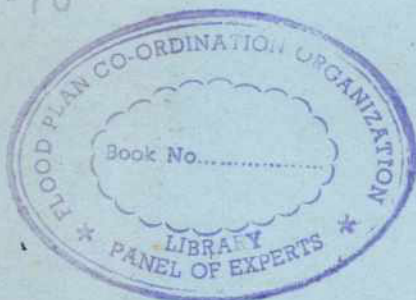


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The People's Republic of Bangladesh  
Ministry of Irrigation, Water Development and Flood Control

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# BANGLADESH FLOOD ACTION PLAN

FAP 16 Environmental Study

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Environmental Impact Assessment Skills Training Work Shop

MASTER TRAINING FILE

SECTION I

September 1993



IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST  
Sponsored by the U.S. Agency for International Development



**The People's Republic of Bangladesh**  
**Ministry of Irrigation, Water Development and Flood Control**

# **BANGLADESH FLOOD ACTION PLAN**

**FAP 16 Environmental Study**

**Environmental Impact Assessment Skills Training Work Shop**

**MASTER TRAINING FILE**

**SECTION I**

**September 1993**

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**IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST**  
**Sponsored by the U.S. Agency for International Development**

MASTERFILE SCHEDULE OF ACTIVITIES  
(BY MODULE)



## INTRODUCTION

Two Environmental Impact Assessment skills training work shops were conducted by ISPAN for the Flood Plan Co-ordination Organization (FPCO) under funding from the U.S. Agency for International Development (USAID). Planning for the workshops took place between June 13 and July 3, 1993. The workshops themselves were held on July 4 - July 29, 1993 and August 16 - September 9, 1993.

The planning and design of the work shops took into account information from a needs assessment performed in February and March of 1993. It was determined that 20-day workshops would be oriented towards Bangladeshis who had already worked in the area of environmental impact assessment (EIA) in both the private sector and the government and that there would be a fairly even mix of these two groups. The material prepared for the workshops was in a modular format and included the objectives to be met within each session, a detailed outline of the individual sessions to be covered, the handout materials for each session and exercises for each module.

Because of local religious holidays and strikes it was not possible to hold complete 20 day workshops and instead the second of the three field trips was removed in order to avoid sacrificing classroom time. This shortened schedule also resulted in the re-arrangement of some of the sessions causing the two courses to differ very slightly, in terms of sequence, from the original design.

The masterfile provided here includes all of the information from the two workshops in the original sequence.

This material includes a copy of the Masterfile training design, all information exercises, handouts and other materials used in the course (including the three field trip handouts) and finally summaries of the mid-term and final evaluations for each workshop. Copies of the EIA manual and guidelines were given to both classes and have already been provided to USAID.



## MASTERFILE SCHEDULE OF ACTIVITIES (BY MODULE)

### WEEK 1

#### DAY 1:

#### MODULE 1: WORKSHOP INTRODUCTION/CLIMATE SETTING

Total Time: 3

hours

(Total: 2 periods)

**Module 1 Objective:** by the end of the module participants will have:

- had an opening ceremony
- introduced themselves to each other
- shared their expectations
- introduced to the program
- agreed on norms for guiding the workshop

**Overview:** The purpose of this module is to introduce the workshop, give people a chance to know one another, describe the program and the approach, agree on the schedule and establish norms for running the workshop. The underlying purpose of the module is to put people at ease about attending the workshop.

#### Session 1

(Day 1-Period 1)

Procedure
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#### Opening Ceremony

Welcome the group and introduce the training team.

Introduce the objectives of the workshop and point out on the flipchart  
Flipchart A-1: Program Objectives.

Ask the participants to introduce themselves.

Start with      ISPAN  
                     FPCO  
                     AID  
                     FAPI6

Introduce the speakers and then thanks them for their remarks.

(If it goes longer than an hour it is a good idea to break for coffee allowing the speakers an

honorable way to depart.)

## Session 2 (Day 1-Period 2)

### Procedure

#### Introductions

##### 1. Group Ice-breaking exercise.

Ask the participants to:

Ask the participants what they expected when they received the invitation to the workshop? What they hoped would happen, and what they hoped would not happen? Record their expectations on the board.

##### 2. Program and Schedule

Introduce the program Flipchart A-2: Program. Compare the expectations of the participants and the program pointing out where they are similar and where they diverge. If the divergence is small and the group feels strongly about it, suggest will see where it can be incorporated. If it is large he tells the group that it is outside the scope of the program, but if there was enough interest perhaps something could be arranged after hours. Introduce the Schedule: Flipchart A-3: Schedule. Ask participants if they have any problems with the schedule. Talk about logistics (travel, tea, question bag and perdiem).

##### 3. Setting Norms

Ask the participants to help establish some guidelines to govern the workshop. It is helpful if the participants set the norms, but if they hesitate these are generally the situations that need norms:

- starting on time
- taking responsibility for own learning
- helping one another
- speaking one at a time
- actively participating in every session
- smoking policy (couch in terms of regard for the health of their neighbors.)

Record the norms on flipchart and posts it for all to see.

#### 4. Methodology

##### Trainer Objectives:

- to introduce different approaches to training
- to introduce the difference between didactic and experiential learning
- to show implications for the workshop

1. Begin by explaining two new words: pedagogy--whose greek root is "paido" for child is the study of the way children learn. The focus is on the child.

Andragogy--whose Greek root is "aner" for man (used to distinguish boy from man) is the study of the way adults learn. The focus is on the adult.

2. One way of looking at the difference is to look at the expectations of the two groups.

##### Expectations of the Child

to be told what need to think and do because they have limited experience.

expect to have questions answered for them

expect it will be valuable at "some time in the future" in "some way".

##### Expectation of the Adult

expect to be able to decide for themselves and test against their experience. (They were not born yesterday.)

expect to find out for themselves or at least have some say in the process

expect it to have some immediate value and will ask "how soon?".

3. This leads to three general ways to approach training.

1. Authoritative--where the trainer lectures the participants. The participants remain passive.

2. Collaborative--where the trainer and the participant share responsibility for the learning that takes place.

3. Facilitative--where the participant indicates what he or she wants to learn and the trainer facilitates the learning process.





Note that all three are valuable in different kinds of circumstances.

4. In this workshop we will use the collaborative approach. This means that we expect the participant to take an active role in learning. (Draw the teacher/student relationship--one passing information down to the other, and then draw a collaborative relationship--each person on an equal footing bringing their experience to the classroom to be shared with the others, allowing everyone to take from each other.

The method we will is designed to focus on giving the participants skills in doing EIAs not just knowing about them. (Use the surgery model. If you had to have your appendix taken out, would you want a surgeon who had read a book on surgery (content only) or a surgeon who has already operated on someone and the patient got well (skills).

In each session the trainer and the resource person will give the participants a small lecturette and introduce a practical exercise to work on. The participants will be expected to think about the exercise, draw lessons from it, and decide how they would apply it to their real work. The trainer will encourage the participant to look back on decisions they have made in the past on projects etcetera and, in view of what they have just learned, decide if they would have made a different decision, and what that means for the future. Thus the work follows what is known as the learning cycle--experience--reflection--generalization--and application. Outline the learning cycle and goes through the steps of the cycle. Flipchart 1-4: Learning Cycle.

The important thing to remember is that you, the participants will get out of this workshop what you put into it.

Dugan Laird, in his book, Approaches to Training and Development pointed out that, "learning is a verb, not a noun. IT is a journey, not a destination."

Explain that this is the cycle we will be following as much as is possible in our classes. Their success therefore depends on their willingness to take charge of their learning, and to share their experience with each other.

**Networking:** remind people that they are EIA resources to each other. It behooves them to get to know each other well, and to follow up after training with those newly formed connections.

## 5. Wrap Up

Return to the program and says that now we are about to begin MODULE 1 on the EIA and the project development process.



## MATERIALS

Flipchart A-1: Program Objectives

Flipchart A-2: Program

Flipchart A-3: Schedule

Flipchart A-4: Learning Cycle

**MODULE 2: PROJECT DEVELOPMENT**  
(Total: 6 periods including FPCO)

**Total Time: 1.5 hours**

**1. Module Objective**

Flipchart B-1 : Module 1: Objective: Explain the place of EIA in the project development process.

**2. Overview**

This module provides information about the EIA within the context of the overall project development cycle. It discusses where the EIA fits in the overall project development process, how the concepts of habitat and ecosystem are used in EIAs and the overall EIA process. EIA is a tool to do feasibility studies on the environmental effects of proposed projects. It is used not to stop projects but to enhance their success by making them more sustainable. This provides the conceptual framework for EIAs. The sessions will:

- Explain the place of EIA in the project development cycle.
- Explain the importance of EIA in project development.

**Engineering and Engineering Effects**

- Identify the various types of engineering works currently used in flood control projects.
- Identify the various positive and negative effects of these projects.
- Explain how engineering projects can benefit from properly carried out EIAs.

**3. Questions Useful for Generalization and Application**

(Note: Questions such as those below are intended to be used prior to concluding each session.)

**GENERALIZATION QUESTIONS**

1. What did you learn about project development and the EIA from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it about PD and the EIA?
4. What are the most important things you have drawn from it?



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5. What does it suggest to you in general about PD and the EIA?
  6. What problems might you find in integrating PD and EIA studies?

#### APPLICATION QUESTIONS

1. How would you apply that to (the specific session situation)?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?

Session 1  
(Day 1-Period 3)

Procedure

1. Administer the pre-test Handout A: EIA Process Pre-Test  
(If time in the morning give it then.)

2. Introduction

Introduce the objective on Flipchart B-2; Session 1 objectives: Understand The Conceptual Framework of the EIA

Begin the session by asking the participants about their experience with project cycles or development cycles and guidelines. Let it lead to a short lecture on overall development. Lecture should refer to Guidelines to provide the students with a refresher on project management and point out how the EIA can be an important tool in it. Point out one of the handouts is the EIA Guidelines which have been approved by DOE. Indicate where the overhead is in the handout.

- o Go over the project cycle handout carefully since they may find it confusing
- o Questions include:
  - Who has worked in project development
  - What is the overall process
  - How do we think EIA can fit in
  - Is EIA meant to help or hurt projects

Use Overhead O-1: Figure 1.

Trainer Note: Test overhead at break.

