23 BB(1) of the National Environmental Act No 47 of 1980 as amended by Act No 56 of 1988 will be available for inspection by the public at the following locations between 9 00 a m and 4 15 p m for a period of 30 days (except on week ends and Public Holidays)

◆ ◆
◆ ◆

Any member of the public may within 30 days submit their comments in writing on the above document to the (PAA)

PAA

34

9) PUBLIC HEARING NOTICE

EIA/IEE STUDY OF THE PROPOSED (name of the project _____)

Further to the written comments received from the public in terms of section 23 BB (3) of the National Environmental Act on the IEE/EIA study of the proposed (name of the project _____) submitted by the (Project Proponent _____) under section 23 BB (1) of the National Environmental Act, it has been decided to hold a public hearing under section 23 BB(3) of the National Environmental Act. You are invited to attend the public hearing to be held at the (place _____) on the (date _____) at (time _____) and to make oral or written submissions in support of your written comments

PAA

CC (Project Proponent) you are invited to attend this hearing. You may bring along the personnel who prepared the EIAR/IEER

NB Public hearing notice need only be served on those who have made written comment in response to the public inspection notice

10) NOTICE CALLING FOR PROJECT PROPONENT TO RESPOND TO PUBLIC COMMENTS

Annexed please find written comments received from the public {/ and further submissions / comments / evidence / received during the public hearing held} on the EIA/IEE submitted by you. Please respond to these comments as fully as possible. Please note that we cannot process your application for approval further until we receive your responses

PAA

♣ Enclosed copies of written comments / submission / evidence

{ optional }

40

11a) FINAL DECISION ON LIAR (Granting approval)

(name of the project)

This is to inform you that the (Project Approving Agency) after study of the EIA report of the proposed (name of the project) and review of the comments received from the public and your responses to such comments, has decided with the concurrence of the CEA in terms of regulations 13 of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993 to grant approval for the implementation of the above project subject to the following conditions

- 1 The project should be concluded within (date) unless upon written application within thirty days prior to this date (project approving agency) extends this time

2
3
4

We wish to draw your attention to regulation 17 which states

- 17 i A project proponent shall inform the appropriate Project Approving Agency of
 - (a) any alteration to a prescribed project approved under regulations 9(i) and 13(i) and/or
 - (b) the abandonment of such approved project
- ii The project proponent shall where necessary obtain fresh approval in respect of any such alterations that are intended to be made to such project The Project Approving Agency shall in consultation with the Authority determine the scope and format of the supplemental report required to be submitted for such alterations
- iii The project proponent shall where a project is abandoned restore the project site to a condition as specified by the Project Approving Agency

PAA

11b) FINAL DECISION ON FIAR (Refusing approval)

(name of the project)

This is to inform you that the (Project Approving Agency) after study of the EIA report of the proposed (name of the project) and review of the comments received from the public and your responses to such comments has decided with the concurrence of the CEA in terms of regulations 13 of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993 to refuse approval for implementation of the above project for the following reasons

1
2
3

PAA

1/1

11c) FINAL DECISION ON IEER (Granting approval)

11d) FINAL DECISION ON IEER (Refusing approval)

(name of the project)

(name of the project)

This is to inform you that the (Project Approving Agency) after study of the IEE report of the proposed (name of the project) and review of the comments received from the public and your responses to such comments, has decided with the concurrence of the CEA in terms of regulations 9(i) of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993 to grant approval for the implementation of the above project subject to the following conditions

This is to inform you that the (Project Approving Agency) after study of the IEE report of the proposed (name of the project) and review of the comments received from the public and your responses to such comments has decided with the concurrence of the CEA in terms of regulations 9(i) of the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993 to refuse approval for implementation of the above project for the following reasons

- 1 The project should be concluded within (date) unless upon written application within thirty days prior to this date (project approving agency) extends this time

- 1
- 2
- 3

We wish to draw your attention to regulation 17 which states

- 17 i A project proponent shall inform the appropriate Project Approving Agency of
 - (a) any alteration to a prescribed project approved under regulations 9(i) and 13(i) and/or
 - (b) the abandonment of such approved project
- ii The project proponent shall where necessary obtain fresh approval in respect of any such alterations that are intended to be made to such project The Project Approving Agency shall in consultation with the Authority determine the scope and format of the supplemental report required to be submitted for such alterations
- iii The project proponent shall where a project is abandoned restore the project site to a condition as specified by the Project Approving Agency

PAA

PAA

42

12 PUBLIC NOTICE OF FINAL DECISION

NATIONAL ENVIRONMENTAL ACT
PUBLIC NOTICE OF FINAL DECISION (EIAR)

(PROJECT APPROVING AGENCY)

(name of project)

NOTIFICATION UNDER SECTION 23 BB (4)

This is to inform the public that after a study of the EIA/IEE report of the above project review of the comments received from the public and the project proponents responses to such comments the (PAA) has decided with the concurrence of the CEA in terms of regulation 13 of the National Environmental (Procedure for approval of projects) Regulation No 1 of 1993 to grant approval for the implementation of the above project subject to specified terms and conditions

PAA

APPENDIX 4

PROJECTS AND UNDERTAKINGS PRESCRIBED BY THE HON MINISTER OF ENVIRONMENT & PARLIAMENTARY AFFAIRS FOR WHICH APPROVAL SHALL BE NECESSARY UNDER THE PROVISIONS OF PART IV C OF THE NATIONAL ENVIRONMENTAL ACT (AS CONTAINED IN GAZETTE EXTRA ORDINARY NO 772/22 OF 24TH JUNE 1993)

SCHEDULE

Part I

PROJECTS AND UNDERTAKINGS IF LOCATED WHOLLY OR PARTLY OUTSIDE THE COASTAL ZONE AS DEFINED BY COAST CONSERVATION ACT NO 57 OF 1981 (Fig 1)

- 1 All river basin development and irrigation projects excluding minor irrigation works (as defined by Irrigation Ordinance chapter 453)
- 2 Reclamation of Land and wetland area exceeding 4 hectares
- 3 Extraction of timber covering land area exceeding 5 hectares
- 4 Conversion of forests covering an area exceeding 1 hectare into non forest uses
- 5 Clearing of land areas exceeding 50 hectares
- 6 *Mining and Mineral Extraction*
 - ◆ Inland deep mining and mineral extraction involving a depth exceeding 25 meters
 - ◆ Inland surface mining of cumulative areas exceeding 10 hectares
 - ◆ All off shore mining and mineral extractions
 - ◆ Mechanized mining and quarrying operations of aggregate marble limestone silica quartz and decorative stone within 1 kilometer of any residential or commercial areas

43

7 *Transportation systems*

- ◆ Construction of national and provincial highways involving a length exceeding 10 kilometers
- ◆ Construction of railway lines
- ◆ Construction of airports
- ◆ Construction of airstrips
- ◆ Expansion of airports or airstrips that increase capacity by 50 percent or more

8 *Port and harbour development*

- ◆ Construction of ports
- ◆ Construction of harbours
- ◆ Port expansion involving an annual increase of 50% or more in handling capacity per annum

9 *Power generation and transmission*

- ◆ Construction of hydroelectric power stations exceeding 50 Megawatts
- ◆ Construction of thermal power plants having generation capacity exceeding 25 Megawatts at a single location or capacity addition exceeding 25 Megawatts to existing plants
- ◆ Construction of nuclear power plants
- ◆ All renewable energy based electricity generating stations exceeding 50 Megawatts

10 *Transmission lines*

- ◆ Installation of overhead transmission lines of length exceeding 10 kilometers and voltage above 50 Kilovolts

11 *Housing and building*

- ◆ Construction of dwelling housing units exceeding 1000 units
- ◆ Construction of all commercial buildings as defined by Urban Development Authority established by the Urban Development Authority law No 41 of 1978 having built up area exceeding 10,000 square meters
- ◆ Integrated multi development activities consisting of housing industry commercial infrastructure covering a land area exceeding 10 hectares

12 *Resettlement*

- ◆ Involuntary resettlement exceeding 100 families other than resettlement effected under emergency situations

13 *Water supply*

- ◆ All ground water extraction projects of capacity exceeding 1/2 million cubic meters per day
- ◆ Construction of water treatment plants of capacity exceeding 1/2 million cubic meters

14 *Pipelines*

- ◆ Laying of gas and liquid (excluding water) transfer pipelines of length exceeding 1 kilometer

15 *Hotels*

- ◆ Construction of Hotels or holiday resorts or projects which provide recreational facilities exceeding 99 rooms or 40 Hectares as the case may be

16 *Fisheries*

- ◆ Aquaculture development projects of extent exceeding 4 hectares
- ◆ Construction of fisheries harbours
- ◆ Fisheries harbour expansion projects involving an increase of 50% or more in fish handling capacity per annum

17 *All tunnelling projects*18 *Disposal of Waste*

- ◆ Construction of any solid waste disposal facility having a capacity exceeding 100 tons per day
- ◆ Construction of waste treatment plants treating toxic or hazardous waste

19 *Development of all Industrial Estates and Parks exceeding an area of 10 hectares*

46

20 *Iron and Steel Industries*

- ◆ Manufacture of iron and steel products of production capacity exceeding 100 tons per day using iron ore as raw material
- ◆ Manufacture of iron and steel products of production capacity exceeding 100 tons per day using scrap iron as raw material

21 *Non Ferrous Basic Metal Industries*

- ◆ Smelting of aluminium or copper or lead of production capacity exceeding 25 tons per day

22 *Basic Industrial Chemicals*

- ◆ Formulation of toxic chemicals of production capacity exceeding 50 tons per day
- ◆ Manufacture of toxic chemicals of production capacity exceeding 25 tons per day

23 *Pesticides and Fertilizers*

- ◆ Formulation of pesticides of combined production capacity exceeding 50 tons per day
- ◆ Manufacture of pesticides of combined production capacity exceeding 25 tons per day

24 *Petroleum and Petrochemical*

- ◆ Petroleum refineries producing gasoline fuel oils illuminating oils lubricating oils and grease aviation and marine fuel and liquified petroleum gas from crude petroleum
- ◆ Manufacture of petro chemicals of combined production capacity exceeding 100 tons per day from raw materials obtained from production processes of oil refinery or natural gas separation

25 *Tyre and Tube Industries*

- ◆ Manufacture of tyre and tubes of combined production capacity exceeding 100 tons per day from natural or synthetic rubber

26 *Sugar factories*

- ◆ Manufacture of refined sugar of combined production capacity exceeding 50 tons per day

27 *Cement and Lime*

- ◆ Manufacture of Cement
- ◆ Manufacture of lime employing kiln capacity exceeding 50 tons per day

