



USAID
FROM THE AMERICAN PEOPLE

EIA: A framework for ESDM

Environmental Compliance/ESDM Training Workshops
Lake Naivasha, Kenya ■ January & February 2010



Why this session? Isn't this workshop about USAID's Environmental Procedures, not EIA?

A USAID's environmental procedures are a specific implementation of the general EIA process

Understanding the basic EIA process makes USAID's procedures much easier to understand.

Mastering a set of core EIA skills is required for effective compliance during project design and implementation.

Defining EIA



Environmental Impact Assessment is

A formal process for identifying:

- likely effects of activities or projects on the environment, and on human health and welfare.**
- means and measures to mitigate & monitor these impacts**



Origins of EIA

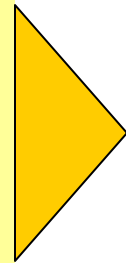
Cuyahoga River burns in 1966 (3rd time). Cleveland, Ohio, U.S.



1952 “Killer fog” kills 4,000 in London

1963 *Silent Spring* documents the effects of DDT

Etc. . .



**1960s & 70s:
Environmental crisis affects all industrialized economies**

EIA is one response:

*First national EIA requirements:
1970 US National Environmental Policy Act (NEPA) requires EIA for US government projects.*

**Other responses:
regulation of industry,
environmental treaties. . .**

EIA today

- ❖ **Most countries & almost all donors (including USAID) now have EIA requirements**
- ❖ **EIA now extends beyond government works to**
 - *Infrastructure and economic development projects funded by the private sector & donors*
 - *Analysis of policies, not just projects*
- ❖ **In many developing countries, national environmental regulation is centered on EIA requirements**

Key EIA concept: What is an impact?

The impact of an activity is the change from the **baseline situation** caused by the activity.

The **baseline situation** is the existing environmental situation or condition in the absence of the activity.

The **baseline situation** is a key concept in EIA.

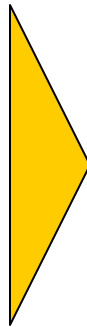
More...

! To measure an impact, you must know what the baseline situation is.



Characterizing the baseline situation. . .

the **environmental components of interest** are those:



- ❖ likely to be affected by your activity
- ❖ upon which your activity depends for its success

Water? *Quantity, quality, reliability, accessibility*

Soils? *Erosion, crop productivity, fallow periods, salinity, nutrient concentrations*

Fauna? *Populations, habitat*

Env Health? *Disease vectors, pathogens*

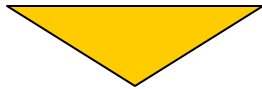
Flora? *Composition and density of natural vegetation, productivity, key species*

Special ecosystems? *Key species*



The baseline situation

The baseline situation is not simply a “snapshot.”



This chart of groundwater levels shows both **variability** and a **trend over time**.

Both are part of the groundwater baseline situation.

Types of impacts & their attributes

The EIA process is concerned with **all types of impacts** and may describe them in a number of ways

- * Intensity
- * Direction
- * Spatial extent
- * Duration
- * Frequency
- * Reversibility
- * Probability

Direct & indirect impacts

Short-term & long-term impacts

Adverse & beneficial impacts

Cumulative impacts

But all impacts are NOT treated equally.

Focus on the most significant impacts is ESSENTIAL

You probably do not have time and resources to analyze and discuss in detail less important ones.

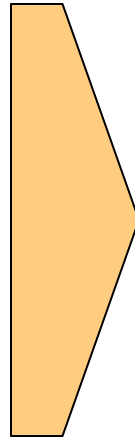
What is an activity?

The EIA process examines the impacts of **activities**.

✓ **An activity is:**

a desired accomplishment or output

E.g.: a road, seedling production, or river diversion to irrigate land



Accomplishing an activity requires a set of **actions**

ACTIVITY:

