

Implementation Guide for the GBEP Sustainability Indicators for Bioenergy

*Economic Sub-Group of Task Force on
Sustainability (TFS)*

Indicator 17 – Productivity

Main Implementation Challenges

- Lack of data at national level for energy crops;
- **Narrowness of definition of feedstock** (Biomass is any organic, i.e. decomposable, matter derived from plants or animals available on a renewable basis. Biomass includes wood and agricultural crops, herbaceous and woody energy crops, municipal organic wastes as well as manure);
- Attribution when feedstock is a by-product;
- Scale and representativeness of plant-level data.

2018 potential further work:

- **Guidance on attribution to be provided by Attribution paper.**

Indicator 18 – Net energy balance

Main Implementation Challenges

- Definition of the system boundaries
- Data availability
- Aggregation of indicators referring to different technologies
- High methodological skills required for LCA

2018 potential further work:

Introduce the ratio input non-renewable/output renewable

Indicator 19: Gross value added

Main Implementation Challenges

- Data availability and attribution: the bioenergy sector is often not included as a single economic sector in the System of National Accounts (SNA)

2018 potential further work:

- **Guidance on the attribution issue can be complemented by the Attribution paper.**

Indicator 20 Change in the consumption of fossil fuels and traditional use of biomass

Main Implementation Challenges

- Data availability in developing countries, mainly when domestic use of traditional biomass is concerned.

2018 potential further work:

- **Development of the questions potentially required for primary data collection from surveys (potentially in conjunction with social sub-group) relative to indicator 20.2.**

Indicator 21 Training and re-qualification of the workforce

Main Implementation Challenges

- Although the indicator is deemed as relevant only in developing countries, these countries might face data constraints.
- To obtain the data, plant level surveys can be performed and be aggregated to national level data. But attribution issue may occur.

2018 potential further work:

- **Development of the questions potentially required for primary data collection from surveys (potentially in conjunction with social sub-group)**

Indicator 22 Energy diversity

Main Implementation Challenges

- Data availability: data on energy sources, traditional biomass supplies and uses at national level
- As aggregation level affects the result, it should be clearly stated

2018 potential further work:

- **No works identified**

Indicator 23 Infrastructure and logistics for distribution of bioenergy

Main Implementation Challenges

- Data for this indicator is not always quantitative.
- A GIS approach has been suggested this method might require technical skills and knowledge.
- System boundary: the indicator covers only logistics within a country, treatment of logistics for international trade is unclear

2018 potential further work:

- **No works identified**

Indicator 24 Capacity and flexibility of use of bioenergy

Main Implementation Challenges

- The indicator was originally developed with a case of flex-fuel vehicles. How to apply to other energy options?
- Definition of “potential capacity” and “flexible capacity” in the case other than FFV.

2018 potential further work:

- **Expand the use of this indicator from biofuel use in vehicles to include other bioenergy value chains by providing prescriptive examples of how to apply the concepts of potential and flexible capacity to other systems.**

Proposal on format of Implementation guide

Step by step instruction (e.g. indicator 19)

- (1) Consider obtaining national data from official statistics
- (2) Look for a proxy at national level
- (3) Look for a proxy at plant level
- This format is helpful for users of GSI to identify what they should do first and next.
 - We would like to propose that this format should be applied to all indicators in the Implementation guide