Monitoring EbA

Introducing the Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions

Online training on 'nature-based solutions for global challenges' in Asia and the Pacific

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GOAL

Provide a brief overview of the Guidebook to get you acquainted with its content…and entice you to take a closer look!

Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions

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Why a Guidebook on M&E for EbA ?

- We need to adapt to negative climate change impacts

- EbA is an important approach for doing so

- But there are so many uncertainties!

- M&E provides the foundation for adaptive management: the key to managing uncertainties

- We need M&E for understanding whether or not – and why – an intervention is achieving its objectives

- M&E for adaptation is tricky – and even more so for EbA

- Meaningful M&E often gets neglected

- A Guidebook can be a great tool to help!

What does the Guidebook do?

- Overview of process for designing and implementing effective M&E for EbA interventions on the ground

- Intricacies and challenges associated with monitoring and evaluating EbA

- Emphasis on evaluating outcomes and impacts

Who is it for?

- Primarily for practitioners and planners who design and implement EbA on the ground

- Those who want to assess and understand *results* of EbA interventions

When to use it?

- Ideally, in early stages of designing an EbA intervention

- Can also assist interventions already underway (e.g. improve original logical framework, M&E processes, mid-term review and evaluations)

How is it structured?

Background

- **Key terms and concepts for understanding EbA and M&E**

- **Complexities and challenges associated with M&E of EbA and wider adaptation**

Four steps

Step 1: Developing a results framework

Step 2: Defining indicators & setting a baseline

Step 3: Operationalizing the M&E system

Step 4: Using and communicating the results

Each section also includes...

This section in brief

Additional useful resources

Box – 16 – *Automating environmental monitoring to reduce data collection workload: the ITT SmartSense*

The Institute for Technology and Resource Management in the Tropics and Subtropics (ITT) at the Cologne University of Applied Science has developed low-cost sensor technology for reliable and comprehensive automated collection and monitoring of environmental data, known as the ITT SmartSense (see http://itt-smartsense.info). The SmartSense is a small device with sensors that records measurements and sends the readings to a remote server using a mobile network. These measurements are stored in a database that can be accessed anytime in common formats, such as Excel spreadsheets. This automated process eliminates the need for M&E teams to collect certain environmental data and enter measurements, thereby also avoiding inconsistencies that can arise from manual data entry. Furthermore, the SmartSense is equipped with features that make it practical and easy to maintain, including weather-proof protection, solar-powered autonomous operation and long battery life, low battery alerts, and 'device offline' alerts.

Three variations of the SmartSense device have been developed, focusing on agriculture, water, and weather monitoring. The agriculture monitoring device provides continuous recording of important soil parameters, including soil temperature, soil moisture and ambient temperature. It also has the ability to connect additional sensors for measuring, for example, solar radiation, UV and trunk diameter. The water monitoring device measures the level, pressure and temperature of water, and numerous water quality parameters like nitrate, pH, salinity, and heavy metal. The weather monitoring device measures air temperature, relative humidity, wind speed, rainfall, solar radiation, and air pressure. Many of these parameters are potentially important indicators for EbA interventions, such as ecosystem health and climate conditions (see Step 2).

ANNEXES

Annex – 1 – Narrative description of results chain 1 of Theory of Change presented in Figure 4

Taking a (slightly) closer look at the four steps...

¡¡ Don't forget ¡¡

- No one-size-fits-all approach for monitoring and evaluating EbA
- The four steps are broad ones that any project team of an EbA intervention can follow
- Use them as the basis for designing and implementing a robust M&E system

Taking a (slightly) closer look at the four steps...

Step 1

Developing a results framework

- Discusses need for setting clear objectives and mapping the pathway for achieving these objectives

- Explains how results frameworks can assist you in doing so

- Outlines different types of results frameworks available

- Recommends using a Theory of Change approach for EbA interventions

- Expands on when and, broadly, how to use the Theory of Change approach, potential limitations, and what it can look like

Taking a (slightly) closer look at the four steps...

