



# ENVIRONMENT MANAGEMENT

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“Earth provides enough to satisfy every man's needs, but not every man's greed” – Gandhi

“A nation that destroys its soils, destroys itself” - US President Roosevelt



# Lets Think

- What is an Environment?
- Why is it important?
- What causes change in Environment?
- What is Environment Management?
- What are tools for Environment Management?







# Environment Management

- Is an attempt to control human impact on and interaction with the environment in order to preserve natural resources
- Is a goal or a vision to steer a process, with application of tools, or to establish new perspectives towards the environment and human societies.
- Involves many stakeholders and requires a multidisciplinary perspective.
- Optimal utilization of the finite resources between different possible uses.





- Focuses on the improvement of human welfare for present and future generation
- Predicts future changes and with attempts to maximise human benefit and to minimise environmental degradation due to human activities.
- May influence the course of development
- Is administrative functions that develop, implement and monitor the environmental policy of an organisation.



# Environmental Challenges

- Deforestation
- Acid rain
- Biodiversity loss
- Ozone layer depletion
- Waste disposal
- Environmental pollution
- Climate Change



# Issues in Nepal

Total **17 issues** identified in 2001 through consultative process (perception and observed data)

- **Most Urgent Issues (5)** – forest depletion, land degradation, solid wastes, water pollution, and air pollution
- **Moderately Urgent Issues (8)** – dwindling biodiversity, desertification, haphazard urbanization, forest fire, groundwater depletion, glacial lake outburst flood events, food security, and alternative energy
- **Less Urgent but Significant Issues (4)** – waning fisheries, decreasing biomass energy, trans-boundary movement of wastes, and noise pollution



# Possible Impacts

- ❑ Decline in production – of forests or agriculture/land and amount of water
- ❑ Increase in production with increased use of 'life threatening' pesticides
- ❑ Decline in regenerative or assimilative capacity of an ecosystem – terrestrial or aquatic
- ❑ Accelerated degradation of water and air quality and impact of increased noise level
- ❑ Pollution-induced diseases and increased health cost
- ❑ Non-functional/unsustainable infrastructure – irrigation canal with sediment loads, hydroelectricity generation with turbine damage
- ❑ Conflict in resource use





# 3 Key Issues on EM

- Population Growth
- Increasing global demand for food, water and other natural resources
- Climate Change



# MDG

- **Goal 7: Ensure Environmental Sustainability**
  - **Target 7a:** Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources.
  - **Target 7b:** Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.
  - **Target 7c:** Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation
  - **Target 7d:** Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020

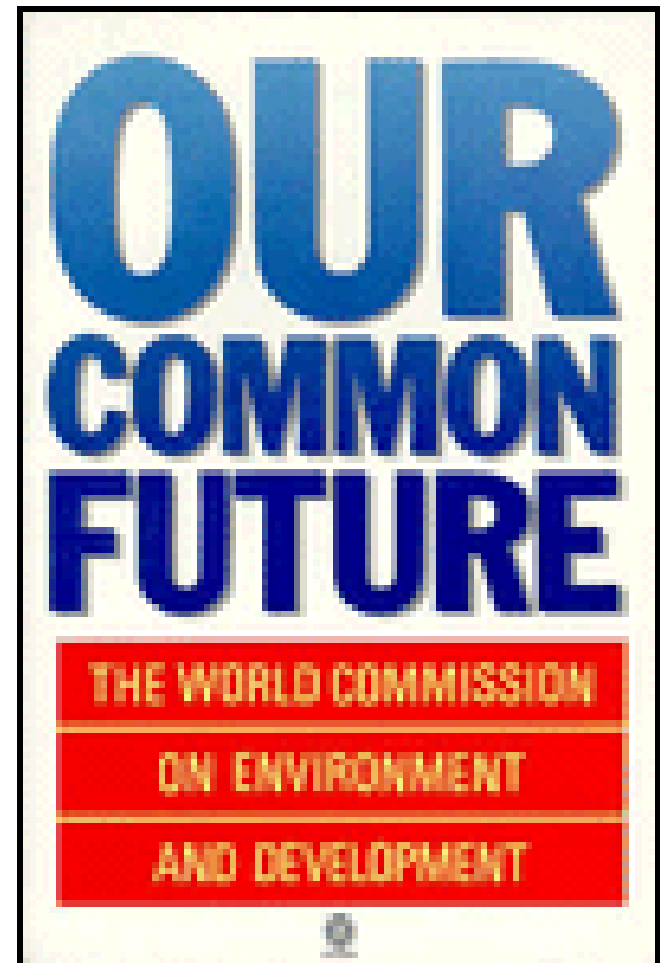


SD

**“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”**

Brundtland Commission

“Our common future” 1987





Source: [www.cei-bois.org](http://www.cei-bois.org)