2. Group Discussion

Open a group discussion on how projects might have benefitted if an EIA was done. Ask the trainees to provide input on where they have had experience in the project cycle and how they think an EIA might have strengthened, or weakened, the project planning process.

Lead questions might be:

- How many projects have you seen that were completely successful?
- How many were failures?



-What were the problems?

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusions**

- o Ask what conclusions can they draw about the importance of EIAs?
- o How can we use EIAs to strengthen our projects?
- o What might be some of the things that would block an EIA from being done successfully?
- o How might we overcome them?

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Session 2  
(Day 1-Period 4)

Procedure
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1. Introduction

Introduce the session objective: Flipchart B-5: Session 3 Objectives: Identify various habitats. Explain that some of the more important concepts we will deal with when working in EIA studies are that of ecosystem and habitat and that we will spend the next session discussing them.

2. Lecturette

Begin with a lecturette on what ecosystems and habitats are. Clarify eco-system and attribute. Handout A: (Title) (Carpenter's article). (Put title on board: Carpenter, R.A. and J.E. Maragos, editors/authors; 1989; How To Assess Environmental IMpacts on Tropical Islands and Coastal Areas. Environmental and Policy Institute, East West Center, U. III.

The trainee should learn that ecosystems are the assemblage of plants, animals, and man with functional interlikages of the biophysical and socioeconomic sectors. The trainee should understand that an ecosystem includes the biogeochemcial cycles and trophic order of the living populations. The trainee should also learn that ecosystems can be identified as habitats in Bangladesh.

Point out that we have been introduced to the project planning cycle and that the EIA is part of the planning cycle.

Introductory questions:

- What do we need to know do an EIA study?
- What is the environment?

Definition: Environment is the support system for life.

Definition: Ecosystem is a sustainable, functional system consisting of an assemblage of living organisms and the associated physical components on which the system depends.

Handout (Simplified Ecosystem). Discuss the schematic diagram in the handout with the trainees and show components of an ecosystem.

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Components: a) Biophysical --- abiotic (land, water, air) and biotic (plants and animals)  
b) Socio-economic --- human component (social, economic, administrative, cultural, historic, archaeological, land use, infrastructure, nutrition, safety).

Follow on question:

- What is an example of a very large ecosystem?
- How practical is it to consider such a large ecosystem for an EIA study?
- Why?

**Definition:** Habitat is where one lives. Habitats include the surrounding resources including plants, animals, socioeconomic resources and therefore can be used to describe ecosystems at a given locality.

### 3. Small Group Exercise(01) (PD01)

Introduce the Small Group Task: Flipchart B-6

The task is to identify as many distinct Bangladeshi eco-systems as the group can find.

**SMALL GROUP METHODOLOGY** (Use this methodology for all small group tasks.)

Divide the group into 3 teams.

Have them appoint a Team Leader and Team recorder.

Leave twenty minutes at end for reporting.

Tell them they must prepare flip charts within the time period.

The group reports out in plenary session.

### 4. Generalization (See Trainer Notes at the Module Introduction.)

### 5. Application (See Trainer Notes at the Module Introduction.)

### 6. Conclusion

Link task and lecture back to objective and connect to next session.

### 7. Day's Wrap Up

As this is only the first part of the module, tell the participants that tomorrow we will return to it.

Ask them what they think about the way the workshop is proceeding and whether it is meeting their expectations.

## DAY 2

### Climate Setting

Set the climate by asking the participants to recall what was learned yesterday and whether they had questions about things they did not understand, or want to explore.

### Session 3 (Day 2-Period 1)

<b>Procedure</b>
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#### 1. Introduction

Introduce the session objective Flipchart B-3: Session 2 Objective: Understand the overall EIA process.

Point out that we have been introduced to the planning cycle and the EIA process. Point out that we have also identified habitats in Bangladesh.

Introductory questions:

- What are some of the habitats that can be affected by FCD/I projects?
- What are these effects called?

Lecturette on what impacts are and how they are measured in the context of the multidisciplinary EIA process.

#### 2. Lecturette

Give a lecturette on what impacts are and how they are identified and measured in the context of the multidisciplinary EIA process. The trainee should learn that environmental impact is quantitative and/or qualitative change to environmental resource associated with a project intervention. The trainee should learn that impacts to one environmental resource or condition may be different from that of another resource or condition, even when considering the same intervention. Therefore different resource disciplines are used to determine environmental impact that are based on the various components of the ecosystem. Different habitats may involve different emphases in the EIA procedure. Use Overhead O-2:

Introductory questions:

- Would someone care to comment on what environmental impacts are?



**Definition:** Environmental impact is quantitative and/or qualitative change to environmental resource.

**Follow-on question:**

- In light of what we have learned about ecosystems and habitats, and we have just discussed about environmental impacts, what sorts of disciplines might be considered in order to conduct an EIA study?

**Lead-in question for small group exercise:**

- Given what we have learned about impacts, in what ways may an EIA study address impact assessment?

### **3. Individual Exercise**

**Individual exercise:** Review handout on EIA multidisciplinary procedure. Give Handout B: on the FAP 16 EIA process.

Spend 15 minutes reviewing Handout B

### **4. Small Group Exercise(02) (PD02)**

Introduced Flipchart B-4: Small Group Task

Develop a set of expectations on how (or whether) the EIA process might improve project planning and planning outcomes. Give exercise handout. Group records on flip charts on what it thinks the potential improvements and problems might be in the Bangladeshi context.

### **5. Generalization (See Trainer Notes at the Module Introduction.)**

### **6. Application (See Trainer Notes at the Module Introduction.)**

### **7. Conclusions**

Ask what is the most important things they learned during this session. Write the answers on flipchart or white board.

Session 4  
(Day 2-Period 2)

**Procedure**

**1. Introduction**

Introduce the session objectives: Flipchart B-7: Session 4 Objectives: Identify project consequences

**2. Small Group Exercise (03) (PD03)**

Introduce Flipchart B-8: Small Group Task

Trainer Note: Point of exercise is to review a hypothetical case study and identify project consequences. Each team will look at the same case study.

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion**

Link the exercise back to the objective and forward to the next session.

Session 5  
(Day 2-Period 3)

**Procedure**

**1. Introduction**

Flipchart B-9: Session 5 Objectives: Understanding the environmental effects of water control structures.

**2. Lecturette**

Lecture on the various environmental effects caused by water control structures >

Trainer Note: Need to have slide projector and screen.

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the session back to the objective and forward to the next session.



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**Session 6**  
**(Day 2-Period 4)**

<b>Procedure</b>
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**1. Introduction**

Introduce the session objective: Flipchart B-10 Session 6 Objective: Understanding the role of IEE, its's place, application and importance in project development.

Ask if class knows what an IEE is? Explain that that is what we will spend the next period talking about.

**2. Lecturette**

Lecturette on global projects and consequences. Define IEE and IEC.

Explain that the words evaluation and examination are used in IEE but that the meaning is the same. IEE has several major purposes:

- o evaluate potential project impacts at the regional level
- o determine if the project should be stopped or modified for environmental considerations
- o identify peoples participation proponents
- o start IEC identification

**3. Small Group Exercise(04) (PD04)**

Introduce the Small Group Task: Flipchart B-11:

Review the IEE and using the criteria established determine whether the proposed projects should be moved forward.

Divide the group into three and give each the IEE. Use the small group task methodology.

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion**

Ask what conclusions can they draw from this exercise? What are the implications for them when they return to the workplace. Refer to their conclusions and things learned and ask what they now might do differently and what they might want to emphasize when they return to their



work situations.

## 5. Wrap Up/Journal

Summarize what has been learned during the session and review the session objectives. Useful questions might be:

As a result of what you learned today what might you do differently once you get back to work?

How difficult will it be to do that?

What might you do to overcome the difficulty? etc.

Distribute Handout C: Journal. Explain that the journal is a part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out this first journal

## MATERIALS

Overhead: O-1

Overhead: O-2

Handout A: Pre-Test

Handout B: Ecosystem discussion (Carpenter)

Handout C: Dicks ecosystem drawing

Handout D: Journal

Flipchart B-1: Module 2: Objective

Flipchart B-2: Session 1 Objectives

Flipchart B-3: Session 2 Objectives

Flipchart B-4: Small Group Task

Flipchart B-5: Session 3 Objectives

Flipchart B-6: Small Group Task

Flipchart B-7: Session 4 Objectives

Flipchart B-8: Small Group Task

Flipchart B-9: Session 5 Objectives

Flipchart B-10: Session 6 Objectives

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## **DAY 3**

### **Climate Setting**

Ask the participants to comment on the things that they learned in the past two days. Ask if they have any questions about the materials, the approach etc.

Comment that the group has looked at the issues involved in project development. Now they will shift their focus from the broad issues of project development, and focus more sharply on involving the public or the community into the EIA process.

## **MODULE 3: PEOPLE'S PARTICIPATION**

(6 sessions)

**Total Time: 9 hours**

### **1. Module Objective**

Flipchart C-1: Module 3 Objective: To design a Peoples Participation program as part of the EIA process.

### **2. Overview:**

The module is designed to give participants the interviewing and design skills needed to create a people's participation component to the EIA. The sessions will help the participant:

- Understand the importance of peoples participation in the overall EIA process and indicate where it should occur.
- Interact with local people and obtain information from them in either a formal or informal method.

### **3. Questions Useful for Generalization and Application**

(Note: Questions such as those below are intended to be used prior to concluding each session.)

#### GENERALIZATION QUESTIONS

1. What did you learn about peoples participation (PP) from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw about PP from it?
4. What are the most important things you have drawn from it?

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5. What does it suggest to you in general?
  6. What blocks have we identified to using PP to do a good EIA?
  7. How can you overcome the blocks?
  8. What strategy did others use?
  9. What strategy would you use?
  10. What problems might you find in trying to develop or implement a PP program?

#### APPLICATION QUESTIONS

1. How would you apply that to PP situations?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make PP work for you?
5. What are the options open to you?

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**Session 1**  
**(Day 3-Period 1)**

<b>Procedure</b>
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**1. Introduction**

Introduce the session objective: Flipchart C-2; Session 2 Objective: Understand the importance of peoples participation in the overall EIA process and indicate where it should occur.

Point out that we have been introduced to Peoples' Participation as an integral part of the overall EIA study and that it is used to identify issues and acquire data.

**2. Lecturette**

Present a lecturette discussing why peoples participation is important, why publics need to be identified and involved in the EIA process.

