AUSTRALIA

Submission to SBSTA on Guidelines for Inventories and Reporting

15 February 2009

Australia welcomes the opportunity to make a submission on experience gained with the *2006 Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories* (2006 IPCC Guidelines)[1] and on considerations related to revision of the FCCC reporting guidelines on annual inventories (FCCC Reporting Guidelines).[2] This submission is pursuant to the invitation at SBSTA's twenty-sixth session (FCCC/SBSTA/2007/4)[3], for consideration at its thirtieth session in June 2009.

Australia, like many Parties, has gained considerable experience in implementing relevant elements of the 2006 IPCC Guidelines. We are pleased to be able to offer our views on the use of the guidelines up to 2012 and beyond, and share our practical experience in implementing the 2006 Guidelines.

Australia has approached the assessment of the 2006 IPCC Guidelines, and any required revisions, within the context of ensuring the accounting framework used by the Parties:

- Respects the policy mandate of the UNFCCC and its Kyoto Protocol
- Facilitates Parties improving the accuracy of estimations and moving toward more robust inventories
- Promotes comparability between Parties' inventories

Developing more robust inventories

Decisions the Parties might take in relation to the application of the 2006 IPCC Guidelines should distinguish between the needs of pre-2012 and post-2012 accounting.

Policy considerations

For some inventory methods and reporting, the 2006 IPCC Guidelines contain approaches based on policy that is not the product of decision making processes by the Parties. The policy framework for the reporting of emissions and removals is a matter for the Parties, and this is separate to technical guidance on the estimation of emissions and removals provided by the IPCC. In this regard, discussion on the reporting rules for land sector emissions and removals in a post-2012 accounting framework should continue under AWG-KP item 3(b) on LULUCF.

Before the Parties could decide to use the 2006 IPCC Guidelines in the post-2012 period, the guidelines will need to be reviewed in light of the post-2012 accounting framework agreed by the Parties. The post-2012 accounting framework may include new elements – such as treatments for natural disturbance - and new reporting needs – such as reducing emissions from deforestation and forest degradation in developing countries. The review will need to take into account various considerations, including but not limited to:

[1] http://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html
[2] FCCC/SBSTA/2006/9 http://unfccc.int/resource/docs/2006/sbsta/eng/09.pdf
[3] Paragraphs 53 to 57 http://unfccc.int/resource/docs/2007/sbsta/eng/04.pdf

- Parties' experience in implementing the 2006 IPCC Guidelines;
- The need for new methodologies and/or improvements in methodologies and available information; and
- Parties' capacity for reporting.

These considerations are elaborated in our experiences, provided below. Based on the outcomes of this review, Parties could make a more informed decision on the adoption of guidelines for post-2012 accounting.

For the first commitment period (2008-2012), we note that the 2006 IPCC Guidelines do not apply for the purpose of ascertaining compliance with commitments under Article 3 of the Kyoto Protocol.

In the interests of promoting the robustness of emissions and removals estimates, all Parties should be invited to continue the voluntary use the emission factors and estimation methodologies contained within the 2006 IPCC Guidelines for the remainder of the first commitment period, subject to time series consistency with the baseline. Voluntary use could be enhanced by clear instructions on the elements of these guidelines that would be appropriate to use and how they should be applied.

Comparability

For Parties to understand how we are each contributing to anthropogenic greenhouse gas emissions, inventories need to be comparable between Parties and capable of tracking trends, irrespective of national approaches to estimation. We also need an enabling environment in which Parties are supported in improving the accuracy of estimation and moving progressively towards more robust inventories. The guidelines we adopt for a post-2012 outcome need to facilitate achieving these goals.

Following adoption of the guidelines to apply in the post-2012 period, a review of the common reporting format (CRF) tables will be required to identify and incorporate changes. Parties may need to make available additional funding to the Secretariat to update the CRF reporter tool and other information technology infrastructure.

Robust, comparable and verifiable inventories will be an essential component of a post-2012 outcome. Improvements to and consolidation of existing accounting guidance will be fundamental to achieving this outcome. We propose a number of areas for improving this guidance in the following.

