



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

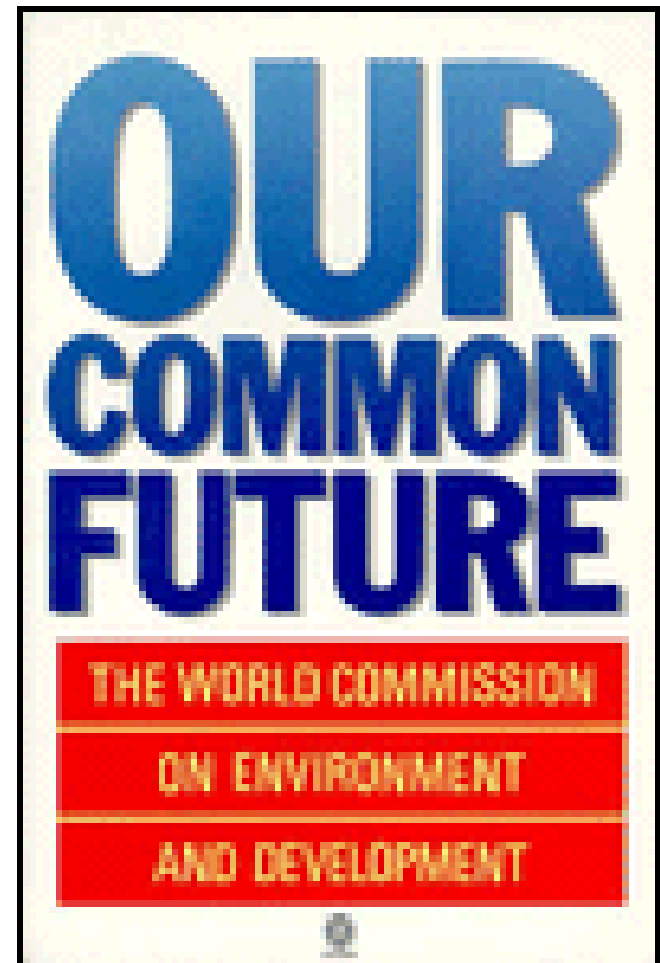


SD

“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



