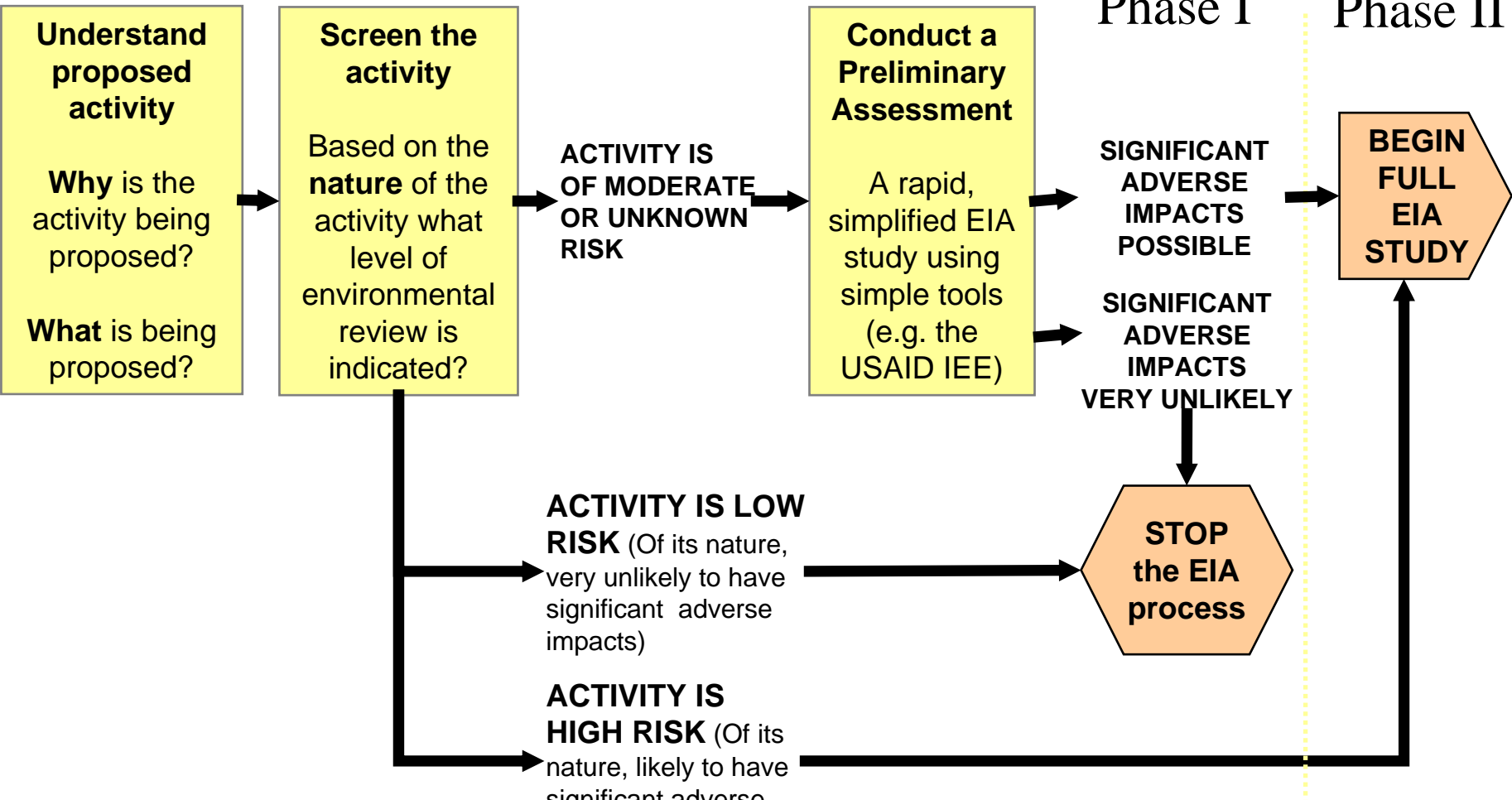




USAID
FROM THE AMERICAN PEOPLE

Information Requirements & Tools for Screening & Preliminary Assessment