28 *Paper and Pulp*

- ◆ Manufacture of paper or pulp of combined production capacity exceeding 50 tons per day

29 *Spinning Weaving and Finishing of Textiles*

- ◆ Integrated cotton or synthetic textile mills employing spinning weaving dyeing and printing operations together of combined production capacity exceeding 50 tons per day

30 *Tanneries and Leather Finishing*

- ◆ Chrome tanneries of combined production capacity exceeding 25 tons per day
- ◆ Vegetable (bark) of combined production capacity exceeding 50 tons per day

Provided however where the projects and undertaking set out in items 20 to 30 are located within Industrial Estates and parks as described at (19) above the approval shall not be necessary under the provisions of Part IVC of the Act

- 31 Industries which involve the manufacture storage or use of Radio Active Materials as defined in the Atomic Energy Authority Act No 19 of 1969 or Explosives as defined in the Explosives Act No 21 of 1956 excluding for national security reasons

5/5

Part II

(32) All projects and undertaking listed in Part I irrespective of their magnitudes and irrespective of whether they are located in the coastal zone or not if located wholly or partly within the areas specified in part 111 of the Schedule

The following industries if located wholly or partly within the areas specified in Part 111 of the Schedule

- (33) Iron and Steel
- (34) Non Ferrous Basic Metal
- (35) Basic Industrial Chemicals
- (36) Pesticides and Fertilizers
- (37) Synthetic Resins Plastic materials and Man made Fibres
- (38) Other Chemical Products
- (39) Petroleum and Petro chemical Products
- (40) Tyres and Tubes
- (41) Manufacturing and Refining of Sugar
- (42) Alcoholic Spirits
- (43) Malt Liquors and Malt
- (44) Cement and Lime
- (45) Non metallic Mineral Products
- (46) Paper Pulp and Paperboard
- (47) Spinning Weaving and Finishing of Textile
- (48) Tanneries and Leather Finishing
- (49) Shipbuilding and Repairs
- (50) Railroad Equipment
- (51) Motor Vehicles
- (52) Air Craft

PART 111

- 1 Within 100 m from the boundaries of or within any area declared under the National Heritage Wilderness Act No 3 of 1988 the Forest Ordinance (Chapter 451)

whether or not such areas are wholly or partly within the Coastal Zone as defined in the Coast Conservation Act No 57 of 1981

- 2 Within the following areas whether or not the areas are wholly or partly within the Coastal Zone

- ◆ any erodible area declared under the Soil Conservation Act (Chapter 450)
- ◆ any Flood Area declared under the Flood Protection Ordinance (Chapter 449) and any flood protection area declared under the Sri Lanka Land Reclamation and Development Corporation Act 15 of 1968 as amended by Act No 52 of 1982
- ◆ 60 meters from the bank of a public stream as defined in the Crown Lands Ordinance (Chapter 454) and having a width of more than 25 meters at any point of its course
- ◆ any reservation beyond the full supply level of a reservoir
- ◆ any archaeological reserve ancient or protected monument as defined or declared under the Antiquities Ordinance (Chapter 188)
- ◆ any area declared under the Botanic Gardens Ordinance (Chapter 446)

In these regulations unless the context otherwise requires

hazardous waste means any waste which has toxic corrosive flammable reactive radioactive or infectious characteristics

reservoir means an expanse of water resulting from man made constructions across a river or a stream to store or regulate water Its environs will include that area extending up to a distance of 100 meters from full supply level of the reservoir inclusive of all islands falling within the reservoir

APPENDIX 5

NATIONAL ENVIRONMENTAL (PROCEDURE FOR APPROVAL OF PROJECTS) REGULATIONS NO 1 OF 1993 AS CONTAINED IN GAZETTE EXTRA ORDINARY NO 772/22 OF 24TH JUNE 1993

- 1 These Regulations may be cited as the National Environmental (Procedure for approval of projects) Regulations No 1 of 1993.
- 2 (i) A project proponent shall not perform the functions and duties of a project Approving Agency. In the event of a Project Approving Agency becoming a project proponent, the Authority shall designate an appropriate Project Approving Agency.
- (ii) The Authority shall determine the appropriate Project Approving Agency in case where more than one Project Approving Agency is involved.
- 3 In respect of any prescribed project for which an Environmental Impact Assessment Report is required, the Project Approving Agency shall grant its approval only with the concurrence of the Authority.
- 4 Any devolution of the functions of a Project Approving Agency to a Provincial Council relating to the approval of projects shall be done only with the written concurrence of the Minister.
- 5 A project proponent of any proposed prescribed project shall as early as possible submit to the Project Approving Agency preliminary information on the project requested by the appropriate Project Approving Agency.
- 6 (i) The project Approving Agency shall acknowledge in writing receipt of such preliminary information within six days (Fig 2).
- (ii) The Project Approving Agency shall in consultation with the Authority subject such preliminary information to environmental scoping in order to set the Terms of Reference for the Initial Environmental Examination Report or Environmental Impact Assessment Report as the case may be and in doing so the Project Approving Agency may take into consideration the views of state agencies and the public.

- (iii) The Project Approving Agency shall convey in writing to the project proponent the Terms of Reference referred to in paragraph (ii) above within fourteen days in the case of an Initial Environmental Examination Report and thirty days in the case of an Environmental Impact Assessment Report from the date of acknowledging receipt of the preliminary information.
 - (iv) Where, if on environmental scoping, the Project Approving Agency considers that the preliminary information submitted by the project proponent as required in regulation 5 above is adequate to be an Initial Environmental Examination Report, the Project Approving Agency shall proceed as specified hereinafter.
- 7 (i) Every project proponent shall submit to the Project Approving Agency such number of copies of the Initial Environmental Examination Report as required by the Project Approving Agency.
 - (ii) Upon receipt of an Initial Environmental Examination Report, the Project Approving Agency shall submit a copy thereof to the Authority and by prompt notice published in the Gazette and in one national newspaper published duly in the Sinhala, Tamil and English languages invite the public to make written comments, if any, thereon to the Project Approving Agency within thirty days from the date of first appearance of the notice either in the Gazette or in the newspaper.
 - (iii) The Notice referred to in paragraph (ii) above shall specify the times and places at which the report shall be made available for public inspection.
 - (iv) The Project Approving Agency shall make available copies of the report to any person interested to enable him to make copies thereof.
- 8 (i) It shall be the duty of the Project Approving Agency, upon completion of the period of public inspection, to forward to the project proponent the comments received from the public for review and response within six days from the date of completion of the period of public inspection.
 - (ii) The project proponent shall in writing respond to such comments to the Project Approving Agency.

- 9 Upon receipt of such responses referred to in regulation 8 (ii) above the Project Approving Agency shall within a period of six days either
- (i) grant approval for the implementation of the proposed project subject to specified conditions or
 - (ii) refuse approval for the implementation of the proposed project with reasons for doing so
- 10 Upon receipt of an Environmental Impact Assessment Report the Project Approving Agency shall within fourteen days determine whether the matters referred to by the Terms of Reference as set out in regulation 6 (11) above are addressed and if the Report is determined to be inadequate the Project Approving Agency shall require the project proponent to make necessary amendments and re submit the report together with the required number of copies
- 11 (i) Upon receipt of the Report as specified in regulation 10 above the Project Approving Agency shall submit a copy thereof to the Authority and by prompt notice published in the Gazette and in one national newspaper published daily in the Sinhala Tamil and English languages invite the public to make written comments if any thereon to the Project Approving Agency within thirty days from the date of the first appearance of the notice either in the Gazette or in the newspaper
- (ii) The notification shall specify the time and places at which the Report shall be made available for public inspection
 - (iii) The project Approving Agency shall make available copies of the Report to any person interested to enable him to make copies thereof
- 12 It shall be the duty of a Project Approving Agency upon completion of the period of public inspection or public hearing if held to forward to the project proponent comments received for review and response within six days The Project Proponent shall respond to such comments in writing to the Project Approving Agency

- 13 Upon receipt of such responses as referred to in regulation 12 above the Project Approving Agency shall with the concurrence of the Authority within thirty days either
- (i) grant approval for the implementation of the proposed project subject to specified conditions or
 - (ii) refuse approval for the implementation of the proposed project with reason for doing so
- 14 It shall be the duty of all Project Approving Agencies to forward to the Authority a report which contains a plan to monitor the implementation of every approved project, within thirty days from granting of approval under regulations 9 (i) and 13 (i) by such agencies
- 15 The Project Approving Agency shall publish in the Gazette and in one national newspaper published daily in the Sinhala Tamil and English languages the approval of any project as determined under regulations 9 (i) and 13 (i) hereto
- 16 (i) The Project Approving Agency shall specify a period within which the approved project shall be completed
- (ii) A project proponent may within thirty days prior to the expiry of such period make an application in writing to the Project Approving Agency for an extension of time for the completion of the proposed prescribed project
- 17 (i) A project proponent shall inform the appropriate Project Approving Agency of
- (a) any alteration to a prescribed project approved under regulations 9 (i) and 13(i) and/or
 - (b) the abandonment of such approved project
- (ii) The project proponent shall where necessary obtain fresh approval in respect of any such alterations that are intended to be made to such project The Project Approving Agency shall in consultation with the Authority determine the scope and format of the supplemental report required to be submitted for such alterations
- (iii) The project proponent shall where a project is abandoned restore the project site to a condition as specified by the Project Approving Agency

18 The Project Approving Agency shall communicate to the Project Proponent the administrative charges to be levied by the Project Approving Agency for the purposes of the approval of projects. The Project Approving Agency shall follow the procedure set out in guidelines prepared by the Authority.

19 In these regulations

Authority means the Central Environmental Authority

Project Proponent means any Government Department, Corporation, Statutory Board, Local Authority, Company, Firm or Individual who submits any prescribed project for approval.