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

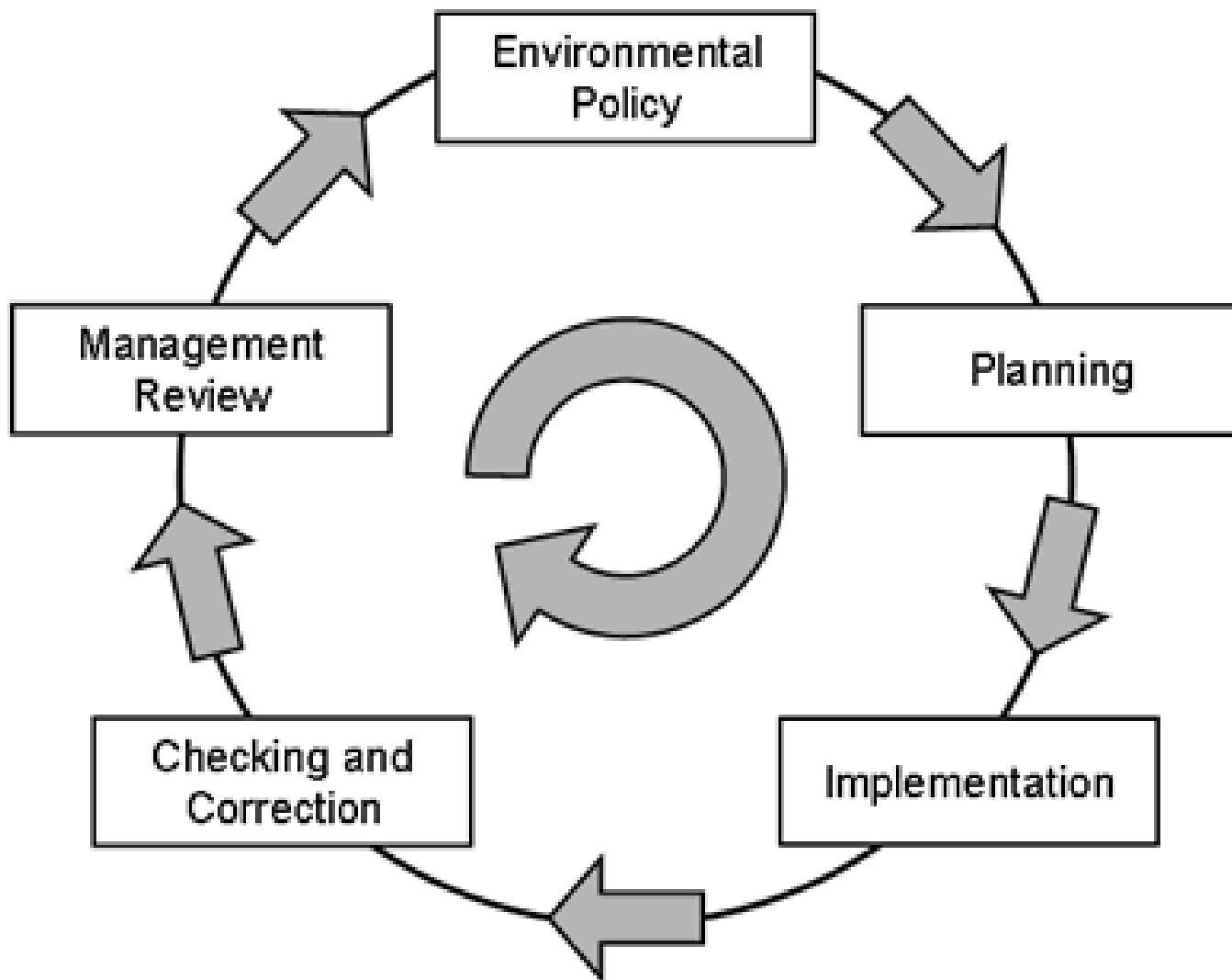


Provisions in Nepal

- ❑ 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

