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# Capacity Building on GBEP Sustainability Indicators for Bioenergy in the ECOWAS countries

**GBEP Stepwise approach:  
practical guidance on the full implementation of the  
GBEP Sustainability Indicators for Bioenergy**

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## Background

- Based on previous experiences and lessons learned:
- from pilot projects carried out by GBEP Partners and Observers starting from 2012 (e.g. Egypt, Ghana);
- from the full implementation of GBEP indicators by FAO experts in Colombia, Indonesia, Paraguay and Viet Nam.

## Objectives

- Explain the steps required
  - **Enhance the practicality of the tool** and facilitate their implementation
  - Provide **practical guidance to elaborate and carry out a project proposal** on the full implementation of the GSI;
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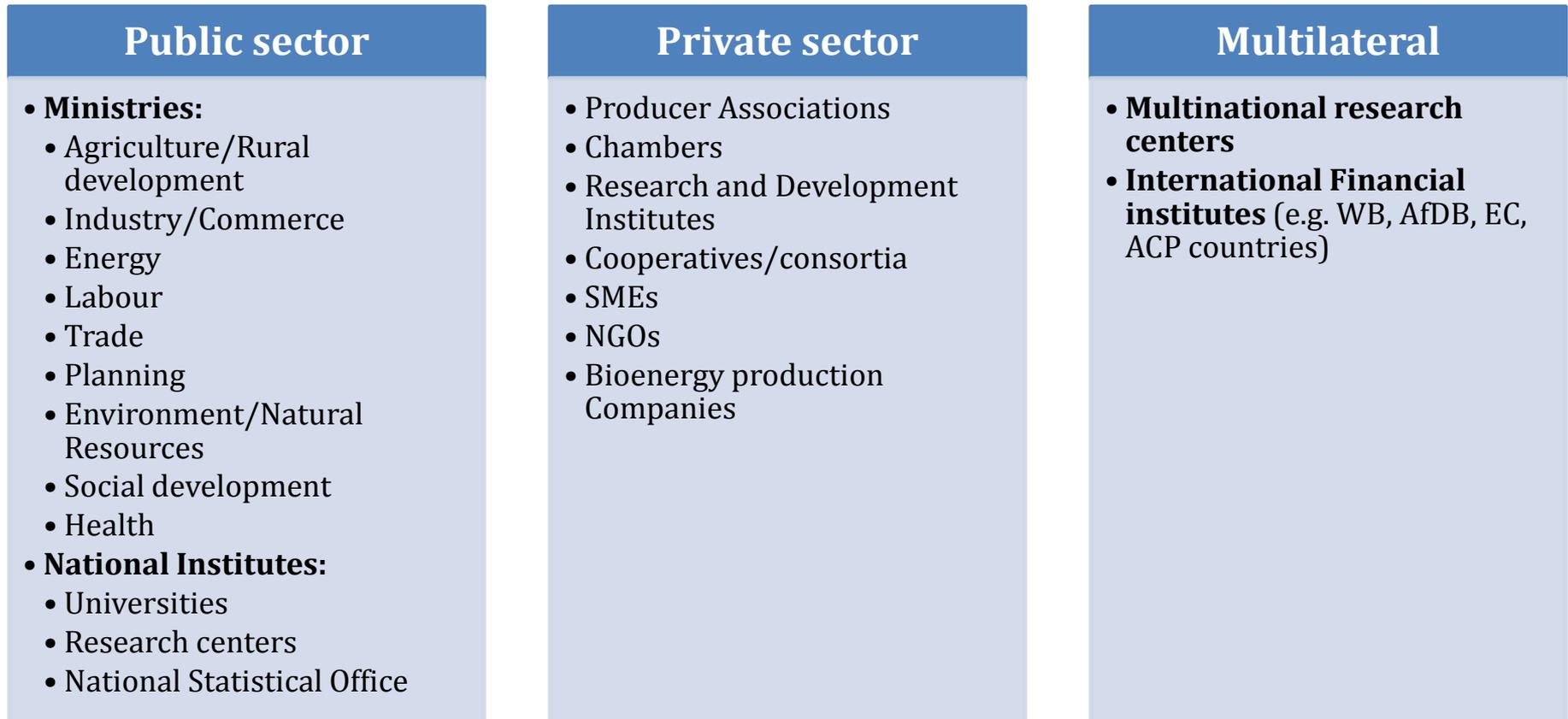
- Nine working packages (WPs)
  - It includes information on each WP:
    - results chain;
    - details of the activities;
    - time allocated;
    - actors involved.
  - Estimated total project time = **24 months** from the presentation of the project to the local government until spreading of results, as shown in the following Gantt chart ...
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Working packages	Month YEAR 1												Month YEAR 2												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>WP1:</b> Project presentation, country ownership, multi-stakeholder working group creation and identification of most relevant bioenergy pathways																									
<b>WP2:</b> Selection of relevant indicators and identify data sources and gaps, selection of national institutions, and assessment of capacity and need of trainings for the measurement of the GBEP indicators																									
<b>WP3:</b> Data collection strategy definition, primary and secondary data sources and requirements scoping																									
<b>WP4:</b> Training activities for indicator measurement and long term monitoring																									
<b>WP5:</b> Indicator measurement for the selected bioenergy pathways																									
<b>WP6:</b> Multi-stakeholder project evaluation, results validation and possible policy implications																									
<b>WP7:</b> Information sharing and dissemination, discussion on lessons learned and partnerships formation																									
<b>WP8:</b> Way-forward agenda for long-term measurement and use of the GBEP indicators																									
<b>WP9:</b> Project conclusion, and final reports publishing and dissemination																									