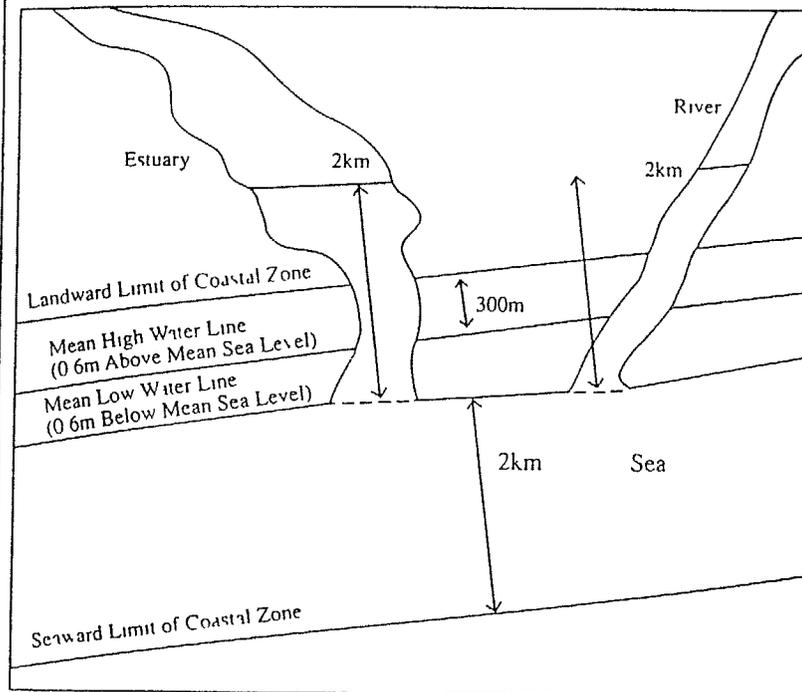
Project means any undertaking, scheme or plan where commitment of resources, time and funds are envisaged and which comes into existence at the stage where the project proponent has a goal and is actively preparing to make a decision in achieving that goal.

Preliminary information shall include a description of the nature, scope and location of the proposed project accompanied by location maps and any other details as may be requested for by the Project Approving Agency.

environmental scoping means determining the range and scope of proposed actions, alternatives and impacts to be discussed in an Initial Environmental Examination Report or Environmental Impact Assessment Report.

Report means an Initial Environmental Examination Report or an Environmental Impact Assessment Report as the case may be and days means any day other than a public holiday as defined by the Holidays Act No. 29 of 1971.

Figure 1
The Sri Lanka Coastal Zone



The Coastal Zone is defined in the Coast Conservation Act as

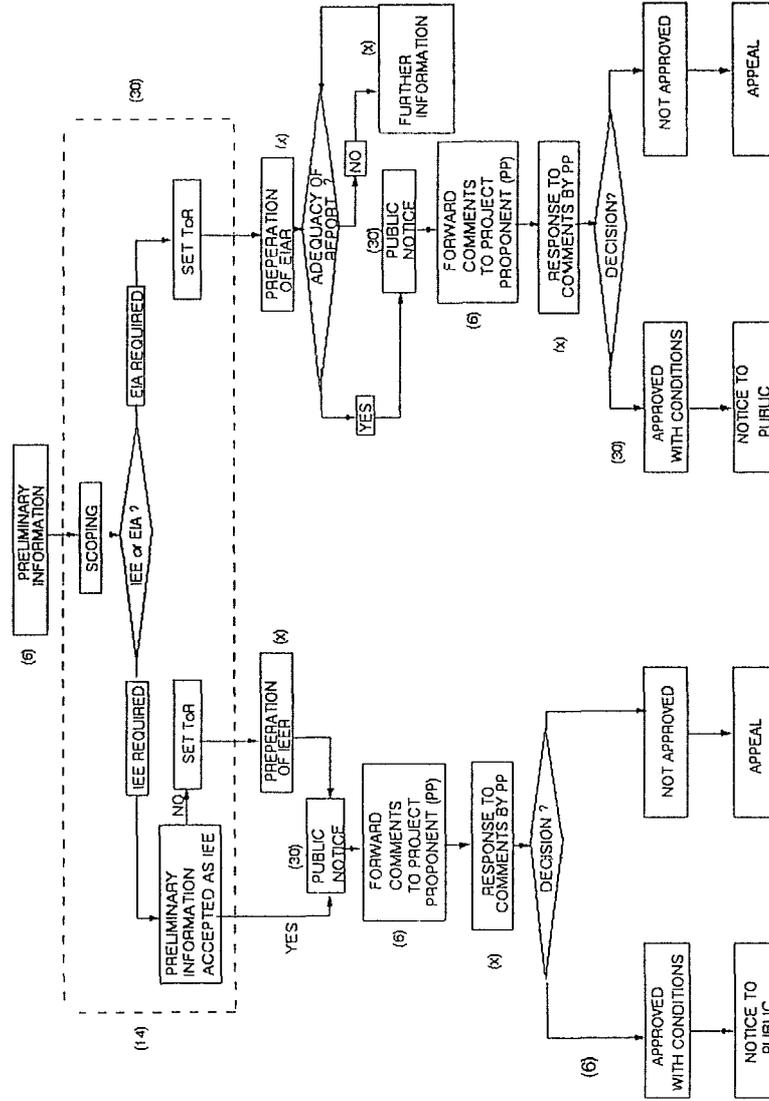
That area lying within a limit of three hundred meters landwards of the Mean High Water Line and a limit of two kilometers seawards of the Mean Low Water Line and in the case of rivers, streams, lagoons or any other body of water connected to the sea either permanently or periodically, the landward boundary shall extend to a limit of two kilometers measured perpendicular to the straight base line drawn between the natural entrance points thereof and shall include waters of such rivers, streams and lagoons or any other body of water so connected to the sea.

Further inquiries could be made from
 Director
 Natural Resources Management
 Central Environmental Authority
 1st Floor, Maligawatte Secretariat Building
 Colombo 10
 Sri Lanka

Telephone (01) 439073 6
 Fax (01) 439076

003 3/waddw/EIAGIDE

ENVIRONMENTAL-IMPACT-ASSESSMENT PROCEDURE



NOTE: Bracketted figures indicate MAXIMUM number of days

waddw/CEA

APPENDIX II

NAREPP
EIA INTENSIVE COURSE
Coral Gardens Hotel, Hikkaduwa
September 11-20, 1992

PROGRAM

| | | | |
|---------|----------|----------|--|
| Sept 12 | Saturday | 9 00 am | Inauguration |
| | | 9 15 am | Opening remarks (Baldwin) |
| | | 9 30 am | Course overview (Meier) |
| | | 10 00 am | Tea |
| | | 10 15 am | History and purpose of NEPA (Davis) |
| | | 10 45 am | The EIA decision-making process (Panel) |
| | | 12 00 pm | Lunch |
| | | 1 00 pm | Ecological constraints (Davis) |
| | | 2 00 pm | Panel Agricultural development in Sri Lanka, Lessons learned |
| | | 3 15 pm | Tea |
| | | 3 30 pm | Wells Springs Case Study (Video) |
| | | 5 30 pm | Lessons of Wells Springs (Davis) |
| | | 5 45 pm | Adjourn |

| | | | |
|---------|--------|----------|--|
| Sept 13 | Sunday | 8 15 am | Basic concepts of environmental economics (Meier) |
| | | 10 00 am | Tea |
| | | 10 30 am | Panel Pollution control technology |
| | | 12 00 pm | Lunch |
| | | 1 30 pm | Panel The Trincomalee coal power plant |
| | | 2 30 pm | Incorporating environmental issues into planning and policy-making (Meier) |
| | | 3 15 pm | Tea |
| | | 3 30 pm | Public participation and scoping (Davis) |
| | | 5 15 pm | Adjourn |
| | | 8 00 pm | Talk Environmental problems in the USSR (Davis) |
| | | | Video Nuclear Waste Management Problems in the USSR |

| | | | |
|---------|--------|----------|--|
| Sept 14 | Monday | 8 15 am | Valuation techniques (Abeygunewardena, Meier) |
| | | 10 00 am | Tea |
| | | 10 15 am | The EIA process (Davis) |
| | | 12 00 pm | Lunch |
| | | 2 00 pm | Case Studies plenary briefing (Meier, Davis) |
| | | 3 15 pm | Tea |
| | | 3 30 pm | Case Studies group briefings |
| | | 8 00 pm | Video Remnants of Eden |

| | | | |
|---------|---------|--|-------------|
| Sept 15 | Tuesday | | Field Trips |
|---------|---------|--|-------------|

| | | | |
|---------|-----------|----------|-------------------------------|
| Sept 16 | Wednesday | 8 15 am | Methods of EIA I (Davis) |
| | | 10 15 am | Tea |
| | | 10 45 am | Methods of EIA II (Meier) |
| | | 12 00 pm | Lunch |
| | | 1 45 pm | TOR Case Study |
| | | 2 45 pm | Group Work Sessions |
| | | 8 00 pm | Video In the name of progress |

| | | | |
|---------|----------|----------|---|
| Sept 17 | Thursday | 8 15 am | Conflict resolution Workshop (I) (Davis) |
| | | 10 15 am | Tea |
| | | 10 30 am | Conflict resolution workshop (II) (Davis) |
| | | 12 00 pm | Lunch |
| | | 1 30 pm | Group Work Sessions |
| | | 8 00 pm | Video It needs political decisions |

| | | | |
|---------|--------|----------|---|
| Sept 18 | Friday | 8 15 am | Group work sessions |
| | | 10 15 am | Tea |
| | | 10 30 am | Panel Urban environmental problems |
| | | 12 00 pm | Lunch |
| | | 1 30 pm | Group Sessions additional field visits if necessary |
| | | 8 00 pm | Video Waste not, want not |

| | | | |
|---------|----------|----------|---|
| Sept 19 | Saturday | 8 15 am | Group Work Sessions |
| | | 10 15 am | Tea |
| | | 10 30 am | Group Work Sessions |
| | | 12 00 pm | Lunch |
| | | 1 30 pm | Group Work Sessions prepare presentations |
| | | 8 00 pm | 1 Save the earth, feed the world 2 Only one atmosphere |

| | | | |
|---------|--------|----------|------------------------|
| Sept 20 | Sunday | 8 30 am | Group Presentation I |
| | | 9 30 am | Group Presentation II |
| | | 11 00 am | Tea |
| | | 11 15 am | Group Presentation III |
| | | 12 45 pm | Lunch |
| | | 2 00 pm | Closing Session |
| | | 2 30 pm | Adjourn |