Why do we conduct interviews? Ask for input from the FAP 16 team concerning their experience of interviewing during their EIA case studies. Comment that we need to know how to interview in order to get the most reliable data possible and to understand that there are do's and don'ts to interviewing people in the local setting of an EIA study area. List do's and don'ts on the whiteboard.

**Questions**

- o ask people to define what a "public" is
- o why is it important to identify publics
- o what kinds of publics might be identified in B'desh

**3. Small Group Exercise(05) (PP1)**

Introduce the Small Group Task Flipchart C-3:

Given census and any other descriptive information from Tangail the trainees will identify the potential individuals and publics who should be included in peoples participation.

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion**

Link the exercise to the lecture and the objectives. Link the session to the next session.



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Session 2  
(Day 3-Period 2)

Procedure
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1. Introduction

Introduce the Session objectives. Flipchart C-4: Session 2 Objectives: Interviewing

Introductory questions

- What is the purpose of interviewing?

2. Lecturette

Begin with a lecturette discussing the purpose of interviewing in the context of the peoples participation program and how it contributes to understanding the peoples' concerns.

Questions to ask

- o has anyone had experience in interviewing
- o how important is interviewing to the PP process
- o how can you use interviewing to gather data
- o what kind of data is gathered during interviews

3. Demonstration/Small Group Exercise(06) (PP2)

Introduce the objective of the demonstration. Flipchart C-6: Understanding interviewing techniques and how to apply them. Begin with a sample interview using the trainers. Ask the group to watch what happened. Record their responses on white-board. Then show them the elements of a successful interview and compare the two lists.

Ask for volunteers to interview each other. Give the interviewer the object of the interview and ask him or her to spend a few minutes thinking up questions that will lead to reaching the objective. At the end give Handout: A: Guidelines for Interviewing to each participant.

4. Generalization (See Trainer Notes at the Module Introduction.)

5. Application (See Trainer Notes at the Module Introduction.)

## 6. Conclusion

- o Ask the participants what they think about the concept of people's participation?
- o Ask them what might happen if the community is not consulted?
- o Can they give examples?

Link the topic to the next session.

Session 3  
(Day 3-Period 3)

Procedure



**1. Introduction**

Introduce the session objective: Flipchart C-7; Session 3 Objective: Be able to make an initial design of a Peoples Participation program as part of the EIA process.

**2. Lecturette**

Begin with a Lecturette discussing the purpose of peoples participation and how the components of the program contribute to understanding the peoples' concerns.

Questions

- o are people in the villages an important consideration in the project
- o how can we include their fears and concerns in our work

**3. Small Group Exercise(07) (PP03)**

Introduce the Small Group Task; Flipchart C-8

Using the information from Tangail, Sections 4.3.1 and 4.3.2 of vol. 2 of the EIA manual, the teams should develop the process needed to design a PP program. Handout B;

Divide group into teams. Team will identify a team leader and a reporter within each group. Prepare flip charts on the case. Each team will look at the same information, prepare the flip charts and present their views. Team will prepare flipcharts and report in plenary session.

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion:**

Point out the different processes used by the different teams. Identify the process which is closest to the "real" method, that is, the method used in the manual. However point out that these are highly fluid.

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**Session 4**  
(Day 3-Period 4)

**Procedure**

**1. Introduction**

Introduce the session objective: Session 4 Objectives Flipchart C-9: Understand the importance of peoples participation in the overall EIA process.

**2. Role Play (Exercise 08) (PP04)**

Introduce the role-playing objective: Flipchart C-10: (Title)

Tell the group they will be divided into three teams for the role play. The groups will consist of villagers, an EIA group, and the last group will be observers. Tell them that we will be spending the next several hours working on the role play as a way of gathering information in the context of the EIA. Everyone will play some part in the process.

Ask if any team member had ever role-played an exercise before. If no one has, ask what their experience is with theater. Link being in a play to role-playing stressing that it is a way to watch how people might respond in different situations. Explain the different roles to the group, and what is expected of each one.

Start with a briefing to the whole group as to why they are visiting this village.

Trainer Note: The point of the exercise is to obtain information from the village people and determine who are the key people. Trainers should perform one role amongst themselves as a demonstration. Use one of FAP 16 with an American to act as an interviewer to point out the major cultural differences that sometimes hamper interviews.

Give Handout B: Role-play Instructions to each group. Make sure each group is certain of their role. Give them additional background information and also provide them with a sense of how to play the role if they are uncertain. You should be able to use 3 villagers and one or two EIA team members per cycle, along with the two observers. Try and get the observers to be the more experienced in terms of having worked in the field.

In the debriefing start with the observers and what they say. Then ask the questioners what they were supposed to accomplish? And finally what the villagers thought of the approach. This will lead to a discussion of the different ways there are to approach a village. Link all of it back to interviewing techniques.



#### 4. Day's Wrap Up

Link the role play to the objective. Tell the participants that in tomorrow's session they will have an opportunity to discuss their observations about the interviewing techniques used. Issues and concerns will have to be answered tomorrow.

## Day 4

### Climate Setting

Ask the participants to comment on the things that they learned in the past two days. Ask if they have any questions about the materials, the approach etc.

Comment that the group has looked at the issues involved in project development. They were asked to shift their focus from the broad issues of project development, to involving the public or the community into the EIA process. That at the end of yesterday they did a role play and asked to think about it. In the next session they would look at what happened.

### Session 5

(Day 4-Period 1)

<b>Procedure</b>
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#### 1. Introduction

Re-introduce yesterday's session objective: (Con't.)

Continue with role play.

#### 2. Role Play (Exercise 07) continued

##### Introduce Flipchart; C-11; Small Group Task

Towards the end of the role play it will be necessary to synthesize their experience.

Trainees should review what occurred in the role-plays and come to consensus about the important lessons which they record on flipcharts. Each should focus on what they were expected to do and their role in the process. Divide group into teams by instructor. Request each team identify a team leader and a reporter within each group. As the team to record their observations on flip charts. Each team will present their findings to the whole group. (This may take place informally during the role play debriefs. If so, let them continue with class discussion instead of a breakout. This will continue into the next period if it starts as a discussion.)

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**Session 6**  
**(Day 4-Period 2)**

**Procedure**

**1. Introduction**

Refer back to yesterday's objectives. Review the role plays and what happened.

<b>Procedure</b>
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**2. Group Discussion**

**Trainer Note:** This activity is to synthesize what the various teams felt and observed during the course of the role play. If group is that kind, put the questions on the white board as a way to guide the discussion.

Questions to answer include:

Was the EIA team effective in getting IECs?

Why or why not?

Did the villagers feel like they were being listened to?

Was the villager input important?

Did the team encourage input from the villagers?

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Refer to their conclusions and things learned and ask what they now might do differently and what they might want to emphasize when they return to their work situations.

**6. Wrap Up/Journal**

Summarize what has been learned during the session and review the session objectives.

Ask the participants what they think of the workshop: do they think they are learning something?

Ask the participants to comment on the things that they learned in the past two days.

2

Ask if they have any questions about the materials, the approach etc.

Distribute Handout C: Journal. Explain that the journal is a part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out this first journal

### **MATERIALS**

Handout A: Guidelines for Interviewing

Handout B: Tangail information

Handout C: Journal

Flipchart C-1: Module 3 Objectives

Flipchart C-2: Session 1 Objectives

Flipchart C-3: Small Group Task

Flipchart C-4: Session 2 Objectives

Flipchart C-5: Small Group Task

Flipchart C-6: Session 3 Objectives

Flipchart C-7: Small Group Task

Flipchart C-8: Session 4 Objectives

Flipchart C-9: Role Play

Flipchart C-10: Session 5 Objectives

Flipchart C-11: Small Group Task





**MODULE 4 Scoping and Bounding**  
(4 Sessions)

**Total Time: 6 hours**

**1. Module Objective**

Identify important environmental components (IECs) by using the scoping procedures.

Flipchart D-1: Module 4 Objectives

**2. Overview**

This module explains the process of identifying and refining IECs in order to develop the boundaries and scope of an EIA study area. It will include a discussion of the procedure and its purpose. The trainee should learn that scoping is the process of defining the scope of work in the context of the project, identified IECs, and related issues. Bounding is defining the limits of study in terms of area and time. By the end of the session the trainee should know that scoping involves secondary data, resource expertise, and information on issues obtained from Peoples' Participation. Bounding not only focuses on the project area identified in the engineering feasibility study but on contingent areas expected to be directly or indirectly affected by project interventions.

The sessions will help the participant:

- Distinguish between scoping and bounding, understand their inter-relationship and their importance in the EIA process.
- Identify important environmental components (IECs) by using the scoping procedures.
- Define the boundaries of a study area.

**3. Questions Useful for Generalization and Application**

(Note: Questions such as those below are intended to be used prior to concluding each session.)

GENERALIZATION QUESTIONS

1. What did you learn about scoping and bounding (S&B) from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw about the importance of S&B?
4. What are the most important things you have drawn from it?

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5. What does it suggest to you in general?
  6. What blocks have we identified to doing a good EIA?
  7. How can you overcome that block?
  8. What strategies have others used?
  9. What strategy would you use?
  10. What problems might you find when performing S&B activities?

#### APPLICATION QUESTIONS

1. How would you apply (the information) to S&B?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?

Session 1  
(Day 4-Period 3)

**Procedure**

**1. Introduction**

Introduce the objective on Flipchart D-2: Session 1 Objective: Distinguish between scoping and bounding, understand their inter-relationship and their importance in the EIA process.

**2. Lecturette**

There will likely be some confusion as to the definitions of scoping and bounding. Explain that many different disciplines use words in slightly different ways and that we will adopt these definitions for the purposes of an EIA. Have them look up definitions in the Glossary. Ask them if they have any examples of how they put bounds (constraints) on their projects.

Point out that scoping and bounding are essential steps in conducting an EIA study.

**Definition:** Scoping is the process by which the environmental issues, project alternatives, and IECs are identified by the interested parties.

**Definition:** Bounding is the process of determining the spatial and temporal boundaries in which an EIA will be conducted, based on physical, chemical, biological, social, economic, jurisdictional, and administrative factors.

Lead-in question for large group discussion:

- o Do you scope and bound your projects, if so what kinds of criteria do you use
- o What would happen if you made project boundaries too large or too small
- o What would you consider in scoping a project?

