Presentation 1.1b

OVERVIEW OF ENVIRONMENTAL IMPACT ASSESSMENT: Background and Key Concepts for Project Level Assessment

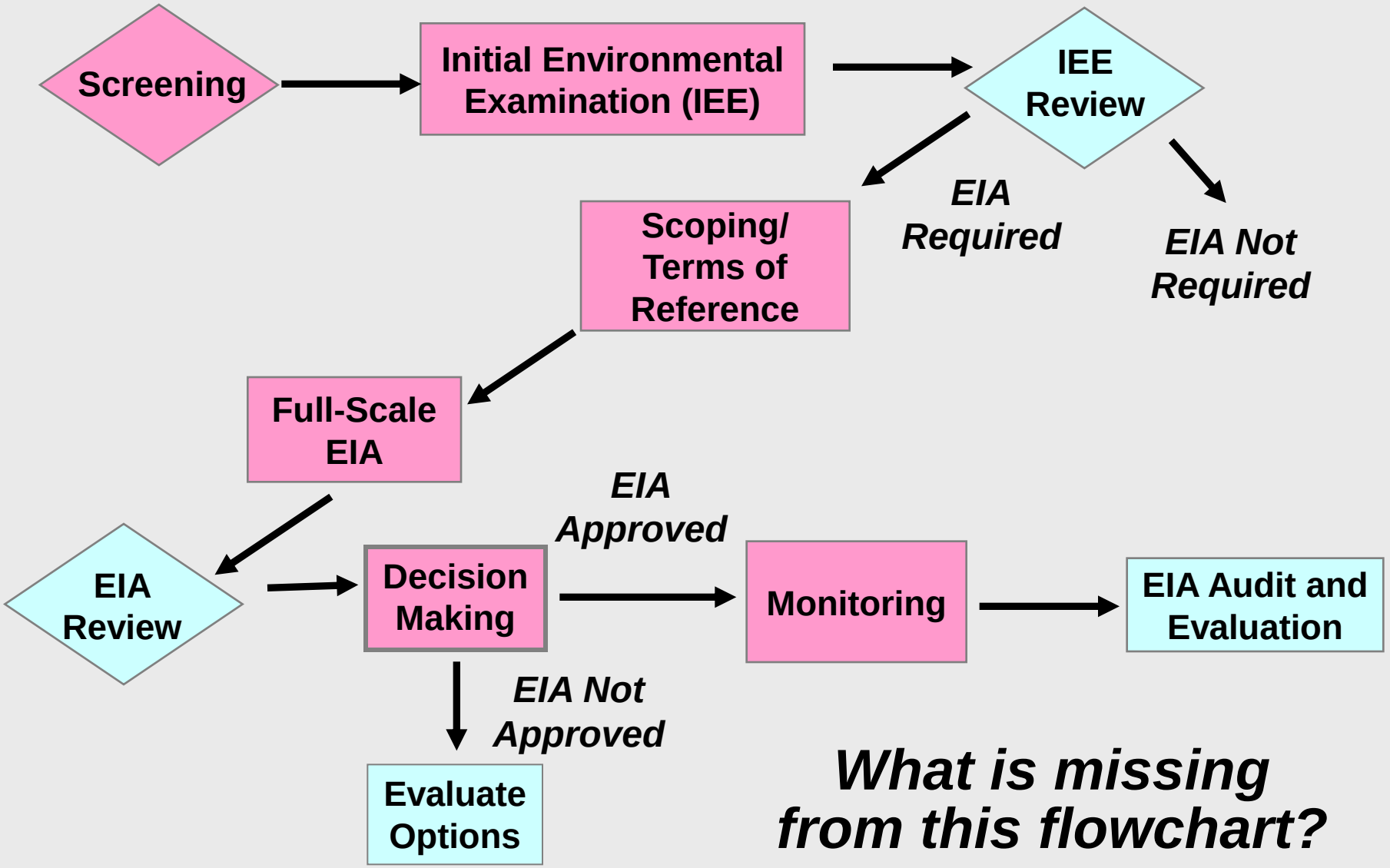
Project-Level or Activity-Specific Environmental Impact Assessment