APPENDIX III

NAREPP
PARTICIPATION AT EIA INTENSIVE COURSES (1992 - 1996)

| INSTITUTION | NAMES AND POSITIONS OF PARTICIPANTS | | | | |
|-------------|--|---|---|---|--|
| | 1st Course Sept 11 20, 1992, Hikkaduwa | 2nd Course Jan 24 31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 11, 1994 Hambantota |
| CEA | <p>Mrs S E Yasaratne Director (NRM) Mrs R Ellepola Asst Director Mr W A D D Wijesooriya Snr Env Officer Mr A A Anwar, Snr Env Prom Officer Mr L P D Dayananda, Admn Officer Ms Damayanthi Welagedara, Env I Officer Ms H P Dotty Env I Officer Ms P Fonseka, Env I Officer Mr M A A N Hemakumara Env I Officer Mr N Sureshkumar Env I Officer Mr T M A S K Rodrigo, Env I Officer Mr K H Muthukuda Arachchi, Env I Officer Mr C K Amaratunga Env I Officer</p> | | <p>Mr Gamini Jayasinghe, Env I Officer (NRM Division) Mr Chandana Seneviratne Env I Assistant (NRM Division) Mr S S Samarasinghe, Env I Officer (Prot Division) Mr M S D Munasinghe Env I Officer (Protection Div)</p> | <p>Mr Gamini Hewage Env Asst Mr S Stanley Snr Env Officer</p> | <p>Mr N W Dissanayake Senior Env Officer (NRM) Mr M J J Fernando Project Assistant Wetland Conservation Project</p> |
| M/EPA | <p>Mr M M S Fernando Asst Secretary</p> | | | | |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24 - 31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 - May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|----------------------|---|---|--|--|---|
| M/FIMD | <p>Mr H S Dharmawardene Asst Director FPU</p> <p>Mr K K Kumarasiri, Deputy Land Commissioner</p> <p>Mr M M S R Perera, Asst Manager (Env), Mahaweli Economic Agency</p> | <p>Mr P S Asoka Jayaratne Civil Engineer Central Eng Construction Bureau</p> <p>Ms P A S M Samarasekera, Chief Irrigation Engineer Irrigation Dept</p> <p>Mr H W K Jayatilake Asst Conservator of Forests</p> | <p>Mr S J Pathirana Deputy Land Commissioner Land Commissioner's Dept</p> <p>Mr P C Senaratne, Deputy Director/Planning Dept of Irrigation</p> <p>Mr A N S Baminiwatte Deputy Conservator, Forest Dept</p> | <p>Mr W M Bandusena Deputy Director Planning</p> | <p><u>Min of Agriculture, Lands & Forestry</u></p> <p>Mr H G Ananda Senior Asst Secretary (Lands)</p> <p>Mr L K P Goonewardana Deputy Director (Land Use) LUPPD</p> <p>Mr Henry Gamage Director Natural Resources Management Centre Peradeniya</p> <p>Mr T S D Peiris Deputy Director (Planning & Progress Control Division)</p> <p>Mr Sunil Liyanage Deputy Conservator of Forests</p> <p>Mr Y W G Anura Assistant Director Forestry Planning Unit</p> <p>Mr C H de A Jayasinghe Director (Projects) AD&R Dept of Agrarian Services</p> <p>Ms Kumudini Atukorale Asst Director, M/AD&R Dept of Agrarian Services</p> |
| MINISTRY OF LANDS | | | | <p>Mr J P Hettiarachchi Addl Director (Planning)</p> | |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24-31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 - May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|---------------------------------|--|--|--|---|---|
| DEPT OF NATIONAL PLANNING | | | <p>Mrs Soma Vitharana Deputy Director</p> <p>Miss W C D Mallika Dissanayake Deputy Director</p> <p>Miss H Dias, Asst Director</p> <p>Mr A M D Bandusena Dep Director</p> <p>Mr P Sumanapala Deputy Director</p> <p>Mrs I Ranasinghe Deputy Director</p> <p>Mr Nimal Siripala Deputy Director</p> <p>Mr D D Abeyssekera Asst Director</p> <p>Mr W H Wijeratne Asst Director</p> | <p>Mr M R G H Dassanayake Deputy Director/Agriculture Div</p> | |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24 31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|--|--|--|---|---|--|
| MINISTRY OF POLICY PLANNING & IMPLEMENT ATION | | | <u>Regional Development Division</u> Mr G K N Wijewardena Dep Director Integrated Rural Development Project, Nuwara Eliya Mr Y H de Silva, Deputy Director Integrated Rural Dev Project Hambantota Mr D K Perera Deputy Director Integrated Rural Development Project Kalutara Mr S H Ferdinandez Deputy Director Integrated Rural Dev Project Gampaha | Mr N Sumaneratne Deputy Director | |
| MINISTRY OF INDUSTRIES, SCIENCE & TECHNOLO GY | | | | Mr W A Jayawickrema Regional Director/Uva Mr A M W A Amunugama, Regional Director (North Central) | <u>Ministry of Industrial Development</u> Mr S D P Wickramaratne Regional Director Southern Province Mr P M Karunaratne Regional Director |
| NATIONAL WATER SUPPLY & DRAINAGE BOARD | Mr W A A D Weerasuriya Deputy Project Manager | | | | |

| INSTITUTION | 1st Course Sept 11 20, 1992, Hikkaduwa | 2nd Course Jan 24 31, 1993, Kotmale | 3rd Course June 19 29, 1993, Hambantota | 4th Course April 29-May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|---|--|---|---|---|--|
| MINISTRY OF TOURISM & RURAL INDUSTRIAL DEVELOP- MENT | Mr Sumith de Alwis, Mgmt Asst Research & Planning | Ms Chandra Sawanawadu Asst Technologist Industrial Dev Board Mr Mahil Gooneratne Assistant Director Ceylon Tourist Board | | | Mr P Rathnasuriya Asst Director/Development Ceylon Tourist Board |
| URBAN DEVELOP- MENT AUTHORITY | | | | Mr Prasanna Silva, Director/Deve Regulations Mr L I Kiringoda Architect | Mr Nihal Fernando Deputy Director Development Regulations, UDA Mrs D S K K Dayaratne Deputy Director (Planning) Mrs M N D Ratnayake Assistant Director (Planning) |
| COAST CONSERVA- TION DEPT | Mr K D D Wijewardena, Snr Engineer (Works) Mr Premaratne, Asst Manager (Planning) | | | | Mr Kapila Gooneratne Planning Officer |
| BOARD OF INVESTMENT OF SRI LANKA | Mr M S B Fernando, Manager Environment Mrs M A S Perera Manager Environment Mr H S K Fernando, Asst Manager Env | | | Mr U Sirigampola Manager (Engineering Services) Mr R M U Senarath Asst Manager (Environment Dept) | Miss A S Beling Assistant Manager Mr K S Kularatne Executive Assistant |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24-31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|--|--|---|---|---|---|
| MINISTRY OF FINANCE AND PLANNING (Regional Development Division) | | | | | Mr D Hewage Asst Director (Planning) IRDP Ratnapura Mr Monty Ranatunga Asst Director, Irrigation & Community Development Project Moneragala Mrs S W Seelawathie Asst Director IRDP Nuwara Eliya Mr D P Dayananda Engineer, IRDP Hambantota |
| MINISTRY OF FISHERIES & AQUATIC RESOURCES DEVELOPMENT | | | | | Mr A A Kulatunge Asst Director Planning Ms S Corea Research Officer NARA Mr Hemantha Dassanayake Research Officer, NARA |
| MINISTRY OF POWER & ENERGY | A K Devasurendra, Project Manager, Kukule Ganga Project P C C Perera Project Manager Upper Kotmale Feasibility Study Project R K Wijerathne, Civil Eng (Sapugaskande Power Station, Extension Project) | Mr E M Piyasena Chemical Engineer Mr Cedric Fernando Plant Engineer Mr J Nanthakumar Electrical Engineer (Planning) Mr T Selvagene Civil Engineer CEB Mr K K B Perera, Civil Engineer CEB | | | |
| MINISTRY OF HOUSING, CONSTRUCTION & PUBLIC UTILITIES | | | | | Mr S M Banduseela Additional Director (P&P) |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24 31, 1993, Kotmale | 3rd Course June 19 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|--|---|--|--|--|---|
| MAHAWELI AUTHORITY OF SRI LANKA | | | | | Dr W K B Elkaduwa Agricultural Water Resources & Environmental Planner |
| MINISTRY OF TRANSPORT & HIGHWAYS | Mr J Chandrasekera, Deputy Director Planning | Mr R G Rajapakse Chief Engineer Road Development Authority Mr S G Premakumar District Engineer, Dept of Railway | Mr K S S Liyanage Chief Engineer Colombo Katunayake Expressway Project (R D A) Mr H R Piyadasa, Asst Commissioner Dept of Motor Traffic | Mr A K Ariyawansa Chief Engineer Road Development Authority | <u>Ministry of Transport, Highways, Environment & Women's Affairs</u> Mr H M K G G Bandara Chief Engineer Planning, Road Development Authority Mr N Sunderam Addl District Engineer Sri Lanka Railways Mr D K Anura Premalal Asst Secretary Ministry of Transport & Highways |
| DEPT OF CENSUS AND STATISTICS | | | | Mr A Kahanda Deputy Director Dept of Labour Labour Secretariat | |
| GEOLOGICAL SURVEY & MINES BUREAU | | | | Mr S M A T B Mudunkotuwa Mr S Premakumara Mr C H E R Siriwardena | Dr W K B N Prame Asst Director Mr W D Somadasa Mining Engineer Mr Anil Peiris Mining Engineer Mr K T U S De Silva Geologist |