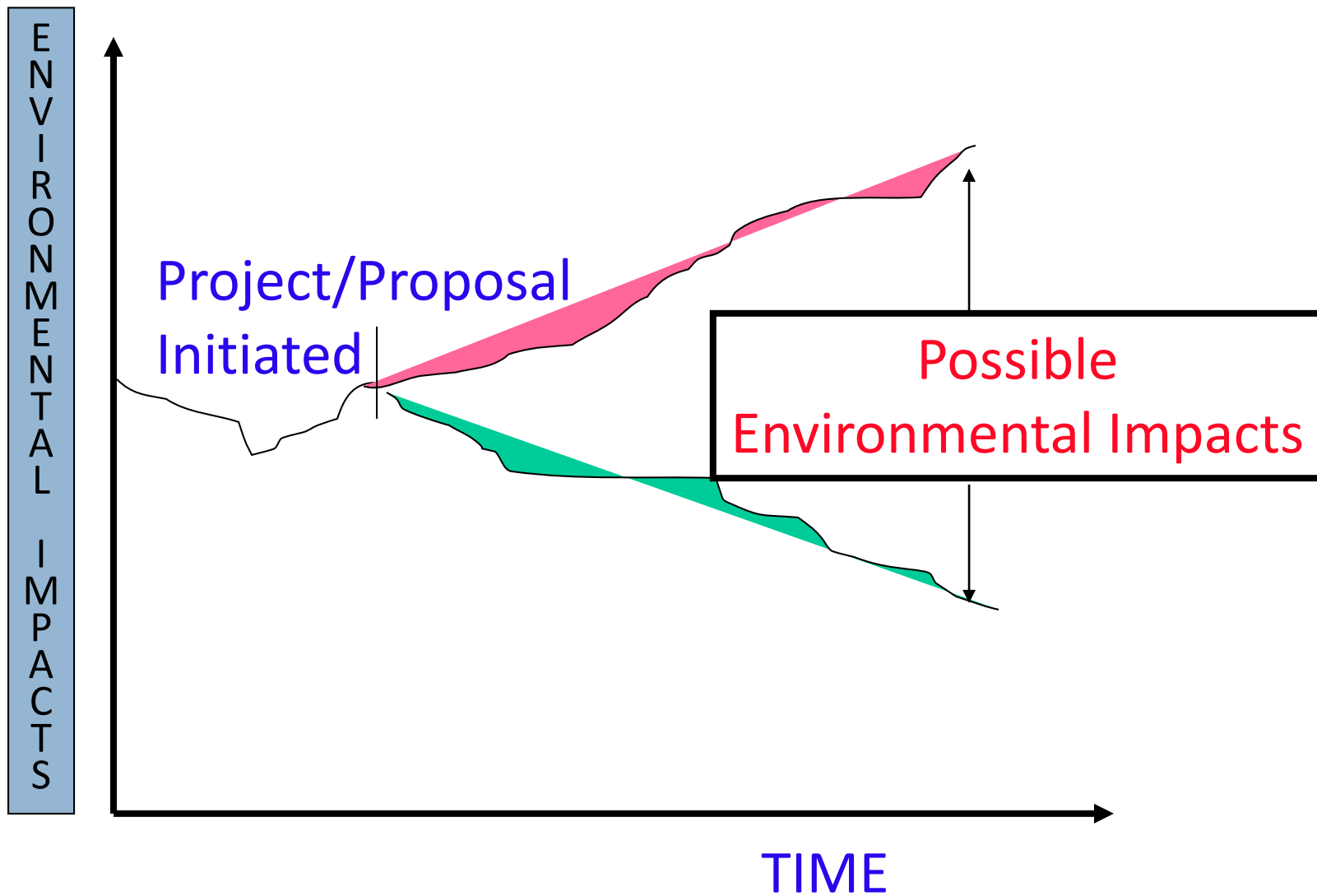


EM Cycle





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

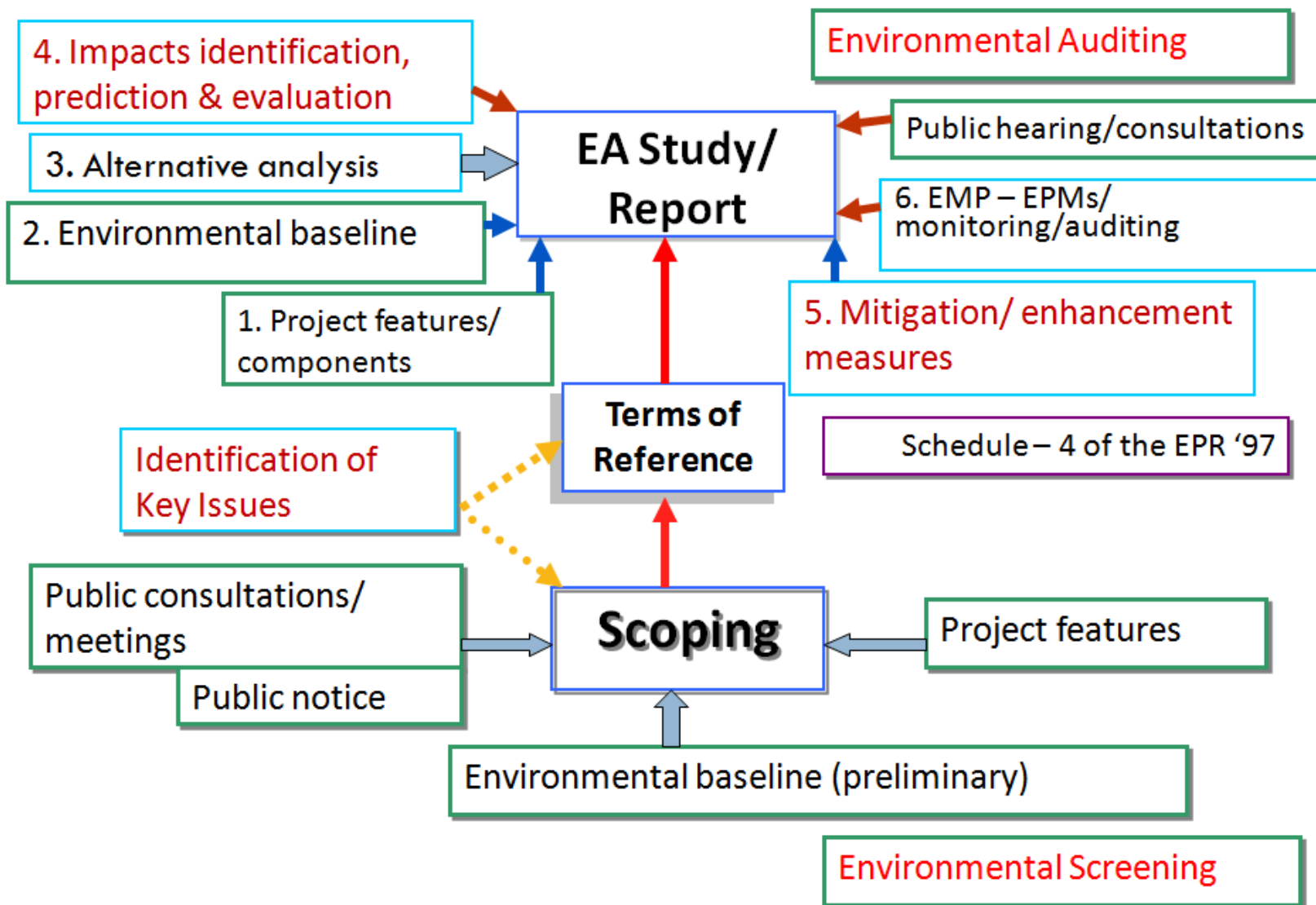


Types of EA

