

12th meeting of the GBEP Task Force on Sustainability

George C. Marshall Conference Center, U.S. Department of State
Washington, D.C., 17-19 May 2011

Chair Conclusions

The GBEP Task Force on Sustainability held its 12th meeting on 17–19 May 2011 in Washington, D.C., kindly co-hosted by the Government of the United States of America and the UN Foundation. Argentina, Brazil, Germany, Ghana, Indonesia, Italy, Japan, Mexico, Netherlands, Paraguay, Spain, Sudan, Sweden, Switzerland, United States of America, ECOWAS, FAO, Inter-American Development Bank (IDB), IEA, UN Foundation, UNEP, and Global Environmental Facility (GEF), also on behalf of the World Bank, participated in the meeting. The meeting was chaired by Sweden.

Discussion of the GBEP sustainability indicators and their draft methodology sheets

The Task Force discussed each of the twenty-four methodology sheets, beginning with a status update from the respective Sub-Group or e-group leader. These updates included the identification of open questions resulting from the e-group discussion.

The Task Force agreed minor changes to some indicator names and descriptions in order to achieve consistent use of certain terms (such as processing, production, use, cookstoves and percentage). The indicator names and descriptions as agreed by the Task Force and endorsed by the Steering Committee are shown in Annex I to this document.

The Task Force resolved some of the open questions relating to the substance of the methodology sheets, including through agreeing some textual revisions, whilst determining that others would require further work and the resumption of e-group discussion. Apart from the substantive discussion, it was noted that in general the methodological sheets could benefit from some textual editing and addition of references, relevant international processes and data sources. The status of each methodology sheet is set out in Annex II to this document; the current membership of the e-groups of interested Task Force members is shown in Annex III.

Discussion of the report on the GBEP sustainability indicators

The Task Force discussed the version of the draft report circulated by the Secretariat in advance of the meeting, which incorporated most comments received during e-group discussion. Discussion focussed on three main issues: mention of other sustainability initiatives; the section on food and energy security; presentation of the contextual information and cross-cutting issues. With regard to the first of these issues, the general view was that a brief reference to national, regional and multi-stakeholder initiatives would suffice. On the second issue, after a constructive exchange of ideas, a little further discussion is required to finalize this section. On the third, it was agreed that the table of contextual information could be deleted as long as all the information was contained in the paragraphs of text on this subject or the methodology sheets. One Partner added that they would prefer the bullets regarding cross-cutting institutional and policy-relevant issues to be expanded to a sentence or two each. Further discussion of these issues should take place in the e-group on the introductory text.

Other points raised included the need to preface the methodology sheets with the comment that they were draft and would be enhanced after piloting of the indicators; a desire to state who GBEP comprises at the start of the report; the importance of adding a section at the start of the report on why one should use the indicators and what is their added value; and the usefulness of introducing text on the links between the GBEP indicators and themes such as the green economy, the Millennium Development Goals and biodiversity.

There was also some discussion relating to terms to be defined in a glossary in the report. It was clarified that the finalization of the glossary prepared by the Secretariat would take place within the e-group discussion of the introductory text to the report.

Discussion of the GBEP report to the G8 Deauville Summit 2011

The Task Force discussed the draft report circulated by the Secretariat in advance of the meeting and agreed the report with some minor changes. The report was submitted to the Steering Committee for endorsement.

Next steps

The work of the Task Force will now focus on finalizing the methodology sheets and the text of the GBEP report on sustainability indicators. The Chair proposed the following timeline in light of the outcomes of the meeting:

Methodology sheets for the GBEP sustainability indicators

Timeline:

- **30 May – 15 June 2011:** The Sub-Group leaders and Secretariat will edit the methodology sheets, including consolidating the changes agreed in the 12th meeting of the Task Force, reducing comments and questions in the documents to only those that remain open, and inserting additional references, relevant international processes and data sources as appropriate and as time permits.
- **15 June 2011:** The Secretariat will send out the methodology sheets to all Task Force members with a note identifying the specific Task Force members who volunteered to work on particular methodology sheets (the list of e-groups) and asking if any other Task Force members are interested in joining the e-groups.
- **16 June – 13 July 2011:** The members of the e-groups, Sub-Group leaders included, will work collaboratively, through electronic communication and teleconferences, to finalize the substantive content of the methodology sheets. Sub-Group leaders and, where appointed, e-group leaders will moderate the discussion on the methodology sheets.
- **14 July – 7 September 2011:** The Sub-Group and e-group leaders and the Secretariat will finalize the methodology sheets, including from an editorial perspective.
- **8 September 2011:** The Secretariat will circulate the final draft report, including all the methodology sheets, to all Partners and Observers and request agreement or any final comments by 22 September.