| INSTITUTION | 1st Course Sept 11 20, 1992, Hikkaduwa | 2nd Course Jan 24 31, 1993, Kotmale | 3rd Course June 19 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 11, 1994 Hambantota |
|------------------------------|--|--|---|--|---|
| MEIP | | | | Ms Shamali de Silva Legal Consultant | Mr M Thiruchelvam Project Engineer |
| SLIDA | W A D G Abayasekara, Senior Consultant K Wijeratne, Senior Consultant | | | Mrs N J Jayasundara Consultant Mr W M M G D Wijekoon Consultant | |
| AR&TI | | | | Mr Gamini Wickramasinghe Agrarian Research and Training Institute | |
| UNIVERSITY OF COLOMBO | Dr (Mrs) Ajantha Perera, Senior Lecturer Dr (Mrs) Y N A Jayatunga, Snr Lecturer Dr (Mrs) D H R J de Silva, Snr Lecturer | | | | Dr K P S Chandana Jayaratne Senior Lecturer in Physics Department of Physics |
| UNIVERSITY OF MORATUWA | Prof L L Ratnayake Head/Dept of Civil Eng Mrs N Ratnayake, Senior Lecturer Dr S S L Hettiarachchi Senior Lecturer | | | | Dr (Mrs) Premini Hettiarachchi Dept of Civil Engineering |
| UNIVERSITY OF KELANIYA | | | | | Dr (Mrs) A Pathiratne Senior Lecturer, Dept of Zoology Dr (Mrs) Mangalika Hettiarachchi Senior Lecturer Dept of Zoology |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24 - 31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 - May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|---------------------------------|--|--|--|---|--|
| UNIVERSITY OF PERADENIYA | <p>Prof C M Madduma Bandara Head, Geography Dept</p> <p>Dr S K Hennayake, Snr Lecturer</p> | | Mr E J H Corea Faculty of Engineering | <p>Dr Ravi Ranatunga Dept of Chemistry, Faculty of Science</p> <p>Dr N D Kasturiratchi Senior Lecturer Faculty of Medicine</p> <p>Dr P Wickremagama Snr Lecturer Dept of Geography</p> <p>Ms S K Arambepola Asst Lecturer, Dept of Geography</p> <p>Mr A Ramakrishnan Asst Lecturer Dept of Geography</p> | <p>Mr W A J N de Costa Senior Lecturer, Faculty of Agriculture</p> <p>Dr Nalin Wickramanayake Senior Lecturer, Faculty of Engineering</p> <p>Dr S Thiruchelvam Senior Lecturer, Faculty of Agriculture</p> <p>Ms K W G Rekha Niranthi Assistant Lecturer Faculty of Arts</p> <p>Ms Chulan Rambukvella Senior Lecturer Faculty of Arts</p> <p>Dr Athula Senarathne Dept of Geology Faculty of Science</p> |
| THE OPEN UNIVERSITY OF SL | <p>Ms Kumudu Rajapakse, Teaching Assistant</p> <p>Ms Nilanthi Bandara, Senior Lecturer</p> <p>Mr Upali Vidanapathirana, Head, Dept of Social Studies</p> | | Mrs M D M Weeraratne Educational Asst, Faculty of Natural Sciences | | <p>Dr K I M Ranasoma Senior Lecturer in Civil Engineering</p> <p>Dr A Gamaathige Senior Lecturer in Social Studies</p> <p>Dr Buddhii Weerasinghe Director/Educational Technology Div</p> <p>Dr Amarasena Senior Lecturer</p> |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24-31, 1993, Kotmale | 3rd Course June 19 - 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 - 11, 1994 Hambantota |
|--|--|--|--|---|---|
| UNIVERSITY OF SRI JAYAWARDE NE- PURA | | | Dr Mrs Hemanthi Ranasinghe, Course Co ordinator/Forestry Dr B M P Singhakumara Forestry Project Dr N L A Karunaratne Dept of Geography | Mr U H N Vishvakula Dept of Geography | Dr (Mrs) Swarna Piyasiri Senior Lecturer |
| UNIVERSITY OF RUHUNA | | | | Dr (Mrs) N J de S Amarasinghe Head/Zoology Dr M P de Silva Senior Lecturer/Dept of Botany | |
| EASTERN UNIVERSITY OF SRI LANKA | | | | Mr K Thedchanamoorthy, Head, Department of Agronomy | Prof S Sandanam Professor of Agronomy and Vice Chancellor Dr V Arulnandhy Dean/Agriculture Dr (Mrs) Muthuladchumy Vinobaba Senior Lecturer, Dept of Zoology |

| INSTITUTION | 1st Course Sept 11 - 20, 1992, Hikkaduwa | 2nd Course Jan 24 31, 1993, Kotmale | 3rd Course June 19 29, 1993, Hambantota | 4th Course April 29 May 8, 1994, Anuradhapura | 5th Course Sept 2 11, 1994 Hambantota |
|--|--|--|---|--|---|
| NGO's | Ms Nayana Ranasinghe, Committee Member March for Conservation Ms Deepthi Liyanage Project Officer Sri Lanka Environment Congress | Mr Ranjith Nimal Siri S L Env I Journalists Forum Mr E M Abeyratne EMACE Foundation Mr Mahesh R Perera, Member, Nature Foundation Mr Ajith Lal Siriwardana, Member Nature Foundation | Mr Hemantha Withanage Senior Environmental Scientist EFL Mrs Sonali de Silva Economist EFL Mr C A Samaradivakara General Secretary Organization for Env I Education (OEE) Mrs K Dharmasena President EMACE Foundation | Mr Senaka Weerasinghe OSLEN Mr Robert Fernando President NATMARCO Mr A H M R Abeyratne Organization for Resource Development & Environment Mr Karunadasa Sooriarachchi Asst Editor/Divaina Sunday Edition Mr Kumudu Amarasinghe Youth Exploerers Society | Mr S Dhanayake Rajarata Parisarikayo Open University Study Center Anuradhapura Mr Ajantha Palihawadana Integrated Rural Development Project Nuwara Eliya Ms A M A Premalatha Sarvodaya Agriculture Forestry & Environment Program Mr V S Rajah Secretary (Administration) Agricultural & Rural Development Society, Ragama |
| PRIVATE SECTOR | | Mr Rajendra de Alwis Consultant Teams (Pvt) Ltd Ms K T Weerasooria Sociologist Resource Dev Consultants Ltd Mr M Z M Hilal Civil Engineer Engineering Consultants Ltd | Ms Niranjala Degamboda Chartered Architect/Planner Engineering Consultants Ltd Mr A K Gunapala Manager Env & Rural Dev TEAMS (Pvt) Ltd Mr P C Fernando Research Engineer Lanka Hydraulic Institute Ltd | Mr Susith Jayasekara TEAMS (Pvt) Ltd Mr Hiran D Molligoda Finance/Admin Manager LAMSCO (Pvt) Ltd | Mr M M K K Premasinghe Executive Officer - Technical Services Resources Development Consultants Ltd Mr D K Wanigasekara Mohotti Chemical Engineer Resources Development Consultants Ltd Mr T M N Wijayarathna Research Engineer Lanka Hydraulic Institute Ltd |
| MARD | | | Mr Mahinda Panapitiya | | |
| USAID | | | | Mr Jayantha Perera | |
| Institute of Fundamental Studies | | | | | Mr W M Navaratne Research Assistant |

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Waikkal | 7th EIA Intensive Training Course Feb 23 - March 3, 1996 Randengula Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In-service Training Institute, Angunakolpellesa |
|---|---|--|--|
| CEA | Mr R Rathamanoharan Asst Director/Env Protection Mr I Dissanayake, Deputy Director/NRM Mr R Walpola, Environmental Promotion Officer Mr N S Gamage, Environmental Officer | Ms Ajitha M P W Dayaratne Legal Officer Mr D M A K Dharmasekara Environmental Officer Mr Susil Seneviratne, Environmental Officer | Mr K G Samaranatha Jayawardana Envl Assistant Mr B D R A M Sarath Bandara, Dev Program Asst Ms Hiranthi Jansz, Environmental Assistant |
| Sri Lanka Railway | Mr G J C Gunatilake Engineer, Way & Works Dept | | |
| Min of Fisheries & Aquatic Resources Development | Mr S H Ariyapala Asst Director | Mr N Abeywickrema Asst Director (Planning) | Mr Ginigaddarage Piyasena, Deputy Director/Planning |
| Min of Housing Construction & Public Utilities | Mr Saman Ekanayake Deputy Director/Planning | Ms V G N Jayawardana, Planning Assistant Miss P A Alawattage Planning Assistant | |
| Min of Finance, Planning, Ethnic Affairs & National Integration | Ms G L L M Kanthi Perera Development Assistant | Ms A M K Amarasinghe Assistant Director (Regional Dev) Miss L V Damayanthi Perera, A D (Regional Development) | |
| National Aquatic Resources Research & Development Agency | Mr S A M Azmy Research Officer | Miss M H Soma Ariyaratna, Research Officer Mr Palitha Kithsiri, Research Officer | Don Ananda Athukorala, Research Officer Mr M G I S Parakrama, Research Officer |
| C I S I R | Mr W R K Fonseka Research Officer | Mrs K Damayanthi Attanayake Research Officer Chemical Environmental Technology Div Ms Sharmini Wickremaratna Chemical Environmental Technology Division, | Mr Ratnasamy Ilangakumaran Research Officer Mr K Pavanandan Research Officer |

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Wakkal | 7th EIA Intensive Training Course Feb 23 - March 3, 1996 Randeniya Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In service Training Institute, Angunakolapellesa |
|--|--|--|---|
| Mahaweli Authority of Sri Lanka | Mr D P P Illaperuma, Engineer/Env't Division Mr P B Ramanayake, Asst Director (Peripheral Dev't) | | Mr Munaweera Somadasa, Physical Planner/GIS Analyst, Env't & Forest Consv Division |
| Min of Transport, Env't & Women's Affairs | Mr Gamini Gamage Deputy Director (Land Use) | Mr H M B Herath Deputy Director (Natural Resources) | |
| Coast Conservation Dept | Miss Subashini Illangasekera, Planning Officer Mr Nimal S Rajarathne, Planning Officer | Mr B H J Premathilake Planning Officer | Mr A W M Sarath Chandra, Civil Engineer |
| Min of Irrigation Power & Energy | Mr W H E Premaratne Additional Director (Agronomy) Irrigation Management Division | | |
| Dept of National Planning | Mr A Kumarasiri Dy Director/Economic Infrastructure Division Mr W H Munasinghe Dy Director/Human Settlements Division Mr Upali Dahanayake Dy Director/Agriculture Div Mr L M Piyasena, Asst Director | | Mr Gemunu Samarasiri, Deputy Director Ms Geetha Kumari Wimalaweera, Asst Director |
| Sri Lanka Land Reclamation & Development Corporation | Mr R G Premaratne, Civil Engineer Mrs S H Gunawardena Asst General Manager (Planning) | Mr L V Gunapala Senior Engineer Ms M M R S Samarasekera Civil Engineer | Mr C B Amarasinghe Engineer Ms Priyanvada Seneviratna Mahalekame, Engineer |

69

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Waikkal | 7th EIA Intensive Training Course Feb 23 - March 3, 1996 R indengula Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In service Training Institute, Angunakolapellesa |
|--|---|---|---|
| Water Resources Board | | Mr W W M A K Hapugaskumbura Asst. General Manager (Hydrology) Mr R S Wijesekera, Senior Geologist | |
| Urban Development Authority | Mr T G H Peiris Architect / Development Regulations Unit | Mrs S Indrasiri Deputy Director/Planning Mr T Albert Perera Town Planner | Mr K A D Chandradasa, Town Planner/Landscape Architect Mr W A Siriwardena, Planning Officer |
| Irrigation Dept | | | Mr D D Ariyaratne, Irrigation Engineer Mrs Padma de Silva, Chief Irrigation Engineer |
| National Water Supply & Drainage Board | | | Mr A M Abdul Rafeek, Civil Engineer |
| Geological Survey & Mines Bureau | Mr D A Karthiarachchi Deputy Director (Mines) Dr M W R P de Silva, Mining Engineer | Mrs K P H Liyanarachchi Asst. Registrar of Mineral | Mr Thilakarathna Dahanayake Mineral Titelling Officer Mr E Premanath Rajeewa Silva, Mining Engineer |
| Ceylon Tourist Board | Mr D S Athukorale Asst. Director/Technical | Mr S M M Siriwardana Asst. Director/Development | Mr Tissa Sooriyagoda, Asst. Director (Technical) |
| Board of Investment | Mr G Muruganathan Senior Manager (Engineering Services) Kandy Industrial Park, Pallekelle Mr Dinal Peiris Executive Asst (Envt) | Mr K L G Perera Technical Assistant | |
| Land Use Policy Planning Div (Min Agric, Lands & Forestry) | Mr J Jayasinghe, Director | | |