Experience on implementation of the 2006 IPCC Guidelines and other considerations

Australia is pleased to provide comments on the following issues.

- General experience on implementation
- Reporting tables
- Treatment of the land sector
- 'Managed lands' and emissions from natural disturbance
- Inter-annual variability
- Tiers
- Mandatory versus voluntary reporting of carbon emitted in gases other than CO_2
- Indirect N_2O emissions from the atmospheric deposition of nitrogen in NO_x and NH_3

General experience on implementation

Australia has implemented emission factors and methods from the 2006 IPCC Guidelines in a number of sectors, principally in the solid waste, indirect N_2O emissions from agricultural soils and the transport subsectors. The new factors and methods have been adopted following the review of these categories through our normal improvement processes.

The 2006 IPCC Guidelines provide more accurate methods for estimating emissions and updated EFs. For example, within the transport subsector, the 2006 IPCC Guidelines provide EFs for new aircraft fleet, technologies and fuel characteristics, and as such will better reflect emissions than the defaults from the Revised 1996 IPCC Guidelines.

The 2006 IPCC Guidelines provide an appropriate reference manual for default methods and EFs which should be available for use by Parties on a voluntary basis.

Reporting tables

Parties invested significant effort developing the current CRF tables. These CRF tables were modified from the original Revised 1996 IPCC Guidelines tables to make them more user-friendly and practical for review purposes (e.g. introduction of implied EFs and other background information). However, the 2006 IPCC Guidelines CRF tables do not include these enhancements, which are very important for reviews.

Treatment of the land sector

The IPCC 2006 IPCC Guidelines introduce significant changes for the land sector.

Consistency in the estimation and reporting of all forms of greenhouse gases is highly desirable.

Whereas the Revised 1996 IPCC Guidelines treat LULUCF and agriculture separately, the 2006 IPCC Guidelines integrate these into a single category of Agriculture, Forestry and Other Land Uses (AFOLU). We welcome this approach in principle, but note that true integration of the estimation of emissions and removals is only likely to occur for a limited number of Parties.

The Revised 1996 IPCC Guidelines provide separate and inconsistent estimation methods for CO_2 and non-CO_2 emissions from soils under the LULUCF and agriculture sectors. The 2006 IPCC Guidelines attempted to remove this inconsistency by introducing the AFOLU construct, while leaving open the option for Parties to continue using separate estimation methods. Our experience is that the AFOLU construct may still result in inconsistencies in the way Parties report these emissions.

The new reporting structure in AFOLU allows Parties to report CO_2 emissions from fires and direct N_2O emissions from managed soils either under the 'land' categories (3B) or the 'Aggregate sources and non-CO_2 emissions from sources on land' categories (3C)[4]. It is likely that the majority of Parties will continue reporting in the aggregate reporting categories. However, Parties may nevertheless report these emissions by land categories. We consider this will create inconsistency in reporting.

'Managed lands' and emissions from natural disturbance

A major change to land sector guidelines, first introduced in the *2003 IPCC Good Practice Guidance for LULUCF* (IPCC GPG for LULUCF), is the 'managed lands' proxy for determining anthropogenic emissions and removals. The consequence of using the 'managed lands' proxy is that the estimation process now 'factors-in' emissions and removals from natural disturbances on these lands. This is an issue that requires substantive consideration by the Parties.

Current reporting using the IPCC GPG for LULUCF allows Parties to either symmetrically include, or exclude, both CO_2 removals and emissions from major natural disturbances.[5] The premise of

[4] From the reporting tables in Volume 1 of the Guidelines

[5] IPCC (2003) Good Practice Guidance for Land Use, Land-Use Change and Forestry, Chapter 3 LUCF Sector Good Practice Guidance, Section 3.2.1.4.2.

this approach is that there should be symmetry in accounting for emissions from natural disturbances and any subsequent removals from the recovery process.

In contrast, the 2006 IPCC Guidelines require the highly variable non-anthropogenic emissions from natural disturbances and removals from recovery, to be included. Australia's experience is that the scale and variability of natural disturbances masks any anthropogenic trends in our national inventory.