Text of the GBEP report on sustainability indicators

- **30 May – 15 June 2011:** The Secretariat, in support of the Task Force Chair, will edit the draft introductory text, including consolidating the changes agreed in the 12th meeting of the Task Force, reducing comments and questions in the documents to only those that remain open and proposing compromise text in light of discussion in the Task Force.
- **15 June 2011:** The Secretariat will send out the draft introductory text to all Task Force members with a note identifying the specific Task Force members who volunteered to

work on this text (the e-group) and asking if any other Task Force members are interested in joining the e-group.

- **16 June – 13 July 2011:** The members of the e-group will work collaboratively, through electronic communication and teleconferences, to finalize the introductory text of the report. The Secretariat, in support of the Task Force Chair, will moderate the discussion.
- **14 July – 7 September 2011:** The Secretariat, in support of the Task Force Chair, will finalize the introductory text from an editorial perspective.
- **8 September 2011:** The Secretariat will circulate the final draft report, including all the methodology sheets, to all Partners and Observers and request agreement or any final comments by 22 September.

Drafting of the GBEP report to the G20 Summit in Cannes, 3-4 November 2011

The Secretariat will prepare a draft of the GBEP report to the G20 Summit, based on the agreed report to the G8 Summit 2011 and the final text of the report on indicators. The Secretariat will circulate the draft to all Partners and Observers for agreement via email in due advance of the Summit in the case that there are no GBEP meetings in September/October. The suggestion is that this report should consist of a two-page summary of recent progress made, plus the executive summary of the report on indicators as an annex.

Next meeting

It is envisaged that the GBEP report on sustainability indicators can be finalized via electronic communication and – if required – teleconferences. The next foreseen GBEP meetings are expected to take place 15–18 November 2011, in Japan. These are currently expected to include the 1st meeting of the new Working Group on Capacity Building for Sustainable Bioenergy and the 12th meeting of the Steering Committee. In this context, a training session on GHG LCA and the presentation and discussion of any early outcomes from the piloting of the GBEP indicators is also envisaged.

A final decision as to whether another meeting of the Task Force on Sustainability is required (September or early October 2011) in order to finalize the report on sustainability indicators will be taken over the summer.

Stakeholder consultation on the indicators

Due to lack of time, this issue could not be discussed by the Task Force in Washington. However, given that the GBEP sustainability indicators are now in the public domain, the Chair proposes to seek, via email, agreement within the Task Force on plans for receiving and incorporating feedback from stakeholders, including private sector and civil society. The Secretariat will therefore communicate to Partners and Observers on this topic over the summer.

Detailed conclusions and agreement regarding pillars, themes and indicators

In the below tables, the set of twenty-four GBEP bioenergy sustainability indicators agreed during the 12th meeting of the Task Force on Sustainability and subsequently endorsed by the Steering Committee is reported, set out under the three pillars, with the relevant themes listed at the top of each pillar. The second table below also includes the short indicator descriptions.

| PILLARS | | |
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| GBEP's work on sustainability indicators was developed under the following three pillars, noting interlinkages between them: | | |
| Environmental | Social | Economic |
| THEMES | | |
| GBEP considers the following themes relevant, and these guided the development of indicators under this pillar: | | |
| Greenhouse gas emissions, Productive capacity of the land and ecosystems, Air quality, Water availability, use efficiency and quality, Biological diversity, Land-use change, including indirect effects. | Price and supply of a national food basket, Access to land, water and other natural resources, Labour conditions, Rural and social development, Access to energy, Human health and safety. | Resource availability and use efficiencies in bioenergy production, conversion, distribution and end-use, Economic development, Economic viability and competitiveness of bioenergy, Access to technology and technological capabilities, Energy security/Diversification of sources and supply, Energy security/Infrastructure and logistics for distribution and use. |
| INDICATORS | | |
| 1. Life-cycle GHG emissions | 9. Allocation and tenure of land for new bioenergy production | 17. Productivity |
| 2. Soil quality | 10. Price and supply of a national food basket | 18. Net energy balance |
| 3. Harvest levels of wood resources | 11. Change in income | 19. Gross value added |
| 4. Emissions of non-GHG air pollutants, including air toxics | 12. Jobs in the bioenergy sector | 20. Change in consumption of fossil fuels and traditional use of biomass |
| 5. Water use and efficiency | 13. Change in unpaid time spent by women and children collecting biomass | 21. Training and re-qualification of the workforce |
| 6. Water quality | 14. Bioenergy used to expand access to modern energy services | 22. Energy diversity |
| 7. Biological diversity in the landscape | 15. Change in mortality and burden of disease attributable to indoor smoke | 23. Infrastructure and logistics for distribution of bioenergy |
| 8. Land use and land-use change related to bioenergy feedstock production | 16. Incidence of occupational injury, illness and fatalities | 24. Capacity and flexibility of use of bioenergy |