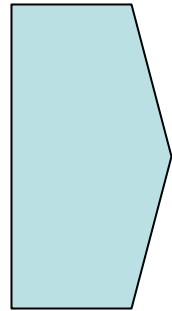
Review: Phase 1 of the EIA Process



Limited focus

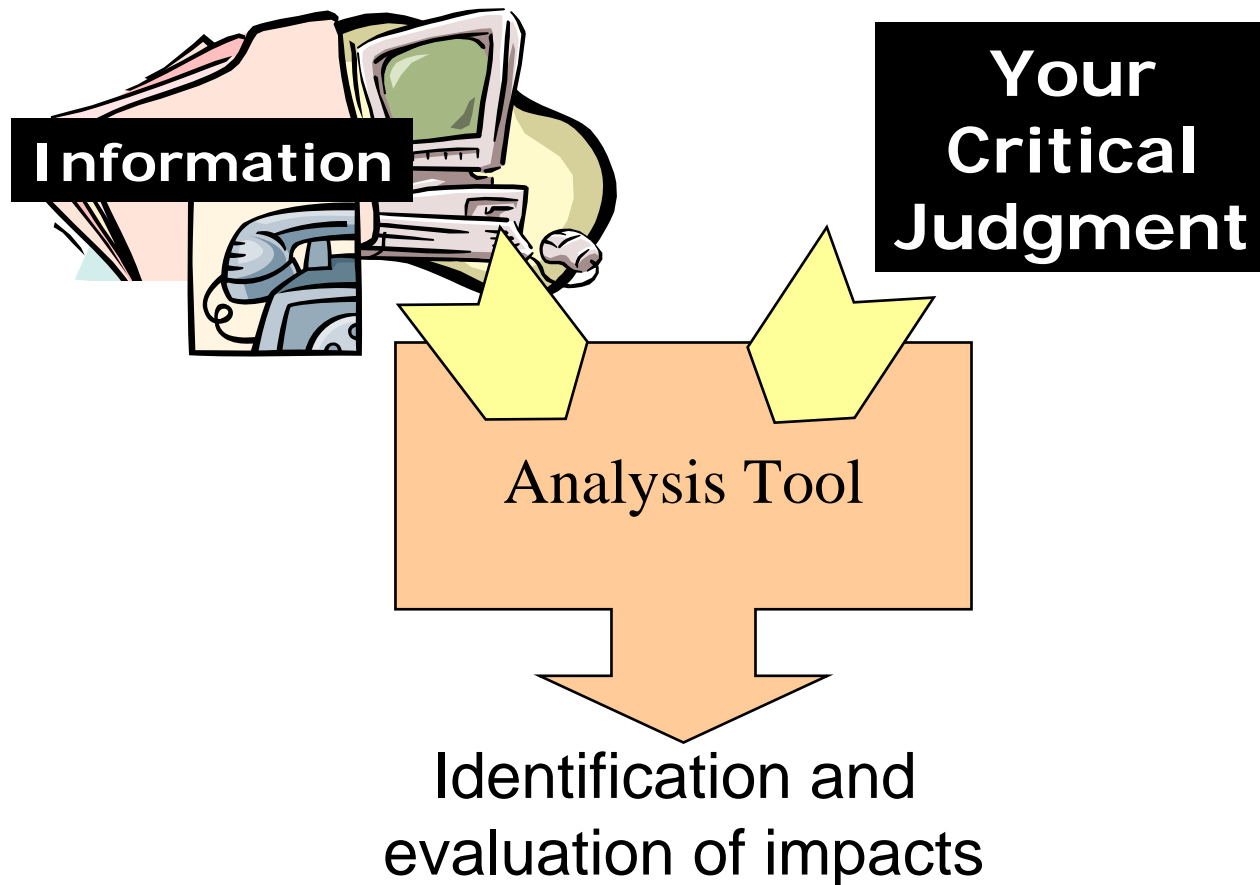
Remember. . .