1. Project presentation to local government, development of a sense of country ownership;
2. Multi-Stakeholder Working Group (MSWG) creation



*Example of a stakeholder map for MSWG*



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## Role of the MSWG:

1. Identify the most relevant bioenergy pathways in the country;
  2. Evaluate the relevance of each GSI for the selected bioenergy pathway(s);
  3. Provide ongoing evaluation of project activities and preliminary results;
  4. Validate the final results of the project; and
  5. Identify possible political implications.
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## Detailed description of the bioenergy pathways, national regulatory framework and relevant institutional context

- A **detailed description of the bioenergy pathways**, including: the main feedstocks and technologies utilised; the volume of production and use of the different types of bioenergy/biofuels considered; the scale of use (i.e. industrial, household, etc.); the various steps; system boundaries; actors involved and respective roles along the value chain.
  - The baseline situation, such as fossil fuels or traditional biomass, that the modern bioenergy value chain is replacing should also be described as this will determine which indicators are relevant to be measured, and will be used for defining the **baseline situation for comparison**.
  - **Description of the institutional context** – the national regulatory framework in agriculture, forestry, energy, environment/climate change, etc.; and international instruments and agreements (such as the **Sustainable Development Goals -SDGs- and the Nationally Determined Contributions -NDCs-** under the UNFCCC), and the relationship between the domestic bioenergy sector and related policies and such instruments.
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## Objectives:

- 1. Select relevant indicators;**
  - 2. Select national Centers of Excellence and definition of the national team of experts and researchers;**
  3. Formally engage and contract them for the measurement campaign; and
  4. Identify priority areas for human and institutional capacity development for the implementation of the GBEP indicators
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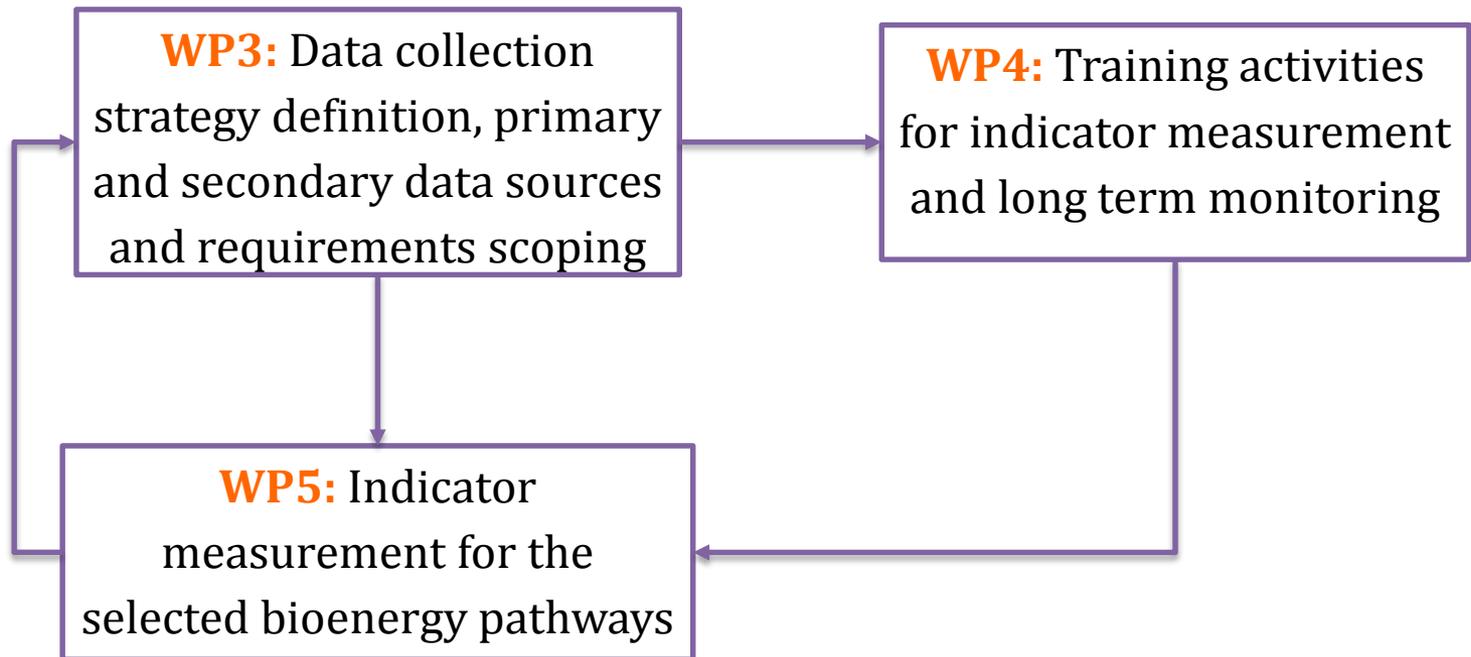
## Selection of national institutions and team of experts for the measurement campaign

### Choosing national experts and institutions

- *The selection of national institutions is of particular importance because **they will receive the capacity development and know-how to monitor the indicators in the future. These institutions will become the leaders for the continuous monitoring of the indicators in the country** so it is important to **prioritize public institutions** that have a greater time and space horizons and could act as trainers for other implementers (for **knowledge transfer**).*
- *The selection should therefore be **as standardized and transparent as possible**. Criteria for the choice of national institutions could include:*
  - *Ranking by the number and impact of relevant papers published in international journals;*
  - *Interviews with scientists/researchers; and*
  - *Auto-evaluation of capacity to measure the GSI.*



