

Assessing Sustainability – The GBEP Sustainability Indicators for Bioenergy

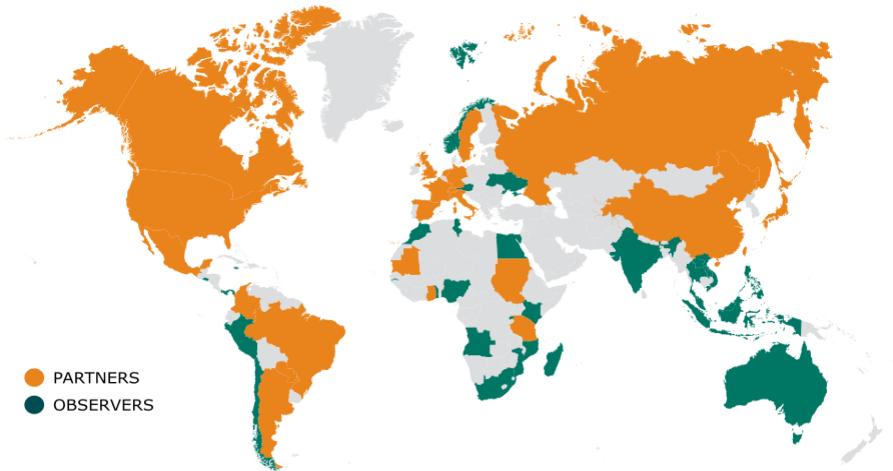
Constance Miller
Global Bioenergy Partnership
Food and Agriculture Organization of the United Nations (FAO)

IEA Bioenergy Workshop

15 June 2021



The Global Bioenergy Partnership (GBEP)



International initiative established to implement the commitments taken by the **G8 in 2005** and receiving renewed mandates from **G7 and G20** since then.

Brazil is the co-Chair. Second co-Chair under nomination. FAO is a founding partner and hosts its Secretariat at FAO HQ in Rome.

38 Partners and 46 Observers
(Governments and International Organizations)

Focus on SUSTAINABILITY

The Global Bioenergy Partnership (GBEP)

has developed the most widely recognized and agreed set of
**indicators for the assessment and monitoring of bioenergy
sustainability.**

Key points:

- All forms of bioenergy
- Voluntary – Are not legally binding
- Scientific basis for policy formulation
- Facilitate a harmonization of sustainability assessments

GBEP sustainability indicators for all types of bioenergy

The image is a collage of various elements related to bioenergy and sustainability:

- Left Column (Green Boxes):**
 - 1. A yellow sun with rays and three stylized clouds (white, green, blue).
 - 2. A green cloud.
 - 3. A green cloud.
 - 4. A blue wave-like shape.
 - 5. The title "THE GLOBAL BIOENERGY PARTNERSHIP SUSTAINABILITY INDICATORS FOR BIOENERGY FIRST EDITION" in white text on a dark blue background.
 - 6. A teal cloud.
 - 7. A white cloud.
 - 8. A teal cloud.
- Top Right (Orange Box):**

GLOBAL BIOENERGY PARTNERSHIP
WORKING TOGETHER FOR SUSTAINABLE DEVELOPMENT
- Center (Dark Blue Box):**

Global Bioenergy Partnership
Sustainability Indicators for
Bioenergy:
Implementation Guide
January 2020
- Bottom Right (Light Blue Box):**

Final Draft
- Bottom Center (Logo):**

 **GBEP**
Global Bioenergy Partnership

GSI – MNV Tool

Measured over time, the indicators show progress towards or away from a sustainable development path as determined nationally.

Tool to Measure, Notify and Verify (MNV) the achievement of:

- **Nationally Determined Contributions (NDCs)**
 - e.g. to evaluate the effectiveness of adopted P&M and/or the efficient use of funds to achieve reduced GHGs emissions (Indicator 1)
- **Sustainable Development Goals (SDGs)...**



Links between GSI and SDGs

Sustainable development goals, targets and indicators				GBEP Sustainability Indicators for Bioenergy (GSI)
SDG	Target	Indicator	Tier	GSI
 1 NO POVERTY	1.1	1.1.1	I	10. Price and supply of a national food basket
	1.2	1.2.1 1.2.2	I II	11. Change in income
	1.4	1.4.2	III	9. Allocation and tenure of land for new bioenergy production
 2 ZERO HUNGER	2.1	2.1.1 2.1.2	I	10. Price and supply of a national food basket
	2.3	2.3.1 2.3.2	III	9. Allocation and tenure of land for new bioenergy production
	2.4	2.4.1	III	7. Biological diversity in the landscape 2. Soil quality
	2.c	2.c.1	II	10. Price and supply of a national food basket
 3 GOOD HEALTH AND WELL-BEING	3.9	3.9.1	I	15. Change in mortality and burden of disease attributable to indoor smoke
 5 GENDER EQUALITY	5.4	5.4.1	II	13. Change in unpaid time spent by women and children collecting biomass
 6 CLEAN WATER AND SANITATION	6.3	6.3.1 6.3.2	II III	6. Water quality
	6.4	6.4.1 6.4.2	II I	5. Water use and efficiency
 7 AFFORDABLE AND CLEAN ENERGY	7.1	7.1.1 7.1.2	I	14. Bioenergy used to expand access to modern energy services
	7.2	7.2.1	I	14. Bioenergy used to expand access to modern energy services 22. Energy diversity
	7.3	7.3.1	I	19. Gross value added 22. Energy diversity
	7.a	7.a.1	III	all GBEP work
 8 DECENT WORK AND ECONOMIC GROWTH	8.1	8.1.1	I	19. Gross value added
	8.2	8.2.1	I	12. Jobs in the bioenergy sector
	8.3	8.3.1	II	12. Jobs in the bioenergy sector
	8.5	8.5.1 8.5.2	II I	11. Change in income
	8.8	8.8.1 8.8.2	I III	16. Incidence of occupational injury, illness and fatalities

- All GSIs from the environmental and social pillars and the majority from the economic pillar are **linked to SDGs** and their targets and indicators
- GSI implementation can **support data collection** for SDG monitoring

Source: Fritzsche et al. 2018

Implementation of the GSI

ECOFYS



implemented the GBEP indicators
and process of implementation

GBEP is working to **increase the accessibility** of the GSI through the development of a **Rapid Implementation Framework** and associated online platform with dedicated data entry sheets.

Take home messages

- There are both synergies and trade-offs between the increased application of bioenergy for net zero and SDG 7 targets, and the other SDGs.
- Sustainability of bioenergy is context-specific and requires in-depth assessment
- The GBEP Sustainability Indicators for Bioenergy provide a harmonized approach to bioenergy sustainability assessment
- The implementation of the GSI can be integrated with national SDG monitoring frameworks
- GBEP is an important forum for sharing lessons learned between countries to support robust policy development