Screening and preliminary assessment are straightforward processes requiring only basic analysis!



Therefore, we focus on the simpler tools and more limited information required by Phase 1.

Relationship between information and tools



What is a tool?

Tools are simply ways of organizing and analyzing information. *The outputs of a tool are only as good as the information that goes in.*

Tools don't provide automatic answers. *Your critical judgment is always required.*

Types of information required

- ❖ **Screening & Preliminary Assessment requires **three** basic types of information:**

1

Biophysical characteristics of site(s)

2

Economic and social data

3

Maps

Focus, please!

Only the most basic biophysical and economic/social data is required for screening.

Before you gather more detailed information, research likely impacts of the proposed activities.

Focus information-gathering on these likely impacts!

Where do I obtain information?

- 1 YOUR ORGANIZATION**
TALK to staff who know the project, and know the sites.
OBTAIN project documents and information
- 2 DIRECT OBSERVATION**
Go to the site(s)!
- 3 UTILIZE OTHER LOCAL TALENT & KNOWLEDGE**
communities, government, counterparts

Information Requirements & Tools. Visit www.encapafrika.org.



Aren't we forgetting something?

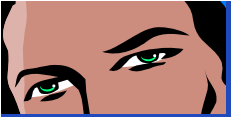
What about reports by donor organizations and international agencies? What about government statistics? GIS databases?

All these sources can be useful (and sometimes necessary)

But good local information is the most important input to preliminary assessment.

Why direct observation?


❖ Environmental review should not be a desk exercise:



We need to SEE

- Are latrines close to water supplies?
- Is there a drainage problem?

Visual inspection is the quickest and best way to check issues of location, scale and proximity that determine many impacts.



We need to LISTEN

- Is there a land tenure problem?
- How often does the river flood?

Stakeholders and local communities have local knowledge that you need.

And, impacts depend on what those affected value and need!



Talk to men **AND women.** Women's perceptions on environmental matters are critical and distinct.



Wait!

What if I can't travel to the sites?

If at all possible, DON'T make the preliminary assessment a desk exercise.

But if you can't visit the sites/area, you need:

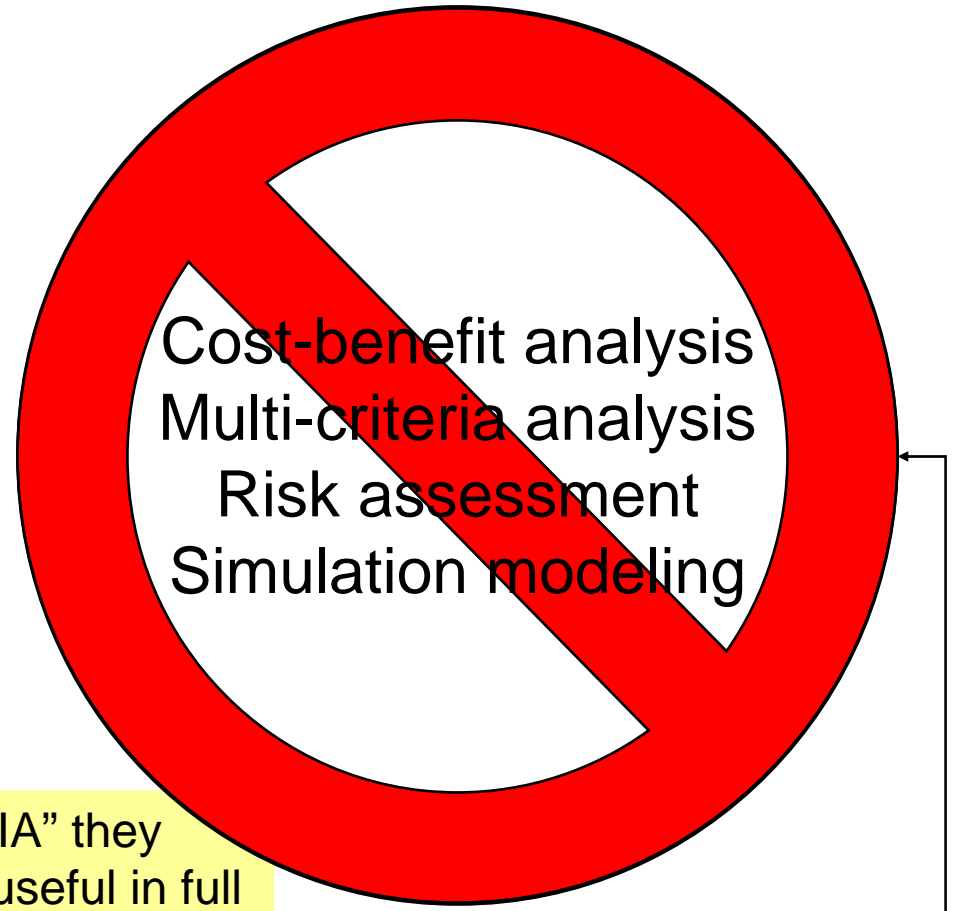
→ **MAPS** and **PHOTOS** to help you visualize the environment.

