

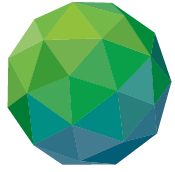
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Rabat, Kingdom of Morocco
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Strengthening Capacity for Economic and Financial Analysis (EFA) in Investment Project Design, Implementation and Evaluation

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Rabat, Kingdom of Morocco
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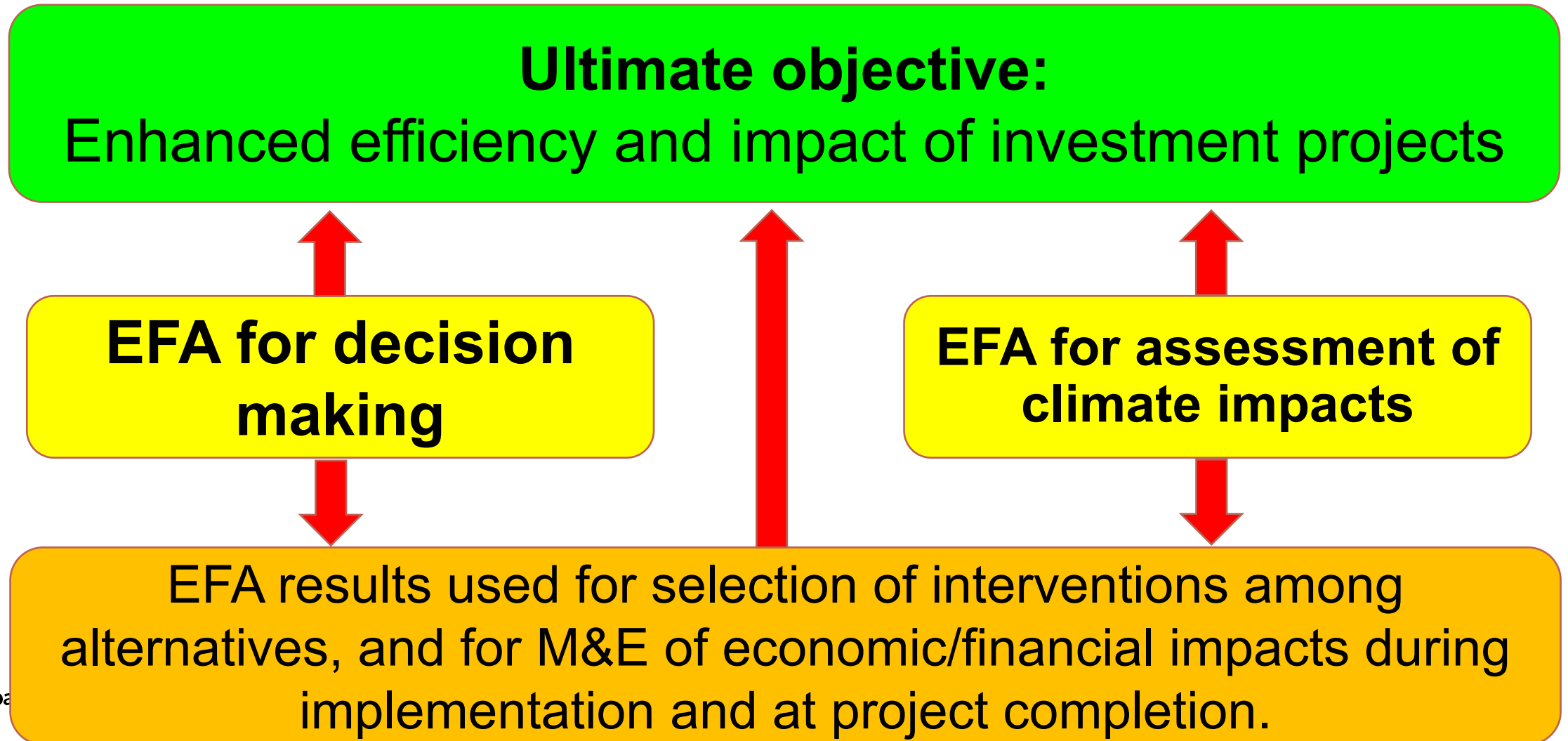
Objectives

- Understand basic EFA concepts and their relevance to their work (CONCEPTS);
- Plan and coordinate EFA activities related to their project's for design, implementation and evaluation, as appropriate (STEPS);
- Identify which economic data to capture as baseline and on ongoing basis for carrying out EFA during project implementation and at completion (TOOLS);
- Apply, as appropriate, the EFA concepts learnt in their project (PLANS).