Step 2

Defining indicators, baselines and targets

- Introduces types of indicators available for M&E

- Highlights importance of focusing on outcome and impact indicators in order to understand effectiveness of EbA measures

- Provides general guidance for selecting the best indicators

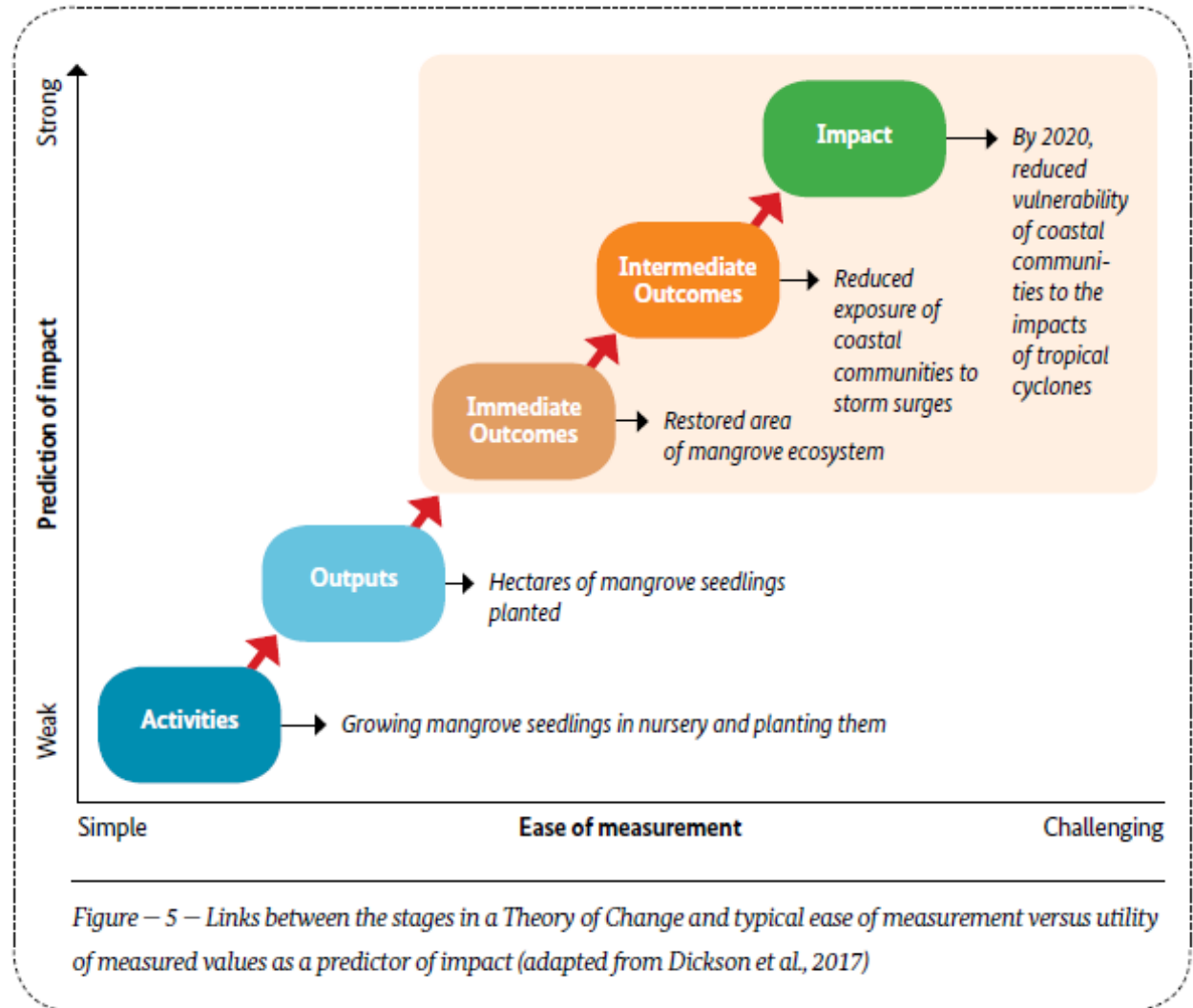- Highlights the importance of setting a baseline and identifying targets

Taking a (slightly) closer look at the four steps...

Defining indicators, baselines and targets

Also consider focal areas of EbA interventions!

- How would we know that change has happened related to this outcome?
- How will we know success when we see it?
- What would be the evidence of this change?

