

6.6 Concept of Environmental Assessment

- BES (Brief Environmental Study)
- IEE (Initial Environmental Examination)
- EIA (Environmental Impact Assessment)
- Government's act/rules/regulations/procedures for BES/IEE/EIA
- Types of disaster and its mitigation



History of Environmental Study in Nepal

- EIA started from USA in 1970. (National environment policy act)
- Need for EIA recognized in 6th five year plan in Nepal
- Environmental Assessment Guidelines formed in 1993
- First EPA (Environment Protection Act) – 1996
- First Environment Protection Rules – 1997
- *Current Environment Protection Act and Rules* → Date of Authentication
- *Environment Protection Act (EPA) – 2019 (2076)* 2076.06.24 (11th October, 2019)
- *Environment Protection Rules (EPR) – 2020 (2077)*

Types of environmental studies

- Depending upon the **nature, complexity and size of the proposal** , the environmental studies are classified under the following types:

A. Brief Environmental Study (BES):

- BES should be done for the **project mentioned** in the **Schedule 1** of Environment Protection Rules 2077

B. Initial Environmental Examination (IEE):

- IEE should be done for the **project mentioned** in the **Schedule 2** of Environment Protection Rules 2077

C. Environmental Impact Assessment (EIA):

- EIA should be done for the **project mentioned** in the **Schedule 3** of Environment Protection Rules 2077

Some examples of project requiring BES

Fields	BES
Forests	<ul style="list-style-type: none">• Plantation of trees in area of 10 to 50 hectares• Mining of stones, gravel, sand etc. from rivers within the forests upto 50 cu. M per day
Health	Hospital with 16 -25 beds
Roads	<ul style="list-style-type: none">• Bridge of length 50-250m• Local roads
Buildings	<ul style="list-style-type: none">• Storey upto 7 to 10
Education	<ul style="list-style-type: none">• Teaching hospital upto 50 beds

Some examples of project requiring IEE

Fields	IEE
Forests	<ul style="list-style-type: none"> • Plantation of trees in area of 50 to 500 hectares in terai and 50 to 250 hectares in hill • Mining of stones, gravel, sand etc. from rivers within the forests more than 50 cu. M per day
Drinking water	<ul style="list-style-type: none"> • Water supply to population of 50 thousand to 2 lakhs
Roads	<ul style="list-style-type: none"> • Bridge of length more than 250 m • Roads upto length of 25 km
Buildings	<ul style="list-style-type: none"> • Buildings with built-up area from 5000 sq. m to 10000 sq. m
Education	<ul style="list-style-type: none"> • Teaching hospital with beds counts from 50 to 100
Energy	<ul style="list-style-type: none"> • Hydropower of capacity 1 – 50 MW
Health	<ul style="list-style-type: none"> • Hospital, clinics and nursing home of capacity 26 -100 beds

Some examples of project requiring EIA

Fields	EIA
Forests	<ul style="list-style-type: none">• Plantation of trees in area more than 500 hectares in terai and 250 hectares in hill• Any proposals related to National parks, conservation areas and reserves
Drinking water	<ul style="list-style-type: none">• Water supply to population of more than 2 lakhs
Roads	<ul style="list-style-type: none">• Roads of length more than 25 km
Buildings	<ul style="list-style-type: none">• Buildings with built-up area more than 10000 sq. m
Education	<ul style="list-style-type: none">• Teaching hospital with beds more than 100
Energy	<ul style="list-style-type: none">• Hydropower of capacity more than 50 MW
Health	<ul style="list-style-type: none">• Hospital, clinics and nursing home of capacity more than 100 beds

Some provisions regarding environmental study

- Before preparing environmental study report, **work schedule/Terms of Reference(ToR)** of a proposal in case of BES and IEE should be approved and for EIA, **the scoping document and the work schedule** should be approved.
- In preparing the report, the standards and quality mentioned by the **GoN** should be fulfilled. Otherwise, the proponent will not be allowed to prepare the report for a period not exceeding **5 years**.
- **Prior to the implementation** of proposal, the proponent shall prepare **environment management plan(EMP)**.
- If any **revisions** are required to be made in the initial proposal, **supplementary environmental impact assessment** is required to be prepared.

