



Alternatives Analysis

Session Objectives:

- Understand the role of Alternatives Analysis in the Environmental Assessment process
- Understand how to develop an Alternatives Analysis, including:
 - How to identify and develop alternatives to the Proposed Action
 - How to describe alternatives
 - How to compare alternatives
 - How to eliminate alternatives



Review - EAs, PEAs, and REAs

ENVIRONMENTAL ASSESSMENT (EA)

Used to assess the environmental effects of a specific project or action

 For example, an EA to evaluate a single irrigation or health clinic project

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (PEA)

Used to assess the environmental effects of a class of similar actions

- For example, a PEA to evaluate construction of multiple schools; or
- A PEA to evaluate Sustainable forest management plans

RAPID ENVIRONMENTAL ASSESSMENT (REA)

Used to assess, define, and prioritize the potential environmental impacts in disaster situations

For example,
 Earthquakes, floods,
 tsunamis, landslides

Review: Scoping Statement vs EA Content

SCOPING

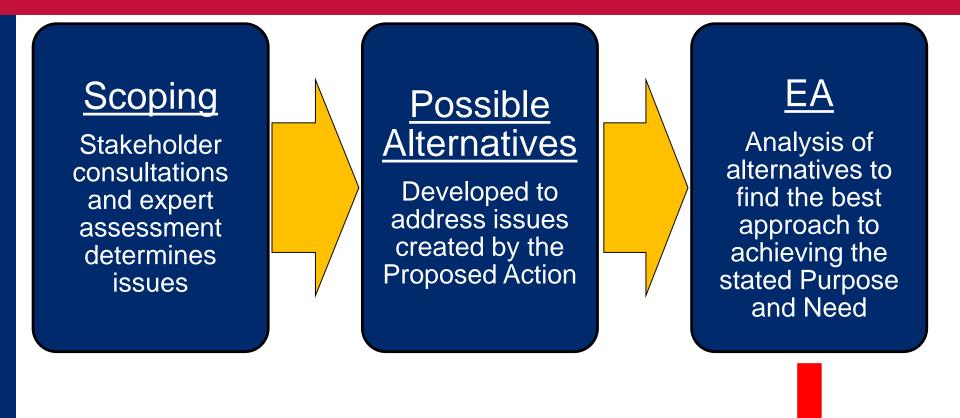


EA

- ID impacts requiring further investigation
- Possible alternatives
- Preliminary baseline information
- Preliminary methodology for the EA
- Consultations
- Timeline, expertise, and approach for the EA

- Scope of the assessment
- Purpose & Need of the proposed action
- Stakeholder engagement process
- Describes & evaluates the baseline situation
- Identify & characterize potential impacts of the proposed activity
- Identify & analyze alternatives
- Develop a mitigation and monitoring plan
- Communicate and document the evaluation process

What Informs Alternatives?





Additional alternatives are often developed during the EA in response to additional data collection and stakeholder consultation.

Alternatives Analysis

Alternatives analysis is a key component of the environmental assessment process through which issues are addressed and various options for fulfilling the purpose and need are evaluated for potential impact.



Where is the Alternatives Analysis addressed in the EA?

Summary

Purpose

Affected Environment

Comparison of alternatives

Environmental Consequences

List of Preparers

Present the alternatives considered

- Include the no action alternative and the proposed action
- Explain why certain alternatives were not considered

Compare the environmental impacts of these alternatives

- Summary of the analysis presented in "environmental consequences"
- Include any best management practices, design criteria or mitigation
 & monitoring that would be included

Identify the preferred alternative



Purpose of Alternatives Analysis

Responds to the potential issues and concerns identified during the Scoping phase

Informs the decision makers of options to achieve similar goals

Compares impacts
of different
approaches that
fulfill the
Purpose & Need

Reminder: What constitutes an issue?

