Towards Sustainable Bioeconomy Guidelines: Monitoring & Evaluation

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FAO's Work on Sustainable Bioeconomy

- FAO has been working for many years on food and non-food **biomass products** (including sustainable bioenergy) and biotechnology

- FAO received a mandate to coordinate international work on '**food first' sustainable bioeconomy** by 62 Ministers at the Global Forum for Food and Agriculture (GFFA) meeting in Berlin in 2015

- FAO has received support from the Government of Germany to develop **guidelines on sustainable bioeconomy development** (Phase 1: 2016; Phase 2: 2017- 2020). This includes work on **bioeconomy monitoring**

FAO's Work on Sustainable Bioeconomy (II)

- **The International Sustainable Bioeconomy Working Group (ISBWG)**
  - 13 country representatives and affiliated institutions (Argentina, Brazil, Canada, China, Germany, with the German Bioeconomy Council, Finland, Italy, Malaysia, Namibia, The Netherlands, South Africa, Uruguay, and USA)
  - 2 regional governing bodies and affiliated institutions (European Commission, with the Bio-Based Industries Joint Undertaking, Nordic Council of Ministers)
  - 2 NGOs (WWF, TSC)
  - 3 Private Sector entities (BIC, WBCSD, DSM)
  - 3 research institutions (FARA, SEI, CIAT)
  - 4 inter-governmental organizations (OECD, UN-ECLAC, UNEP and FAO)

- The ISBWG agreed on a set of **10 Sustainable Bioeconomy Aspirational Principles and related Criteria (P&C)** (2016)