Figure — 5 — Links between the stages in a Theory of Change and typical ease of measurement versus utility of measured values as a predictor of impact (adapted from Dickson et al., 2017)

Taking a (slightly) closer look at the four steps...

Operationalizing the M&E system

- Provides overview of elements that are key to operationalizing any M&E system for EbA:
  - Choosing the right evaluation design
  - Important considerations about data types
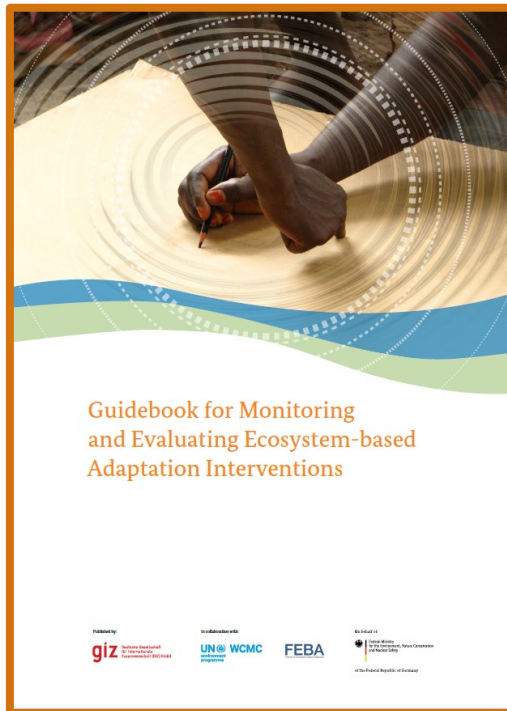 - Elements of effective and efficient data collection, entry, analysis and interpretation

Taking a (slightly) closer look at the four steps...

Step 4

Using and communicating the results

- Discusses the need to use M&E results to:
  - Inform adaptive management
  - Communicate results to external audiences (donors, communities, policy makers, wider adaptation community)

Download a copy of the Guidebook ([ENG](#) or [ESP](#)) and explore its content!

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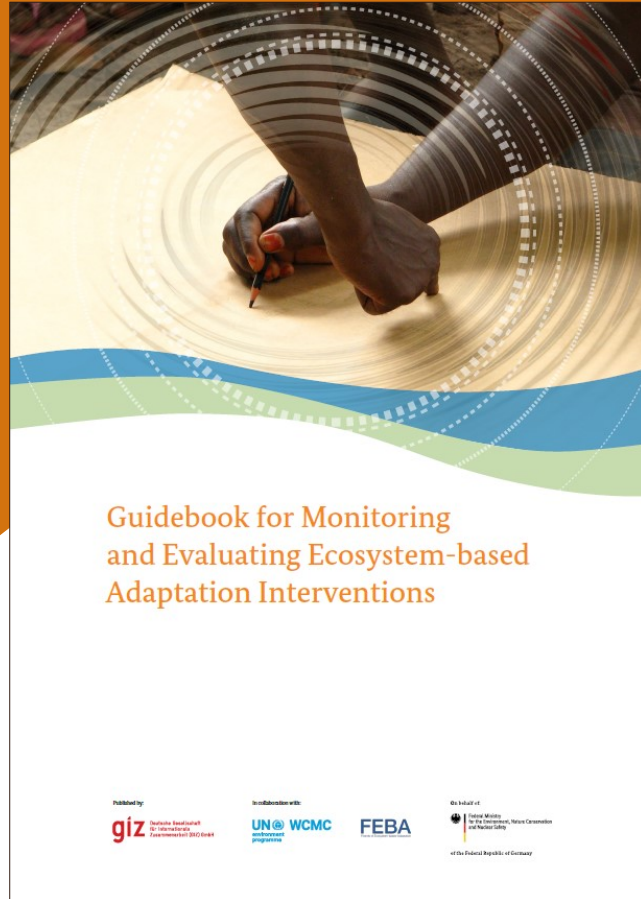
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Resources

Usage of the Guidebook so far

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Development of M&E methodology in Thailand

Applying the Guidebook with the EbA Support Facility

M&E online seminar on indicators and ToC

THANK YOU

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