# Economic Dimension

- An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable size of government and external debt and to avoid sectoral imbalances (maintain diversity) – Stockholm conference



# Environmental Dimension

- A stable resource base, do not overwhelm the waste assimilative ability of the environment nor the regenerative services of the environment, deplete non-renewables only to the extent we invest in renewable substitutes – Rio conference



# Social Dimension

- Achieve distributional equity, adequate provision of social services including health and education, gender equity and political accountability and participation – Johannesburg conference



# Importance of EM

- Improve management of environmental impacts
- Set targets to reduce energy use, water use & waste to landfill
- Initiate and maintain procedures to improve efficiencies
- Define key responsibilities for achieving targets
- Monitor and measure environmental performance against key indicators
- Regularly assess progress towards achieving set objectives
- Ensure due diligence and ongoing consideration of legal and other environmental requirements



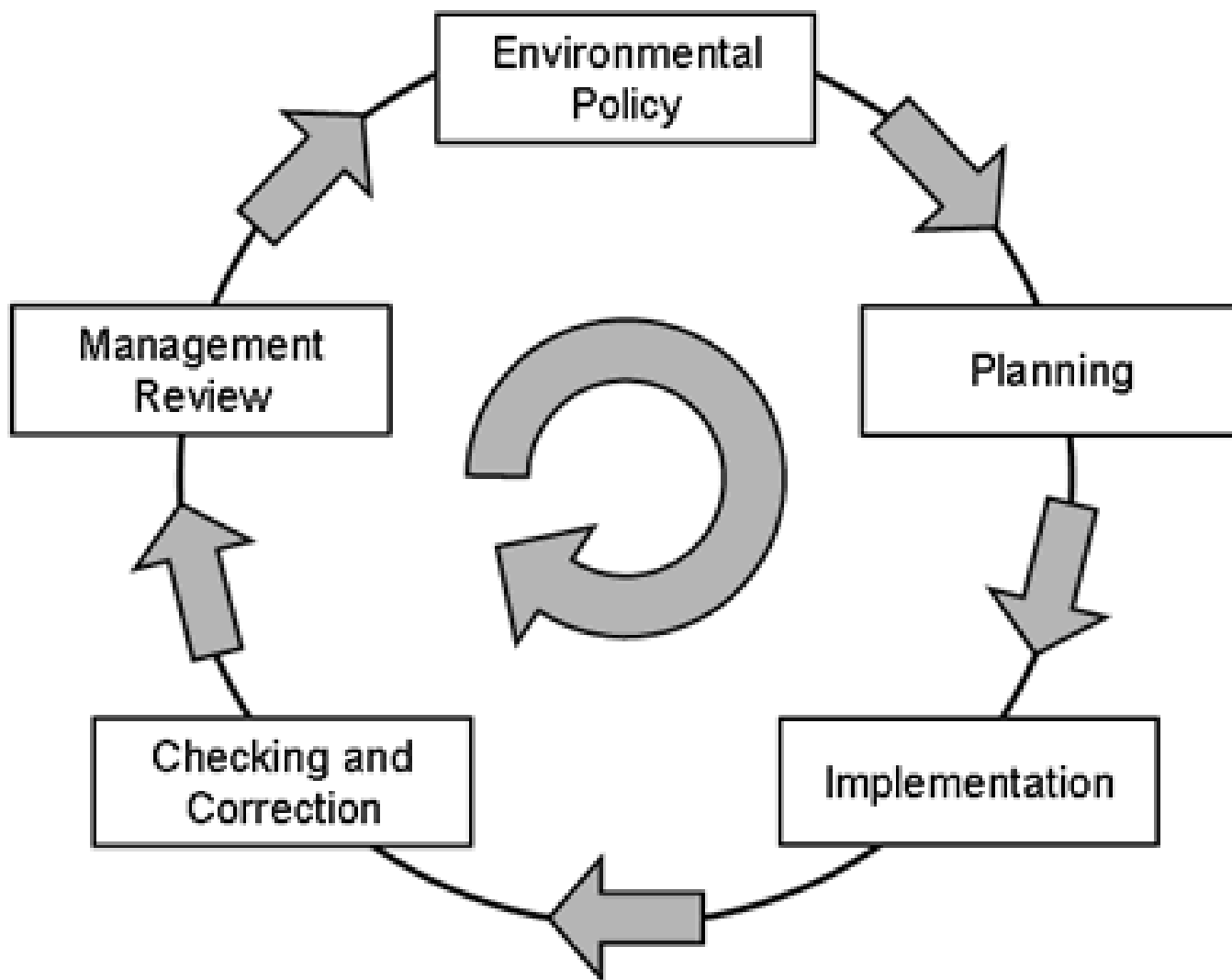


# Provisions in Nepal

- ❑ Constitution of Nepal
- ❑ Environment Protection Act and Rules
- ❑ Electricity Act
- ❑ Forest Act
- ❑ Industrial Enterprises Act
- ❑ Local Self Government Act
- ❑ Pesticides Act
- ❑ Vehicle and Transport Management Act
- ❑ Water Resource Act
- ❑ Others

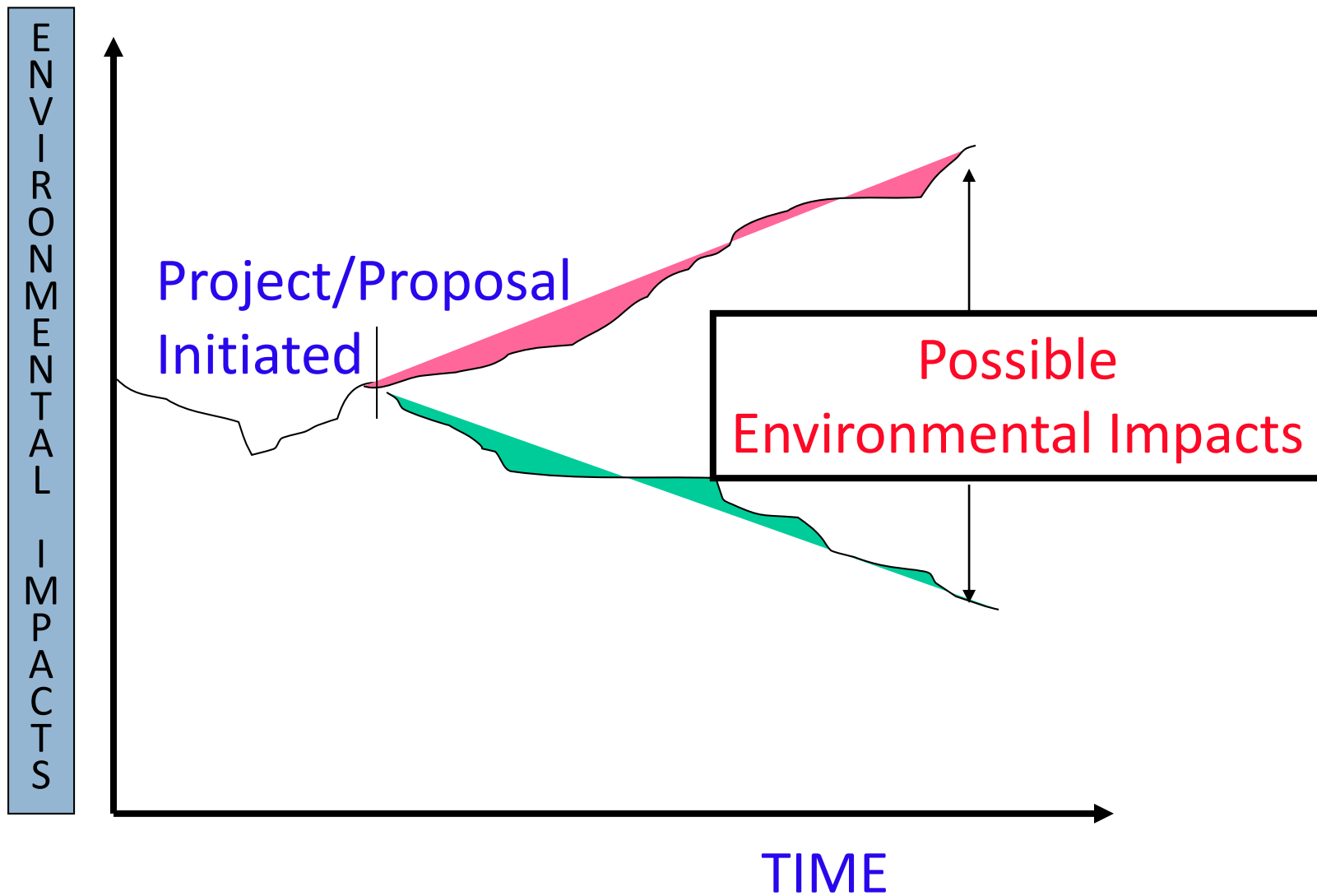


# EM Cycle





# Why?





# Need of Tool?

- Functions as a precursor to make the project –
  - environment-friendly
  - sound
  - technically suitable
  - locally acceptable
  - economically feasible