Project Subcomponent: Monitoring Sustainable Bioeconomy

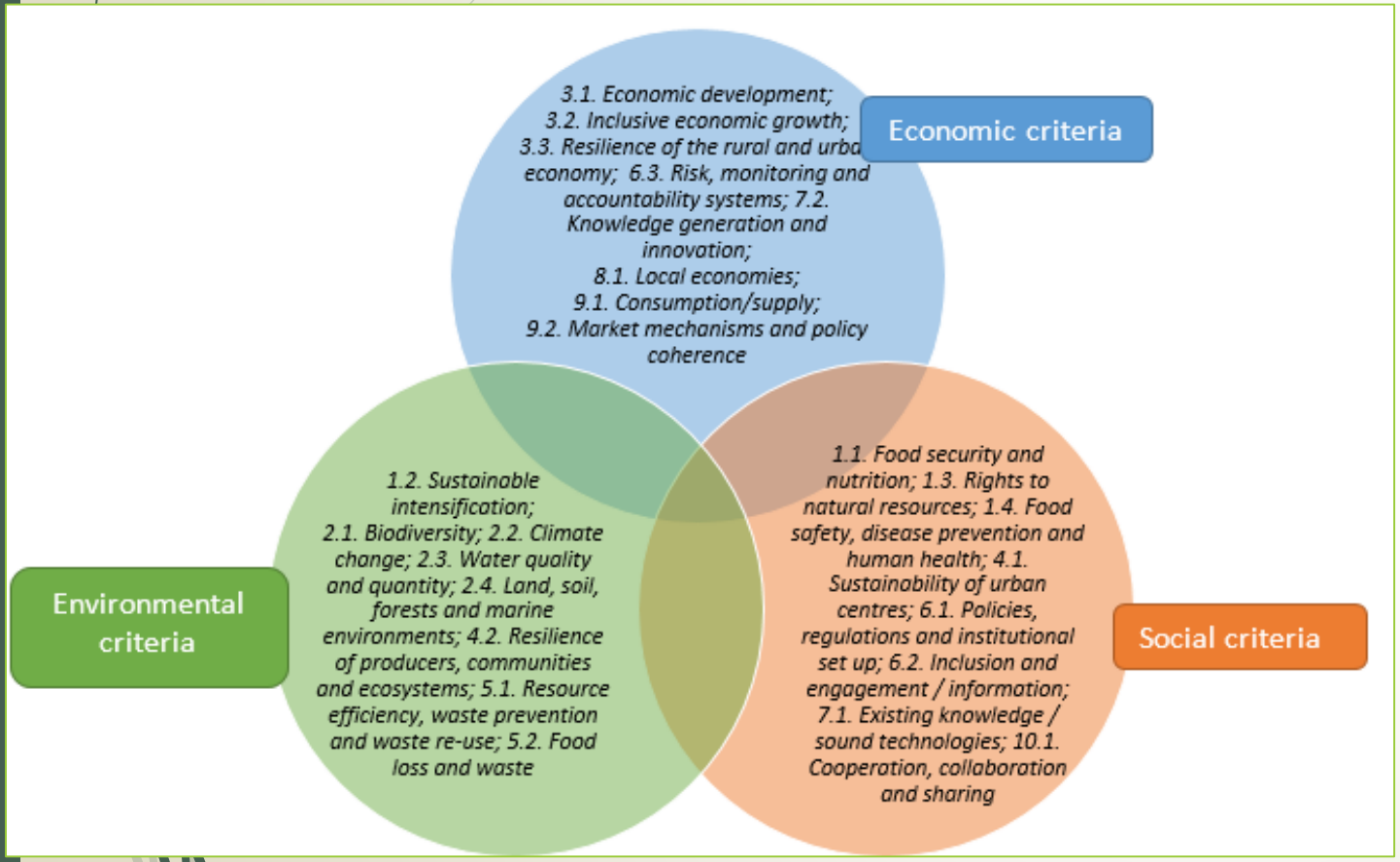
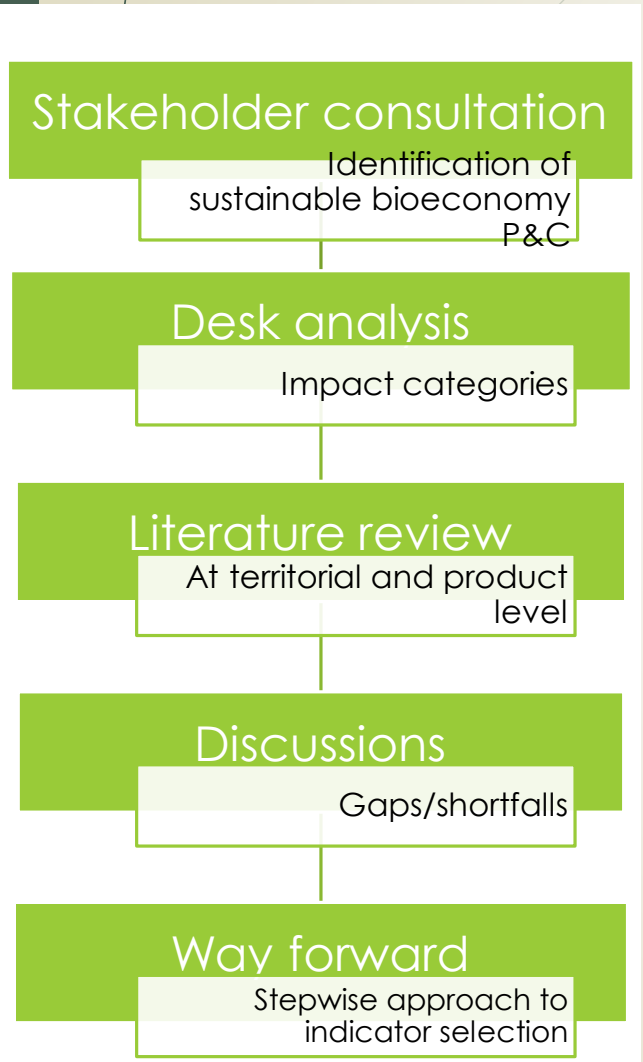


Figure 1. Criteria for sustainable bioeconomy grouped by sustainability pillar

- **To provide technical assistance** to countries and stakeholders in developing and monitoring sustainable bioeconomy, in line with the aspirational Principles and Criteria