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Waikkal | 7th EIA Intensive Training Course Feb 23 - March 3, 1996 Randeniya Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In service Training Institute, Angunakolapellesa |
|---|---|--|---|
| Mahaweli Economic Agency | | Mr G D Perera Agronomist | Mr H B Chandrasinghe, Engineering Assistant |
| National Development Bank | | Mr D D S Peiris Senior Executive | Ms Michelle Gunawardana, Executive, Emt Unit |
| Road Development Authority | Mrs W I F M P Ratnayake Engineer/Special Projects Division | Mr T A Karunaratne Design Engineer/Highways | Mr K Selvanathan, Engineer Ms U J Nirdosha Indrakumari, Engineer |
| Colombo Environmental Improvement Project | Mr Roshan Boralessa Deputy Project Co-ordinator/Emt Engineer | | |
| National Transport Commission | | | Mr P M Gunaratne Banda, Assistant Director Mr Edward Maxwell Fernando, Asst Director/Policy |
| Provincial Environmental Authority (NWP) | Mr L L Saman Kumara, Emt Officer Miss A H M Dhammika Padmini, Legal Officer | Mr K N G P S Dias Environmental Officer | |
| Integrated Development Association, Kandy | | Mr P M S Silva Programme Officer | |
| Regional Industry Service Centre, Galle | | Mr A S G Susil Development Assistant | |
| Integrated Rural Development Project Hambantota | | | Mr W A K Senarathne, Asst Director |
| Divisional Secretariat, Hambantota | | | Mr R C de Zoysa, Asst Divisional Secretary |

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Waukral | 7th EIA Intensive Training Course Feb 23 - March 3, 1996 Randenigala Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In-service Training Institute, Angunakolapellesa |
|---|---|--|---|
| Divisional Secretariat, Pitabeddara | | | Mr M Y S Deshapriya, Asst Divisional Secretary |
| District Land Use Planning Office, Kalutara | | Mr H M Chandrasena, Planning Officer | |
| NWP/ADB Project Kurunegala | | | Mr H M Wimalasinghe, Land use Planner |
| Dept of Local Govt - Matara | | | Mr H K M G Desapriya, Asst Commissioner |
| Central Cultural Fund | | Mr S A B Kulatunga, Resident Architect Mr U S Maithripala, Research Assistant | |
| Dept of Wildlife Conservation | Mr C D S K Jayawardene Wetland Project Officer Mr W A R Asoka, Planning Officer | | Mr K A A Kulatunge, Wildlife Ranger, Ruhuna National Park Mr U K Lakshman Peiris, Range Officer, A D Office/Kataragama |
| Forest Department | | Mr S Thayaparan, Asst Conservator | |
| Central Engineering Consultancy Bureau | | | Mr T D Wickramarathna, Water Resources Planning Engineer |
| Tea Small Holdings Devt Authority | Mrs Indra Samaravickrama Agro Economist | | |
| Water Resource Development Project/NWP | | | Mr K M Gunaratne Agricultural Officer/Economist |
| Rubber Research Board | Mr Upul Ratnayaka Research Asst | | |
| Archaeological Dept | Mr Nimal Perera, Archaeological Officer Mr M B Herath, Director (General Services) | | |

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Waikkal | 7th EIA Intensive Training Course Feb 23 - March 3, 1996 Randeniya Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In-service Training Institute, Angunakolapellesa |
|---|--|--|--|
| Institute of Fundamental Studies | Ms Thanuja Ariyananda Research Assistant | | |
| PRIVATE Associated Development Research Consultants The Ceylon Chamber of Commerce International Irrigation Management Institute Kandalama Hotel | Mr Hemantha Ratnayake, Resident Manager | Ms Kusum Athukoralu, Partner/Study Coordinator ----- Miss C Nugawela, Seminar Coordinator ----- Ms Radhika de Silva Research Assistant | |
| NGOs Environmental Foundation Ltd Mihikatha Institute Foundation for Env Conservation & Waste Recycling Saviya Development Foundation, Galle | Miss Mithila Jayaratne, Environmental Officer Ms Sriyani Wickramasinghe, Senior Science Officer | | Ms Mihiri Gunewardene, Law Officer --- ----- Mr Dayananda Gunasekara, Secretary Ms Thusitha Liyanage, Chairman, MPCs, Matara --- Mr M D C Seneviratne, Project Coordinator |
| DONOR NAREPP | | | Ms Sherine Jayawickrama, Policy & Program Analyst |

72

| INSTITUTION | 6th EIA Intensive Training Course Sept 1-10, 1995 Hotel Dolphin, Wakkal | 7th EIA Intensive Training Course Feb 23 - March 3 1996 Randengala Wild Life Trust Training Centre | 8th EIA Intensive Training Course Sept 26 - Oct 5, 1996 In-service Training Institute, Angunakolapellesa |
|---|---|---|--|
| UNIVERSITIES University of Peradeniya | Dr S W Navaratne, Dept of Geology | Miss M W S K Makuloluwa, Asst Lecturer Dept of Zoology, Faculty of Science Dr Nilmini C Wimalasooriya, Dept of Community Medicine Faculty of Medicine Mr Lareef Zubair, Department of Civil Eng Faculty of Engineering | Mr D A Priyantha Samarajeeva, Research Officer CES Miss S M S Kuntie, Graduate Trainee CES |
| University of Kelaniya | Dr K A S Pathiratne Senior Lecturer, Dept of Chemistry | Mr E A A D Edirisinghe Lecturer | R Weerawardhena, Lecturer |
| University of Colombo | | Mr R W T M Ranjith Bandara Lecturer, Dept of Economics Mr D A C Silva Department of Economics | |
| The Open University of Sri Lanka | | Mrs W P N Chandrananda Lecturer/Dept of Zoology | Ms Ruvini Perera, Demonstrator, Civil Engineering |
| Eastern University | | Ms Kumuthini Sivanesarajah Department of Agronomy/Fac of Agriculture | Mrs Rupasulana Umaphisivam, Snr Lecturer |
| Sabaragamuwa University of Sri Lanka | | | Ms S Tamara Chithrani Amarasinghe, Lecturer, Uva Campus |
| University of Sri Jayawardenapura | | Dr S Chandrani Wijeratna Senior Lecturer, Department of Botany | Ms H K Gamage, Demonstrator-Forestry Unit |
| University of Moratuwa | | Dr M W Jayaweera Lecturer/Dept of Civil Engineering | Mr U G D Weerasinghe Senior Lecturer Mr Dhammika Priyantha Chandrasekara, Lecturer Dr L A S Ranjith Perera, Snr Lecturer Mr Saman Bandara, Senior Lecturer |

APPENDIX IV

Resource Persons

| 1st EIA Course Sept 11 - 20, 1992, Coral Gardens Hotel, Hikkaduwa | | 2nd EIA Course Jan 24 - 31, 1993, Mahaweli Training Centre, Kotmale | |
|--|--|--|---|
| Name | Designation/Organization | Name | Designation/Organization |
| Prof Craig Davis | Prof School of Natural Resources USA | Prof Craig Davis | Prof , School of Natural Resources, USA |
| Dr Peter Meier | Prof IDEA Inc , USA | Dr Peter Meier | Prof IDEA, Inc USA |
| Mr Malcolm Baldwin | Chief of Party NAREPP | Prof C M Madduma Bandara | Vice Chancellor Univ of Peradeniya |
| Dr D Nesiiah | Secretary, MEPA | Dr Shantha Hennayake | Snr Lecturer Univ of Peradeniya |
| Mr V K Nanayakkara | Secretary, Min of Env't | Prof L L Ratnayake | Head Dept of Civil Eng , Univ of Moratuwa |
| Mr G K Amaratunga | Chairman, CEA | Mrs N Ratnayake | Snr Lecturer, Univ of Moratuwa |
| Mr Mervyn Wijeratne | In- Country Project Administrator, CRMP | Mrs K Speldewinde | M/LIMD |
| Mr Avanthi Jayatileke | Project Officer, USAID | Mr P S M Muthukuda | Consultant, M/LIMD |
| Dr P Abeygunawardene | Snr Lecturer, Univ of Peradeniya | Mrs Nilanthi Bandara | Snr Lecturer, Open Univ of SL |
| Prof L L Ratnayake | Head, Dept of Civil Eng , Univ of Moratuwa | Ms Kumudu Rajapakse | Teaching Asst , OUSL |
| Mr P Illangovan | Min of Policy Planning & Implementation | Mr Mervyn Wijeratne | In Country Project Admn , CRMP |
| Ms Dianeetha Sadacharan | Manager CCD | Mrs Shiranee Yasaratne | Director/NRM, CEA |
| Prof K K Y W Perera | Consultant, Min of Industries | | |
| Dr P Mathias | CISIR | | |
| Mrs N Hennayake | Lecturer, Univ of Peradeniya | | |
| Dr J I Samarakoon | Consultant, CRMP | | |

