Submission from the World Resources Institute (WRI) to the UNFCCC on comparability and common accounting rules for emission reduction targets of developed country Parties

1. Introduction

Significant commitments to mitigating greenhouse gas (GHG) emissions are central to the realization of the UN Framework Convention on Climate Change's (UNFCCC) goal to avoid dangerous climate change. In December 2009, Parties took note of the Copenhagen Accord, which provides a mandate for Annex I Parties, or developed countries, that choose to associate themselves with the Accord to submit quantified economy-wide emission reduction targets for 2020. In Cancun, decisions were taken to establish a process for international assessment of emissions and removals related to such targets and to organize workshops, as well as prepare a technical paper, to clarify assumptions and conditions related to attaining the targets.[1]

While Parties have come forward with their targets, many have not been clear about all of the assumptions underlying them. Furthermore, Parties have not agreed on guidance for a robust common accounting system to assess and track emission reductions generated by the targets in a consistent and comparable manner.

At a minimum, any effort to assess emission reductions resulting from Annex I commitments – and, therefore, track progress toward meeting global temperature goals – will require more information about the assumptions underlying the pledges. It will also require accounting rules that ensure that principles agreed to by the UNFCCC – consistency, transparency, completeness, comparability, and accuracy[2] – are applied to future accounting methodologies.

Below is a submission to the UNFCCC on behalf of the World Resources Institute (WRI). The paper is based on several of WRI's publications,[3] as well as our experience as the Secretariat for the development of a new global standard for GHG accounting and reporting for mitigation goals, currently under development under the GHG Protocol.[4]

The purpose of this submission is to provide input into the design of the forthcoming work program under the Subsidiary Body for Scientific and Technological Advice (SBSTA) to continue the process to clarify the quantified economy-wide emission reduction targets of developed country Parties, with a view to:

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[1] See UNFCCC, "Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010," 2011, FCCC/CP/2010/7/Add.1, http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2.

[2] UNFCCC, "Updated UNFCCC Reporting Guidelines on Annual Inventories Following Incorporation of the Provisions of Decision 14/CP.11," 2006, FCCC/SBSTA/2006/9, http://unfccc.int/resource/docs/2006/sbsta/eng/09.pdf.

[3] See for example, Kelly Levin et al., "Remedying discord in the accord: Accounting rules for Annex I pledges in a post-2012 climate agreement," WRI Working Paper, 2010, http://pdf.wri.org/working_papers/remedying_discord_in_the_accord.pdf; Kelly Levin and Jared Finnegan, "Assessing non-Annex I pledges: Building a case for clarification," WRI Working Paper, 2011, http://www.wri.org/publication/assessing_non_annexi_pledges; Remi Moncel et al., "Building the climate change regime: Survey and analysis of approaches," WRI Working Paper, 2011, http://www.wri.org/publication/building-the-climate-change-regime; Kelly Levin and Rob Bradley, "Comparability of Annex I Emission Reduction Pledges," WRI Working Paper, 2010, http://www.wri.org/publication/comparability-of-annexi-emission-reduction-pledges.

[4] See http://www.ghgprotocol.org/mitigation-accounting.

- identify a common basis for measuring progress made toward the achievement of quantified economy-wide emission reduction targets and

- ensure the comparability of efforts among developed country Parties, taking into account differences in their national circumstances.[5]

This submission is structured as follows:

- **Section 2** explains the importance of comparability for developed country targets;

- **Section 3** describes the relationship between comparability and clarification, and recommends additional clarification needs and associated processes to achieve such clarification; and

- **Section 4** explains the need for common accounting rules among developed country Parties to guarantee comparability, and recommends elements that should form the basis of such an accounting system, as well as processes needed to achieve it.

2. Importance of comparability

To enable understanding of mitigation efforts by developed country Parties, transparency is critical. The COP has already launched a process to clarify Annex I targets.[6] Clarification, however, must lead to comparability, given the COP's agreement in Cancun to establish a process for international assessment of emissions and removals related to targets with a view to promoting comparability.[7] Comparability is important for ensuring that estimates of GHG emissions and removals are calculated using methods and practices that are sufficiently similar across countries and time periods.

This submission understands comparability to mean technical comparability, as opposed to procedural and political comparability.[8] Technical comparability refers to the calculation methodologies, global warming potential (GWP) values, coverage of sectors and gases, and other technical details relevant to estimating emission reductions and removals associated with developed country Party reduction targets. In this context, comparability allows the meaningful comparison of one Party's emission reduction estimates and reduction target with those of other Parties.

Comparability also builds trust among Parties by allowing them to understand how the design and ambition of their target compares to that of other developed countries. Such an understanding can foster

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5 See paragraph 8 of UNFCCC, "Report of the Conference of the Parties on its eighteenth session, held in Doha from 26 November to 8 December 2012," FCCC/CP/2012/8/Add.1, http://unfccc.int/resource/docs/2012/cop18/eng/08a01.pdf.