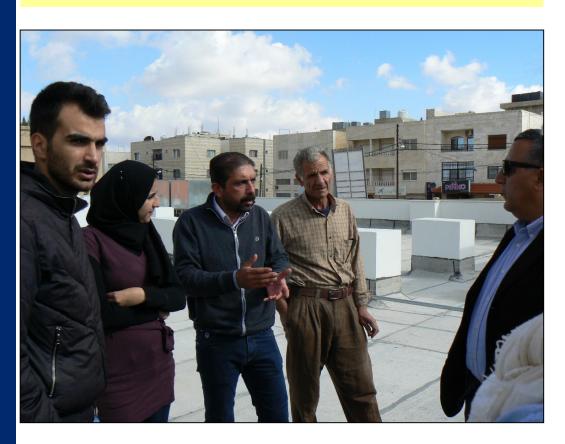
- A point of disagreement, debate, or dispute with a Proposed Action related to some anticipated environmental effects.
- It must be analyzed if...
 - The issue relates to how the proposed action or alternatives respond to the purpose and need, or
 - The issue is associated with a significant impact.





Where do alternatives come from?

Issues are identified during the Scoping and EA processes by...



- Interested & affected parties
- Other regional, municipal or national government agencies
- Indigenous groups
- Donors
- Others?

A viable alternative...

Responds to the Purpose & Need

Must not be substantially similar in design and effects to an alternative that is already analyzed

Implementation must not be remote or speculative

Must be economically and technically feasible

Must be consistent with the basic objectives for management of the area (conformance with land use plans, country objectives, etc.)

What's a "reasonable range of alternatives"?

- For any action, there are usually many possible alternatives.
- Guidance states that <u>a reasonable number</u> of options must be evaluated that <u>represent the</u> <u>full spectrum of the range of alternatives</u>

Alternatives Analysis

Identify the reasonable alternatives to be evaluated, including the "No Action" alternative, that fulfill the Purpose & Need

Present the impacts in comparative form, clearly defining issues

Examine alternatives based on technologies, project location, size, etc.

Identify the preferred alternative and justify the recommendation

Explain why some alternatives were eliminated from consideration

How to describe alternatives

- ✓ Indicate issue(s) addressed by the alternative and describe how the alternative addresses the issue
- ✓ Use an unbiased, equal, and consistent format
- ✓ Include all specific direct and connected actions
- ✓ Describe how, where, and when the actions would be implemented.
- ✓ Include any best management practices, design criteria or mitigation & monitoring that would be included
- ✓ Describe them as "would", not "will"



Comparison of Alternatives

Must compare alternatives with particular consideration of:

- Environmental and social impacts
 - Both positive and negative impacts (including cumulative and indirect effects) must be considered!
- Ability to address the stated Purpose and Need for the Proposed Action

Evaluation Approaches include:

- Qualitative
- Quantitative
- Mixed







No Action Alternative

- Required per CEQ* Regulations
- Provides the baseline condition to compare effects of other alternatives
- Considered a viable alternative that is evaluated equally with the other alternatives
- Two interpretations of the No Action:
 - Proposed action does not occur and existing conditions continue as-is
 - The current management scheme continues as-is



Elimination of Alternatives

An alternative may be eliminated if it...

- Is ineffective (would not respond to the purpose & need)
- 2. Technically or economically infeasible
- 3. Inconsistent with basic policy objectives of the area
- 4. Implementation is remote or speculative
- 5. Substantially similar in **design** to alternatives analyzed
- 6. Substantially similar in **effects** to alternatives analyzed

Elimination of Alternatives

If alternatives were considered and eliminated, the rationale for elimination should be briefly explained in the EA.



Summary

- Consideration of alternatives begins at the Scoping Phase and continues throughout the EA process
- The Alternatives Analysis informs decision-makers of a range of options designed to achieve the same development outcomes by providing a methodical comparison of their respective positive and adverse impacts
- The Alternatives Analysis must include the Proposed Action, the No Action Alternative and ultimately identify the preferred alternative
- Justification must be provided for alternatives that are considered and eliminated.