| ENVIRONMENTAL PILLAR | |
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| THEMES | |
| <p>GBEP considers the following themes relevant, and these guided the development of indicators under this pillar:</p> <p>Greenhouse gas emissions, Productive capacity of the land and ecosystems, Air quality, Water availability, use efficiency and quality, Biological diversity, Land-use change, including indirect effects¹</p> | |
| INDICATOR NAME | INDICATOR DESCRIPTION |
| 1. Lifecycle GHG emissions | Lifecycle greenhouse gas emissions from bioenergy production and use, as per the methodology chosen nationally or at community level, and reported using the GBEP Common Methodological Framework for GHG Lifecycle Analysis of Bioenergy 'Version One' |
| 2. Soil quality | Percentage of land for which soil quality, in particular in terms of soil organic carbon, is maintained or improved out of total land on which bioenergy feedstock is cultivated or harvested |
| 3. Harvest levels of wood resources | Annual harvest of wood resources by volume and as a percentage of net growth or sustained yield, and the percentage of the annual harvest used for bioenergy |
| 4. Emissions of non-GHG air pollutants, including air toxics | Emissions of non-GHG air pollutants, including air toxics, from bioenergy feedstock production, processing, transport of feedstocks, intermediate products and end products, and use; and in comparison with other energy sources |
| 5. Water use and efficiency | <ul style="list-style-type: none"> ▪ Water withdrawn from nationally-determined watershed(s) for the production and processing of bioenergy feedstocks, expressed as the percentage of total actual renewable water resources (TARWR) and as the percentage of total annual water withdrawals (TAWW), disaggregated into renewable and non-renewable water sources ▪ Volume of water withdrawn from nationally-determined watershed(s) used for the production and processing of bioenergy feedstocks per unit of useful bioenergy output, disaggregated into renewable and non-renewable water sources |
| 6. Water quality | <ul style="list-style-type: none"> ▪ Pollutant loadings to waterways and bodies of water attributable to fertilizer and pesticide application for bioenergy feedstock cultivation, and expressed as a percentage of pollutant loadings from total agricultural production in the watershed ▪ Pollutant loadings to waterways and bodies of water attributable to bioenergy processing effluents, and expressed as a percentage of pollutant loadings from total agricultural processing effluents in the watershed |
| 7. Biological diversity in the landscape | <ul style="list-style-type: none"> ▪ Area and percentage of nationally recognized areas of high biodiversity value or critical ecosystems converted to bioenergy production ▪ Area and percentage of the land used for bioenergy production where nationally recognized invasive species, by risk category, are cultivated ▪ Area and percentage of the land used for bioenergy production where nationally recognized conservation methods are used |
| 8. Land use and land-use change related to bioenergy feedstock production | <ul style="list-style-type: none"> ▪ Total area of land for bioenergy feedstock production, and as compared to total national surface and agricultural and managed forest land area ▪ Percentages of bioenergy from yield increases, residues, wastes and degraded or contaminated land ▪ Net annual rates of conversion between land-use types caused directly by bioenergy feedstock production, including the following (amongst others): <ul style="list-style-type: none"> ○ arable land and permanent crops, permanent meadows and pastures, and managed forests; ○ natural forests and grasslands (including savannah, excluding natural permanent meadows and pastures), peatlands, and wetlands |

¹ In light of discussions on the issue and considering the state of the science on quantifying possible indirect land-use change (ILUC) impacts of bioenergy, it has not yet been possible to include an indicator on ILUC. GBEP notes that further work is required to improve our understanding of and ability to measure indirect effects of bioenergy such as ILUC and indirect impacts on prices of agricultural commodities. GBEP will continue to work in order to consolidate and discuss the implications of the current science on these indirect effects, develop a transparent, science-based framework for their measurement, and identify and discuss options for policy responses to mitigate potential negative and promote potential positive indirect effects of bioenergy.

