



WORLD
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HOW THE LAND SECTOR IS TREATED IN INDCS AND ITS IMPLICATIONS

BACKGROUND

- Land sector significant contributor of emissions
- Significant abatement opportunities, potential for enhanced sink and reduced emissions
- INDCs will need to send signal for mitigation in the sector

UNIQUE FEATURES

- Removals
- Legacy effects
- Anthropogenic vs. non-anthropogenic
- Permanence
- Data quality

BACKGROUND

- Reporting for the sector's emissions can differ from accounting
- Number of reasons: impact of non-anthropogenic events, non-permanence, legacy effect, challenges of estimation
 - Kyoto Protocol - activities, with some voluntary, net change in emissions calculated differently
 - CDM project-level accounting for afforestation/reforestation and non-CO2 for ag.
 - REDD+ methodologies for measurement and guidance for reference levels

BACKGROUND

- Parties considering a variety of ways of treating sector in INDCs
 - Based on sector's emissions, co-benefits, the extent to which incentives are created for mitigation in the sector, data availability, capacities
 - Potential for range of assumed accounting approaches
 - Future accounting framework remains unclear
 - How existing methodologies and accounting approaches will be made use of?
- Heightened need for transparency in the sector and consideration of how to track progress individually and collectively; yet simplicity and flexibility needed

BROAD CHOICES FOR TREATMENT OF LAND SECTOR IN INDC

- **Action:** An intent to implement specific means of achieving GHG reductions, such as policies or mitigation actions
- **Outcome:** An intent to achieve a specific result (for example, reduce GHG emissions to a specific level)
 - Greenhouse gas outcomes
 - Non-GHG outcomes (such as restore x hectares of land)
- A combination of action(s) and outcome(s)

WITHIN GHG OUTCOME

- Included in the target boundary
- Sectoral target
- “Offset”
- Not included

MANY ADDITIONAL DECISIONS

- For example, with regard to:
 - Coverage
 - Assumed accounting approach/method
 - Level against which emissions and removals from the land sector are accounted
 - Any accounting for natural disturbances, legacy effects
 - Others (e.g. HWP, definitions)

INCLUSION OF SECTOR IN TARGET

- Appears that most Parties including the sector
- Some INDCs provide more information on ways in which it assumes the sector will be included

SECTORAL COVERAGE

CAIT Climate Data Explorer



Paris Contributions Map

Dashboard

Map

Detailed View

View Pre-2020 Map



Search



Sectors covered

European Union (28)

- All Sectors including LULUCF
- All Sectors excluding LULUCF
- Partial Sectors
- Not Specified
- No INDC submitted

CANADA

Detailed View

Canada



Accounting for emissions and removals from the land sector: Treatment of land sector	Included in the target.
Accounting for emissions and removals from the land sector: Coverage of the land sector as compared to total net emissions from the land sector, as a percentage if known	Not Specified
Accounting for emissions and removals from the land sector: Assumed accounting approach and method for the land sector	Canada intends to account for the land sector using a net-net approach.
Accounting for emissions and removals from the land sector: Level against which emissions and removals from the land sector are accounted, including policy assumptions and methodologies employed	Not Specified
Accounting for emissions and removals from the land sector: Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects	Canada will exclude emissions from natural disturbances.
Accounting for emissions and removals from the land sector: Any other relevant accounting approaches, assumptions or methodologies	Canada intends to use a "production approach" to account for harvested wood products.

ETHIOPIA

Detailed View

Ethiopia



Accounting for emissions and removals from the land sector: Treatment of land sector

Included in the target.

Accounting for emissions and removals from the land sector: Coverage of the land sector as compared to total net emissions from the land sector, as a percentage if known

The target has comprehensive coverage (100%) of the land sector.

Accounting for emissions and removals from the land sector: Assumed accounting approach and method for the land sector

The Government of Ethiopia supports the development of robust rules to ensure accurate and transparent accounting of emissions from the land sector.

Accounting for emissions and removals from the land sector: Level against which emissions and removals from the land sector are accounted, including policy assumptions and methodologies employed

Not Specified

Accounting for emissions and removals from the land sector: Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects

Not Specified

Accounting for emissions and removals from the land sector: Any other relevant accounting approaches, assumptions or methodologies

Not Specified

EUROPEAN UNION



Detailed View

European Union (28)

Accounting for emissions and removals from the land sector: Treatment of land sector

Policy on how to include Land Use, Land Use Change and Forestry into the 2030 greenhouse gas mitigation framework will be established as soon as technical conditions allow and in any case before 2020.

Accounting for emissions and removals from the land sector: Coverage of the land sector as compared to total net emissions from the land sector, as a percentage if known

- Afforestation, reforestation
- Deforestation
- Forest management
- Cropland management
- Grazing land management
- Or equivalent land-based accounting using UNFCCC reporting categories
- Other categories/activities elected by the EU and its Member States as Parties to the Kyoto Protocol and its Doha Amendment.

Accounting for emissions and removals from the land sector: Assumed accounting approach and method for the land sector

Comprehensive accounting framework, activity or land-based approach, for emissions and removals from land use, land-use change and forestry.