**2. Group Discussion Activity**

Discuss the concept of scoping and bounding study areas for EIAs. Explain the differences between the two and how the two interact. Discuss the relationship between peoples participation and scoping.

Questions to be covered:

What outputs from PP can be used in scoping?

How can IECs affect the bounding of the study area?

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the session to the previous module on Peoples Participation. State that one of the important aspects of PP is to help develop information for S&B.





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**Session 4**  
**(Day 4-Period 4)**

<b>Procedure</b>
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**1. Introduction**

Introduce the session objectives Flipchart D-3; Session 2 Objective: Identify important environmental components (IECs) by using the scoping procedures.

**2. Small Group Exercise(09) (SB01)**

Introduce the Small Group Task Flipchart D-4

To develop skill in identifying IECs from secondary source information. The teams will be given one case study to review and identify IECs from.

Follow small group set up procedure.

Questions:

What IECs were identified?

Were there any gaps in the data?

What would make the process stronger?

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Ask what conclusions can they draw from this exercise? What are the implications for them when they return to the workplace.

Refer to their conclusions and things learned and ask what they now might do differently and what they might want to emphasize when they return to their work situations?

## Day 5

### Session 3 (Day 5-Period 1)

<b>Procedure</b>
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#### 1. Introduction

Introduce the Session Objectives: Flipchart D-5: Session 3 Objective: Understand the need to refine IECs in EIA study development.

#### 2. Lecturette

Lecturette explaining the process of refining IECs. This will include a discussion of the procedure and its purpose.

##### Questions

- o Ask again what the definition of IEC is
- o What are some examples
- o How do issues and IECs relate

There may be some confusion on issues versus IECs the important thing for them to remember at this time is that they are related and that all issues do not necessarily become IECs.

#### 3. Group Discussion

Using the IECs identified from the role play the teams will refine them. This means elaborating the generic IECs so that they can be used to design the field study and more closely bound the study area.

#### 4. Generalization (See Trainer Notes at the Module Introduction.)

#### 5. Application (See Trainer Notes at the Module Introduction.)

#### 6. Conclusion

Link the exercises to the objectives and to the next session.

Session 4  
(Day 5-Period 2)



Procedure

1. Introduction

Introduce the Session Objective: Flipchart D-6 Session 4 Objective Define the boundaries of a study area.

2. Lecturette

Lecturette recapping bounding and setting up exercise.

Questions

- o Ask if everyone is clear on scoping and bounding
- o Ask some of the class to define
- o What happens when inappropriate boundaries are used

3. Small Group Exercise(10) (SB02)

Introduce the Small Group Task Flipchart D-7

The purpose of the exercise is to integrate scoping and bounding by having the trainees evaluate a study area boundary.

4. Generalization (See Trainer Notes at the Module Introduction.)

5. Application (See Trainer Notes at the Module Introduction.)

6. Conclusion

Link the exercise to the objectives. Explain that we have now come to the end of the second module and it is time to test the learning by going out into the field.

7. Wrap Up/Journal

Summarize what has been learned during the session and review the session objectives.

As a result of what you learned today what might you do differently once you get back to work?

How difficult will it be to do that?

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What might you do to overcome the difficulty? etc.

Distribute Handout B: Journal. Remind the participants that the journal is an part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out this first journal.

## **MATERIALS**

Handout A: Field Trip Exercise

Handout B: Journal

Flipchart D-1: Module 4 Objectives

Flipchart D-2: Session 1 Objective

FlipChart D-3 Session 2 Objective

Flipchart D-4: Small Group Task

Flipchart D-5: Session 3 Objective

Flipchart D-6: Session 4 Objective

Flipchart D-7: Small Group Exercise

Flipchart D-8: Session 5 Objective



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**Session 1 Field Trip Preparation**  
**(Day 5-Period 3)**

<b>Procedure</b>
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**Introduction**

Ask how many have ever participated on a field team? Or were part of a focus group discussion?

Lead them to understand that although the trip occurred outside the classroom structure, the task was still structured. Ask them what field trips serve as?

Talk about how the site was chosen, what is happening there, what they will see.

Give them the field day instructions. Go over them and explain your expectations. Tell them you will not be there to answer questions, but to help them formulate the questions that need to be asked.

Tell them that on Sunday when you all are back together you will spend time discussing the field visit and what was discovered.

Ask them if they are clear about the task and if they have any questions.  
Go over the logistical arrangements.

**Handout A: Field Trip Exercise**

**Conclusion**

Explain that we will hand them out per diem money which they must sign for.

**SYNTHESIS**  
(Day 5 Period 4)



**Procedure**

**1. Introduction**

Introduce the session objective: Flipchart S-1 Synthesis of material to date and Field Trip Briefing Explain that we will be talking about our field trip for the next time we meet and that then we will talk about what we have done and learned this week.

**2. Lecturette**

**Part A Field Trip Briefing**

Ask how many have ever participated on a field team? Or were part of a focus group discussion? Lead them to understand that although the trip occurred outside the classroom structure, the task was still structured. Ask them what field trips serve as?

Talk about how the site was chosen, what is happening there, what they will see.

Give them the field day instructions. Go over them and explain your expectations. Tell them you will not be there to answer questions, but to help them formulate the questions that need to be asked.

Tell them that on Sunday when you all are back together you will spend time discussing the field visit and what was discovered. Ask them if they are clear about the task and if they have any questions. Go over the logistical arrangements.

**Handout A: Field Trip Exercise**

**Part B Synthesis of week's material**

This session should synthesize the material they have been exposed to. Start by asking if anyone has any questions about what has been covered. Explain that as part of the process we will talk about the things they have learned so far and how we might apply them. The whole part of the session should focus in generalizing and applying what they have learned to date. Start with a question and answer period which will lead to a point where it can clarify ideas, pull things together, and forecast the next week.

**Conclusion**

Pull the objectives of the week together and relate them to next week's activities. Explain that we will hand them out per diem money which they must sign for.

**WEEK 2****(Day 6 Period 1-4)****FIELD DAY****Time: 8-10 hours**

**Objective:** The purpose of the field trip is to acquaint the trainees with what projects' are all about, appreciate the idea of IECs and bounding (study) parameters by having them see a project and realize that it has numerous environmental effects.

**Probable time breakdown:**

1. 30 minutes briefing on activities for the day.
2. 60 minutes travel
3. 15 minutes tea
4. 135 minutes
  - acquire familiarity with project area
  - associate project activities with environmental setting
5. 75 minutes lunch
6. 60 minutes
  - identify IECs
7. 60 minutes return travel

**Handouts:**

**Field Trip Materials**

## DAY 7

### 1. Set the Climate

Set the climate by asking the participant how their weekends went? Ask them to take a look at their journals and recall what general things were learned last week prior to the field trip?

#### Field Trip Debrief (Day 7-Period 1)

Procedure
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### 2. Lecturette

Trainer note: Remember to set up the white board to record participant reactions.

Explain to the group that you would like them to explore what happened on the field trip and what they learned. Use the following questions to focus the group discussions:

- What was our overall purpose?
- How did we meet that purpose?
- What IECs did we identify? List them on the white board.
- Was it easy or hard to identify IECs? Why?
- What were the important (major) issues?
- Was the environment you observed all the same?
- Name the different habitats you observed?
- What other interesting things did you see?
- How does observation apply to the EIA process?
- How can you apply this back at your own office?

### 2. Wrap-up

Link the field trip to the objectives of the first week, and show the transition to module 5.



**MODULE 5 Study Methods**  
(Total Sessions: 19 including GIS (8))

**Total Time 34 hours**

**1. Module Objective:** Flipchart E-1: By the end of the modules participants will be able to develop the plans necessary to perform all field work.

**2. Overview**

This modules provides information on the overall process and its purpose. The sequence is to develop the strategy and the resource personnel, followed by developing a plan using that information to obtain the data needed. The sessions will help the participant to:

- Develop the plans necessary to perform all field work.
- Define a baseline for an environmental impact analysis.
- Measure and qualify impacts.
- Perform trend and impact analysis.
- Explain the importance of being able to correlate interdisciplinary data.
- Distinguish between RRA, PRA and HHS and explain their uses.
- Be able to select the appropriate techniques (within discipline) given knowledge of field conditions and data needs.

**Geographic Information Systems**

- Understand the importance and limitations of remote sensing and (potential) importance of GIS to the EIA process.
- Integrate different types of information (i.e fisheries and agriculture) from several such maps onto a single map.
- Interact with GIS staff in order to develop digital maps that can be used as outputs in an EIA.

**Hydrological Models and Their Use**

- Understand the general purpose of the hydrological models used in Bangladesh.
- Explain the types of model outputs useful for EIA work.



### 3. Questions Useful for Generalization and Application

(Note: Questions such as those below are intended to be used prior to concluding each session.)

#### GENERALIZATION QUESTIONS

1. What did you learn from this (the session) experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it?
4. What are the most important things you have drawn from it?
5. What does it suggest to you in general?
6. What blocks have we identified to doing a good EIA?
7. How can you overcome those blocks?
8. What strategies has FAP 16 used?
9. What strategy would you use?
10. What problems might you find?

#### APPLICATION QUESTIONS

1. How would you apply your knowledge to performing an EIA study?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?

Session 1  
(Day 7-Period 2)

Procedure

**1. Introduction**

Introduce the session objective: Flipchart E-2: Session 1 Objective: To understand the interdisciplinary nature of the EIA project planning process.

**2. Lecturette**

Use a Lecturette to provide information on the overall planning process and its purpose. The main points to be covered are the interdisciplinary nature of the entire study (which requires a multidisciplinary team), the need to establish baseline "environmental" conditions, the need to appropriately staff.

Questions

- o What kind of constraints to completing projects are there in B'desh
- o Do you always get the number and type of staff you need
- o How can you develop the proper staff for a project
- o What is the role of the team leader in this activity

**3. Small Group Exercise(11) (SM01)**

Introduce the Small Group Task: Flipchart E-3: Small Group Task: The task is to assemble an interdisciplinary team.

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion**

Link the small group exercise to the objectives and to the next session.

**Session 2**  
**Day 7-Period 3**

<b>Procedure</b>
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**1. Introduction**

Introduce the session objectives: Flipchart E-4: Session 2: Objectives Develop a study plan strategy based on staffing availability.