# Different Tools

- ❑ Policy instrument
- ❑ Screening checklist and standards
- ❑ Environmental assessment – IEE, EIA etc
- ❑ Monitoring and evaluation or auditing etc



# Why EA?

- ❑ Integrates environmental aspects into development proposals
- ❑ Assesses the impacts with high level of details and proposes for mitigating the impacts
- ❑ Ensures public participation in advance
- ❑ Provides decision-makers the 'informed choices'
- ❑ Makes the development project sustainable





# Components

- Assessment
  - Identification of Impacts
  - Prediction of Impacts
  - Evaluation of Impacts
- Strategy
  - Avoidance of Impacts
  - Mitigation of Impacts
  - Compensation of Impacts
- Goal
  - Enhancement of Environment

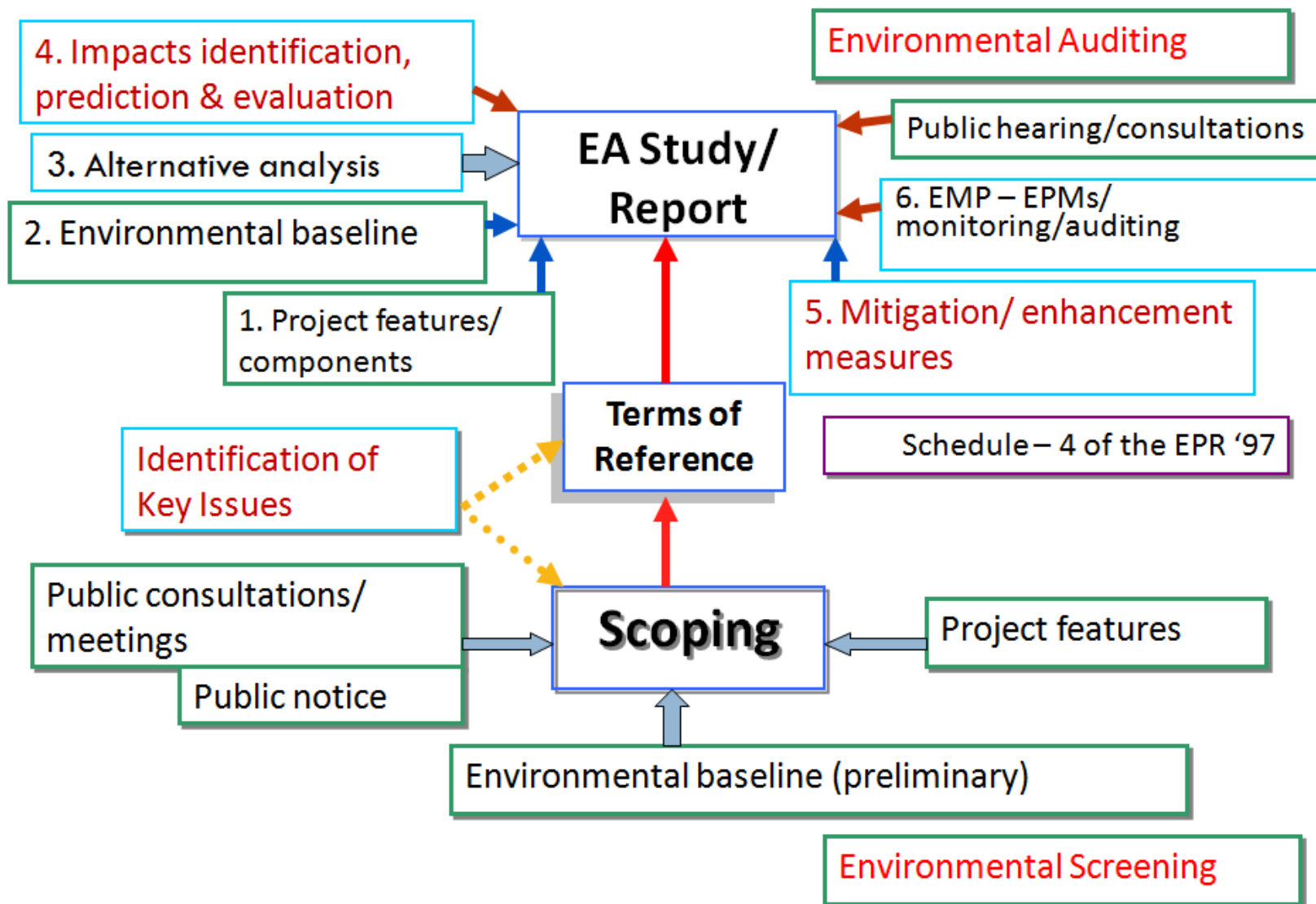


# Types of EA

- **Project level** - Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA)
- **Sector level** - Sectoral Environmental Assessment
- **Cumulative impacts** - Cumulative Effects Assessment
- **Policy, Plan and Program level** - Strategic Environmental Assessment (SEA)
- Other assessments such as Health IA, social IA, Biodiversity IA, Trade IA etc.