| SOCIAL PILLAR | |
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| THEMES | |
| <p>GBEP considers the following themes relevant, and these guided the development of indicators under this pillar:</p> <p>Price and supply of a national food basket, Access to land, water and other natural resources, Labour conditions, Rural and social development, Access to energy, Human health and safety</p> | |
| INDICATOR NAME | INDICATOR DESCRIPTION |
| 9. Allocation and tenure of land for new bioenergy production | <p>Percentage of land – total and by land-use type – used for new bioenergy production where:</p> <ul style="list-style-type: none"> ▪ a legal instrument or domestic authority establishes title and procedures for change of title; and ▪ the current domestic legal system and/or socially accepted practices provide due process and the established procedures are followed for determining legal title |
| 10. Price and supply of a national food basket | <p>Effects of bioenergy use and domestic production on the price and supply of a food basket, which is a nationally-defined collection of representative foodstuffs, including main staple crops, measured at the national, regional, and/or household level, taking into consideration:</p> <ul style="list-style-type: none"> ▪ changes in demand for foodstuffs for food, feed, and fibre; ▪ changes in the import and export of foodstuffs; ▪ changes in agricultural production due to weather conditions; ▪ changes in agricultural costs from petroleum and other energy prices; and ▪ the impact of price volatility and price inflation of foodstuffs on the national, regional, and/or household welfare level, as nationally-determined |
| 11. Change in income | <p>Contribution of the following to change in income due to bioenergy production:</p> <ul style="list-style-type: none"> ▪ wages paid for employment in the bioenergy sector in relation to comparable sectors ▪ net income from the sale, barter and/or own-consumption of bioenergy products, including feedstocks, by self-employed households/individuals |
| 12. Jobs in the bioenergy sector | <ul style="list-style-type: none"> ▪ Net job creation as a result of bioenergy production and use, total and disaggregated (if possible) as follows: <ul style="list-style-type: none"> ○ skilled/unskilled ○ temporary/indefinite ▪ Total number of jobs in the bioenergy sector and percentage adhering to nationally recognized labour standards consistent with the principles enumerated in the ILO Declaration on Fundamental Principles and Rights at Work, in relation to comparable sectors |
| 13. Change in unpaid time spent by women and children collecting biomass | <p>Change in average unpaid time spent by women and children collecting biomass as a result of switching from traditional use of biomass to modern bioenergy services</p> |
| 14. Bioenergy used to expand access to modern energy services | <ul style="list-style-type: none"> ▪ Total amount and percentage of increased access to modern energy services gained through modern bioenergy (disaggregated by bioenergy type), measured in terms of energy and numbers of households and businesses ▪ Total number and percentage of households and businesses using bioenergy, disaggregated into modern bioenergy and traditional use of biomass |
| 15. Change in mortality and burden of disease attributable to indoor smoke | <p>Change in mortality and burden of disease attributable to indoor smoke from solid fuel use, and changes in these as a result of the increased deployment of modern bioenergy services, including improved biomass-based cookstoves</p> |
| 16. Incidence of occupational injury, illness and fatalities | <p>Incidences of occupational injury, illness and fatalities in the production of bioenergy in relation to comparable sectors</p> |

| ECONOMIC PILLAR | |
|--|---|
| THEMES | |
| <p>GBEP considers the following themes relevant, and these guided the development of indicators under this pillar:</p> <p>Resource availability and use efficiencies in bioenergy production, conversion, distribution and end-use, Economic development, Economic viability and competitiveness of bioenergy, Access to technology and technological capabilities, Energy security/Diversification of sources and supply, Energy security/Infrastructure and logistics for distribution and use</p> | |
| INDICATOR NAME | INDICATOR DESCRIPTION |
| 17. Productivity | <ul style="list-style-type: none"> ▪ Productivity of bioenergy feedstocks by feedstock or by farm/plantation ▪ Processing efficiencies by technology and feedstock ▪ Amount of bioenergy end product by mass, volume or energy content per hectare per year ▪ Production cost per unit of bioenergy |
| 18. Net energy balance | Energy ratio of the bioenergy value chain with comparison with other energy sources, including energy ratios of feedstock production, processing of feedstock into bioenergy, bioenergy use; and/or lifecycle analysis |
| 19. Gross value added | Gross value added per unit of bioenergy produced and as a percentage of gross domestic product |
| 20. Change in the consumption of fossil fuels and traditional use of biomass | <ul style="list-style-type: none"> ▪ Substitution of fossil fuels with domestic bioenergy measured by energy content and in annual savings of convertible currency from reduced purchases of fossil fuels ▪ Substitution of traditional use of biomass with modern domestic bioenergy measured by energy content |
| 21. Training and re-qualification of the workforce | Percentage of trained workers in the bioenergy sector out of total bioenergy workforce, and percentage of re-qualified workers out of the total number of jobs lost in the bioenergy sector |
| 22. Energy diversity | Change in diversity of total primary energy supply due to bioenergy |
| 23. Infrastructure and logistics for distribution of bioenergy | Number and capacity of routes for critical distribution systems, along with an assessment of the proportion of the bioenergy associated with each |
| 24. Capacity and flexibility of use of bioenergy | <ul style="list-style-type: none"> ▪ Ratio of capacity for using bioenergy compared with actual use for each significant utilization route ▪ Ratio of flexible capacity which can use either bioenergy or other fuel sources to total capacity |