→ to **TALK** to people who have been there

Tools for Screening and Preliminary Assessments

Four basic tools:

1. Checklists
2. Matrices
3. Networks
4. Overlays



When many people hear “EIA” they think of these tools. All are useful in full EIAs, but they are rarely used for preliminary assessments. . .

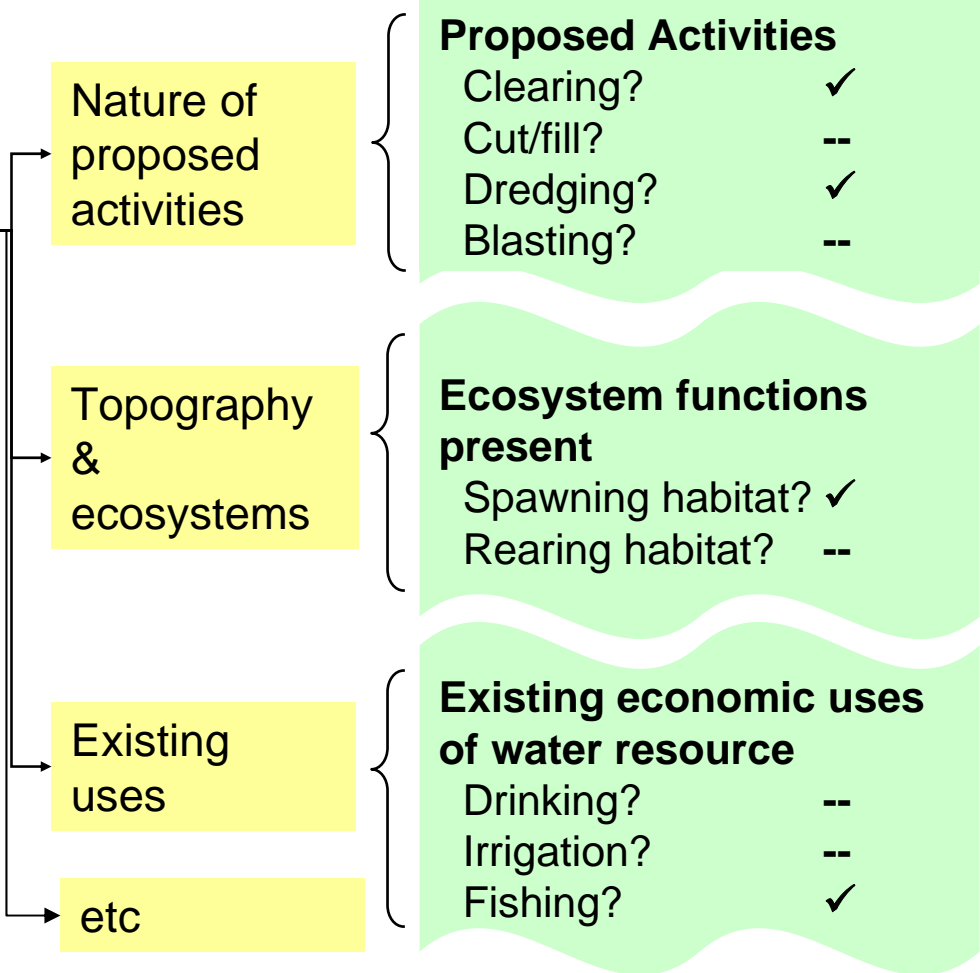
Don't panic!

