

**U.S. Comments on
Issues Related to Guidelines for National Communications
April 15, 1996**

RELEASE IN FULL

The United States, in a separate set of documents, has suggested revisions to the guidelines for preparation of National Communications under the Framework Convention on Climate Change. In developing those recommendations and in reviewing the discussions on the reporting issue as raised by Parties at the most recent sessions of the FCCC Parties, we note that four issues relevant to the integrity of emissions inventories and reporting on policies and measures still need to be resolved. These issues have arisen either due to interpretation and manipulation of the guidelines presented for the first national communications, or due to matters unresolved since the negotiation of the first guidelines, and include:

1. Temperature adjustments to the baseline
2. Use of Global Warming Potentials (GWPs)
3. Marine bunkers and international aviation fuels, and
4. Accounting for imported electricity

A uniform treatment of these items by all Parties can be expected to facilitate meeting the objective of a clear, transparent and comparable set of national communications. This paper proposes recommendations on how the parties, working through the Subsidiary Body for Scientific and technological Advice (SBSTA) and the Subsidiary Body on Implementation (SBI) can treat these issues.

1. Temperature adjustments to the Baseline

Issue: Some Parties have adjusted the physical data on emissions in their 1990 baseline to account for that unseasonably mild winter (although a parallel problem could occur if Parties wished to account for unseasonably cold winters, and concomitant increased heating requirements). It has been argued that adjusted baselines are more comparable to projected futures, in which average weather conditions are used to project energy demand. However, using an average weather baselines in Annex I Parties for 1990 leads to an increase in baseline emissions of between a few percent and 10% over actual values, and alters the level of effort required to return to "1990 levels".

Options: Several options have been proposed for addressing this problem:

1

REVIEW AUTHORITY: Janina Slattery, Senior Reviewer

- averaged energy demand (driven by averaged temperature & weather conditions) over 5-year period centered on 1990, with either a fixed year or average year temperature for the target date. Calculations for averages could be based on absolute temperatures or on "degree days".
- averaged emissions (from energy sources) for the 5-year period centered on 1990, with either a fixed year or average year emissions from energy sources for the target date
- baseline is calendar-year 1990 emissions, and target year is actual emissions in that year

Recommendation: In the U.S. view, the Convention is explicit in setting a base year -- and it does not provide for adjustments to the baseline. In our view, the complexity of negotiating appropriate adjustments when a simple fixed value applies is not warranted. Furthermore, assuming a five-year running average is used, the averaging method will prohibit determining the target year temperature (and consequently the target year emissions reductions required) until 2-3 years after the target year deadline is passed. We recognize that issues related to "compliance" with future targets will need to be addressed at a future date -- and Parties may well wish to consider the need for flexibility in meeting targets to allow for changes in temperature projections between the base year and the target year. While at this time we recommend reporting using the fixed year approach, we note that Parties may also choose to report using a five year average; in such cases, both the fixed year and average values must be provided, along with a full accounting of how each value was determined.

2. Use of Global Warming Potentials (GWPs)

Issue: While GWPs are vital for communication and evaluation of total loadings introduced to the atmosphere, the application of GWPs can reduce transparency in presentation and evaluation of data. In addition, there is some confusion over the appropriate GWP values to employ -- the IPCC provides values for both direct and indirect loading for some gases, direct loading only for other gases, and offers multiple time horizons for all gases. In addition, some gases do not have accepted GWP values at all.

Options: Given the array of time horizons, and gases covered, Parties could choose to:

- provide data without recourse to GWPs (i.e., on a gas by gas basis); or
- use a standard GWP time horizon as a default, and provide additional data as desired

Recommendation: The United States advocates the use of GWP's to account for total contribution to climate change due to total radiative forcing of all anthropogenic emissions. To assure full and transparent reporting, Parties should also report the emissions of each individual gas in standard physical units. Furthermore, gases must not be aggregated into groups (such as HFCs or PFCs), without separate details regarding the volume of each gas emitted within the group. The values used for the GWP coefficient must be from the latest IPCC values (for the second national Communication, the values used should be from the 1995 IPCC Second Assessment Report); for those gases for which the IPCC has not yet determined a GWP, Parties may provide their own value along with references to how that value is determined. Conversion factors used should be consistent throughout the communication. The United States recognizes that additional detail is needed on other gases that are important for radiative forcing, such as new gases with high GWPs, but for which values have not yet been calculated or agreed. While new IPCC GWP calculations are anticipated, countries may contribute advances in information on sources and emission coefficients as they develop, as long as they are sufficiently documented.