Bodies for approval of environmental studies

- For the developmental projects with national priority
- Projects whose investment is approved by investment board
- Projects of national pride
- Projects Falling under the jurisdiction of the Federation
- Projects Requiring construction works to be done in more than one provinces.
- Projects Specified by the GoN .
 - a. If above mentioned projects require BES or IEE : Approval should be taken from the prescribed body by GoN
 - b. If above mentioned projects require EIA: Approval should be taken from the Ministry (Ministry of Forest and Environment)

Bodies for approval of environmental studies

- In the case of a proposal relating to development, construction work or project pertaining to a matter falling under the jurisdiction of the **Provincial** Government
 - a. All types of report : **To the body prescribed by concerned Provincial Law**
- In the case of a proposal relating to development, construction work or project pertaining to a matter falling under the jurisdiction of the **Local** Government
 - a. For BES and IEE : **To the body prescribed by concerned Local Law**
 - b. For EIA : **To the body of provincial government prescribed by the Provincial Government**

Procedures for BES and IEE

- The proponent prepares the Terms of Reference (ToR) and submits to the concerned body for approval.
- The approval should be made within 15 days.
- After getting approval, the proponent shall publish the public notice in local newspaper for the suggestions from the related stakeholders
- The proponent shall prepare the BES or IEE incorporating the suggestions of concerned stakeholders within 2 years of getting approval.
- The environmental study report shall be submitted to the concerned body for approval.
- The concerned body shall investigate the report and decide on conditional approval, non-conditional approval or rejection of the application
- The approval shall be provided within 15 days

Procedures for EIA

- Proponent shall publish a **7day notice** in **national news** paper requesting the concerned individuals and institutions to provide their suggestions regarding the impacts.
- After getting the suggestions, the proponent shall prepare a **scoping document (SD)** and submit an application for approval of SD and **Terms of Reference (ToR)** to the concerned body.
- The concerned body carries out investigation and forwards the application to the **Ministry of Forest and Environment (MoFE)** for approval.
- The MoFE investigates and decides on conditional approval, non-conditional approval or rejection of the application and notifies to the concerned body about the same.
- The approval should be made within **15 days**.

Procedures for EIA

- After getting approval from the Ministry, the proponent shall carry out the environmental study and report shall be produced **within 2 years**.
- The **public hearing** shall be conducted before submitting the EIA report to the concerned body to incorporate the suggestions of related stakeholders.
- **Recommendations from the concerned local bodies** shall be obtained.
- The report shall be submitted to the concerned body.
- The concerned body carries out investigation and forwards the application to the Ministry of Forest and Environment (MoFE) for approval.
- The MoFE publicizes the report with duration of **7 days** for public review.
- The MoFE investigates and decides on conditional approval, non-conditional approval or rejection of the application and notifies to the concerned body about the same.
- The approval shall be provided within **35 days**.
- After getting approval from the ministry, the proposal is carried out.

Provision of Fine and Compensation

Fine is charged on any person or institution, on the following way, if any proposal is:

- Executed without having it approved or
- Executed in a manner inconsistent with the approved report

- A. BES: Not exceeding rupees 5 Lakh.
- B. IEE : Not exceeding rupees 10 Lakh
- C. EIA : Not exceeding rupees 50 Lakh



Environmental Protection and Climate Change Management National Council

- Council for carrying out acts relating to environmental protection and climate change at national level
- Council constitute of following members

Designation	Individuals (Total 21)
Chairperson	Prime minister
Vice – Chairperson	From amongst the following members nominated by the PM
Member	Minister of Forest and Environment
Member	Three ministers of GoN (designated by PM)
Member	Chief ministers of all provinces
Member	Member of National Planning Commission (Looking after matter of environment)
Member	2 Persons (1 woman) from amongst the professors in forest and environment science
Member	3 Persons (2 women) from amongst the persons with expertise in forest and environment science
Member-Secretary	Secretary of Ministry of Forest and Environment

EPA-2076 Chapters

- Chapter 1 : preliminary
- Chapter-2:Environmental Study
- Chapter 3: Control of Pollution
- Chapter 4: Provisions Relating to Climate Change
- Chapter-5: Provisions Relating to Protection of National Heritages and Environment Protection Areas
- Chapter-6: Fine and Compensation
- Chapter-7: Miscellaneous

- **EPR: 2077: 21 SCHEDULES**
- Environmental study: schedule 2
- EIA SD format: Schedule 5:
- ***TOR Format of*** BES: Schedule 6
IEE: Schedule 7
EIA: Schedule 8

Types of Disaster and its mitigation

Disaster:

A serious **disruption** of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which **exceeds the ability** of the affected community or society to cope using its **own resources**.