- EIA is a structured process to anticipate, analyze and disclose environmental, and typically social, consequences **of proposed projects or activities**
- EIA seeks to ensure that potential problems are foreseen and addressed such that projects can proceed **without causing serious environmental degradation**

EIA in Relationship to the Project Cycle

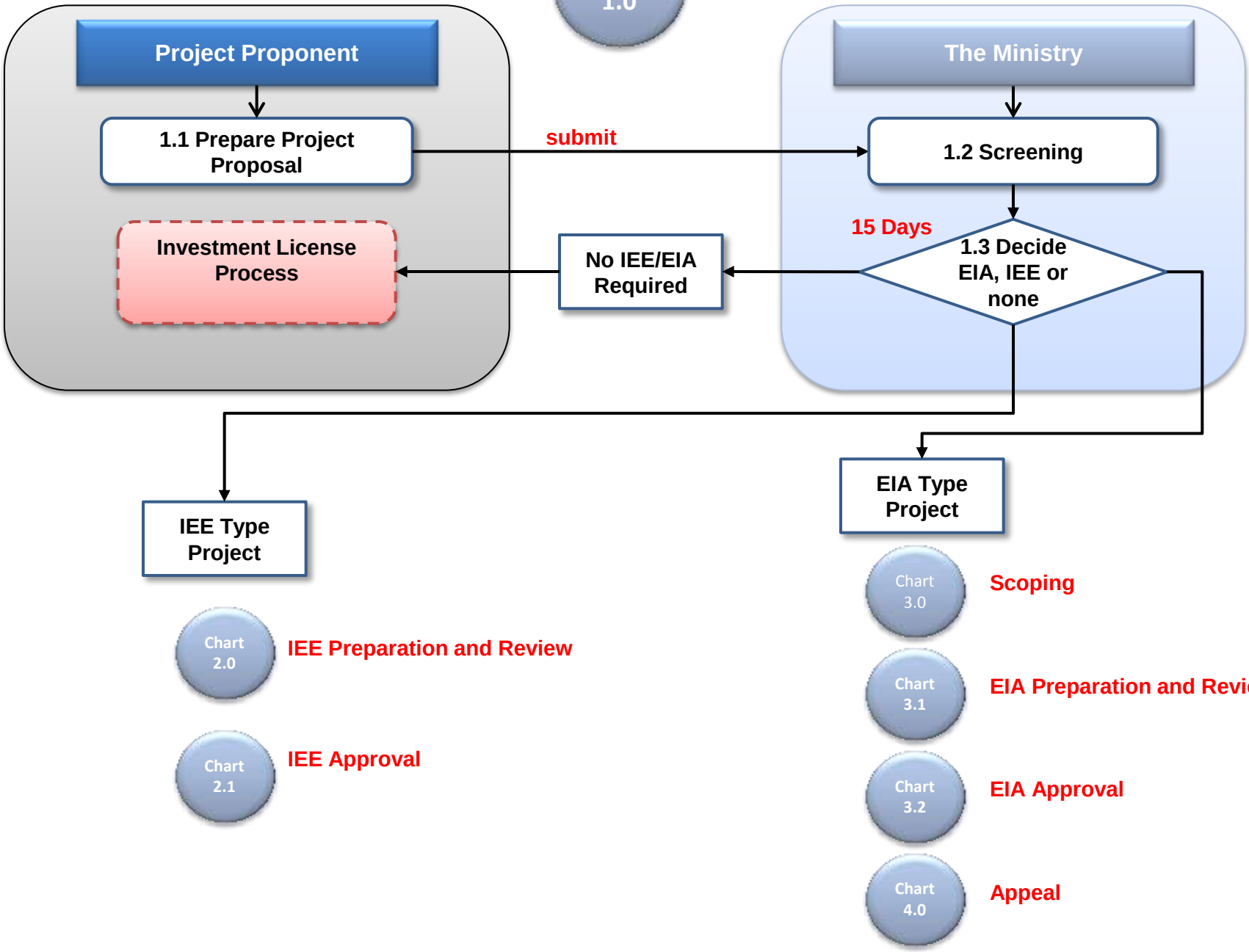
Project Cycle:	**EIA Process**
Project identification	Project description
Pre-feasibility study	Screening/IEE/scoping
Feasibility study	EIA
Final design	EMP
Construction	Monitoring & follow up
Operation	Monitoring & follow up
Closure (abandonment)	Lessons learned