6 Decision 1/CP.16, UNFCCC, "Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010," 2011, FCCC/CP/2010/7/Add.1, http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2.

7 Decision 1/CP.16, para. 44, UNFCCC, "Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010," 2011, FCCC/CP/2010/7/Add.1, http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2.

8 For a discussion of procedural and political comparability see Jane Ellis et al., "Design options for international assessment and review (IAR) and international consultations and analysis (ICA)," Organisation for Economic Co-operation and Development (OECD) and International Energy Agency (IEA), 2011, http://www.oecd.org/env/cc/49101052.pdf.

a sense of fairness. And most importantly, comparability can lead to increased ambition, as Parties gain confidence that their peers are acting, ideally providing enough confidence to build a race to the top. For example, a number of developed country targets are expressed as ranges, including those of Australia, the European Union, Iceland, Liechtenstein, New Zealand, Norway, Russian Federation, and Switzerland. Some of these Parties, such as Australia, the European Union, Iceland, Liechtenstein, New Zealand, and Switzerland, are explicit that any increase of their ambition is conditional upon other developed countries' commitments to comparable emission reductions.[9] Comparability would enable these Parties to assess the targets of their peers in a meaningful way and increase their ambition accordingly.

3. Clarification – A first step toward comparability

As noted, comparability requires that the estimation of emission reductions and removals is sufficiently similar across Parties so that meaningful "apples to apples" comparisons can be made. However, before information can be compared across Parties, it must first be clarified and reported. Clarification is the process by which information related to emission reduction targets is formally reported to the UNFCCC.

Clarification can lower the risk of inaccurate assessment of emission reductions, facilitate understanding, and build trust. Inaccurate assessment of Parties' targets could lead to GHG reduction outcomes that are understated or exaggerated. Even if Parties act in good faith, it will be difficult to estimate expected reductions without further information on the technical details and accounting methods underlying the targets. Furthermore, clarification of targets enables other stakeholders to understand expected emission reductions, which can build trust amongst Parties.

Clarification can also help to avoid double claiming of emission reductions. If Parties are not forthcoming about whether emission reductions from non–Annex I Parties are used for meeting both non–Annex I actions and Annex I targets (e.g. through international offsets), it could lead to double claiming of emission reductions by non–Annex I Party offset sellers and Annex I Party offset buyers and to an overestimation of net emission reductions achieved globally. Therefore, clarification of how international offsets and credits will be used to meet developed country target and how double counting will be prevented is critical for the integrity of the carbon market and the environment.

Currently, developed country Parties are required to clarify the following information related to their emission reduction targets:[10]

- Base year
- Global warming potential (GWP) values
- Coverage of gases
- Coverage of sectors

[9] See UNFCCC, "Quantified economy-wide emission reduction targets by developed country Parties to the Convention: assumptions, conditions, commonalities and difference in approaches and comparison of the level of emission reduction efforts," FCCC/TP/2012/2, 2012, http://unfccc.int/resource/docs/2012/tp/02.pdf.
[10] See UNFCCC, "Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011," FCCC/CP/2011/9/Add.1, 2012, http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf.

- Expected emission reductions
- Role of LULUCF
- Role of carbon credits from market-based mechanisms
- Associated assumptions and conditions related to the ambition of the pledge

However, these elements alone are not sufficient to allow for meaningful comparison across Parties because they do not produce a sufficiently detailed and transparent understanding of countries' reduction targets. The lack of clarity surrounding Annex I targets is problematic because the way these accounting issues are addressed by Parties can have significant implications for assessing the ambition of the targets and resulting emission reductions. Although the Cancun Agreements established workshops to clarify Annex I targets, these workshops have not moved Parties to come forward with all the information needed to assess the comparability of their targets.

Recommendations

To enhance comparability of reduction targets, the following elements should be clarified and reported by developed country Parties (in addition to the elements listed above):[11]

- Base year emissions and calculation methodology used
- Frequency and justification for recalculation of base year emissions
- The time-frame of the target – whether a single or multi-year target
- Methodology that will be used to calculate the national inventory over the target period, if different than the methodology used to calculate base year emissions
- Frequency and justification for recalculation of emissions during the target period
- Emission level in the target year associated with achieving the target and calculation methodology used
- Methodology used to calculate emissions and removals from the LULUCF sector, if included in the target. If LULUCF is not included in the target, Parties should disclose and justify its exclusion.
- Anticipated amount of international offsets that will be used to meet the target
- Methodologies used to estimate emission reductions from international market-based mechanisms (e.g. offsets and credits used to meet the target)

[11] These recommendations are based in large part on: Kelly Levin et al, "Remedying discord in the accord: Accounting rules for Annex I pledges in a post-2012 climate agreement," WRI Working Paper, 2010, http://pdf.wri.org/working_papers/remedying_discord_in_the_accord.pdf; Kelly Levin and Jared Finnegan, "Assessing non-Annex I pledges: Building a case for clarification," WRI Working Paper, 2011, http://www.wri.org/publication/assessing_non_annexi_pledges.