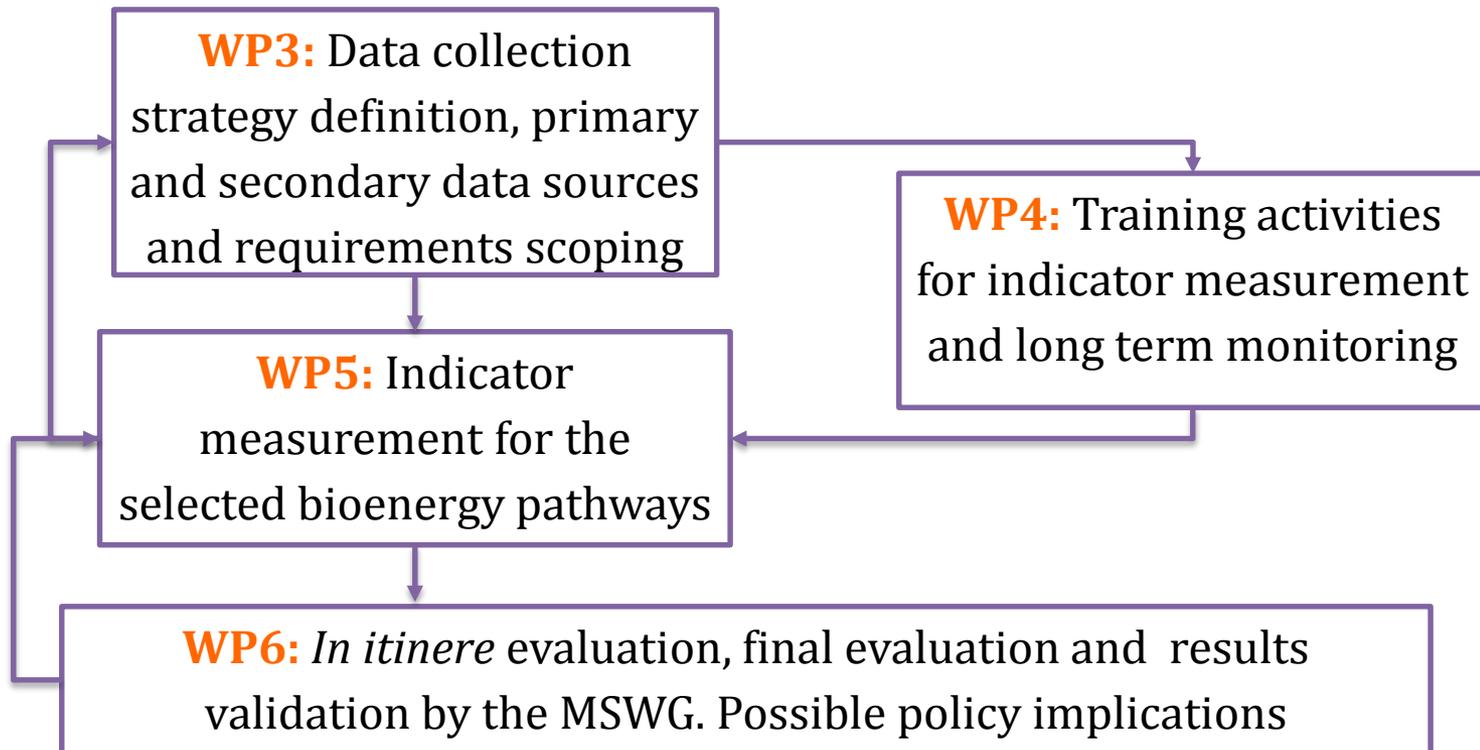
## ...an iterative process



The data collection strategy (WP3) can be refined *in itinere* to overcome constraints/challenges met during the measure



## ...an iterative process



The *in itinere* evaluation given by the MSWG could imply a revision of the project implementation strategy



... after results validation by the MSWG

**WP7:** Information sharing and dissemination, discussion on lessons learned and partnerships formation



**WP8:** Way-forward agenda for long-term measurement and use of the GBEP indicators



**WP9:** Project conclusion, final reports publishing and dissemination





## Implementation Guide

- Aim to:
  - refine the strategy and facilitate the implementation of the tool;
  - assure the data consistency in the final report.
- To include:
  - A **list of data needed** for each of the 24 indicators, to underline which data is used as input for various indicators; and
  - An overview of **all possible links among indicators**, and a model on the **information flow**, to suggest the order of measure of the GSIs.



*...to be continued*

**An excel and/or web interface based on a computerized model to significantly reduce the time, skills and cost required to measure the GBEP indicators.**