# EA Process: Schematic Diagram



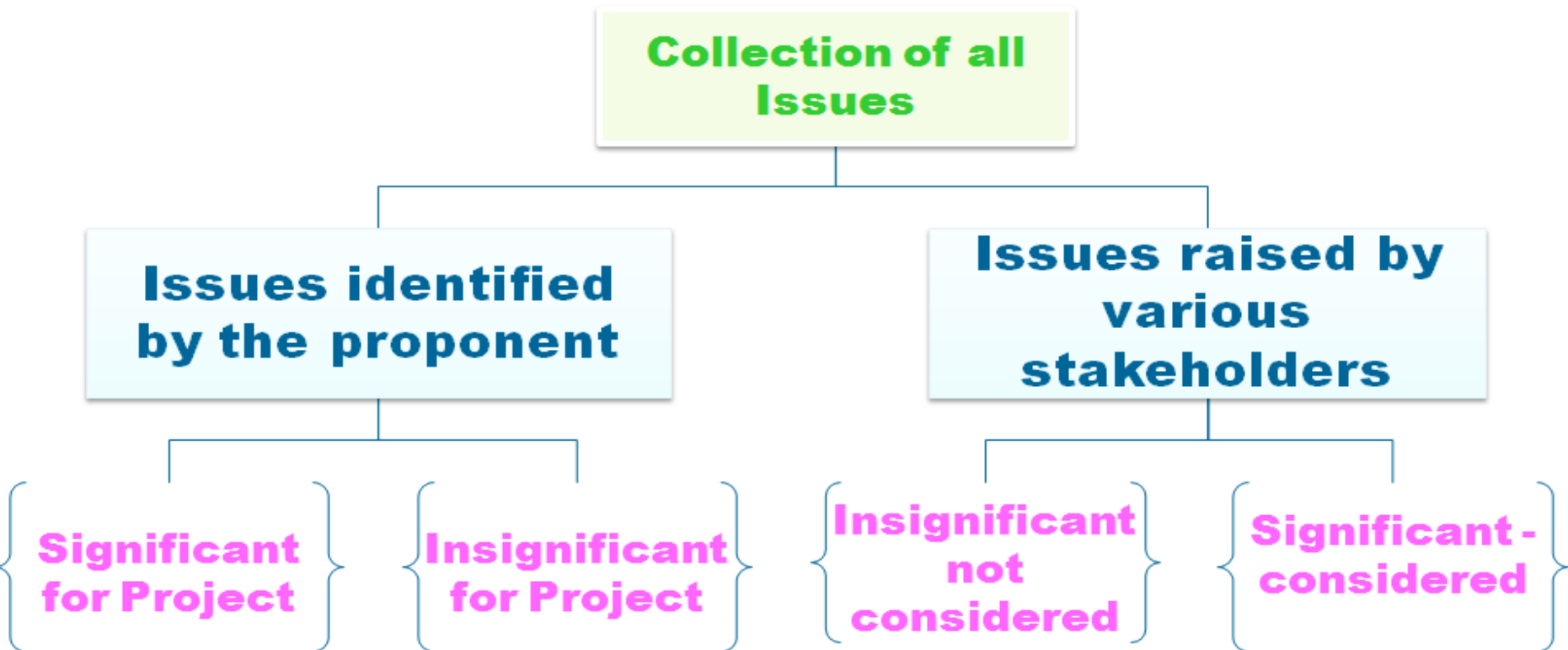


# Scoping





# Prioritizing Issue



Consideration of issues under some rationale using experts' judgments

**Issues Prioritized**



# Do not forget to

- ❑ Comply with the latest periodical policies & sectoral policies
- ❑ Comply with policy decisions such as plantation
- ❑ Comply with all laws (Act and Rules) such as related to environment and natural resources (forest) or LSGs
- ❑ Comply with international legal instruments to which Nepal is a Party
- ❑ Comply with applicable national standards or global guidance





**Thank You**