| 3rd EIA Course June 19 29, 1993, Peacock Beach Hotel, Hambantota | | 4th EIA Course April 29 - May 8, 1994, Miridiya Hotel, Anuradhapura | |
|---|--|--|---|
| Name | Designation/Organization | Name | Designation/Organization |
| Prof Craig Davis | Prof , School of Natural Resources, USA | Prof C M Madduma Bandara | Vice Chancellor, Univ of Peradeniya |
| Dr Peter Meier | Prof , IDEA Inc USA | Prof P Abeygunawardene | Univ of Peradeniya |
| Prof C M Madduma Bandara | Vice Chancellor Univ of Peradeniya | Dr Shantha Hennayake | Snr Lecturer Univ of Peradeniya |
| Prof K D Arudpragasam | Head, Dept of Zoology Univ of Colombo | Prof Senaka Bandaranayake | Director, Post Graduate Inst of Archaeology |
| Mr V K Nanayakkara | Secretary, Min of Env't | Dr Mrs Ajantha Perera | Snr Lecturer, Univ of Colombo |
| Mr G K Amaratunga | Chairman, CEA | Mrs Nilanthi Bandara | Snr Lecturer, Open Univ of SL |
| Mr U Sapukotana | Consultant Min of Env't | Mr Avanthi Jayatileke | Project Officer, USAID |
| Mr Lalanath de Silva | Env'l Foundation Ltd | Dr Sarath Kotagama | Head, Dept of Zoology, OUSL |
| Prof S B de Silva | | Dr Rustian Lubis | Consultant |
| Prof L L Ratnayake | Head, Dept of Civil Eng , Univ of Moratuwa | Mr P S M Muthukuda | Consultant, M/LIMD |
| Dr J I Samarakoon | Consultant, CRMP | Dr D Nesiiah | Secretary, MEPA |
| Dr Shantha Hennayake | Snr Lecturer Univ of Peradeniya | Mr S Manamperti | Head Human Resources Mgmt Div, SLIDA |
| Mr Kevin Jeans | Consultant, CEA | Mr K S Perera | Consultant, SLIDA |
| Mr W Bentham | Consultant CEA | Dr Mrs Hemanthi Ranasinghe | Snr Lecturer, Univ of Sri Jayawardenepura |
| Mr Avanthi Jayatileke | Project Officer, USAID | Dr J Samarakoon | Consultant, CEA |
| Mr Ariyaratne Hewage | Director, Policy & Inst Dev NAREPP | Mr Nalin Ladduwahetti | Mihikatha Trust Fund |
| Dr Mrs Ajantha Perera | Snr Lecturer, Univ of Colombo | Mr U Sapukotana | Consultant, MEPA |
| Mrs Nilanthi Bandara | Snr Lecturer, Open Univ of SL | Mrs Shiranee Yasaratne | Director/NRM, CEA |
| Ms Kumudu Rajapakse | Teaching Asst Open Univ of SL | Dr David McCauley | Chief of Party/NAREPP |
| Mr H M D R Herath | Snr Lecturer, Univ of Peradeniya | Dr Nimal Sandaratne | Chairman NDB |
| Mrs Shiranee Yasaratne | Director/NRM CEA | Mr Pandula Endagama | Director/Protection, CEA |
| | | Mr Glenn Whaley | Chief, Env'l & Capital Projects Division USAID |

| 5th EIA Course Sept 2-11, 1994, Peacock Beach Hotel, Hambantota | | 6th EIA Course September 1-10, 1995 Hotel Dolphin, Waukkal | |
|--|--|---|--|
| Name | Designation/Organization | Name | Designation/Organization |
| Prof C M Madduma Bandara | Vice Chancellor Univ of Peradeniya | Prof C M Madduma Bandara | Vice Chancellor Univ of Peradeniya |
| Mr G K Amaratunga | Chairman CEA | Dr Shanthe Hennayake | Snr Lecturer Univ of Peradeniya |
| Dr Shanthe Hennayake | Snr Lecturer Univ of Peradeniya | Mr Avanthi Jayatileke | Project Officer USAID |
| Dr David McCauley | Chief of Party NAREPP | Mrs Nilanthi Bandara | Snr Lecturer Open Univ of SL |
| Dr Alan White | Project Manager CRMP | Dr H B Kotagama | Snr Lecturer Univ of Peradeniya |
| Dr Mrs Ajantha Perera | Snr Lecturer Univ of Colombo | Dr P Wickramagamage | Snr Lecturer Univ of Peradeniya |
| Mr Avanthi Jayatileke | Project Officer USAID | Dr Mrs Hemanthi Ranasinghe | Snr Lecturer Univ of Sri Jayawardanepura |
| Mrs Nilanthi Bandara | Snr Lecturer Open Univ of SL | Mr Pandula Endagama | Consultant CEA |
| Dr Sarath Kotagama | Head Dept of Zoology OUSL | Dr Sumith Pilapitiya | National Program Co ordinator MEIP |
| Mr Ariyaratne Hewage | Director Policy & Inst Dev /NAREPP | Dr J Samarakoon | Consultant CEA |
| Dr Mrs Hemanthi Ranasinghe | Snr Lecturer Univ of Sri Jayawardanepura | Dr Nimal Sandaratna | Consultant IPS |
| Mr Pandula Endagama | Consultant, CEA | Mr U Sapukotana | Consultant Min of Env't |
| Mr C P Attanayake | Dep Director DWLC | Mr Lalanath de Silva | Consultant, Min of Env't |
| Dr Samantha Hettiarachchi | Snr Lecturer University of Moratuwa | Mr G K Amaratunga | Chairman CEA |
| Mr Nalin Ladduwahetti | Mihikatha Trust Fund | Mrs Shiranee Yasaratne | Director/NRM CEA |
| Dr D Nesiath | Secretary MEPA | Mrs Ramani Ellepola | Director/Protection CEA |
| Dr Sumith Pilapitiya | National Program Coordinator MEIP | Mr W A D D Wijesooriya | Snr Scientist CEA |
| Dr J Samarakoon | Consultant, CEA | Dr T Gunaruwan | Consultant NPD |
| Dr Nimal Sandaratna | Consultant, IPS | Dr H M Manthirithilaka | Mahaweli Authority of SL |
| Mr U Sapukotana | Consultant Min of Env't | Dr Ajith de Alwis | Univ of Moratuwa |
| Mr Lalanath de Silva | Consultant, Min of Env't | Prof J B Dissanayake | Prof Univ of Colombo |
| Mrs Shiranee Yasaratne | Director/NRM CEA | Prof J M Gunadasa | Prof, Univ of Peradeniya |
| Mr Suresh Kumar | Env'l Officer CEA | Mr Ananda Lal Nanayakkara | Env'l Lawyer |
| Dr P Wickramagamage | Snr Lecturer Univ of Peradeniya | Dr Sarath Kotagama | Snr Lecturer Open Univ |
| Dr T Gunaruwan | Consultant NPD | Mr Cecil Amerasinghe | Secretary Min of Env't |
| Mr P C Senarathne | Dep Director Dept of Irrigation | Mrs Mallika Karunaratne | Director NPD |
| Mr Roy Jayasinghe | Director Min of Ind Dev | Mr Ariyaratne Hewage | Director Policy & Inst Dev /NAREPP |
| | | Dr J M P K Jayasinghe | |
| | | Mr Ajith Rodrigo | |

7th EIA Course
23rd Feb to 3rd March 1996
Wildlife Trust Training Centre, Randenigala

8th EIA Course
Sept 26 Oct 5, 1996 Inservice Training Inst
Angunakolapellesera

| Name | Designation/Organization | Name | Designation/Organization |
|----------------------------|--|----------------------------|---|
| Prof C M Madduma Bandara | Vice Chancellor Univ of Peradeniya | Prof C M Madduma Bandara | Vice Chancellor Univ of Peradeniya |
| Dr Shantha Hennayake | Snr Lecturer, Univ of Peradeniya | Dr Shantha Hennayake | Snr Lecturer, Univ of Peradeniya |
| Mr Avanthi Jayatileke | Project Officer USAID | Mr Avanthi Jayatileke | Project Officer USAID |
| Mrs Nilanthi Bandara | Snr Lecturer Open Univ of Sri Lanka | Mrs Nilanthi Bandara | Snr Lecturer Open Univ of SL |
| Dr H B Kotagama | Snr Lecturer, Univ of Peradeniya | Dr H B Kotagama | Snr Lecturer, Univ of Peradeniya |
| Dr P Wickramagama | Snr Lecturer, Univ of Peradeniya | Dr P Wickramagama | Snr Lecturer, Univ of Peradeniya |
| Dr Mrs Hemanthi Ranasinghe | Snr Lecturer Univ of Sri Jayawardenepura | Mr Pandula Endagama | Consultant CEA |
| Mr Pandula Endagama | Consultant CEA | Dr Sumith Pilapitiya | Engineer The World Bank/Colombo |
| Dr Sumith Pilapitiya | Engineer, The World Bank/Colombo | Mr U Sapukotana | Consultant Min of Env't |
| Mr U Sapukotana | Consultant, Min of Env't | Mr Lalanath de Silva | Consultant Min of Environment |
| Mr Lalanath de Silva | Consultant, Min of Env't | Mr G K Amaratunga | Chairman, CEA |
| Mr G K Amaratunga | Chairman, CEA | Mrs Shiranee Yasaratne | Director/NRM, CEA |
| Mrs Shiranee Yasaratne | Director/NRM, CEA | Mrs Raman Ellepola | Director/Protection CEA |
| Mrs Raman Ellepola | Director/Protection, CEA | Mr W A D D Wijesooriya | Snr Scientist CEA |
| Mr W A D D Wijesooriya | Snr Scientist, CEA | Dr T Gunaruwan | Consultant, NPD |
| Dr T Gunaruwan | Consultant, NPD | Prof J B Dissanayake | Prof University of Colombo |
| Prof J B Dissanayake | Prof Univ of Colombo | Mr Pradeep Kurukulasooriya | Southern Development Authority |
| Dr D G Jayawardene | Director, Horticultural Crop Research & Dev Inst, Peradeniya | Dr D G Jayawardene | Director, Horticultural Crop Research & Dev Inst Peradeniya |
| Mr H M D R Herath | Snr Lecturer, Univ of Peradeniya | Mr V K Nanayakkara | Consultant, Min of Env't |
| Dr Nimal Gunatileke | Prof Univ of Peradeniya | Dr H M Manthirithilaka | Mahaweli Authority of Sri Lanka |
| Dr H M Manthirithilaka | Mahaweli Authority of Sri Lanka | Dr S Bhuvendralingam | Snr Lecturer, Univ, of Moratuwa |
| Dr S Bhuvendralingam | Snr Lecturer, Univ, of Moratuwa | Mr Ariyaratne Hewage | Director Policy & Inst Dev NAREPP |
| Mr Ariyaratne Hewage | Director, Policy & Inst Dev /NAREPP | Mr Hemantha Vithanage | Snr Environmental Scientist, Env'l Foundation Ltd |
| Mr P C Senaratne | Dep Director, Dept of Irrigation | Dr P P G S N Siriwardane | Research Officer, NARA |
| Ms Hester Basnayake | Urban Development Authority | Dr Lareef Zubair | University of Peradeniya |

APPENDIX V

8TH INTENSIVE EIA TRAINING WORKSHOP

Sponsored by

CENTRAL ENVIRONMENTAL AUTHORITY
OF THE

MINISTRY OF TRANSPORT, ENVIRONMENT & WOMEN'S AFFAIRS

&

NAREPP/IRG

Co-ordinated by

CENTRE FOR ENVIRONMENTAL STUDIES, UNIVERSITY OF PERADENIYA

26th September - 05th October 1996

Agricultural Inservice Training Institute
Angunakolapallessa

26th September - Thursday

INTRODUCTORY SESSION

| | |
|----------|--|
| 09 00 am | Departure from NAREPP, No 1, Gower s Street |
| 01 00 pm | Lunch at Rest House - Matara |
| 04 00 pm | Arrival at the Training Centre, Angunakolapallessa |
| 06 00 pm | Registration |
| 06 15 pm | Welcome and Inauguration (Madduma Bandara, Amarasinghe, Keerthirratne & Amaratunga) |
| 06 40 pm | Introduction of Participants and Course Expectations (Hewage) |
| 07 15 pm | Description of Workshop and Assessment of participants Environmental Knowledge Base (Madduma Bandara & Wickramagamage) |
| 08 00 pm | Introduction of Course Materials/ Source Book (Hennayake) |
| 8 30 pm | End of Session/ DINNER |

