

Assessing Non-Annex I Pledges: Building a Case for Clarification

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Suggested Citation: Levin, Kelly and Jared Finnegan. 2011. "Assessing Non-Annex I Pledges: Building a Case for Clarification." WRI Working Paper. World Resources Institute, Washington DC.

INTRODUCTION

Under the UN Framework Convention on Climate Change's (UNFCCC) Cancun Agreements, both Annex I and non-Annex I Parties have announced a diversity of mitigation targets and actions respectively for emissions reduction by 2020. While Annex I Parties have put forward economy-wide emissions reduction targets, non-Annex I Parties have proposed a variety of nationally appropriate mitigation actions (NAMAs). These non-Annex I actions include economy-wide¹ goals (e.g., business-as-usual goals, carbon neutrality goals, and intensity goals) as well as sectoral actions, project-level activities, and policies (e.g., energy efficiency measures, no-till farming, projects related to mass transport systems, and investments in renewable energy sources).

Although the targets and actions of Annex I and non-Annex I Parties are different in form due to the principle of common-but-differentiated responsibilities and respective capabilities, many are similar in their lack of clarity regarding critical details, assumptions, and methodologies. For example, many of these pledges² do not specify aspects such as which sectors or gases are covered, which methodologies are used for estimating expected reductions, if applicable, and/or the role of offsets. Without this and other information, it is challenging to track progress towards fulfillment of pledges, to ensure transparency, to estimate resulting emissions reductions, and to assess whether overall global emissions reductions are adequate for meeting global temperature limits.

For Annex I Parties, these problems should be resolved through the negotiation of common accounting rules. Although beyond the scope of this paper, the design of such rules is a critically important determinant of the regime's environmental integrity.³ While common assessment methodologies for non-Annex I countries may be developed in the future, it is unlikely that the 17th Conference of the Parties (COP-17) in Durban, South Africa, will resolve this issue.

December 2011

There are a number of reasons for this, including the principle of common-but-differentiated responsibilities, the level of complexity of various types of non-Annex I actions, and the lack of experience in this field compared to the common accounting rules developed for Annex I Parties under the Kyoto Protocol from which Annex I Parties can draw. In the absence of a set of provisions similar to those discussed for Annex I, clarification⁴ of non-Annex I actions can assist in providing transparency and tracking performance for domestic and international purposes.

While this paper focuses on clarification of non-Annex I actions, we first explain how common accounting rules for Annex I targets resolve the lack of clarity surrounding targets for developed countries. The remainder of the paper is devoted to discussing why and how non-Annex I Parties' pledges should be clarified. In doing so, we describe the benefits of clarification, as well as the related mandates under the Cancun Agreements. We then outline the specific clarification needs associated with each type of non-Annex I action. It should be noted that this paper focuses only on non-Annex I pledges that are stated in terms of emissions reductions or emissions limitation⁵ and not on pledges that are framed in terms of indicators unrelated to emissions (e.g., capacity building initiatives).⁶ Lastly, we recommend decisions that can be made in Durban to formalize both common accounting rules for Annex I targets and a clarification process for non-Annex I actions.

COMMON ACCOUNTING RULES RESOLVING CLARIFICATION NEEDS FOR ANNEX I TARGETS

The uncertainty surrounding Annex I targets—What base year emissions are being used? Which sectors and greenhouse gases (GHGs) are covered by the pledge? Which global warming potential values are being used?—is problematic because the way these issues are resolved can have significant implications for assessing the level of ambition of the targets, and their resulting emissions reductions.⁷ Although the Cancun Agreements established workshops to clarify Annex I targets, these workshops—which so far have been held in Bangkok in April 2011 and Bonn in June 2011—have not moved Parties to come forward with all information related to their targets. In

particular, details have not been forthcoming surrounding the use of offsets; land use, land-use change, and forestry (LULUCF) accounting methodologies; and coverage of sectors and greenhouse gases.⁸

The adoption of common accounting rules, however, would resolve these problems. Specifically, if accounting rules are applied to the following categories, the need for clarification of targets will be moot, as all Annex I Parties will be applying the same assessment methodologies, metrics, and scope:⁹

- coverage of greenhouse gases;
- coverage of sectors;
- calculation methodologies for base year emissions;
- inventory methodologies for emissions estimation;
- global warming potential;
- LULUCF;
- international offsets; and
- surplus emissions units, to the extent used in any second commitment period of the Kyoto Protocol and also used to meet targets under the Convention track.

Also, common accounting rules are critical for the environmental integrity of the regime and for achieving comparability—a key objective not only of the Cancun Agreements (para 44) but also of many Parties, as it is seen as a prerequisite for advancing more ambitious targets.¹⁰ Accordingly, the Cancun Agreements create a mandate for the development of modalities and guidelines related to international assessment and review (IAR) of emissions and removals in a rigorous, robust, and transparent manner.¹¹ We argue that the IAR process must result in the development of common accounting methodologies for Annex I targets.

