GBEP sustainability indicators for bioenergy. Implementation and lessons learned

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GBEP MEMBERSHIP

37 Partners and 40 Observers
(Governments and International Organizations)
Italy and Brazil are currently Chair and co-Chair of the Partnership. The Secretariat is hosted at FAO in Rome.
GBEP PROGRAMME OF WORK

GBEP is a forum where voluntary cooperation works towards consensus amongst its partners in the areas of the sustainable development of bioenergy and its contribution to climate change mitigation.

GBEP’s main priorities:

1. Facilitating the sustainable development of bioenergy (Task Force on Sustainability)

2. Facilitating Capacity Building for Sustainable Bioenergy (Working Group on Capacity Building for Sustainable Bioenergy)
GBEP SUSTAINABILITY INDICATORS FOR ALL TYPES OF BIOENERGY

| ENVIRONMENTAL                                                                 | ECONOMIC                                                                 |
|                                                                             |                                                                           |
| 1. Lifecycle GHG emissions                                                   | Productivity                                                             |
| 2. Soil quality                                                              | Net energy balance                                                       |
| 3. Harvest levels of wood resources                                          | Cross value added                                                        |
| 4. Emissions of non-GHG air pollutants, including air toxics                | Change in consumption of fossil fuels and traditional use of biomass    |
| 5. Water use and efficiency                                                  | Training and re-qualification of the workforce                           |
| 6. Water quality                                                             | Energy diversity                                                          |
| 7. Biological diversity in the landscape                                     | Infrastructure and logistics for distribution of bioenergy               |
| 8. Land use and land-use change related to bioenergy feedstock production   | Capacity and flexibility of use of bioenergy                              |

THE GLOBAL BIOENERGY PARTNERSHIP SUSTAINABILITY INDICATORS FOR BIOENERGY FIRST EDITION
IMPLEMENTATION OF THE SUSTAINABILITY INDICATORS
Between 2011 and 2014, FAO tested the GBEP indicators in Colombia and Indonesia, while since May 2016 are being tested in Vietnam and Paraguay with support from the International Climate Initiative (ICI) of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety of Germany.

The testing are aimed to:

- **assess and enhance the practicality** of the indicators as a tool for sustainable development; and

- **strengthen the capacity of the countries to measure bioenergy sustainability and enhance its achievement**. Measured over time, the indicators show progress towards or away from a sustainable development path as determined nationally.
LESSONS LEARNT:
NEED FOR FURTHER GUIDANCE

• In light of the numerous lessons learned collected so far on the Colombia and Indonesia case, as well as on the many other projects developed so far on the measurement of the GBEP indicators, an Implementation Guide has been recognized as needed in order to provide guidance on methodological and practical issues related to the implementation of certain indicator methodologies. → new scope of the GBEP TF Sustainability

• Further guidance would be needed especially on the attribution of impacts to bioenergy production and use, identifying a range of suitable approaches for each indicator.
CONCLUSIONS

• Bioenergy has the potential to reduce GHG emissions and offer opportunities to agriculture and forestry sectors;

• Sustainability is key;

• Monitoring sustainability is a necessary step in order to understand, evaluate and improve the performances of the sector;

• GBEP is actively working on the diffusion of sustainability in the processes of production and use of bioenergy resources (e.g. the GBEP Sustainability Indicators for Bioenergy); and

• Particularly for policymakers GBEP represents an important forum for discussion and harmonization policies.
THANK YOU!

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