1. Checklists

Checklists are simply lists of questions focused on “warning signs” of potential impacts & risks. Questions may concern...

Checklist questions are:

- Usually easily answered from field inspection & basic information about the activity.
- Answered with yes/no (or simple quantitative) responses
- Many sector-specific checklists exist



After Sadar, 1994

Checklists: Pros & Cons



Advantages

- Easy to apply for non-experts
- Bring structure and consistency to:
 - gathering and classifying information
 - characterizing the basic nature of a project
 - identifying potential environmental impacts
 - designing mitigation measures
- Help to assure that key impacts or issues are not forgotten

Good tools for field survey!



Drawbacks

Flaws or omissions in the checklist often become flaws in your analysis.

if an impact or issue is not on the checklist, it is usually forgotten

2. Interaction Matrices

What are they?

They are tables containing. . .

Aspects of the environment

| | Spawning habitat (substrate) | Fishing | Water quality | Water Flow |
|----------|------------------------------|---------|---------------|------------|
| Dredging | ↓ ↓ ↓ | | ↓ ↓ ↓ | +50% |
| Clearing | ↓ ↓ | | ↓ ↓ | |
| Access | | ↑ ↑ ↑ | | |

Proposed actions

An interaction matrix matches each action to its associated impacts

After Sadar, 1994

Qualitative or quantitative estimates of how a particular action affects a particular aspect of the environment

Matrices pros & cons



Advantages

- Filling in the matrix requires systematic consideration of the possible impacts of each action.
- Because actions are matched to impacts, facilitates the identification of **preventive mitigation measures**
- Summarizes a lot of information compactly & indicates the most significant impacts at a glance
- Easily accommodates a mix of qualitative & quantitative impact estimates