Generic EIA Process Flowchart



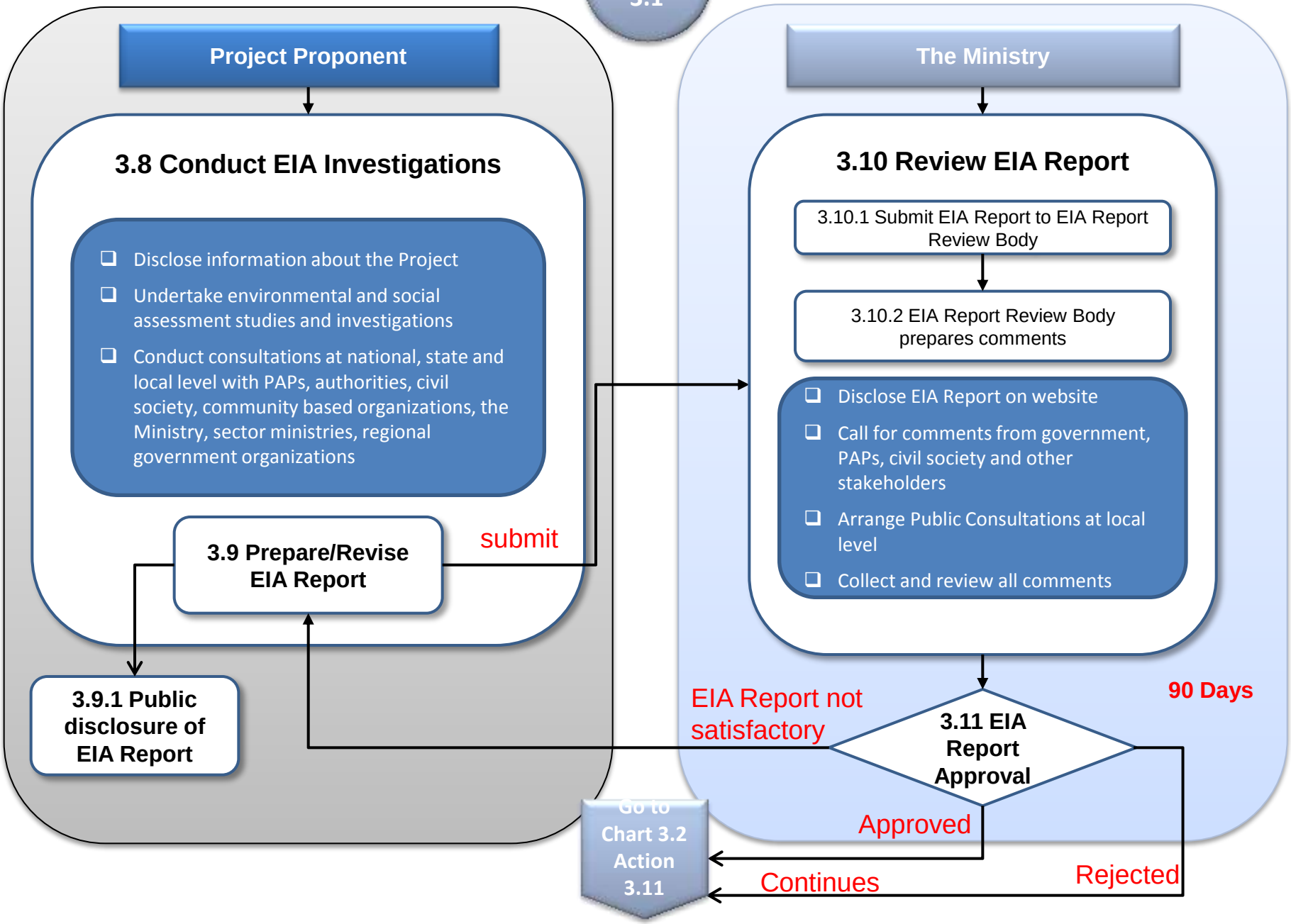
What is missing from this flowchart?