**Questions**

- o What kinds of plans are necessary to get a project done
- o How important are plans to completing projects
- o What are the constraints to completing a project (time taka people)

**2. Small Group Exercise(12) (SM02)**

Introduce the Small Group Task: Flipchart E-5: Develop a study plan and strategy based on the available staff.

Trainer Note: The purpose of the exercise is to provide experience in developing a study program based on the available staff and the activities to be accomplished. Discuss wiht them how a strategy to do something may differ from the implementation plan to do it.

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Ask the participants what they learned from this session. Ask how it relates to the field trip they just finished. Link it back to the objectives and forward to sessions 1 & 3.



Session 3  
(Day 7-Period 4)

Procedure

1. Introduction

Introduce the objective for session 3 Flipchart E-6: Session 3 Objective: Develop the plan to obtain data. Explain that plans have different levels and that now we want to focus on how we can actually implement our data gathering activities.

2. Small Group Exercise(13) (SM03)

Introduce the Small Group Task: Flipchart E-6

Using the product of the last session develop the plan to obtain the data. The plan should include details of how you will obtain data on the IECs:

Flood protection  
Agricultural shift  
Drainage congestion  
Endangered species

Include estimates of whether, and if so how often, the team members will need to go into the field. What sorts of data they will need to collect and why that data is being collected. Be as specific as possible.

3. Conclusion

Link the exercise to the session objectives.

4. Day's Wrap Up

Review the day's activities: starting with the field trip. Link the objectives in a learning sequence. Preview what they will be doing tomorrow.



## DAY 8

### Session 4 (Day 8-Period 1)

Procedure
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#### 1. Introduction

Introduce session 4 objective: Flipchart E-7: Identify data resources necessary to begin baseline development.

#### 2. Lecturette

Use a lecturette to focus the importance of the selection of data sources.

##### Questions

- o How do we obtain data
- o What kinds of data are there
- o What kinds of data sources are there
- o How can we use the data we obtain from secondary sources
- o What are some of the problems with secondary data sources

#### 3. Small Group Exercise(14) (SM04)

Introduce the Small Group Task: Flipchart E-8:

Given a list of information resources, develop a targeted list of resources necessary for the individual specialty.

##### Questions:

- Why use one reference as opposed to another
- How easy or difficult was the process
- What could have made the process easier
- What do you think was accomplished in the exercise

#### 4. Generalization (See Trainer Notes at the Module Introduction.)

#### 5. Application (See Trainer Notes at the Module Introduction.)

#### 6. Conclusion

Link to the previous session and to the next session.

Session 5  
(Day 8-Period 2)

**Procedure**

**1. Introduction**

Introduce session 5 objective Flipchart E-9 Session 5 Objective: Distinguish between RRA, PRA and HHS and explain their uses.

**2. Lecturette**

Use a lecturette to discuss the various survey techniques available for the EIA focus on RRA, PRA and HHS, also include mention of onsite data gathering of bio-physical information. The lecturette should focus on these as some of the techniques that are available.

**Questions**

- o Ask who is familiar with RRA etc.
- o Ask them to define
- o What is the purpose of these techniques
- o How can the data be used
- o What are the problems with using these techniques

Give participants Handout A: Techniques For Performing RRA, PRA and HHS

**3. Large Group Discussion**

Tell group they should determine in what situation each of the techniques might be used.

Trainer Note: It might be helpful to put the questions on the whiteboard.

Questions:

- Do the techniques differ in their approach?
- Are there times when one might be more appropriate than another?
- Does the type of data the techniques obtain differ?
- How would you apply the data you obtained?

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion**

Link the discussion to the objective and to session 6.

Session 6  
(Day 8-Period 3)

**1. Introduction**

Introduce session 14 objective Flipchart E-10 Session 6 Objective: Define a baseline for an environmental impact analysis.

Ask the group if they know what an environmental baseline is. Ask them to look in the glossary. Draw out on the board an example of the baseline. Explain that it is the first step in determining what impacts are likely to occur. Explain that the baseline is used to construct the future w/o option and to compare the future with. (It is actually a point of departure.)

**2. Small Group Exercise(15) (SM05)**

Introduce the Small Group Task Flipchart E-11:

Compare and contrast two environmental base line case studies. One study will be complete and one less complete. Try to determine which is which and point out the potential problems the missing data might cause. Divide into groups.

Questions

How did the two baselines differ

Would missing data lead to any problems later in the EIA process

Session 7 Continue Session 6  
(Day 8-Period 4)

**1. Generalization (See Trainer Notes at the Module Introduction.)**

**2. Application (See Trainer Notes at the Module Introduction.)**

**3. Conclusion**

Review and link the objectives of the last three sessions. Explain that we are going to the next two days working on GIS as a tool in the EIA. Explain that we will be working at ISPAN hand out maps and determine a need for transport.



## **DAY 9**

Session 8: GIS  
(Day 9-Period 1)  
Session 9: GIS  
(Day 9-Period 2)  
Session 10: GIS  
(Day 9-Period 3)  
Session 11: GIS  
(Day 9-Period 4)

## **DAY 10**

Session 12: GIS  
(Day 10-Period 1)  
Session 13: GIS  
(Day 10-Period 2)  
Session 14: GIS  
(Day 10-Period 3)  
Session 15: GIS  
(Day 10-Period 4)

WEEK 3

DAY 11

FIELD DAY.

Time: 8-10 hours

(Day 11-Period 1-4)

**Objective:** The purpose of the field trip is to give the participants practical experience in using maps to orient and locate themselves, identify features from maps and images, and develop an appreciation for the difficulties inherent in working in the field.

Probable time breakdown:

1. 30 minutes briefing on activities for the day.
2. 60 minutes travel
3. 15 minutes tea
4. 135 minutes
  - acquire familiarity with project area
  - associate project activities with environmental setting
5. 75 minutes lunch
6. 60 minutes return travel



## DAY 12

### 1. Set the Climate

Set the climate by asking the participant what learned yesterday? Ask them to take a look at their journals and recall what general things were learned last week prior to the field trip? How do they connect to what happened yesterday. Explain that this period we are going to have a presentation by staff from FAP 16 about some of their experiences while doing EIA.

### Session 16

(Day 12-Period 1)

Procedure
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#### 1. Introduction

Introduce the Session Objective: Understanding EIA field activities in a Bangladeshi context. Note brief the FAP on what you are looking for. The stories should be brief- about 5 minutes in length and should provide some illumination as to how the actual field work gets done.

#### 2. Group Discussion

The discussion should take off from the FAP's discussions.

#### 3. Generalization (See Trainer Notes at the Module Introduction.)

#### 4. Application (See Trainer Notes at the Module Introduction.)

#### 5. Conclusion

Ask the class if they have any more questions for the FAP. If not thank all of them for their participation and remark that they have a large amount of valuable experience. Link the discussions to the SM module and forecast the next few sessions.

Session 17  
(Day 12-Period 2)

**Procedure**

**1. Introduction**

Introduce session 17 objective Flipchart E-17 Session 17 Objective: Develop an understanding of how models (such as Mike 11) can be used in EIA studies.

**2. Lecture**

Lecture by Director of SWMC.



**Procedure**

**1. Introduction**

Introduce the Session 18 Objective: Flipchart E-13: Understand the Use of Models and GIS in the EIA.

**2. Group Discussion**

Start by asking the participants what they learned in the SWMC sessions? Ask them what questions they have now that they had a chance to think about it?

Lead them through how models can be used and what some of their potential pitfalls are. Discuss how models have different levels of accuracy depending on how they are calibrated, and how they can not function outside the area for which they were calibrated. Briefly discuss capabilities of MIKE 11. Introduce the GIS aspect by asking how they think that GIS can be used. Are there some things that GIS can do better? If so what are these things? Ask them how they would use a GIS capability in a study they were managing. This should lead to a group discussion on what GIS can and can not do.

**Questions**

- o How could we use models or GIS in an EIA study
- o What are their major pitfalls
- o Who do we need to work with when obtaining data to used in a model

Focus the discussion on how we can best make use of tools like GIS and models. Probe their understanding of the potential uses of GIS with regard to things not initially touched on (eg population density displays). Ask them whether they think the techniques can be used instead of gathering data (in some cases it probably can, but very carefully). Ask them what they would be willing to give up in order to use GIS (since it is expensive it will be necessary to trade off somewhere else)

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the information about modelling to the need to use it cautiously. Discuss how models can be used with GIS to do some very powerful things, but warn them to always accept the model information carefully.



Session 19  
(Day 12-Period 4)

**Procedure**

**Introduction Objective:** Flipchart E-19 To understand the conceptual relationship between trend analysis and impact assessment.

**Introduce Session Objectives:** Flipchart E-19:

1. Explain the importance of trend analysis as a study method.
2. Explain the importance of being able to correlate interdisciplinary data.

**2. Lecturette**

Introduce trend analysis including examples and importance to the overall EIA process. The trainee should learn that the baseline study is used to determine the initial datum (i.e., at the starting point) of the expected respective resource trend. The trend is the future without project condition. The trend is determined from secondary data, related studies and analyses, professional judgement, and source data from Peoples' Participation. Estimation of trends are subject to bias and the vagaries of forecasting, e.g., non-linearity, seasonality, perturbations, cyclical behavior, amplitude, etc. In Bangladesh, the period of record for various resource trends may be limited and thus professional judgement must be used. Further, the trend of one resource (or IEC) may be interlinked to another trend, e.g., the inverse trends of population and land availability. Still other trends may be independent or marginally, or temporarily, dependent, e.g., crop production and land availability.

**Introductory questions:**

- What are some of the trends you may experience in your personal lives?

**Definition:**

- A trend is the quantitative or qualitative status of a resource or condition over time.

**Lead-in question for general discussion:**

- In what way do trends apply to EIA baseline studies?

(9)

Point out that baseline studies establish the initial data points for various IECs. Each IEC may be expected to have some sort of a quantitative or qualitative trend.

- Give examples of interlinked IEC trends?
- How do we estimate or determine trends?

**Definition:** The future-without-project condition is the IEC trend without project implementation and is measured against the baseline.

### 3. Group Discussion

Where have we been? Where are we going?

Lead discussion towards:

- what kinds of trends are possible in various env. components?
- how can they be applied to assessing impact?

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

### 6. Conclusion

Link this discussion to the objective.

Wrap up and conclusion of lecturette:

Reiterate and summarize definition of trend and the future-without-project.