Accounting for emissions and removals from the land sector: Level against which emissions and removals from the land sector are accounted, including policy assumptions and methodologies employed

Not Specified

Accounting for emissions and removals from the land sector: Any assumed use of methodologies to quantify

Not Specified

MOROCCO

Detailed View

Morocco



Accounting for emissions and removals from the land sector: Treatment of land sector

Included in the target.

Accounting for emissions and removals from the land sector: Coverage of the land sector as compared to total net emissions from the land sector, as a percentage if known

Not Specified

Accounting for emissions and removals from the land sector: Assumed accounting approach and method for the land sector

Forestry sector and other land-use sectors: taking into account local specific conditions and type of land-use in Morocco, natural forests, reforestation, horticulture, firewood from forests and orchards, and forest fires are the main categories included in the emission assessment from the forestry and other land-use sectors.

Accounting for emissions and removals from the land sector: Level against which emissions and removals from the land sector are accounted, including policy assumptions and methodologies employed

Not Specified

Accounting for emissions and removals from the land sector: Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects

Not Specified

Accounting for emissions and removals from the land sector: Any other relevant accounting approaches, assumptions or methodologies

Methodology for Estimating Emissions from Agricultural sector: GHG emissions that are included are those related to enteric fermentation and manure management, cropping systems and agricultural land (cultivated soils). Agricultural residues are mainly as animal feed or as fuel in rural areas.

RUSSIA



Accounting for emissions and removals from the land sector: Treatment of land sector	Not Specified
Accounting for emissions and removals from the land sector: Coverage of the land sector as compared to total net emissions from the land sector, as a percentage if known	Not Specified
Accounting for emissions and removals from the land sector: Assumed accounting approach and method for the land sector	(Russia's INDC states that the target is) subject to the maximum possible account of absorbing capacity of forests.
Accounting for emissions and removals from the land sector: Level against which emissions and removals from the land sector are accounted, including policy assumptions and methodologies employed	Not Specified
Accounting for emissions and removals from the land sector: Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects	Not Specified
Accounting for emissions and removals from the land sector: Any other relevant accounting approaches, assumptions or methodologies	Not Specified

UNITED STATES



Accounting for emissions and removals from the land sector: Treatment of land sector	Included in the target. The United States intends to include all categories of emissions by sources and removals by sinks, and all pools and gases, as reported in the Inventory of United States Greenhouse Gas Emissions and Sinks...The base year and target for the U.S. INDC were established on the basis of the methodologies used for the land sector in the 2014 Inventory of United States Greenhouse Gas Emissions and Sinks and the United States 2014 Biennial Report.
Accounting for emissions and removals from the land sector: Coverage of the land sector as compared to total net emissions from the land sector, as a percentage if known	The United States intends to include all categories of emissions by sources and removals by sinks, and all pools and gases, as reported in the Inventory of United States Greenhouse Gas Emissions and Sinks.
Accounting for emissions and removals from the land sector: Assumed accounting approach and method for the land sector	The United States intends...to account for the land sector using a net-net approach; and to use a "production approach" to account for harvested wood products consistent with IPCC guidance.
Accounting for emissions and removals from the land sector: Level against which emissions and removals from the land sector are accounted, including policy assumptions and methodologies employed	Level not specified. The base year and target for the U.S. INDC were established on the basis of the methodologies used for the land sector in the 2014 Inventory of United States Greenhouse Gas Emissions and Sinks and the United States 2014 Biennial Report.
Accounting for emissions and removals from the land sector: Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects	The United States may also exclude emissions from natural disturbances, consistent with available IPCC guidance.
Accounting for emissions and removals from the land sector: Any other relevant accounting approaches	There are material data collection and methodological challenges to estimating emissions and removals in the land sector. Consistent with IPCC Good Practice, the United States has continued to improve its land sector greenhouse gas reporting, which involves updating

INFORMATION NEEDS

- Treatment of land sector (policy/action, non-GHG target, GHG target (included as part of the broader target, treated as a separate sectoral target, used to offset emissions within the target boundary, or not included in a target))
- If the land sector is included, coverage of the land sector (net emissions and removals from land-use activities and/or categories) as compared to total net emissions from the land sector, as a percentage if known, with list of exclusions of any significant categories/activities with justification
- If the land sector is included, assumed accounting approach (activity-based or land-based)
- Method for reference level and the level against which emissions and removals from the land sector are accounted, if known, including policy assumptions and methodologies employed
- Any assumed use of methodologies to quantify and account for natural disturbances and legacy effects
- HWP inclusion
- Other (definitions, mitigation potential, capacity needs)

CONCLUSIONS

- Multiple approaches can work if governed by principles
- After Paris can identify commonality in approaches (simplify list of approaches)
 - Will accounting need to be complicated? In part depends on approaches countries using.

CONCLUSIONS

- Diversity leads to:
 - The need for transparency on treatment and assumptions
 - Common principles to guide tracking of progress
 - Eventual rules to track progress towards net emissions and removals in the sector