Customized Flowchart Chart 1.0 Myanmar Screening



Myanmar EIA Preparation & Review

Chart 3.1



Steps in the EIA Process

- **Screening** – to determine whether or not a proposed project should be subject to EIA, and, if so, at what level
- **Scoping** – to identify the issues and impacts that are likely to be important and to establish terms of reference for EIA
- **Examination of alternatives** – to establish the preferred, or most environmentally sound and benign, option for achieving proposal objectives
- **Impact analysis** – to identify and predict the likely environmental, social and other related effects of the proposal
- **Mitigation and impact management** – to establish the measures that are necessary to avoid, minimize or offset anticipated adverse impacts, and where appropriate, to incorporate these into an environmental management plan

Steps in the EIA Process (Cont'd)

- **Evaluation of significance** – to determine the relative importance and acceptability of residual impacts (i.e., impacts that cannot be mitigated)
- **Preparation of EIA report** – to document clearly and impartially describe impacts of the proposed project, the recommended methods for mitigation, the significance of effects, and the concerns of the interested public and communities affected by a proposed project
- **Preparation of EMP** – to list clearly the environmental and social commitments, outlined in EIA/SIA Report, including mitigation measures, standards and plans, monitoring to be implemented throughout the project cycle, and costs committed to implement the EMP

Objectives of the EIA Process

- **Review of the EIA** – to determine whether the report meets its terms of reference, provides a satisfactory assessment of the proposed project, and contains the information needed for decision making
- **Decision making** – to approve or reject the proposal EIA and to establish the terms and conditions for project implementation
- **Monitoring and evaluation** – to monitor the impacts of development and the effectiveness of mitigation measures; and where required, to undertake environmental audit and process evaluation to optimize environmental management
- The EMP is intended as a ***living document*** that is updated during the operational life of the project (e.g., updated EMP if delays between project approval and commencement, annual implementation plans during the construction period, additional mitigation measures if unanticipated impacts are identified)

Social Impact Assessment

- Assess the consequences to affected persons in terms of changes in the way they live and work
  - Example – during Nam Theun 2 pre-construction impedance of a small tributary on which local villages relied for dry season water supply raised health and welfare concerns – primarily access to safe drinking water – necessitating identification of an alternative drinking water supply
- SIA is part of the EIA process to ensure social equity and that affected persons are better off as a result of the project
- SIA includes social development goals and mitigation measures to manage resettlement, livelihood options, and compensation to offset negative impacts