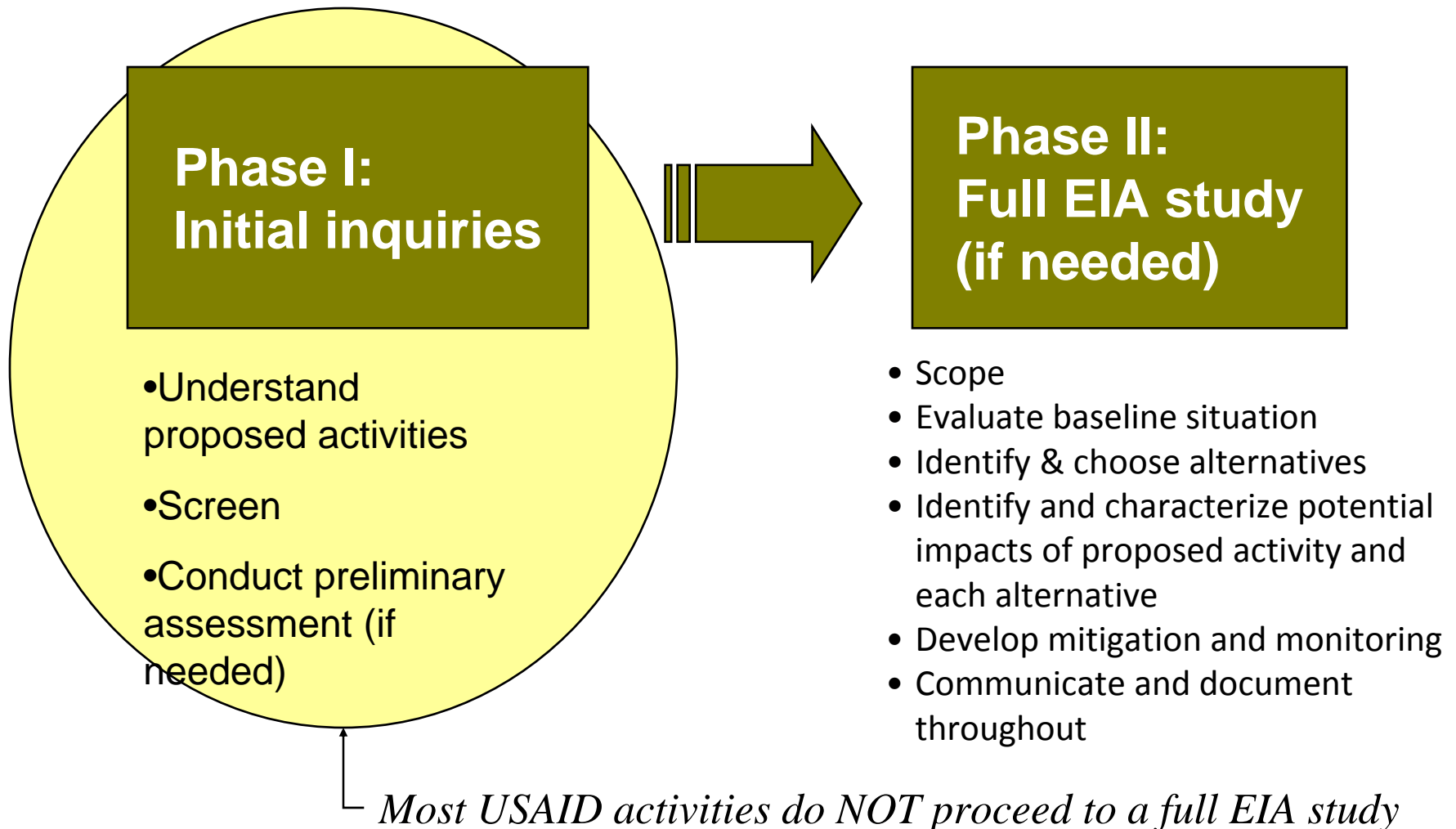
market access
road
rehabilitation

ACTIONS:

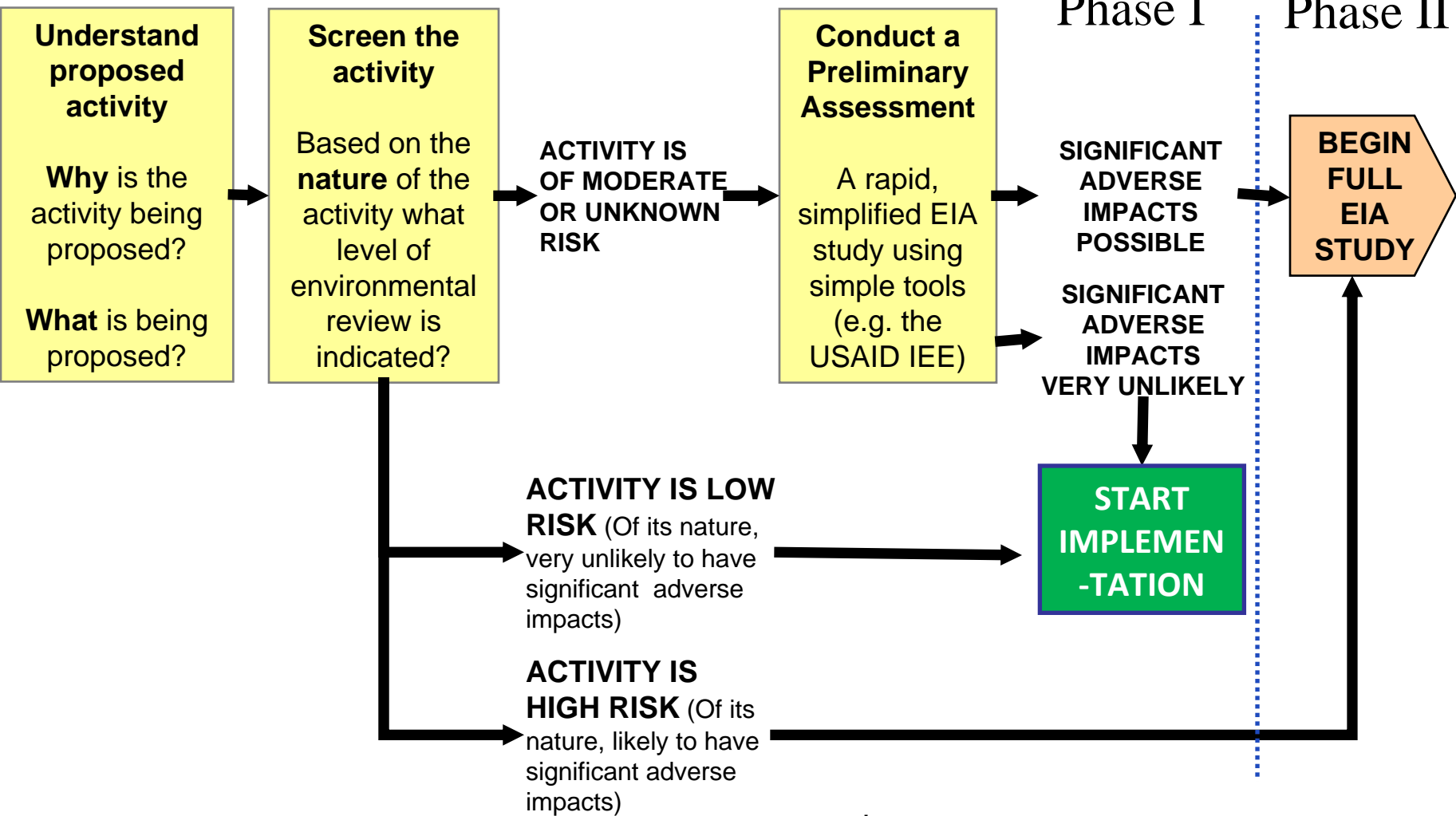
Survey, grading, culvert construction, compaction, etc. . .

A project or program may consist of many activities

The EIA process



Phase 1 of the EIA Process



* must implement any mitigation specified by the preliminary assessment



Phase 1 of the EIA process: **Screen the activity**

Screen each activity

Based on the **nature** of the activity, what level of environmental analysis is indicated?



SCREENING asks a very basic set of questions about the activity.


Example screening questions:

Does the activity involve:

- **Penetration road building?**
- **Large-scale irrigation?**
- **Introduction of non-native crop or agroforestry species?**

These questions do NOT:

- **require analysis.**
- **require detailed knowledge of the proposed sites, techniques or methods**



**Each donor agency
(like USAID) and
national EIA law has
its own set of
screening criteria.**

Phase 1 of the EIA process:

The Preliminary Assessment (e.g. USAID's IEE)

Conduct a Preliminary Assessment

A rapid, simplified EIA study using simple tools (e.g. the USAID IEE)

Purpose: provide documentation and analysis that:

- Allows the preparer to determine whether or not significant adverse impacts are likely
- Allows the reviewer to agree or disagree these determinations
- Sets out mitigation and monitoring for adverse impacts

! Screening determines whether the preliminary assessment is necessary

Phase 1 of the EIA process:

The Preliminary Assessment

Typical Preliminary Assessment outline

1. Background (Development objective, list of activities)
2. Description of the baseline situation
3. Evaluation of potential environmental impacts
4. **Mitigation & monitoring**
5. **Recommended Findings**

For each activity it covers, a preliminary assessment has 3 possible findings:

The activity is. . .