- Mechanisms (e.g. legal mandates, registries, transaction logs, and/or agreements between buyers and sellers) used to prevent double counting of units (offsets, credits, and tradable allowances)

In order to gather the additional elements outlined above, the following processes should be initiated:

- UNFCCC workshops should focus on clarifying the elements listed above.

- A decision to adopt common tabular format (CTF) for biennial reporting for developed countries that includes all of the accounting elements outlined above.

- The SBSTA should establish a process to identify how adjustment of methodologies, assumptions, and other pledge details should be reported in biennial reports and related review procedures.

4. Common accounting rules ensure comparability

Although clarification in an important first step toward comparability, it alone is not sufficient to guarantee comparability or environmental integrity, since it produces only transparency around targets and does not require that they are accounted for in a common way. If common accounting rules, rooted in key accounting principles (transparency, consistency, comparability, completeness, and accuracy), are adopted for all aspects of the target, the need for clarification of targets would be unnecessary, as all Annex I Parties would be applying the same assessment methodologies, metrics, and scope. (That said, Parties should still be required to report all of the accounting elements discussed in Section 3.)

Common accounting rules provide a common basis for measuring progress toward targets because they ensure that all Parties use the same calculation methodologies, GWP values, coverage of sectors and gases, and other relevant technical details to estimate emissions and removals associated with their targets. If all targets are accounted for in an identical way, they can be easily compared without further conversions or recalculations.[12]

Currently, Parties participating in the second commitment period of the Kyoto Protocol are required to use common accounting rules. However, the problem is that most developed countries are not participating in the second commitment period. Furthermore, under the UNFCCC, no common accounting rules exist for developed countries. This lack of common accounting rules makes achieving comparability difficult.

In particular, the lack of common accounting rules poses a number of risks, including:[13]

- <u>Coverage of sectors and gases</u>: Without common rules that prescribe which sectors and gases to cover under the target, Parties could limit coverage to a few gases and sectors, compromising the completeness of the target and making comparability of targets difficult. Furthermore, the use of

[12] Once clarified, targets could conceivably be compared, but only after each is converted into common units. For example, gases could be compared across developed countries once a consistent GWP value is used to calculate CO_2e values for each non-CO_2 gas. However, such conversions and recalculations would require significant further effort and could be prone to errors.

[13] For full discussion see Kelly Levin et al., "Remedying discord in the accord: Accounting rules for Annex I pledges in a post-2012 climate agreement," WRI Working Paper, 2010, http://pdf.wri.org/working_papers/remedying_discord_in_the_accord.pdf.

offsets from uncovered domestic sectors could emerge in an un-harmonized way, which would make it challenging to assess ambition and measure and compare reductions across domestic offset crediting programs.

- Land use, land-use change, and forestry (LULUCF): The inclusion of emissions and removals from the LULUCF sector in a reduction target can make a significance difference in the ambition of the target and assessment of emission reductions. Without common rules for accounting for reductions in the LULUCF sector, it would be difficult, if not impossible, to assess and compare emission reductions and removals across Parties.

- Units from international market-based mechanisms: Without common rules for how units from international market-based mechanisms (offsets and credits) should be accounted for, there is a risk that emission reduction units can be double counted.[14] This is especially relevant since developing countries are increasingly undertaking nationally appropriate mitigation actions (NAMAs), which often include national reduction goals. As mentioned above, a non-Annex I country with a national goal could generate and sell an offset to an Annex I country with a national target, and at the same time count the emission reduction(s) associated with that offset toward its own goal. In such a case, the same emission reduction unit(s) will have been counted twice. Such double counting threatens the environmental integrity of emission reduction targets and should be prevented.

  Additionally, some Annex I Parties are considering or developing multilateral (e.g. plurilateral or regional) or bilateral offset mechanisms that are designed outside of the UNFCCC Clean Development Mechanism (CDM) or any other future internationally agreed methodologies. For example, such programs could be advanced for domestic emission trading systems. If methodologies and accounting rules for these programs differ, it will be difficult to ensure comparability.