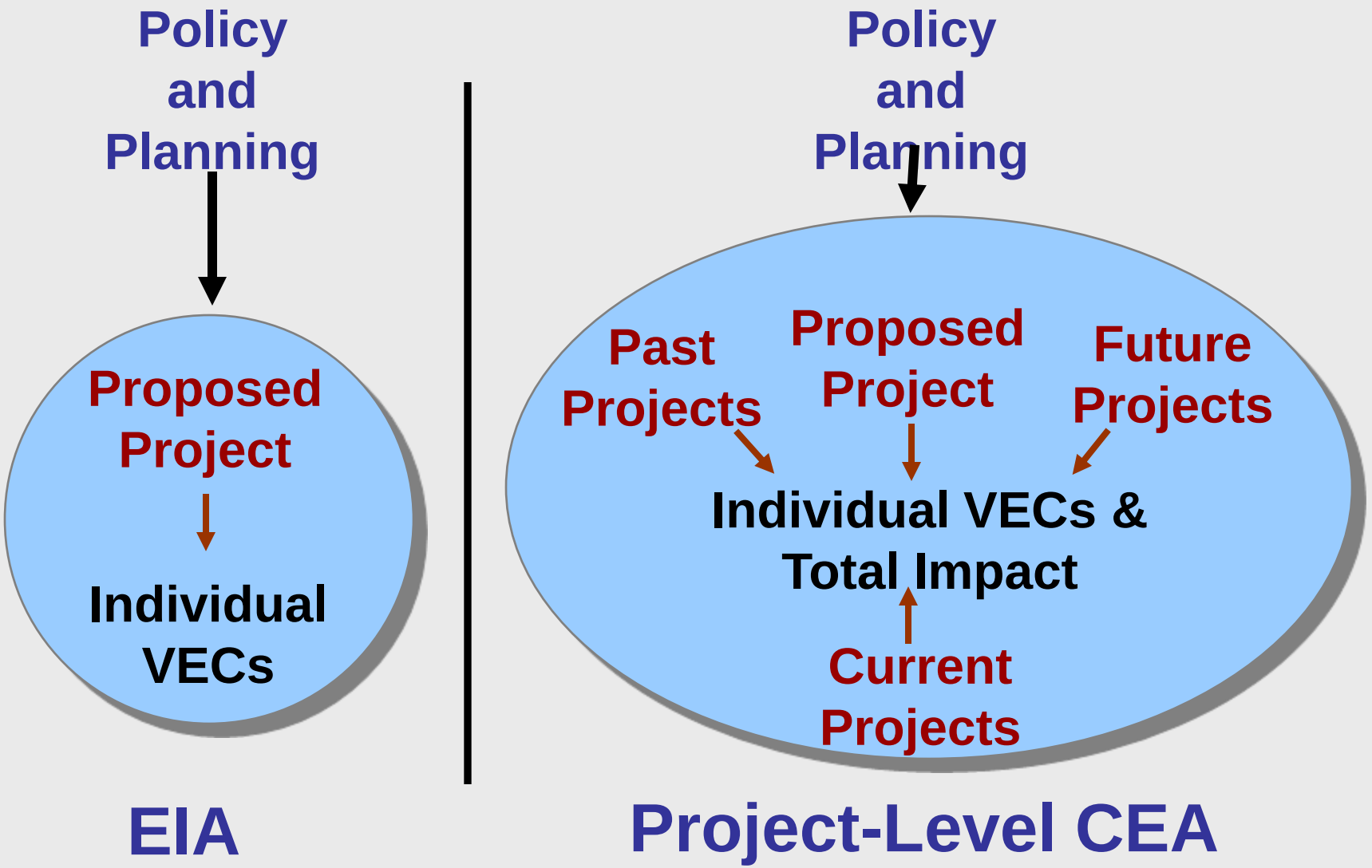
Health Impact Assessment

- HIA enables the identification, prediction and evaluation of the likely health risks (i.e., positive or negative, single of collective, direct and immediate, or indirect and delayed) posed by a proposed project to a defined population
- Health indicators must measure and monitor expected impacts from project activities
- HIA evaluates the potential health impacts from the project due to construction and operation, population influx and changes to the environment (e.g., impacts to fisheries on which local communities rely for food security), and the potential for occupational health injuries and traffic accidents
- HIA elaborates the proposed mitigation measures to offset, reduce or even eliminate negative health impacts to local communities