Generalization question:

- How does trend analyses apply to impact assessment?

Application question:

- How does this apply to you as an EIA practitioner?

#### 4. Wrap Up/Journal

Summarize what has been learned during the session and link this short module to the preceding one and to the next one.

Distribute Handout B: Journal. Give them 10 minutes to fill out.

#### MATERIALS

Handout A: Techniques

Handout B: Journal

Flipchart E-1: Module 5 Objectives

Flipchart E-2: Session 1 Objective

FlipChart E-3: Small Group Task

Flipchart E-4: Session 2 Objective

Flipchart E-5: Small Group Task

Flipchart E-6: Session 3 Objective

Flipchart E-7: Small Group Task

Flipchart E-8: Session 4 Objective

Flipchart E-9: Small Group Task

Flipchart E-10: Session 5 Objective

Flipchart E-11: Session 6 Objective

Flipchart E-12: Session 7 Objective (Note: intervening  
Objectives sessions are devoted to

Flipchart E-14: Session 19 Objectives GIS and field trip.)

Flipchart E-13: Session 18



## DAY 13

### MODULE 6: HAZARD AND RISK ASSESSMENT (Total: 4 periods)

Total Time: 6 hours

#### Set the Climate

Set the climate by asking the participant what questions they have about the visit from SWMC? Ask them what their questions are about hazards and risks at this point?

#### Module 6 Objective:

To be able to identify hazards and their associated risks from secondary data sources and to be able to prioritize the various risks. Flipchart F-1: Module 6 Objective.

- Identify hazards from information provided.
- Determine potential types of risks given a knowledge of the hazards.
- Determine data needs based on use of a dummy table.
- Interview local people in order to gain knowledge about hazards.

#### Overview:

It is necessary to be able to identify hazards and risks in order to assess, evaluate and mitigate impacts. The trainee should learn how to identify the various hazards associated with a project so that risks can be determined and possibly quantified.

#### 3. Questions Useful for Generalization and Application

(Note: Questions based on those below are intended to be used prior to concluding each session.)

#### GENERALIZATION QUESTIONS

1. What did you learn about hazard and risk (HR) from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it?
4. What are the most important things you have drawn from it?
5. What does it suggest to you in general?

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6. What blocks have we identified to doing a good EIA?
  7. How can you overcome that block?
  8. What strategy has FAP 16 used?
  9. What strategy would you use?
  10. What problems might you find?

#### APPLICATION QUESTIONS

1. How would you apply that to \_\_\_\_\_?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?



Session 1  
(Day 13-Period 1)

Procedure
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### 1. Introduction

Introduce the session objective Flipchart F-2 Session Objective: Identify hazards from information provided.

### 2. Lecturette

The discussion should emphasize hazards (i.e. geophysical as flood, flash flood, earthquake, storm surge, salinity accretion, cyclones, erosion, siltation, and water-logging; biological as disease and malnutrition; and man-made as industrial pollution, pesticide and herbicide pollution).

The trainee should be informed that hazards will be considered here as part of the study methods involving secondary data sources and data acquisition from the Peoples' Participation study. Further, the information on hazards associated with the EIA study area will be used in the trend analysis, impact assessment, and ultimately in the development of a disaster plan as part of the EMP. Discuss hazard and risk in the context of the environment.

Start by asking the participants if they can identify hazards in the home?

Ask them if they can define hazard?

Tell them that for our purposes, hazard is defined as below.

Definition:

- Hazard is a physical or event or condition that is harmful to humans or an environmental resource.

This definition should be discussed in terms of the trainees understanding of the EIA study.

Follow-on questions:

- What are some of the hazards that may affect Bangladesh?
- What are the similarities and differences of these hazards?

Reiterate the definition of hazard and summarize discussion.

Lead-in question to exercise:

- Where would one obtain data on hazards that may be associated with FAP projects?

### 3. Small Group Exercise (#16) (HR1)

Introduce Small Group Task: Flipchart F-3.

Purpose of exercise is to identify hazards from secondary source materials. The teams will review environmental baseline case study material and BWDB data, and district gazetteer data, and ministry of agriculture loss data in order to determine the potential hazards for a hypothetical area.

4. Generalization (See Trainer Notes at the Module Introduction.)

5. Application (See Trainer Notes at the Module Introduction.)

6. Conclusion

Link the exercise to objective. Link the session to the next session.



Session 2  
(Day 13-Period 2)

**Procedure**

**1. Introduction**

Introduce Session 2 Objective: Flipchart F-4 Determine potential types of risks given a knowledge of the hazards.

Explain that hazards are the physical events which occur while risks are the potential consequences which stem from hazards. Now we are going to identify the risks which are associated with the hazards we identified earlier. Ask them to define risk.

Definition: Risk - the potential consequences of loss or damage to an environmental resource, including humans and their economic condition.

**2. Small Group Exercise (17) (HR2)**

Introduce the Small Group Task: Flipchart: F-5: To practice identifying risks associated with hazards.

Using the hazards identified above determine the potential risk which they might be associated.

Questions

What use is this data

How can you define risk and hazard - are they the same

What would the next step in this process be

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the exercise to the objectives, and then to the next session.

Session 3  
(Day 13 Period 3)

**Procedure**

**1. Introduction**

Introduce the Session 3 Objective: F-6 To understand the conceptual relationship between risks and resource components.

Now that we see that risks are a consequence of hazards we need to see how risk can be allocated across different resources. The risk from a hazard is not necessarily the same for all resources. The trainee should have already learned that risks occur due to hazards and that the baseline condition of specific resources (IEC's) includes quantification and/or qualification of risks. The discussion should emphasize risks identified with hazards (i.e. geophysical as flood, flash flood, earthquake, storm surge, salinity accretion, cyclones, erosion, siltation, and water-logging; biological as disease and malnutrition; and man-made as industrial pollution, pesticide and herbicide pollution) and their affect on individual resources.

Introductory question for Large Group Exercise:

- Are there risks associated with more than one hazard and more than one environmental component?

**2. Large Group Exercise (Exercise 18) (HR3)**

Introduce the Large Group Exercise: Flipchart F-7.

Give participants Handout A: To Practice Allocating Risk to Different Resource Components.

Purpose of the exercise is to allocate risks across the various resource components. Develop matrix on flip chart and handout before hand.

Questions

Are there any resources which have common hazards  
Do they have the same risk

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the exercise to the lecture and to be objectives. Link the session to the next session.



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Session 4  
(Day 13 Period 4)

Procedure
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**1. Introduction**

Introduce Session 4 Objective: Flipchart F-8: To be able to discuss hazard and risk assessment and its application to the EIA.

**2. Group Discussion**

Focus the discussion on how we can use risks as a way of identifying potential impacts. Explain that this is the next step in the process, once we identify the risks we need to determine whether they will have a large overall impact or a small one. Ask them if all hazards and risks are the same. Since they are not, you can lead them to discussing what makes them different and how we can measure and evaluate those differences.

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

What did we learn about hazard and risk? Link it back to the objective.

**6. Wrap Up/Journal**

Summarize what has been learned during the session and review the session objectives.

Distribute Handout A: Journal. Remind the participants that the journal is an part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out.

**MATERIALS**

Flipchart F-1 Module 6 Objectives  
Flipchart F-2 Session 1 Objectives  
Flipchart F-3 Small Group Task  
Flipchart F-4 Session 2 Objectives



Flipchart F-5 Small Group Task  
Flipchart F-6 Session 3 Objectives  
Flipchart F-7 Large Group Task

Handout A:



Day 14

Set the Climate

Set the climate by asking the participant what questions they still have about hazards and risks at this point?

**MODULE 7: IMPACT ASSESSMENT AND EVALUATION**

**Module Objective:** Flipchart H-1: To be able to identify, assess and evaluate environmental impacts.

- Assign appropriate weights to individual impacts.
- Determine what impacts are significant.
- Explain how impact evaluation effects other aspects of the EIA.

**Overview:** Impacts are identified (or predicted) as part of the EIA process. Once identified they must be assessed and evaluated in order to determine their effect. This is the main reason that we perform EIAs.

**3. Questions Useful for Generalization and Application**

(Note: Questions based on those below are intended to be used prior to concluding each session.)

**GENERALIZATION QUESTIONS**

1. What did you learn about impact assessment (IA) from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it?
4. What are the most important things you have drawn from it?
5. What does it suggest to you in general?
6. What blocks have we identified to doing a good EIA?
7. How can you overcome that block?
8. What strategy was used by FAP 16?

9. What strategy would you use?
10. What problems might you find?

#### APPLICATION QUESTIONS

1. How would you apply that to \_\_\_\_\_?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?

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**Session 1**  
**(Day 14-Period 1)**

**Procedure**

**1. Introduction**

Introduce the Session Objective: Flipchart H-2 Identify and assess the individual impacts.

**2. Small Group Exercise (19) (IA01)**

Identify and quantify (or qualify) the various impacts from several project options.

Introduce the Small Group Task: Flipchart H-3.

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the exercise to the session objectives. Link the objective to the next session.

Session 2  
(Day 14-Period 2)

**Procedure**

**1. Introduction**

Introduce Session Objective: Flipchart H-4 Assign appropriate weights to individual impacts.

**2. Lecturette**

9:15

Discuss overall framework for scoring criteria based on the EIA Guidelines. Currently B'desh does not have national weighting guidelines. The lecturette can discuss how weighting is done (as an importance factor) or some other method. It is probably not appropriate to set everything at equal weight.

Questions:

How can we determine scores?

Are all impacts of equal weight?

How can we adjust the weight of impacts?

**3. Group Discussion**

The discussion should focus on the pros and cons of having a national weighting system. There will probably be some strong feelings one way or the other.

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

**6. Conclusion**

Link to previous session and to the next session.



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Session 3  
(Day 14 Period 3)

Procedure

1. Introduction

Introduce Session 3 Objectives: Flipchart H-5:

1. Assign appropriate weights to individual impacts.
2. Determine what impacts are significant.

The trainee should learn that environmental impacts require weighting as a means of evaluating their significance as individual modifications of the environment and subsequently collective changes in the environment. Further, the trainee should be able to determine the procedural sequence and methodology of qualifying impacts and then weighting them.

Introductory question:

- Once we have qualified impacts as to long-term vs. short-term, beneficial vs. adverse, reversible vs. irreversible, and low magnitude vs. high magnitude, how can we address their relative importance both for decision-making and for mitigation management?