We consider the natural disturbance provisions in the IPCC GPG for LULUCF are more consistent with the principles of the Convention and should be retained and possibly elaborated. We have outlined in previous submissions, to the AWG-KP and AWG-LCA, why these issues of policy and principle should be made by Parties rather than imposed by a technical body[6].

The policy framework for the reporting of emissions and removals is a matter for Parties, and this is separate to the guidance on the estimation of emissions and removals provided by the IPCC. In this regard, we consider that discussion on the reporting rules for land sector emissions and removals in a post-2012 accounting framework should continue under AWG-KP item 3(b) on LULUCF.

Inter-annual variability

Another feature of the 2006 IPCC Guidelines that may have impacts on accounting policy is the removal of provision for smoothing of inter-annual variability in AFOLU. In our experience, inter-annual climatic variability is a variation in climatic conditions from year-to-year that leads to substantial annual variations in the rate of net carbon emissions and removals.

There are a range of approaches to smoothing inter-annual variability, based on intensity of estimation methods (Tier 1, 2 or 3) and national circumstances.

- In the Revised 1996 IPCC Guidelines, rolling averages can be used to smooth volatility in accounts derived from factors such as short term climate variability. However, Volume 1 of the 2006 IPCC Guidelines requests annual reporting and removes provisions for rolling averages. This means that Parties have no opportunity to smooth variability in the reporting process to reflect the underlying trends due to human management practices.
- Volume 4 of the 2006 IPCC Guidelines states that it is appropriate to apply multi-year sampling approaches to measurements, so that either activity data or carbon stock changes reflect an average over several years. As a consequence, Parties with less intensive (Tier 1 and some Tier 2) estimation methods can produce smoothed inventory estimates through averaged inputs to the estimation process. The Volume 4 approach is not available to Parties that apply more frequent measurements or apply models in inventory estimation, which are typical of Parties that use the most-intensive (Tier 3) of IPCC estimation methods.

This situation disadvantages Parties using the most-intensive (Tier 3) methodologies, and makes the inventories of those Parties that report using annual climate data, and the inventories of those that use longer-term averages, less comparable.

Tiers

Our experience is that the 2006 IPCC Guidelines do not provide sufficient elaboration on good practice for Tier 3 methodologies. Elaboration will be important to Parties developing these methods, which are technically demanding, and often Party specific. Elaboration will create certainty for Parties, as adherence to properly elucidated good practice guidance should remove uncertainty as to which criteria should be applied during inventory review.

[6] http://www.climatechange.gov.au/international/unfccc-submissions.html

Reporting of carbon emitted in gases other than CO_2

Reporting of indirect CO_2 emissions from non methane volatile organic compounds (NMVOCs) in the Solvents and Other Product Use sector is optional under the Revised 1996 IPCC Guidelines.

The 2006 IPCC Guidelines indicate that for all sectors "these CO_2 inputs could be included in national inventories". The use of "could" implies that doing so is still optional. However, if the 2006 IPCC Guidelines are adopted post 2012, the FCCC Reporting Guidelines should make the optional nature of the reporting explicit. The language in the 2006 IPCC Guidelines is likely to be open to ambiguous interpretation.

Indirect N_2O emissions from the atmospheric deposition of nitrogen in NO_x and NH_3

In previous IPCC guidance, atmospheric deposition is only calculated from nitrogen sourced from the agriculture sector. The 2006 IPCC Guidelines extend this practice to all sectors. However, the 2006 IPCC Guidelines are unclear in explaining how these emissions are to be reported. Atmospheric deposition from AFOLU sources of nitrogen appears to remain as an AFOLU reporting category (*3.C.5 Indirect N2O Emissions from Managed Soils*), but the guidelines also indicate that atmospheric deposition emissions arising from nitrogen sources from AFOLU and the other sectors are to be reported in category *'5.A. Indirect N_2O Emissions from the Atmospheric Deposition of Nitrogen in NO_x and NH_3'*.