- **very unlikely to have significant adverse impacts.**
- **unlikely to have significant adverse impacts with specified mitigation and monitoring,**
- **likely to have significant adverse impacts (full EIA study is required)**



**We only proceed to
Phase II of the EIA process**

if

**Phase I indicates that
a FULL EIA STUDY
is required**

Phase 2 of the EIA process:

The Full EIA study (e.g. USAID's Env Assessment)

The full EIA study has very similar objectives and structure to a preliminary assessment.

However, the full EIA study differs in important ways:

**includes the project as proposed, the no-action alternative at least one other real alternative*



A formal **scoping process** precedes the study to **ID issues to be addressed**



Analysis of environmental impacts is much **more detailed**



Alternatives* must be formally defined. The impacts of each alternative must be identified & evaluated, and the results compared.



Public participation is usually required.

A **professional EIA team** is usually required.

EIA: A framework for ESDM

- ❖ **EIA: the internationally accepted process to achieve ESDM.**

Why?

The EIA process requires a **systematic treatment** of all ESDM elements.

EIA: A framework for ESDM

1

Be prevention-oriented

- ❖ Prevention begins with choice of **means**. “Consider alternatives” is a key principle of EIA.
- ❖ EIA provides a formal process to consider environmental issues and make changes at early stages in project design. **Early consideration is key to prevention.**

EIA: A framework for ESDM

2

Apply best development practices to environmental aspects of the activity

Technical soundness

EIA requires characterizing environmental conditions

Stakeholder commitment

Stakeholder consultation is central to EIA

Adaptive management

EIA requires a systematic approach to field monitoring

How does EIA address Climate Change?

Institutional and professional practice is evolving rapidly...

- ❖ **“Pure” EIA assesses the impacts of an activity on the environment**
 - *Usually only very large projects are significant contributors to GCC*
- ❖ **Usually of greater concern: the impacts of GCC on project performance/sustainability**
 - = a *climate vulnerability assessment*
 - *Requires same skills as EIA*
 - *Focus is not mitigation of impacts, but changes to project design to reduce climate vulnerability*

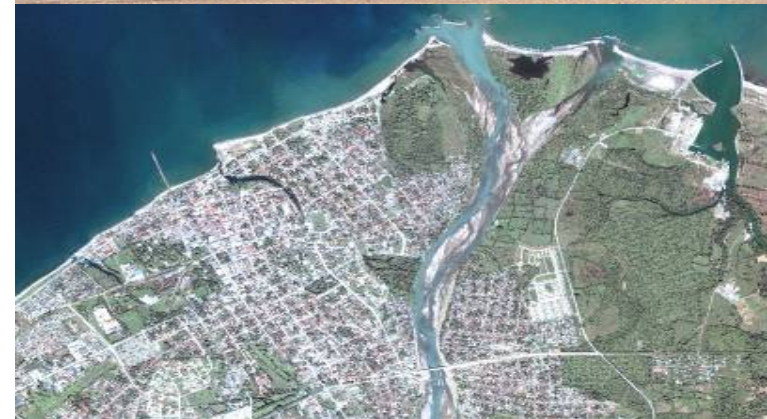
Highly complementary, and therefore combined into a single process/document

Meaning...




When climate change considerations are important. . .

- **climate change mitigation and adaptation planning and management** should be addressed in the outputs of the EIA process
 - *Adaptation planning and management mechanisms should be incorporated in the environmental mitigation and monitoring plan*
- **Examples:**
 - *Add project component targeted at clean energy or avoiding emissions*
 - *Siting options for the extension or modification of roads*
 - *Add activities to reduce flood and landslide risk*



EIA: More than just a good idea

- 
- EIA is:**
- **REQUIRED BY LAW** in most countries.
 - **REQUIRED** by almost all donors.

Summing up

- ❖ **ESDM requires (a) design and implementation of activities with an understanding of their environmental impacts, and (b) active efforts to minimize these impacts.**
- ❖ **ESDM requires following 3 basic rules:**
 - be prevention-oriented,*
 - apply best development practices, and*
 - be systematic.*
- ❖ **EIA is a tool to make ESDM a reality.**