2.0 Lecturette

Definition:

- Weighting is a process of assigning significance value to the impact based on the relative importance of the IEC in the context of all environmental impacts identified in the EIA study.

Introductory question for small group task:

- What are the advantages and disadvantages of a 5 point versus 10 point weighting scale for scoring impacts?

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### 3. Small Group Exercise (20) (IA02)

Introduce the Small Group Task Flipchart H-6

Develop narrative descriptions of impact types. Use matrix based on impacts and resources.

For the discussion:

- Determine what impacts are significant.
- Develop recommendations for decision makers

### 4. Generalization (See Trainer Notes at the Module Introduction.)

### 5. Application (See Trainer Notes at the Module Introduction.)

### 6. Conclusion

Link the discussion to the earlier discussions about impact assessment and to the subsequent discussion about the EMP.



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**Session 4**  
**(Day 14-Period 4)**

**Procedure**

**1. Introduction**

Introduce Session 4 Objectives: Flipchart H-7

1. Develop a capability to assess alternatives
2. Develop recommendations for decision makers

**2. Small Group Exercise (21) (IA03)**

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

What have we focused on? How does it link to the objectives? What is the link to the next session.

## Day 15

### Set the Climate

Set the climate by asking the participant what questions they have about impact analysis and its implications. How does it tie in with hazards and risks?

### Session 5 (Day 15 Period 1)

#### Procedure

#### 1. Introduction

Introduce Session 5 Objectives; Flipchart H-8:

- Integrate the three major EIA activities discussed to date.
- Explain how impact evaluation effects other aspects of the EIA.

#### 2. Group Discussion

Discuss what the process has been to date. Integrate all three in terms of the EIA process and the project cycle.

Where we are, where we've been, where we're going.

- Recognize the multidisciplinary nature of the impact assessment and evaluation process
- Recognize the importance of cumulative impact
- What is the purpose of doing this exercise, how will it be used

#### Questions

Why are impacts so important?

How can we use impacts in our study report?

How can they feed back to the project cycle?

3. Generalization (See Trainer Notes at the Module Introduction.)

4. Application (See Trainer Notes at the Module Introduction.)

5. Conclusion

Link to the objectives.

6. Wrap Up/Journal

Summarize what has been learned during the session and review the session objectives.

As a result of what you learned today what might you do differently once you get back to work?

How difficult will it be to do that?

What might you do to overcome the difficulty? etc.

Distribute Handout C: Journal. Remind the participants that the journal is an part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out.

Handout A: Techniques

Handout B: Field Trip Exercise

Handout C: Journal

Flipchart H-1: Module 8 Objectives

Flipchart H-2: Session 1 Objective

FlipChart H-3: Small Group Task

Flipchart H-4: Session 2 Objective

Flipchart H-5: Session 3 Objectives

Flipchart H-6: Small Group Task

Flipchart H-7: Session 4 Objectives

Flipchart H-8: Session 5 Objective



## MODULE 8: COMMUNICATING AND REPORTING

**Module Objective:** Flipchart I-1 To understand the importance of maintaining good spoken and written communication throughout the EIA.

- Document EIA activities in reports.
- Communicate amongst the team and with project officials and local people.
- Develop and maintain EIA files.

### Overview

The participants need to understand that in order for a report to be effective it must be communicated. The Guidelines provide extensive guidance on what the report should look like, but not much information on how the information should be communicated. Throughout the EIA study it will be necessary to hold meetings and to manage information. That is what we will focus on in this module.

### 3. Questions Useful for Generalization and Application

(Note: Questions based on those below are intended to be used prior to concluding each session.)

#### GENERALIZATION QUESTIONS

1. What did you learn from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it?
4. What are the most important things you have drawn from it?
5. What does it suggest to you in general?
6. What blocks have we identified to doing a good EIA?
7. How can you overcome that block?
8. What strategy did FAP 16 use?
9. What strategy would you use?
10. What problems might you find?

### APPLICATION QUESTIONS

1. How would you apply that to \_\_\_\_\_?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?



Session 1  
(Day 15 Period 2)

Procedure

1. Introduction

Introduce Session 1 Objective: Flipchart I-2: To understand the importance of developing and maintaining EIA files.

At present there is no Bangladeshi law requiring that EIA studies be done for FCD/I projects; however the status of effective EIA law is pending and thus the EIA and appended EMP, Peoples' Participation report, and other documentation may one day be binding to law. As such, the EIA team leader and EIA team members need to manage all of the information, proceedings, and analyses developed in the design, study, and decision-making of the EIA. Data management includes development of a file system, computer file system (if used in the study), and hard copy of all pertinent outputs. By the end of the session, the trainee should know the scope of a project data and information system and how to how to organize the appurtenant filing.

Introductory question for lead-in to lecturette:

- In your work experience, what ways do you communicate, formally and informally?
- Which of these types of communication do you regard as formal and which do you regard as informal?

2. Lecturette

Introductory question:

- Which of the types of information that you have mentioned are necessary to maintain a written record of an EIA study?

Refer the trainees to the EIA Guidelines, Section 4.8.6 Reporting and Accountability and 4.10 EIA Reporting (Step 10).

Follow-on question:

- What types of information should be filed?

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- What is the purpose of maintaining a managed file?

Lead-in question for small group task:

- Assuming that you are the EIA team leader at your place of work, how would you manage the EIA documentation?

### **3. Small Group Exercise (22) (CR01)**

Introduce the Small Group Task Flipchart I-3

Develop a complete list of potential material that can be used in an EIA, and then develop a filing system to manage the information.

Use Small Group Procedure

**4. Generalization (See Trainer Notes at the Module Introduction.)**

**5. Application (See Trainer Notes at the Module Introduction.)**

### **6. Conclusion**

Indicate that the teams have all developed a number of different methods of filing their materials. The important thing is that they understand that if they do not file their material in a coherent manner, then it will essentially be lost to them.

Session 2  
(Day 15-Period 3)

Procedure

1. Introduction

Introduce Session 2 Objective Flipchart I-4: Communicate amongst the team and with project officials and local people.

2. Lecturette

Discuss the importance of proper communication within the team and between the team and project staff or local people. Ask how easy is it to maintain proper communication. What are the major types of communication (written and verbal). We are focussing on verbal because the Guidance gives good explanation of what is needed in the written. Ask who tends to call meetings here. How often do they think meetings need to be held? Should all meetings be of the same type?

3. Small Group Exercise (23) (CR02)

Introduce the Small Group Task: Flipchart I-5

Prepare a complete list of all the potential meetings which will be held in the course of an EIA project. Indicate the frequency of the meetings and the participation linkages.

(Hint - project initiation is the first meeting)

4. Generalization (See Trainer Notes at the Module Introduction.)

5. Application (See Trainer Notes at the Module Introduction.)

6. Conclusion

Conclude the session by linking it to the first one and explaining that without proper communication and reporting, there is very little chance the EIA study report will be approved.



## 7. Wrap Up/Journal

Summarize what has been learned during the session and review the session objectives.

- o As a result of what you learned today what might you do differently once you get back to work?
- o How difficult will it be to do that?
- o What might you do to overcome the difficulty? etc.

Distribute Handout A: Journal. Remind the participants that the journal is an part of the back-at-work planning at the end of the workshop. Give them 10 minutes to fill out.

## MATERIALS

Handout A: Journal

Flipchart I-1: Module objectives  
Flipchart I-2: Session 1 Objective  
Flipchart I-3: Small Group Task  
Flipchart I-4: Session 2 Objective

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**Synthesis for Week  
(Day 15-Period 4)**

<b>Procedure</b>
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**1. Introduction**

Introduce the session objective: Flipchart S-2 Field Trip Brief and synthesis of material to date.

**2. Synthesis**

Trainer Note: this session should synthesize the material they have been exposed to.

Start with a question and answer period which will lead the lecturette to a point where it can clarify ideas, pull things together, and forecast the next week.

Questions

What did we learn this week

How can we apply it to the EIA process

How can we use the EIA process to strengthen the project cycle?

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

## WEEK 4

## DAY 16

## Set the Climate

Ask them how their weekend was. Ask them to take a look at their journals and recall what general things were learned last week. Ask if there are any questions.

## MODULE 8 ENVIRONMENTAL MANAGEMENT PLAN

Total Time: 4.5 hours

**Module Objective:** Flipchart J-1: To understand the relationship between the EIA report and the Environmental Management Plan.

- Use the data from the EIA report to develop an EMP.

**Overview:** The EMP presents the "solutions" to the potential "problems" identified in the body of the EIA report.

**3. Questions Useful for Generalization and Application**

(Note: Questions based on those below are intended to be used prior to concluding each session.)

GENERALIZATION QUESTIONS

1. What did you learn from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it?
4. What are the most important things you have drawn from it?
5. What does it suggest to you in general?
6. What blocks have we identified to doing a good EIA?
7. How can you overcome that block?
8. What strategy did FAP 16 use?
9. What strategy would you use?
10. What problems might you find?



### APPLICATION QUESTIONS

1. How would you apply that to \_\_\_\_\_?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?

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Session 1  
(Day 16-Period 1)

Procedure
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1. Introduction

Introduce Session 1 Objective: Flipchart J-2; Isolate the components of an EMP and see how they relate to the EIA.

2. Lecturette

Discussion on the various components of the EMP and its significance to the EIA. Emphasize how nothing new should be discussed in the EMP. Any problems brought up there should have been discussed earlier in the report. The trainee should learn that the EMP includes four component plans and contingent sections that address plan design and execution. The mitigation plan addresses measures that reduce negative impact and/or enhance beneficial impacts. The monitoring plan tests predictions, verifies, and possibly detects unforeseen impacts. The compensation plan addresses means by which residual impact to persons and property may be compensated. The disaster (contingency) plan addresses public safety and avoidance of undue risks. Other sections include Peoples' Participation, Institutional Arrangements, and Budget (plan scheduling, implementation priorities, and cost estimates).

Introductory questions:

- What are the main components of the EMP?

Refer the trainees to the EIA Guidelines, Section 4.8 Environmental Management Planning (Step 8). As each of the plans and support documentation is elaborated by the trainees, place results on the whiteboard.

- What are the objectives of each of these plans?

Lead-in question for large group discussion:

- How do the EMP components relate to the EIA?