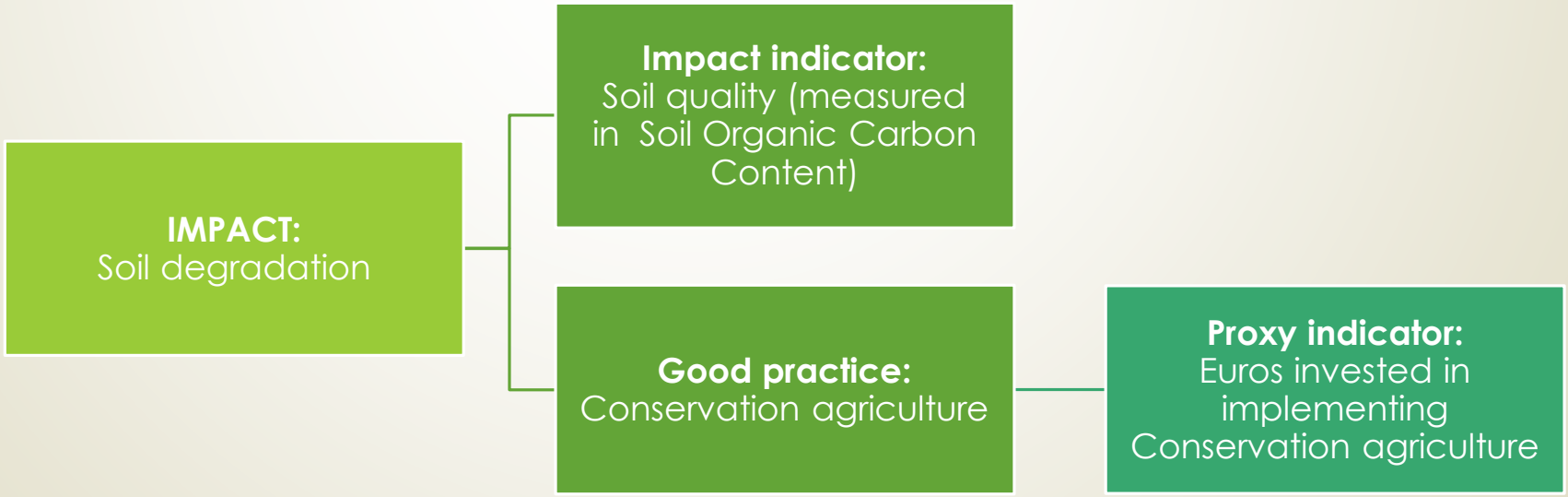


The approach

- **Stakeholder consultation: Set the scene and define relevant Principles and Criteria (P&Cs)**
- **Review of existing bioeconomy (relevant) monitoring frameworks** and identification of **impact categories**
- **Compilation of indicators at**
  1. territorial level – priority given to SDGs indicators
  2. product/value chain level – priority given to standards, certificates, labels (SCL) indicators
- The review identifies existing **gaps and shortfalls** for some sustainability catagories and bioeconomy sectors
- **Ways forward** to help countries and practitioners in their M&E efforts. Development of "a manual", a stepwise approach to monitoring sustainable bioeconomy

Discussion (I)

- Data are not always available, and a detailed monitoring may be time and resource-consuming
- The study includes the use of **proxy indicators** as a complement to detailed measurement
- **Good practices** are introduced as complimentary/proxy indicators – Example:



Discussion (II)

- The existence of **trade-offs and synergies** between the different sustainability issues must be taken into account:
  - For instance *economic development* (Criterion 3.1) could happen at the expense of *inclusiveness* (Criterion 3.2) (including the type of jobs created and the fair treatment of employees and *working conditions*) and *climate change mitigation* (Criterion 2.2)
- The **availability and quality of data** for the indicators is a core issue: data are not often collected on a regular basis and data quality is a key problem for some indicators
- Many indicators lack an approach **to attribute effects** of bioeconomy within the bigger economy

A possible way forward: a stepwise approach to monitoring sustainable bioeconomy

Territorial level

- Step 1: Stakeholder discussion, situation analysis, choice of relevant territorial level
- Step 2: Choice of about 15-25 sustainability indicators (by means of the sustainable bioeconomy P&C)
- Step 3: (optional) Choice of a set of indicators that reflect the performance/progress of the bioeconomy strategy objectives
- Step 4: Discussion and selection of reference values for each indicator
- Step 5: Definition of data collection methodology
- Step 6 (optional): Selection of good practices to address sustainability concerns
- Step 7: Assessment of bioeconomy progress towards the country's bioeconomy strategy objectives and sustainability goals
- Step 8: Display and reporting of sustainability results

Product level

- Step 1: Stakeholder discussion, situation analysis, choice of one or two products/value chains
- Step 2: Identification of hotspots and their sustainability issues
- Step 3: Choice of sustainability indicators from a generic long list of indicators provided by FAO, ensuring that the relevant sustainability concerns for each identified hotspot are adequately covered
- Step 4: Discussion and selection of reference values for each indicator
- Step 5: Definition of data collection methodology
- Step 6 (optional): Selection of good practices to address the hotspots
- Step 7: Assessment of the sustainability of the commodity value chain and its contribution to national goals
- Step 8: Display and reporting of sustainability results

Final words

- The recommended methodology is grounded on a **participatory approach**: the choice of relevant hotspots, priorities and indicators must be done by means of stakeholder and expert engagement
- The methodology allows also for some **flexibility** to reflect **circumstances and specific needs** of the stakeholders
- The monitoring approach is not set in stone: it allows to include new indicators in order to improve the monitoring approach over time

Thanks for your attention!

For further information please contact:

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