Definition of Investment

- To *invest is to allocate money* (or other *resource*, such as time) in the *expectation of some benefit in the future*.
- the benefit from investment is called a *return*. The return may consist of ... investment income.
- Investment generally results in acquiring an asset, also called an investment.... it is normally expected either to generate income, or to [increase] in value... .

Objectives and Use of EFA



Objectives and Use of EFA

Why do we do EFA ?

➤ **Seeking the most efficient allocation of funds:**

1. How can we get the **most benefits/results from a limited amount of funds** available for investment ?
2. Will the **stakeholders be better off** due to the project?
3. Is the **country as a whole** better off due to the project?

EFA Concepts

Financial Analysis (FA)

examines the **financial returns to project participants:**

- beneficiaries,
- project entity,
- institutions and governments,

in order to demonstrate that all actors have enough financial incentive to participate.

EFA Concepts

Economic Analysis (EA)

assesses the projects efficiency in terms of its net **contribution to the national economic and social welfare.**

➤ **Economic viability and efficiency**

EFA usually also assesses:

- **Fiscal Impact**
- **Distribution of benefits**
- **Climate Impact**
- **Employment Impact**

EFA Concepts

Two most common techniques used in EFA:

1. Cost-benefit Analysis

2. Cost-effectiveness Analysis

EFA Concepts

Cost-benefit Analysis

- Analyses the generation of economic benefits and costs from a project through the comparison of the discounted flows of benefits and costs over a prescribed time horizon.

Required data:

- the number of years to include in the analysis (the project life or time horizon);
- the values of project benefits and costs (all expressed in monetary terms) for each year; and
- the discount rate

EFA Concepts

Cost-effectiveness Analysis

- Evaluates which project creates the desired or anticipated results at the lowest cost.
- Similar to a cost-benefit analysis in many important respects, but doesn't attempt to monetize all anticipated benefits deriving from the project.
- Its applicability is constrained by the need to make comparisons across alternative approaches to delivering roughly similar bundles of outcomes and benefits.

EFA Concepts

“With Project” and “Without Project” scenarios

- A before and after comparison does not take into account any changes (e.g. in production) that would occur without the project and would thus lead to wrong assumptions about the benefits arising from the proposed project.
- When we compare with and without project scenarios, the difference we get is the incremental net benefit – the value which we will use for deciding whether to go forward with the project or not.

EFA Concepts

Identifying costs

- The costs used for EFA extend beyond the costs identified when preparing the project budget.
- Typically, costs are easier to identify and value than benefits.

EFA Concepts

Identifying benefits

- **Tangible:** Things that are material in nature, meaning they can be touched, observed. Examples include increased yields, or reduced losses.
- **Intangible:** Goods and services that are not material in nature, and cannot be easily valued in monetary terms – e.g. access to services, reduced morbidity.

EFA Concepts

Identifying benefits

Intangible benefits:

- **Carbon sequestration, reduced carbon emissions**
- **Improved health**
- **Reduced infant mortality**
- **Increased school enrolment**
- Not easily valued, but should still be identified and quantified, even if not in monetary terms.
- Methods to put a monetary value on these benefits exist.

EFA Concepts

Discounting

- Discounting allows us to compare costs and benefits received at different points in time.
- Cost and benefit streams occurring in the future are therefore discounted.
- A discount rate is applied to the net benefits in each year to calculate their **Net Present Value.**

EFA Concepts

Profitability Indicators

Net present value (NPV):

- Discounted present value of cost is subtracted from discounted present value of benefits.
- Or, incremental net benefit stream is discounted.
- Accept all independent projects with a NPV of 0 or greater.
- For mutually exclusive projects, preferred selection criterion - accept project with highest

NPV

EFA Concepts

Profitability Indicators

Internal rate of return (IRR)

- Maximum interest rate a project could pay for resources used if it is to recover its costs and break even.
- Discount rate that would give a project an NPV of 0.
- Drawback: Cannot be calculated if all discounted NPVs in cash flow are positive.
- Accept all projects with an IRR equal or greater to the opportunity cost of capital.
- Not suitable for ranking of competing projects of different sizes.