Drawbacks

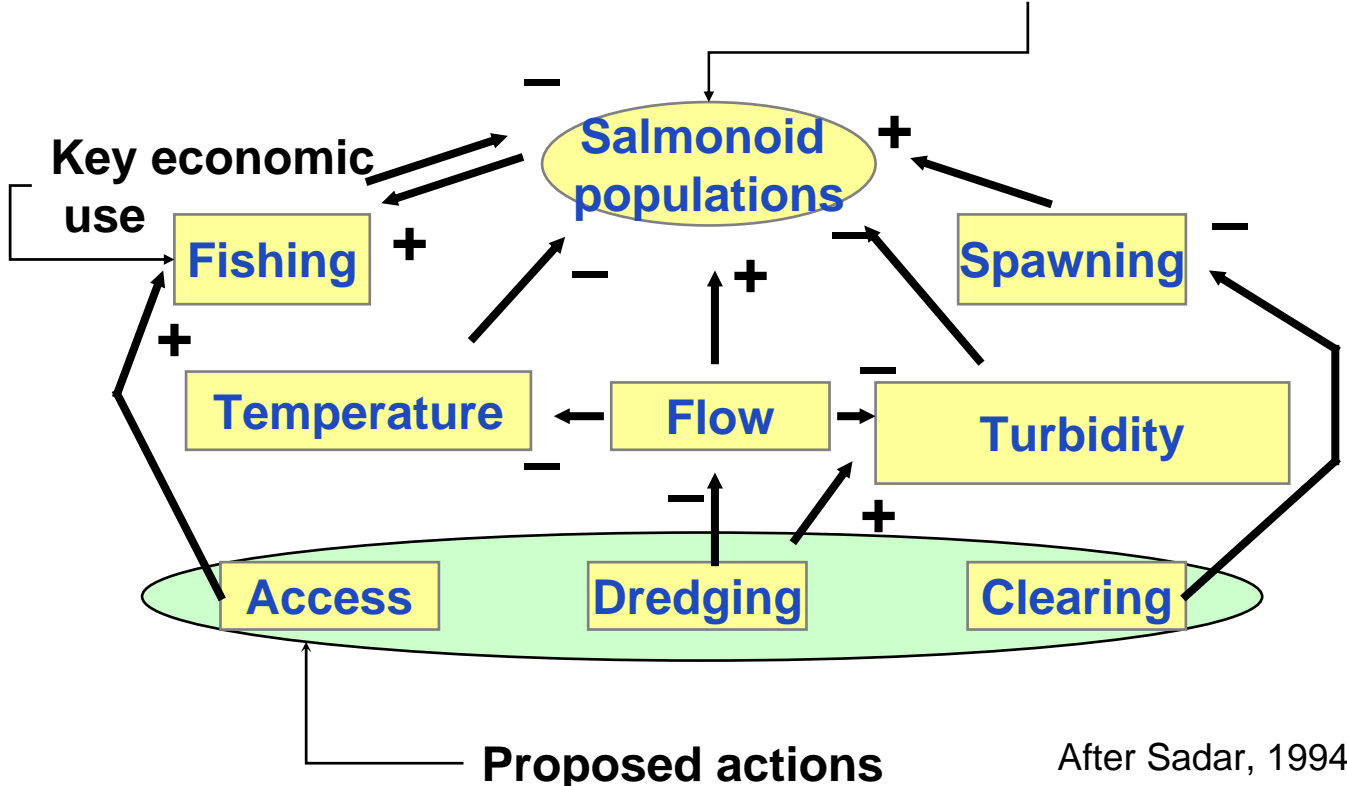
- Does not characterize the baseline situation
- Does not promote consideration of secondary impacts
- Hard to show change over time

3. Network Analyses

A diagram of the cause and effect linkages by which proposed actions affect environmental quality and resources

Key indicator of environmental quality

What do the signs mean?
 + cause and effect are directly related
 - cause and effect are inversely related



After Sadar, 1994

Network Pros & Cons



Advantages

- An excellent tool for identifying indirect impacts
- Provides a visual summary of cause and effect relationships that is easily understood & communicated to decision-makers
- Identifies intervention points for mitigation measures that may not be obvious

Networks show explicitly the cause and effect relationships that underlie a matrix

Drawbacks



- Can be hard to show adequate level of detail
- Static (cannot show change over time)
- Does not show relative significance of impacts

4. Map Overlays

Overlays are layered maps, in which each layer contains a particular type of **information.**

Layers can be added or removed. **Why?**

GIS is increasingly used to produce overlays. But handmade overlays on transparent plastic work well!

Political boundaries

Land use

Topography

(and more)

Hold on. . .

Overlays: Pros & Cons



Advantages

Excellent for assessing alternative routes for pipelines, roads, powerlines

- The significance of impacts often depends on location. ***Overlays make critical issues of location clear.***
- Maps are well-understood (good for communication to reviewers and to local communities)
- Maps are a basic part of information gathering for EIA. ***You already have a map. Use it to help you analyze impacts***



Drawbacks

- Unable to show timing, reversibility, and probability of impacts
- Sharp boundary definitions can be misleading

Choosing tools

Two key criteria for selecting tools

1

Appropriateness:
*will the tool produce
the needed output?*

&

2

Cost, time & effort
*Remember, EA is generally
<1% of project capital costs*



In general,
*sophisticated and resource-
intensive methods are not the
most appropriate in practice*