- **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



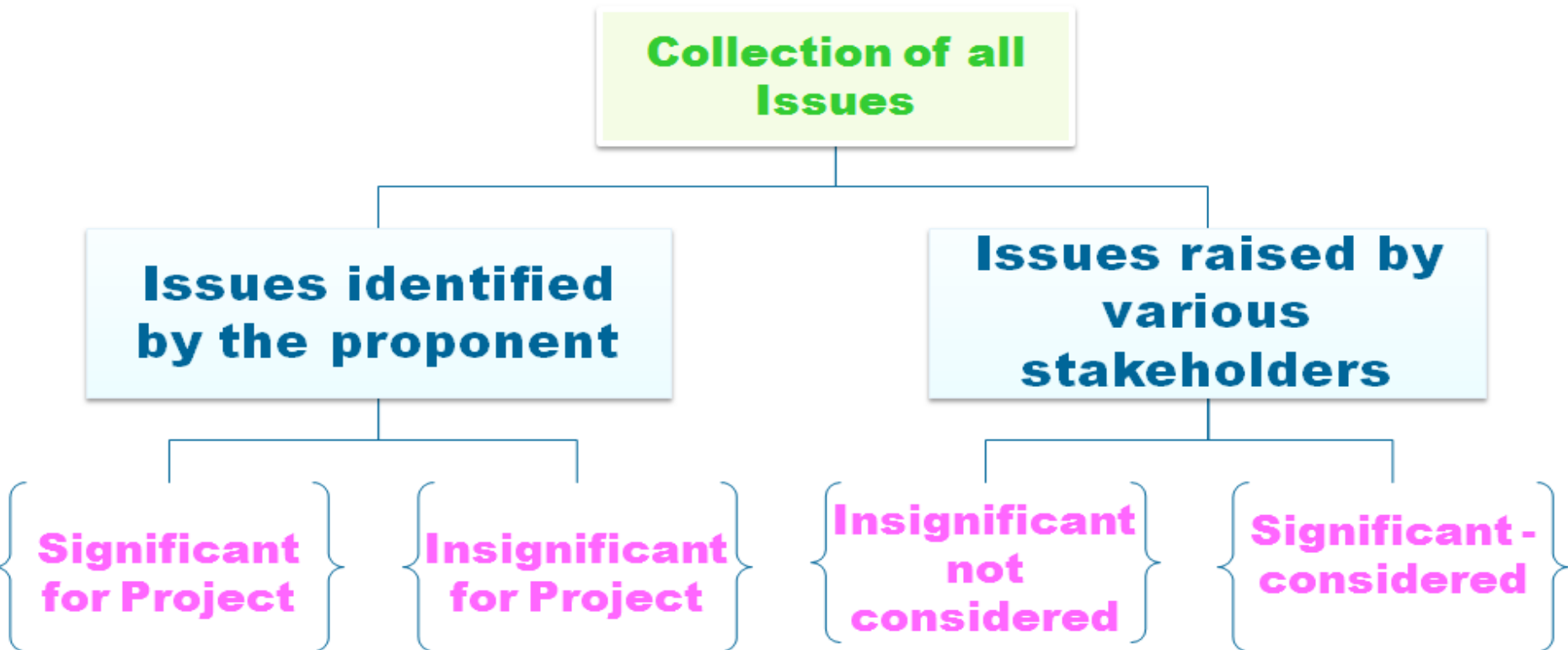


Scoping





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