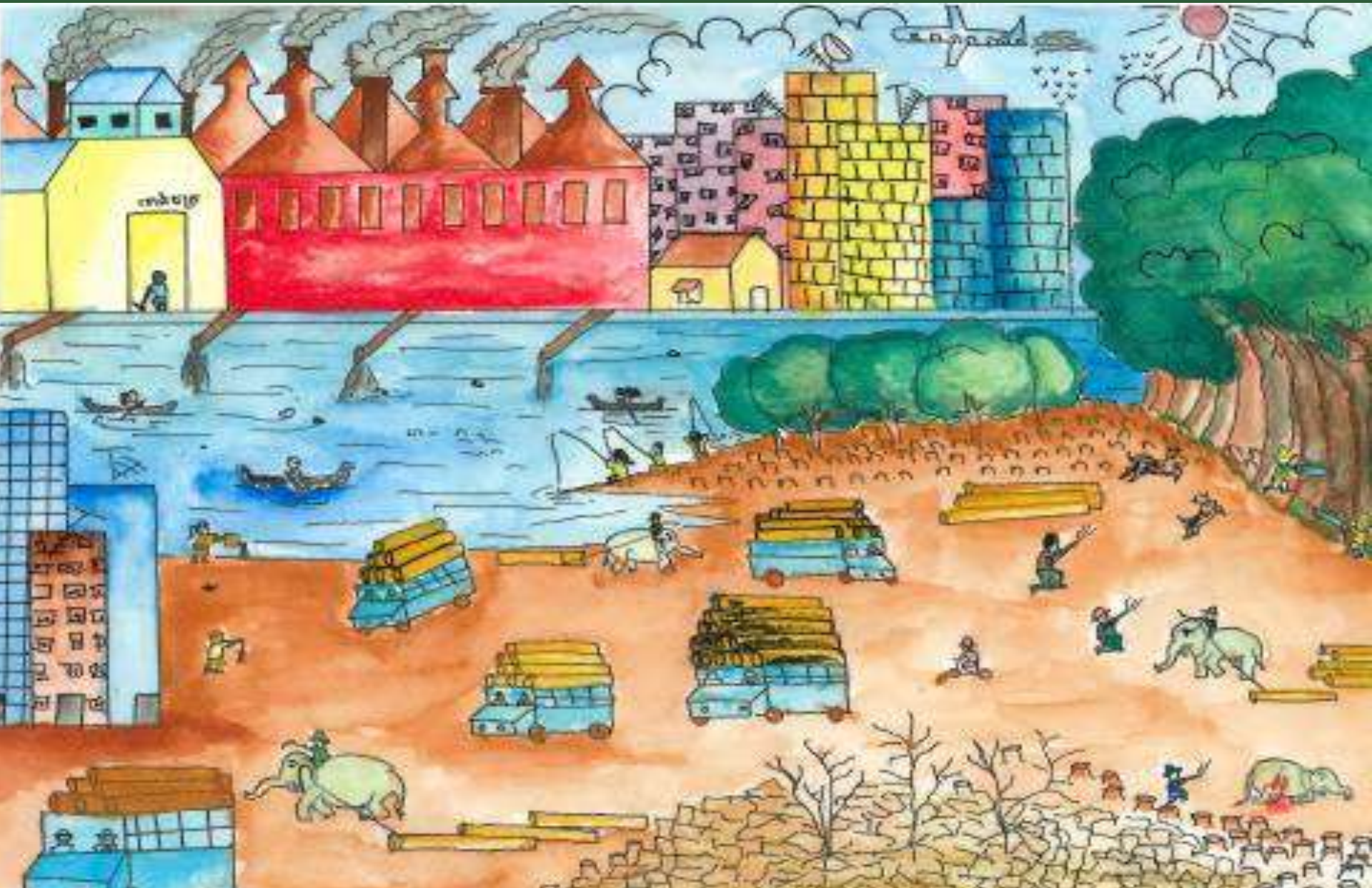
Cumulative Impact Assessment

- Result from incremental impact of an action when combined with impacts from projects and actions that have been undertaken recently or will be carried out in the foreseeable future
- Impacts may be individually minor but collectively significant because of their spatial concentration or frequency in time
- Cumulative effects can accumulate either incrementally (or additively) or interactively (synergistically), such that the overall effect is larger than the sum of the parts
- Examples of cumulative impacts arising from spatial and temporal crowding:
  - The same kind of activity recurs too frequently through time (e.g., harvesting trees or fish above natural regeneration rates)
  - The same kind of activities recur too densely through space (e.g., urbanization)
  - Different kinds of activities impose similar consequences on a valued resource (e.g., fishing, loss of habitat, and pollution all combine to result in diminished fish stocks)

Comparison of Focus Between EIA and Project-level CEA



Example of Cumulative Effects at a Local Scale



Environmental Management Plans

- The EMP includes all
  - Environmental commitments outlined in the EIA/SIA Report
  - Environmental mitigation measures, standards and plans
  - Monitoring requirements to be implemented throughout the project cycle, and
  - Costs (to be committed by project proponents) to implement the EMP
- The EMP provides a detailed action plan for implementation of recommendations made in the EIA/SIA Report
- The EMP sets out goals and targets for environmental control that are measurable and auditable
- The EMP specifies roles, responsibilities and timeframes
- The EMP provides the basis for monitoring compliance

Thank you

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