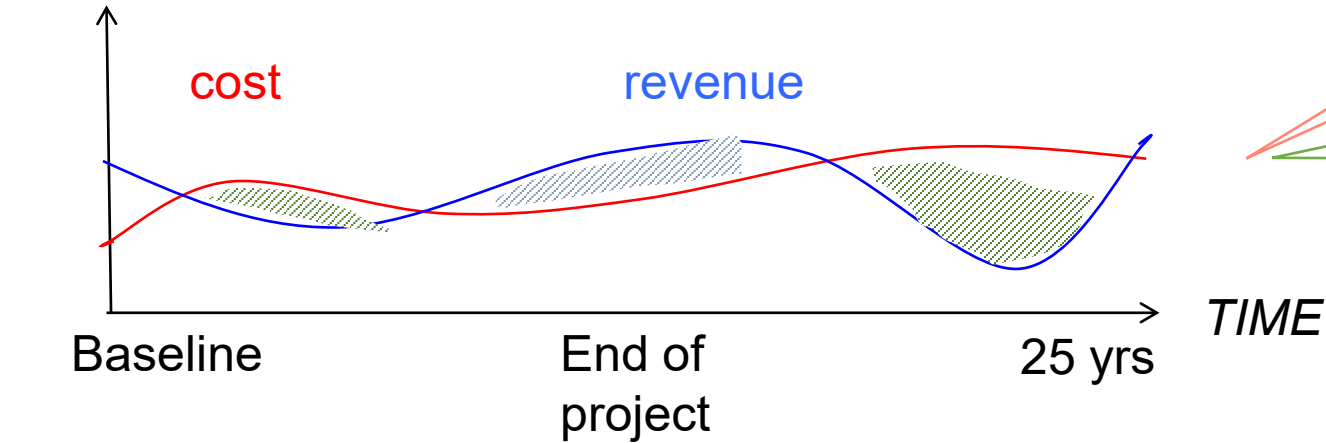
EFA Concepts

Steps in Economic Analysis

1. Convert all market prices into economic/shadow prices that reflect the social opportunity cost.
2. Remove transfer payments (taxes and subsidies).
3. Quantify externalities in monetary terms (positive and negative).
4. Describe phasing patterns of and aggregate cash flows.
5. Include project costs and calculate economic performance indicators adopting a social discount rate: ENPV, ERR.
6. Perform sensitivity analysis to assess potential economic impact of the main risks and uncertainties that could affect the proposed project.

Financial analysis

WITHOUT PROJECT



Revenues from:

- Sales (volumes and prices)
- Wages

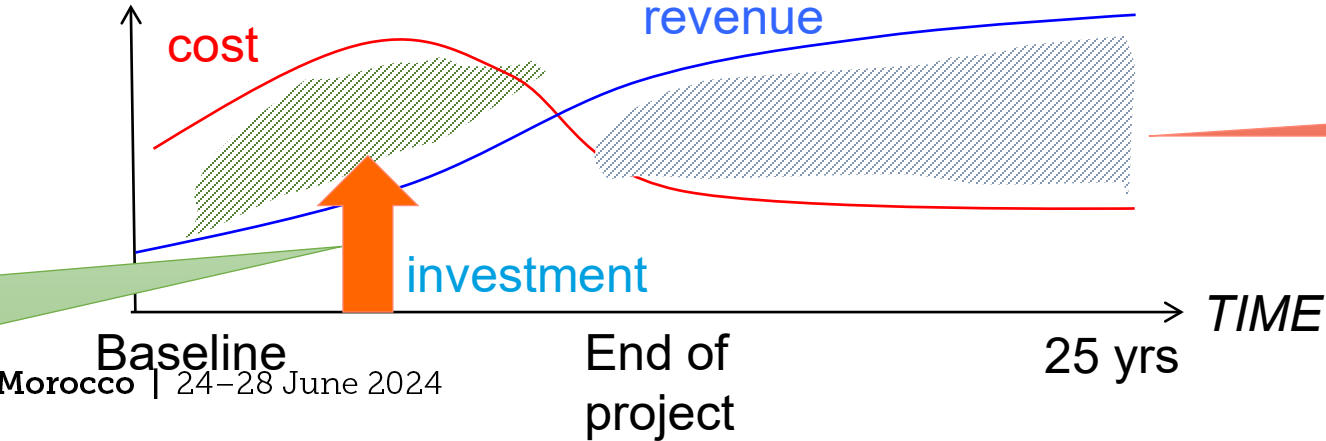
Costs from:

- Credit
- Inputs (volumes and prices)
- Labour costs

Balance:

Net Profit (can be negative)

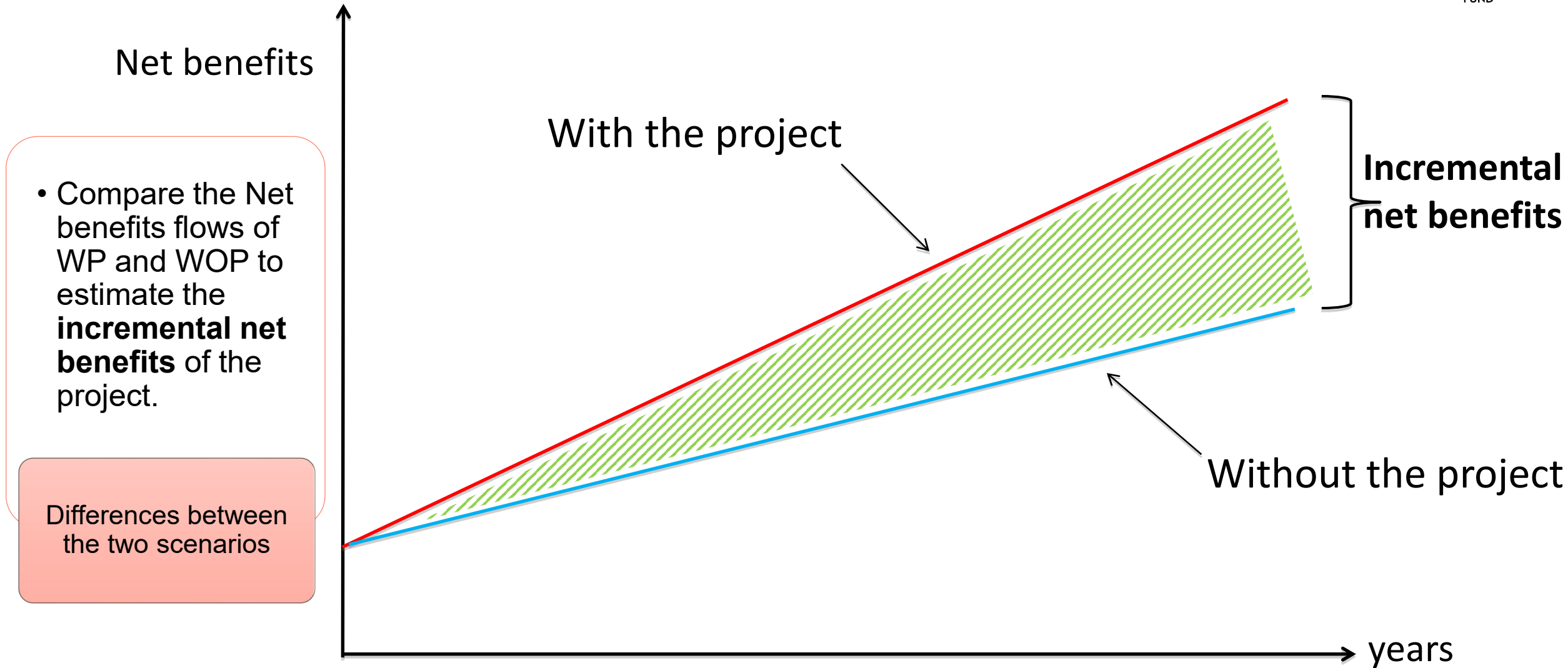
WITH PROJECT



Investment:
E.g. loans for
new equipment,
stock,
better seeds

Higher profit expected

“With Project” vs “Without Project”





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EFA during the Project Cycle

Purpose of EFA in each phase of the Project Cycle

Project Cycle Phase	Identification/ Concept	Design/ Appraisal	Implementation	Completion/ Evaluation
Purpose of EFA	Description of expected benefits/costs, preliminary analysis	Resource allocation decisions, component/ intervention selection	Resource re-allocation decisions, M&E of results, business planning	Assessment of results and project efficiency, learning, scaling up
Main Data Sources	Secondary data	EFA studies, design and appraisal missions	M&E System, MIS, EFA studies, business plans, value chain analyses	M&E System, MIS, impact evaluation, ICRR mission

Thank you

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