TYPES:

- Water and Climate Disaster: Flood, hail storms, cloudburst, heat waves, cold waves, droughts.
- Geological Disaster: Landslides, earthquakes, volcanic eruptions.
- Biological Disaster: Viral epidemics, pest attacks, plagues
- Industrial Disaster: Chemical and industrial accidents, mine shaft fires.
- Nuclear Disasters: Nuclear core meltdowns, radiation poisoning
- Man-made disasters: Urban and forest fires, oil spill, the collapse of huge building structures

Mitigation measures of Disaster

- Broadly the mitigation measures can be classified into two categories
 - A. **Structural measures** (Eg. Dams, retaining walls, etc.)
 - B. **Non-Structural measures** (Eg: Land use mapping, implementing building codes, etc.)

Mitigation activities should incorporate:

- **Measurement and assessment of risk** associated with the disaster.
- **Creation of** comprehensive, pro-active **tools** to deal with the possible disaster.
- **Management of funds** and **proper planning**

MCQs

1. When was the new Environment Protection Act promulgated?

- a. 2075 B.S
- b. 2076 B.S
- c. 2077 B.S
- d. 2078 B.S

2. Which of the following environmental study is to be carried out for the roads of length less than 25 km?

- a. BES
- b. IEE
- c. EIA
- d. Any of the above

MCQs

3. For a highway project passing through the national conservation area, which of the following is required?

- a. Social impact evaluation
- b. Political impact assessment
- c. Environmental impact assessment
- d. Initial Environment Examination

MCQs

5. Who is the member secretary of Environmental Protection and Climate Change Management National Council ?

- a. Secretary of Ministry of Forest and Environment
- b. Chief secretary of GoN
- c. Prime minister
- d. One of the ministers nominated by the Prime minister in his behalf

6. What is the amount of fine to be paid by any individual if a proposal is executed without approval of IEE report?

- a. Upto 5 lakhs rupees
- b. Upto 10 lakhs rupees
- c. Upto 50 lakhs rupees
- d. Upto 1 crore rupees

MCQs

7. Which schedule of the Environment Protection Rules-2077 mentions about the projects that require EIA ?

- a. Schedule 1
- b. Schedule 2
- c. Schedule 3
- d. Schedule 4

8. Which of the following is the difference between EIA and IEE?

- a. EIA requires Scoping
- b. EIA requires TOR
- c. EIA requires recommendation from Local Bodies
- d. All of the above

MCQs

9. The EIA report should be approved withinby the ministry.

- a. 15 days
- b. 25 days
- c. 35 days
- d. 45 days

10. If the environmental study is not prepared as per the specifications mentioned by the GoN, the proponent is not allowed to prepare the report for a period of

- a. 3 years
- b. 5 years
- c. 7 years
- d. 10 years

PANA ACADEMY

MCQs

11. The Covid-19 pandemic falls under which of the following types of disaster?

- a. Water and climate disaster
- b. Geological disaster
- c. Nuclear disaster
- d. Biological disaster
- e.

Q. Chernobyl disaster?

12. is the **structural** component of the disaster mitigation.

- a. Land use mapping
- b. Hazard mapping
- c. Construction of check dams
- d. Insurance

Q. Acc. To EPA 2076, “Environmental study report” means a report prepared with respect

- a) to the brief environmental study
- b) initial environmental examination
- c) environmental impact assessment
- d) to the brief environmental study, initial environmental examination
or environmental impact assessment

How many schedules are there in EPA-2077?

- a) 21
- b) 14
- c) 20
- d) 13

No. of chapters is EPA-2076....

- a) 5
- b) 6
- c) 7
- d) 8

PANA ACADEMY

158. *“Environmental study”* is mentioned in
chapter of EPA-2076

- a) 2nd
- b) 3rd
- c) 4th
- d) 6th

151. Format of BES report is in schedule.....

- a) 10
- b) 11
- c) 12
- d) 14

PANA ACADEMY

Q. EPR-2077 is made in accordance with clause no..... of EPA-2076.

- a) 44
- b) 45
- c) 43
- d) 33



Q.NDRRMA under which ministry performs work related to disasters?

PANA ACADEMY

Q. Experts Required for environmental study report preparation mentioned in

- a. Schedule 13
- b. Schedule 10
- c. Schedule 11
- d. Schedule 9



Q. Min. no of experts required in BES is

- a) 3
- b) 4
- c) 5
- d) 1

PANA ACADEMY



THANK YOU

PANA ACADEMY