Recommendations

In order to establish common accounting rules and ensure comparability, developed countries' emission reduction targets should:[15]

- Use a single common base year

- Cover all IPCC sectors (including LULUCF) and all seven Kyoto gases (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3)

- Use GWP values from the *Fourth Assessment Report* of the IPCC

- Use 2006 IPCC *Guidelines for National Greenhouse Inventories* to calculate emissions in the base year and throughout the target period

[14] Double counting here refers to double claiming – the claiming one emission reduction unit by two different parties toward two different emission reduction goals, and double selling – the sale of one emission reduction unit to more than one buyer.
[15] These recommendations are in large part based on: Kelly Levin et al., "Remedying discord in the accord: Accounting rules for Annex I pledges in a post-2012 climate agreement," WRI Working Paper, 2010, http://www.wri.org/publication/remedying-discord-in-the-accord.

- Account for emissions and removals from the LULUCF sector in a common and comparable way, using a comprehensive accounting methodology

- Ensure that any units (offsets and credits) used from international market-based mechanisms are real, additional, based on a realistic baseline, quantified and monitored, independently verified, unambiguously owned, address leakage, address permanence, and do no net harm

- Ensure that the double counting of units (offsets, credits, and tradable allowances) is prevented through the use of legal mandates, registries, transaction logs, and/or agreements between buyers and sellers that specify which party can claim the units or how such units are to be shared

- Translate targets into an emission level in the target year (associated with meeting the target) in comparison to the base year, as well as anticipated emission reductions over the target period

It is important to note that common accounting rules alone will not ensure environmental integrity. As we suggest in previously published literature on the topic, common accounting rules should embrace the same characteristics as the reporting principles agreed under the UNFCCC.[16] That is, Annex I Parties should use *comparable* and *accurate* methodologies for estimating and reporting emission reductions, enhanced removals, and offsets; they should report all data, procedures, and assumptions in a *transparent* manner; the data should be *complete* (for example, include all sources and sinks); and the Parties should report *consistently* over an agreed time period. If Parties agree to these criteria, they should be able to track whether an Annex I Party is likely to meet its pledge, avoid double counting of emission reductions among Parties, and assess whether achievement of the pledges will affect atmospheric greenhouse gas concentrations.

To establish common accounting rules, the following processes should be initiated:

- A decision requesting the SBSTA to use, as appropriate, lessons learned from the Kyoto Protocol to develop measurement, reporting, and verification guidelines, building on Part I of the UNFCCC Guidelines for the Preparation of Annex I National Communications, and as called for by the Copenhagen Accord, to ensure that accounting for Annex I Party targets is consistent, complete, comparable, transparent, and accurate, for consideration by the COP at its next session.

- By COP20, a decision that reiterates the need to adopt common accounting guidelines for developed country Parties that are transparent, consistent, comparable, complete, and accurate in order to assess attainment of developed country targets.

- If common accounting rules for all topics cannot be agreed upon, developed country Parties should adopt common rules for those aspects of accounting where they can agree – such as calculation methodologies for base year emissions, GWP values, and coverage of sectors and gases – while at the same time agreeing to launch a negotiating process to reach agreement on more difficult accounting issues – such as market-based mechanisms[17] and LULUCF.

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[16] See Kelly Levin et al., "Remedying discord in the accord: Accounting rules for Annex I pledges in a post-2012 climate agreement," WRI Working Paper, 2010, http://pdf.wri.org/working_papers/remedying_discord_in_the_accord.pdf.

[17] We recognize that COP Decision 1/CP.18, paragraph 50 requests SBSTA to conduct a work program to elaborate modalities and procedures related to new market-based mechanisms. The design and adoption of a common

- If agreement on market-based mechanisms and/or LULUCF cannot be reached, Parties should, at a minimum, agree to establish a panel on accounting methodologies, which could review and assess Parties' methodologies for market mechanisms (offsets and credits) and LULUCF against agreed upon criteria, ex-ante, so as to ensure that methodologies are rigorous, robust, and transparent. This panel should have power to assess, comment on, and approve methodologies.

The environmental integrity of developed country targets and the collective climate regime is in part dependent on the development of a robust common accounting system based on harmonized methodologies, to the extent feasible. While the current targets are not ambitious enough to limit warming to 2˚C, as the UNEP Emissions Gap Report[18] outlines, strong accounting rules do play an important role in ensuring that the ambition of current targets is not further reduced. They can also ensure comparability of efforts among developed country Parties and provide a common basis for measuring progress toward the achievement of their quantified economy-wide emission reduction targets. In addition, such a system can help to identify future additional mitigation efforts and ambition required to meet the UNFCCC goal to avoid dangerous climate change.

About WRI

WRI focuses on the intersection of the environment and socio-economic development. We go beyond research to put ideas into action, working globally with governments, business, and civil society to build transformative solutions that protect the earth and improve people's lives.

accounting system for market-based mechanisms for developed country targets could be developed as part of this process or separately.

[18] UNEP, "The Emissions Gap Report 2012: A UNEP synthesis report," 2012, http://www.unep.org/publications/ebooks/emissionsgap2012/.