Global Bioenergy Partnership

Fourth Meeting of the Task Force on GHG Methodologies

Report of Sub Group 1

November 17 – 19, 2008
Sao Paulo

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Contributions from 3rd GHG Task Force meeting (and lead-up):

- The target audience for this product
- The level of detail regarding data and estimation methods
- Treatment of Co-products
- Boundaries on emissions embodied in inputs

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Task for Sao Paulo: Finalize proposal to the Task Force on content of Blue Boxes for:

1. Yellow Box 3: Emissions from land use change
2. Yellow Box 4: Emissions from biomass feedstocks produced in agriculture and forestry

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Guiding Principles:

- ♦ Promote transparency in estimating and reporting GHG estimates associated with biofuels
- ♦ Make no indication regarding the quality of an approach
- ♦ Do not endorse one method over another

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Yellow Box 3: Emissions from land use change

I. Direct emissions
II. Domestic indirect emissions
III. International indirect emissions

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Direct land use changes are accounted for (Y or N). If yes:

1. Identify the reference period or scenario

   _____ Historic (identify year or period: _____)
   _____ Business-as-Usual (BAU) scenario (identify time frame: _____)
   _____ Other (explain)

   Explain key reference assumptions and characteristics relevant to estimating GHG emissions from direct land use change. Examples include (but are not limited to) identifying or describing:

   - System boundaries (such as sector, activity, and geographic coverage)
   - For BAU scenarios, assumed trends in key variables and land uses
   - Omitted emissions sources
   - If appropriate, whether emissions allocated to products using a marginal, average, or other approach
   - Time period over which land use change emissions are allocated

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Direct land use changes (continued):

2. **Briefly describe the type of direct land-use changes accounted for (2 – 3 paragraphs). Examples include (but are not limited to) identifying or describing:**
   - **Areas of land that change land use by type (such as forest, grassland, pasture, to feedstock production)**
   - **Carbon stocks, before shift to feedstock production, on lands that change land use by type**

3. **The following impacts of direct land use change are accounted for:**
   _____ **Net changes in above ground carbon**
   _____ **Changes in soil carbon stocks**
   _____ **Changes in carbon sequestration in products (such as harvested wood products)**

4. **The methodology and data used are publicly available:**
   Methodology (Y/N), Data (Y/N)

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II. Domestic indirect land use changes are accounted for (Y or N). If yes:

1 . Identify the reference period or scenario

_____ Historic (identify year or period: _____)
_____ Business-as-Usual scenario (identify time frame: _____)
_____ Other (explain)

Explain key reference assumptions and characteristics relevant to estimating GHG emissions from domestic indirect land use change. Examples include (but are not limited to) identifying or describing:

- System boundaries (such as sector, activity, and geographic coverage)
- For BAU scenarios, assumed trend in key variables and land uses
- Rules or methods used to assign indirect land use changes to biofuels
- Time period over which land use change emissions are allocated

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II. Domestic indirect land use (Continued)

2. Briefly describe the type of domestic indirect land-use changes accounted for (2 – 3 paragraphs). Examples include (but are not limited to) identifying or describing:
   - Areas of land that change land use by type (such as forest, grassland, pasture, to commodity production)
   - Carbon stocks, before shift to feedstock production, on lands that change land use by type

3. The following impacts of indirect domestic land use change are accounted for:

   _____ Net changes in above ground carbon
   _____ Changes in soil carbon stocks
   _____ Changes in carbon sequestration in products (such as harvested wood products)

4. The methodology and data used are publicly available:
   Methodology (Y/N), Data (Y/N)

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III. International indirect land-use changes are accounted for (Y or N). If yes:

1 . Identify the reference period or scenario

_____ Historic (identify year or period: _____)

_____ Business-as-Usual scenario (identify time frame: _____)

_____ Other (explain)

Explain key reference assumptions and characteristics relevant to estimating GHG emissions from international indirect land use change. Examples include (but are not limited to) identifying or describing:

- System boundaries (such as sector, activity, and geographic coverage)
- For BAU scenarios, assumed trend in key variables and land uses
- Rules or methods used to assign international indirect land use changes to domestic biofuels
- Time period over which land use change emissions are allocated

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III. International indirect land-use changes (continued):

2. Briefly describe the type of domestic indirect land-use changes accounted for (2 – 3 paragraphs). Examples include (but are not limited to) identifying or describing:
   - Areas of land that change land use by type (such as forest, grassland, pasture, to commodity production)
   - Carbon stocks, before shift to feedstock production, on lands that change land use by type

3. The following impacts of international indirect land use change are accounted for:

   _____ Net changes in above ground carbon

   _____ Changes in soil carbon stocks

4. The methodology and data used are publicly available: Methodology (Y/N), Data (Y/N)

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Yellow Box 4: Biomass feedstock production on farms and in forests

I. Direct emissions

II. Embodied emissions

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Blue Box: Direct Emissions:

Sources of direct GHG emissions are accounted for:

_____ Emissions from operating farm/forestry machinery
_____ Emissions from energy used in irrigation
_____ Emissions from energy used in preparing feedstocks (drying grains, densification of cellulosic biomass, etc.)
_____ Emissions from energy used in transport of feedstocks
_____ CO2 emissions from lime/dolomite applications
_____ On-farm N2O emissions from nitrogen fertilizers (direct, volatilization, runoff/leaching)
_____ CH4 emissions from lands (especially wetlands)
_____ Other (please specify)

The methodology and data used are publicly available:
Methodology (Y/N), Data (Y/N)

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Blue Box: Embodied Emissions:

Sources of GHG emissions embodied in inputs accounted for:

_____ Emissions embodied in the manufacture of farm/forestry machinery
_____ Emissions embodied in buildings
_____ Emissions embodied in the manufacture of fertilizer inputs.
_____ Emissions embodied in the manufacture of pesticide inputs
_____ Emissions embodied in purchased electricity
_____ Emissions embodied in the production of seeds
_____ Other (please specify)

The methodology and data used are publicly available:
Methodology (Y/N), Data (Y/N)