3. Marine Bunkers and International Aviation Fuels

Issue: Emissions associated with combustion of bunker fuels currently are reported separately and not included in Parties' baseline inventories nor in their projections. The central issue is who should 'be responsible' for these significant sources. While the country of sale is readily (and already) documented, it is more difficult to account for who combusted the fuels, or who "benefited" thereby (e.g., the importer, the exporter, or the shipper).

For the US, bunker fuels amount to approximately 1.6% of Carbon from all energy-related sources in 1990 (1.7% in 1992), although these grew by 50% from 1987 - 1992 (from 15 MMTC to 22.5). In comparison, accounting for bunker fuels would add approximately 2.9% to Japan's inventory, 4.5% to Australia, 5% to Canada, 8.7% to Denmark, and 25% to the Netherlands for 1990.

These sources of emissions are expected to continue to grow in the future, paralleling growth in international trade and international air travel. Hence they are significant, and should be accounted for from a global viewpoint.

Options: A number of choices have been proposed to address these emissions:

- Continue to leave them off the table (for now) -- following current precedent
- Country of point-of-sale must take responsibility for emissions

- Country of point-of-sale and country of destination point split responsibility for emissions
- Country of flag of carrier (emitter) must take responsibility for
- Develop framework where the consumer takes responsibility for the embedded energy in products consumed

Recommendation: In the U.S. view, while each of these options has been available for consideration for some time, little attention has been devoted to evaluating the operational implications of adopting a particular course of action. The United States therefore recommends that the Secretariat, drawing on expertise from Parties, prepare a position paper outlining the consequences of adopting any of these options. Such an analysis should include a discussion of possible institutional mechanisms that might be required to track the sale of fuels, the departure and destination points of consumers, and verification and monitoring procedures, as well as issues dealing with embedded carbon in manufacturing and trade. If possible, the Secretariat paper should be prepared in time for consideration at SBSTA-4.

4. Accounting for Imported Electricity

Issue: Some parties have added emissions to their baseline inventory in amounts proportional to the electricity they have imported -- often increasing the baseline significantly. The surrogate generation source is often assumed to be from baseload fossil-fuel plants -- with resultant high emissions. Accompanied by the assumption in the projections that all energy consumed would be generated in-country, such electricity import calculations can create a number of inconsistencies:

- any emissions are likely to be double counted (by the generator and the consumer); and
- the producer of the energy may have been a non-emitting or low emitting generator such as nuclear, hydropower or natural gas, while the assumed generator was a high emitter.

While there is a valid argument that a party should 'be responsible' for the emissions associated with the energy (resources, etc.) it consumes, such calculations are only possible with full transparency in reporting, and with comparable information from both exporter and importer.

Options: As with each of the cases above, several options exist for addressing the electricity import issue:

- adjustments should not be used -- emissions should be included only in the inventory of the country of origin;
- the consumer should take full responsibility for emissions associated with energy consumed.

Recommendation: There are clear parallels between the issues of electricity imports and the issue of bunker fuels, although in the electricity case, the accounting problem may be substantially simpler to address. However, in both cases, it is critical that a fully transparent system be used to ensure that double counting is avoided -- and that the emissions from power generation are accounted for in one or another country's National Communication. Furthermore, it is critical that the emissions associated with the consumption of imported electricity must correspond with the source -- whether that source is fossil free or not. In circumstances where the source is the grid, initial calculations may be made using the average grid emission coefficient, although a full derivation of the emissions and the amount of electricity should be provided for completeness. It must be made clear in the National Communication how electricity imports are handled in projections of future emissions, and whether import levels rise or fall. As with reporting on Joint Implementation, Parties should be required to obtain the consent of the producer country when proposing to include emissions in their own baseline calculations of electricity generated in another country.