Pass out hand-out on Tangail EMP (Chapt. 8). Then discuss and put main points of discussion on whiteboard.



3. Large Group Exercise

Read Handout A: Chapter 8 Tangail Report (EMP) identifying the various pieces of the EMP from the Tangail case study. Ask them what they thought of the chapter. Ask if there are other ways to present the information.

4. Generalization (See Trainer Notes at the Module Introduction.)

5. Application (See Trainer Notes at the Module Introduction.)

6. Conclusion

Link the exercise to the objective and to the next session.

Session 2  
(Day 16-Period 2)

**Procedure**

**1. Introduction**

Introduce the Session 2 Objective: Flipchart J-3: Evaluate impacts in order to develop monitoring and mitigation activities.

**2. Small Group Exercise (24) (EMP01)**

Introduce the Small Group Task: Flipchart J-4:

Given the list of impacts on the board what sorts of mitigation and monitoring activities would be appropriate?

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Session 3  
(Day 16-Period 3)

**Procedure**

**1. Introduction**

Introduce session 3 objectives Flipchart J-5: Develop and understanding of how the EMP can be used as a planning tool.

**2. Group Discussion**

How is the EMP used?

Questions

- Who gets to see the EMP
- Who gets to comment on the EMP
- How will the EMP effect overall planning
- Who executes the EMP

**3. Generalization (See Trainer Notes at the Module Introduction.)**

**4. Application (See Trainer Notes at the Module Introduction.)**

**5. Conclusion**

Link the discussion to the up-and-coming field trip to the extent possible.

**4. Wrap Up/Journal**

Summarize what has been learned during the session and review the session objectives.

As a result of what you learned today what might you do differently once you get back to work?

How difficult will it be to do that?

What might you do to overcome the difficulty? etc.

Distribute Handout B: Journal. Remind the participants that the journal is an part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out.

## MATERIALS

Handout A: Techniques

Handout B: Journal

Flipchart J-1: Module 10 Objectives

Flipchart J-2: Session 1 Objective

FlipChart J-3: Session 2 Objective

Flipchart J-4: Small Group Task

Flipchart J-5: Session 3 Objective

Session FT1  
(Day 16 Period 4)

**Objective:** The purpose of the field trip is to synthesize the information presented and the skills acquired to date.

<b>Procedure</b>
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**Field Trip Preparation**

Ask what they liked about the last field team? Remind them that although the trip occurred outside the classroom structure, the task was still structured. Ask them what purpose field trips serve?

Give them the field day instructions.

Ask them if they are clear about the task and if they have any questions.

Talk about how the site was chosen, what is happening there, what they will see.

Go over the logistical arrangements.

Explain that we will hand them out per diem money which they must sign for.

Handout A: Field Trip Exercise



Day 17  
FIELD DAY

Time: 8-10 hours

### FIELD DAY OR EXERCISE

Field Day:

Period 1 Field Trip

Period 2 Field Trip

Period 3 Field Trip Debrief

OR

### Small Group Exercise

Objective: to design an EIA cell for the team's "organization".

The teams will have five hours to decide:

- what kind of staff is needed
- what kinds of data must be collected
- what data collection and analytical procedures must be followed
- how will data be weighted (what are the conventions for weighting)

The teams will have the entire day to prepare a 15 minute presentation discussing the items above. The purpose of the presentation is to convince the teams "management" that the activity is a worthwhile one. The teams are free to enhance or minimize any area of the process as they see fit, however they must provide a rationale for the approach.

Suggested timing for the exercise:

- Staffing - 30 minutes
- Data to be collected - 120 minutes
- Analytical procedures and weighting - 150 minutes
- Team presentations - 45 minutes
- Summary - 15 minutes

## Debriefing:

Use the following questions to focus the group discussions:

- What was our overall purpose?
- How did we meet that purpose?
- What impacts did we identify? List them on the white board.
- Was it easy or hard to identify impacts? Why?
- How do you know you are seeing an impact?
- What were the important (major) impacts?
- What impacts were localized?
- What other interesting things did you see?
- How can you apply this back at your own office?

## Wrap-up

Link the field trip to the objectives.

## DAY 18

### Set the Climate

Ask them if they enjoyed the field trip. remind them that we are coming to the end of the program and that we have only a couple of days left. Forecast the next three days explaining what is currently known about who will come etc.

## MODULE 10 EIA REVIEW

Total Time: 12 hours

**Module Objective:** Flipchart K-1 To understand the mechanics of an EIA review.

- Understand that the EIA review is part of the planning process.
- Determine whether an EIA has been adequately performed.

### Legal & Institutional Aspects of EIA

- Understand the various laws regulating or potentially affecting practice of the EIA in Bangladesh.
- Understand the probable institutional mechanisms by which the EIA will be managed in Bangladesh.

**Overview:** Once an EIA is written it is necessary to review it and determine its adequacy. This will be done at several different levels including the EIA study team leader, the project officer, the project proponent, and the decision maker. It is important to understand the various decisions which go into putting the report together, and seeing that it is written for multiple audiences.

### 3. TRAINER NOTES: Questions Useful for Generalization and Application

(Note: Questions based on those below are intended to be used prior to concluding each session.)

#### GENERALIZATION QUESTIONS

1. What did you learn from this experience?
2. What more general or larger meaning does it have for you?
3. What conclusions might we draw from it?
4. What are the most important things you have drawn from it?

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5. What does it suggest to you in general?
  6. What blocks have we identified to doing a good EIA?
  7. How can you overcome that block?
  8. What strategy did (X) use?
  9. What strategy would you use?
  10. What problems might you find?

#### APPLICATION QUESTIONS

1. How would you apply that to \_\_\_\_\_?
2. What would hinder the application of this concept?
3. What would help the application of this concept?
4. What modifications would make it work for you?
5. What would you like to do with this information in your work site?
6. What are the options open to you?



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Session 1  
(Day 18-Period 1)

Procedure

**1. Introduction**

Introduce the session 1 Objective: Flipchart K-1: Understand that the EIA review is part of the planning process.

**2. Lecturette**

Discuss the EIA review procedures as outlined in the EIA guidelines.

After the small group discussion ends, hand out and discuss the final exercise with the group. It is important not to let them think that they can not complete the exercise but emphasize that they will need to be very careful with their time. If there is any time left over, hand out the BB Case Study.

**3. Small Group Discussion**

Introduce the Small Group Task: Flipchart K-2: Perform an EIA review.

The major areas for review are:

- o Is the data adequate and consistent throughout the report? (Chapters 1,3, & 4)
- o Are conclusions supported by the data and its analysis (Chapters 6-8)
- o Are all the impacts identified? (Chapter 4)
- o Is peoples participation adequate? (Chapter 6)
- o Is the EMP reasonable? (Chapter 7)
- o Why would you accept or reject the report?

In all cases, you must provide examples of why you believe the data or information is either sufficient or insufficient.

Below is a schedule we suggest you follow in order to complete the exercise.

- o Session 3- Form teams, choose group leader and recorder, decide who will review which sections, begin reviewing material listed above.
- o Session 4- Finish reviewing material listed above, begin reviewing individual materials.



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- o Session 5- Finish review of all materials.
  - o Session 6- Group discussion, prepare flip charts.
  - o Session 7- Begin presentations. Note: there will be a 10 minute time limit for each group.

#### 4. Group Task

Begin Reading EIA Document

**Session 2**  
(Day 18-Period 2)

<b>Procedure</b>
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##### 1. Introduction

Introduce the session 2 Objective: Flipchart K-2: Understand that the administrative and legal requirements of the EIA.

##### 2. Lecture

Lecture by the Deputy Director of DOE.

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**Session 3 - 4**  
**(Day 18-Period 3 & 4)**

<b>Procedure</b>
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**1. Introduction**

Introduce the session objective: Flipchart K-3; Determine whether an EIA has been adequately performed.

**2. Small Group Exercise (25) (EIAREV01)**

Introduce the Small Group Task: See Session 1 for instructions.

Purpose of the exercise is to perform an EIA review.

First stage was to review (read) the EIA within the team.

## DAY 19

### Set the Climate

Set the climate by asking the participant what questions they have about the task?

### Session 5

(Day 19-Period 1-3)

#### Procedure

#### 1. Introduction

Introduce the session 8 objective: Flipchart K-1 ;Determine whether an EIA has been adequately performed.

#### 2. Small Group Exercise (con't)

Introduce the Small Group Task: Flipchart K-2

The team will review the EIA report and determine its adequacy using the EIA Guidelines. The major areas for review are:

- Is the data adequate and consistent throughout the report
- Are the conclusions supported by the data and its analysis
- Are all the impacts identified
- Is peoples participation adequate
- Is the EMP reasonable
- Would you accept or reject the report

Session 8  
(Day 19-Period 4)

Procedure
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**1. Introduction**

Introduce the session 8 objective: Flipchart K-3: Determine whether an EIA has been adequately performed.

**2. Small Group Presentation** of the groups' findings (following the EIA Guidelines) as to the report.

1. 30 minutes presentations
2. 60 minutes discussion

**3. Generalization** (See Trainer Notes at the Module Introduction.)

**4. Application** (See Trainer Notes at the Module Introduction.)

**5. Wrap-up**

As a result of what you learned today what might you do differently once you get back to work?

How difficult will it be to do that?

What might you do to overcome the difficulty? etc.

**6. Journal**

Distribute Handout A: Journal. Remind the participants that the journal is an part of the back-at-work planning at the end of the workshop. At the end of each major session, they will record what they have learned so as to not forget it. They will also use the journal to write down some ways of applying what has been learned in the workshop. Give them 10 minutes to fill out.

## 7. Post Test.

Hand out the post test and explain to them that they should take twenty minutes to complete. Tell them it is the same test as they took on the first day. Also tell them that we would like to make copies of the tests in order to see how well they have done. Hand out the pre-test as they begin to finish and ask them to compare the two. Tell them that there are no grades and that the only person they need to be concerned with is themselves. Explain to them that tomorrow we will be giving them an evaluation to fill out in order to make certain that we can keep the course on track for the future.



**DAY 20**  
**Session 1-2**  
**(Day 20-Period 1-2)**

**Procedure**

**1. Introduction**

Overview

**Session 3**  
**(Day 20-Period 3)**

**Procedure**

Evaluation

**Session 4**  
**(Day 20-Period 4)**

**Procedure**

Closing Ceremonies