27th September - Friday

CONCEPTS IN ENVIRONMENTAL PROTECTION & MANAGEMENT

| | |
|----------|--|
| 08 00 am | Issues of Sustainable Development Specific to Sri Lanka (Madduma Bandara) |
| 09 00 am | Environment & Development (Amarasinghe) |
| 10 00 am | TEA |
| 11 15 am | Socio-Cultural Dimensions of Development (Endagama) |
| 12 30 pm | LUNCH |
| 01 30 pm | Ecological Foundations for Environmental Management (S Kotagama) |
| 03 00 pm | TEA |

- 03 15 pm Bio-diversity and its significance in Sri Lanka
(Jayawardena)
- 05 00 pm Southern Area Development Programme
(Gunaratne)
- 07 30 pm DINNER
- 09 00 pm Video "Blue Planet"

28th September- Saturday

EIA PROCESS AND TECHNIQUES

- 08 00 am Planning as an alternative to EIA
(Nanayakkara)
- 09 30 am EIA Process in Sri Lanka
(Yasaratne)
- 10 30 am TEA
- 10 45 am Legal Issues in EIA
(de Silva)
- 11 45 am Conducting Environmental Scoping
(Hennayake)
- 01.00 pm LUNCH
- 02 00 pm Setting of Terms of Reference for EIA - Group Exercise
(CEA staff)
- 03 00 pm TEA
- 03 15 pm Criteria for Evaluation of EIAs
(Wijesooriya)
- 04 15 pm Public Participation in EIA Process
(Vithanage)
- 05 30 pm Discussion on the EIA Process
(all participants & resource persons)
- 07 30 pm Dinner
- 08 00 pm Video "Looking before Leaping"

29th September - Sunday

24

EIA PROCESS AND TECHNIQUES - CONTD

08 00 am Environmental Economics and its application in Extended Cost
Benefit Analysis (Kotagama & Gunaruwan)
(Gunaruwan/Kotagama)

09 30 am Session Contd

10 30 am TEA

10 45 am Social Impact Assessment
(Hennayake)

12 30 pm LUNCH

01 30 pm Application of GIS in EIA
(Manthrihilaka)

03 30 pm TEA

03 15 pm Team Management in EIA
(Hewage)

04 15 pm Case Studies - Briefing
(Hennayake)

05 00 pm Adjourn

07 00 pm DINNER

08 00 pm Small Groups Discussion with Case Study Writers and
Facilitators
(Wijesooriya, de Alwis, Rodrigo, Siriwardena, Zubair,
Wickramagamage)

30th September - Monday

Field Working Day

01 30 pm Group Working Sessions
03 15 pm TEA
03 30 pm Rehearsals of presentations
07 30 pm DINNER

04th October- Friday

08 00 am Revision of Presentations
11 0 am Group A Presentation & Critique
12 30 pm LUNCH
01 30 pm Group B Presentation & Critique
03 00 pm TEA
03 15 pm Group C Presentation & Critique/simulation of Public Hearing
04 45 pm Short break
05 00 pm Debriefing a Case Studies and Public Process
06 30 pm Adjourn
07 30 pm Social Evening/ DINNER

05th October - Saturday

08 00 am Participants' Evaluation
 (Hewage & Wickramagamage)
09 30 am Post-Course Assessment
 (Madduma Bandara, Yasaratne, Scott)
10 30 am TEA
10 45 am Closing Session and Award of Certificates
12 00 pm LUNCH
01 00 pm Departure of Participants

APPENDIX VI

EIA INTENSIVE COURSE

SOURCE BOOK

TABLE OF CONTENTS

- 1 Dimensions of Sustainable Development
- 2 Caring for the World
- 3 Glossary of Terms Used in Integrated Environmental Management
- 4 Multilateral Cooperation for Development in the Twenty-First Century
- 5 Appraisal Methodology for Sustainable Development Projects
- 6 EIA System in Sri Lanka
- 7 Section C The new EIA and EPL requirements
- 8 EIA Steps
- 9 Environmental Impact Assessment - F McCormick
- 10 Environmental Impact Assessments - EPA
- 11 Environmental Impact Assessment What it is and why international development organizations need it
- 12 Natural Resources and Environmental Policy Project (NAREPP)
- 13 EIS-ence or suggestions to writers of Environmental Impact statements
- 14 Environmental Impact Assessment
- 15 UNEP develops principles on Environmental Impact Assessment
- 16 Interdisciplinary Teams in Environmental Impact Assessment
- 17 Environmental Management for Developing Countries
- 18 A Procedure for Evaluating Environmental Impact Assessment
- 19 References on Environmental Assessment
- 20 Operational Directive
- 21 Convention of Biological Diversity
- 22 Presentation of Time Period Required to Prepare IEE of Some Projects in Thailand

- 23 Applications of GIS in Economic Analysis A case study of Uganda
- 24 Environmental Impact Assessment in Developing Countries A case study of the Sri Lanka Power Sector
- 25 An economic evaluation of non-timber products of Hantana forest
- 26 Integrated Environmental & Economic Accounting
- 27 Environmental-Economic Evaluation of Projects and Policies for Sustainable Development
- 28 Identification of Water Pollution Impact
- 29 Recommended Methodologies for Rapid Environmental Impact Assessment in Developing Countries
- 30 Cost-Benefit Analysis and EIA
- 31 Ecologically Sustainable Landscapes
- 32 Definitions of Conflict
- 33 Definitions of Negotiation
- 34 Guidelines for Scoping
- 35 Guidelines for Review
- 36 Checklist of Environmental Characteristics
- 37 GIS for Environmental Assessment and Review
- 38 Public Involvement in Environment Assessment Requirements, Opportunities and Issues
- 39 Moving Towards Eco-Development
- 40 The World Bank and Environment Assessment An Overview
- 41 Sectoral Environmental Assessment
- 42 Environmental Screening

APPENDIX VII

NATURAL RESOURCES AND ENVIRONMENTAL POLICY PROJECT

Evaluation of Environmental Impact Assessment (EIA) Training

Objective of this survey is to evaluate the impact of EIA training received by you through the NAREPP EIA Intensive Workshop and to use the survey results to improve future activities of NAREPP

You are therefore kindly requested to provide responses to the following questions as accurately as possible to enable us to do a reasonable analysis

Questionnaire

(Please circle the number that illustrates your response where applicable)

- 1 a How would you describe your current place of employment?
 - 1 Government office
 - 2 University
 - 3 NGO
 - 4 Private business (non-consulting firm)
 - 5 Independent consultant or consulting firm

- b What is your job title?

- 2 In which EIA Intensive Course did you participate?
 - 1 1992 (September)
 - 2 1993 (January)
 - 3 1993 (June)
 - 4 1994 (April/May)
 - 5 1994 (September)
 - 6 1995 (September)
 - 7 1996 (February)

- 3 In what way the certificate of completion received at the course useful in your career development?
 - 1 able to get salary increase/additional allowances
 - 2 useful in my promotions
 - 3 useful in getting foreign scholarships
 - 4 any other (specify)

- 4 To what extent are you working on environmental issues at your current job?
 - 1 Directly related to the environment
 - 2 Indirectly/partially related with environment
 - 3 Not related to environment at all

Please give a brief description of your job activities (particularly environment related)

- 5 How many EIAs/IEEs have you been associated with?
 - 1 None I have never been involved with EIAs/IEEs outside of the EIA training case study
 - 2 From 1 to 3
 - 3 From 4 to 6
 - 4 More than 6

- 6 In what capacity did you participate in your most recent EIA/IEE?
 - 1 Team leader
 - 2 Team member
 - 3 Reviewer/manager
 - 4 Other (specify)

90

7 Please rate the EIA Intensive course with respect to how it helped you improve the following skills (Please circle the relevant figure against each activity)

| ACTIVITY AREAS | EIA Intensive Training Course was | | | | |
|---|-----------------------------------|-----------------------|---------|--------------|-------------------|
| | Not at all helpful | Only slightly helpful | Helpful | Very helpful | Extremely helpful |
| a EIA/Terms Of Reference Preparation | 1 | 2 | 3 | 4 | 5 |
| b EIA Consultants Selection | 1 | 2 | 3 | 4 | 5 |
| c EIA Scoping | 1 | 2 | 3 | 4 | 5 |
| d Organizing Public Hearings | 1 | 2 | 3 | 4 | 5 |
| e Enlightening the communities | 1 | 2 | 3 | 4 | 5 |
| f Assisting the Head of the Project Approving Agency Through Providing Inputs for EIA Approvals | 1 | 2 | 3 | 4 | 5 |
| g Incorporating Environmental Concerns in Planning Activities | 1 | 2 | 3 | 4 | 5 |
| h Using the EIA Knowledge in Day to Day Decision Making in my Job | 1 | 2 | 3 | 4 | 5 |
| i In Teaching/Training Activities | 1 | 2 | 3 | 4 | 5 |
| j In Consulting Related Activities | 1 | 2 | 3 | 4 | 5 |
| k Any Other (Please specify) | 1 | 2 | 3 | 4 | 5 |
| l - do | 1 | 2 | 3 | 4 | 5 |
| m - do - | 1 | 2 | 3 | 4 | 5 |

8 Which of the following statements applies to reading materials given at the EIA Course

- 1 The reading materials are directly relevant to my work
- 2 The reading materials are indirectly relevant to my work
- 3 The reading materials are not related to my work at all

9 Have you received any other environment related training

- 1 Yes
- 2 No

If yes give details below

- ◆ Institution which conducted the training
- ◆ Duration -
- ◆ Specific theme
- ◆ Venue -

10 Would you think a short follow-up workshop is useful to update your knowledge/skills on EIA?

- 1 Yes
- 2 No

11 Any Other Views/Suggestions Related to the improvement of EIA Training

12 (Please note that we seek your approval to include your name in our database through which potential consultancies may arise) I approve/do not approve forwarding my name to organizations seeking consultants to work in the environmental sector My area of specialization is

Name _____ Contact Address _____
 Telephone _____

THANK YOU FOR YOUR CO-OPERATION IN COMPLETING THIS QUESTIONNAIRE