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,¹² accounting rules should embrace the same characteristics as the reporting principles agreed under the UNFCCC. That is, Annex I Parties should use *comparable* and *accurate* methodologies for estimating and reporting emissions 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 emissions reductions among Parties, and assess whether achievement of the pledges will affect atmospheric greenhouse gas concentrations.

BENEFITS OF CLARIFYING NON-ANNEX I PARTY ACTIONS

As mentioned above, negotiations have yet to focus on common assessment procedures for non-Annex I Party actions, given the infancy of many non-Annex I Parties' actions on climate change and the need for strengthened capacities related to the evaluation of emissions reductions (e.g., inventory data must be strengthened before accounting provisions can be accurately applied). In the absence of common assessment procedures for non-Annex I Party actions, clarification of non-Annex I actions will be an important step in enhancing the ability to track progress, both to meet domestic goals and to report to the international community. We therefore focus the remainder of this paper on clarification of non-Annex I actions. As discussed in the introduction, we limit our discussion to goals stated in terms of emissions reductions,¹³ while noting that some actions are stated in terms of other metrics.¹⁴

Regarding domestic benefits, clarification can:

- **Assist in tracking progress towards domestic emissions reduction goals.** Parties will be able to evaluate the effectiveness of mitigation actions more accurately, allowing them to reconsider or strengthen actions on the national level, especially actions that are underperforming.

Regarding international benefits, clarification can help achieve the following:

- **Enhanced transparency and trust.** Transparency can improve the timeliness, quality, and reliability of information and the sharing of lessons among Parties.¹⁵ In turn, transparency can also strengthen trust among Parties

and lead to greater action as Parties gain confidence that others are acting. Accordingly, transparency is a goal of the international consultations and analysis (ICA) of non-Annex I Parties' actions under the Cancun Agreements (para 63), and clarity on actions could assist in fulfilling this key objective.

- **Strengthened understanding of whether global aggregate reductions are adequate for meeting global temperature limits.** Any calculation of global emissions reductions will require more information on expected mitigation achieved from the pledges. This is a key input into the 2013–15 global review, which assesses the adequacy of global action. It will be difficult to understand global emissions reductions and trajectories if the emissions reductions associated with the pledges are not clear.
- **Avoided double claiming of emissions reductions.** Relatedly, if Parties are not forthcoming about whether emissions reductions from non-Annex I Parties are used for meeting both non-Annex I actions and Annex I targets (through offsets), it could lead to double claiming of emissions reductions by non-Annex I Party offset sellers and Annex I Party offset buyers, and to an overestimation of net emissions reductions achieved globally.¹⁶
- **Lowered risk of inaccurate assessment.**¹⁷ Inaccurate assessment could otherwise 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 pledges. For example, if there is no clarification about the scope of greenhouse gases included in an economy-wide goal, calculations of national emissions reductions could be misleading if, for example, the goal only applies carbon dioxide emissions (and non-CO₂ greenhouse gases are allowed to increase during the same time period). Also, a clear statement of the details surrounding the pledges may inhibit Parties from pursuing inaccurate GHG assessment methodologies. This is because transparency could potentially motivate Parties to embrace accurate assessment methodologies in an effort not to face reputational

challenges with domestic constituencies and/or international actors.

- Reduction of uncertainty associated with expected emissions reductions.** For example, an emissions intensity goal could result in a variety of different expected emissions outcomes depending on which assumptions are included in projecting both BAU emissions and GDP trajectories. Illustrative of this difference is Figure 1, which depicts the emissions reductions that result from China's pledge to reduce its emissions intensity by 40–45 percent from 2005 levels by 2020 when using growth projections from the U.S. Energy Information Agency (EIA) versus that of the International Energy Agency (IEA). Were China to achieve a 45 percent improvement in carbon intensity it would either be more ambitious or in line with reference case scenario trajectories under both the IEA and EIA projections respectively. Were China's carbon intensity to improve by 40 percent, the picture is more mixed: it would come in just under the IEA's reference case scenario's projection but roughly 8 percent above the EIA's reference case emissions trajectory. These figures demonstrate that the calculation of expected emissions reductions depends on which assumptions underlie the projections. In this case, the EIA reference scenario was published several months earlier than the IEA's and thus did not incorporate the full ramifications of the recession, and the scenarios differ with regard to other assumptions as well.¹⁸

PROVISIONS FOR CLARIFYING NON-ANNEX I ACTIONS

Numerous provisions of the Cancun Agreements call on non-Annex I Parties to clarify their actions (see Table 1).¹⁹ For example, Section III.B of the Agreements requests that the Secretariat organize workshops aimed at understanding the diversity of submitted mitigation actions and underlying assumptions (para 51). Hence, the abovementioned workshops held in Bangkok and Bonn in 2011 were convened, and Parties began to share more information about their pledges, although much still remains unknown. Additionally, the Agreements created a mandate to carry out international consultations and analysis (ICA) of non-Annex I Parties' biennial reports in order

to "increase transparency of mitigation actions and their effects..." (para 63). The Agreements decided that the information considered for ICA should include information on mitigation actions, including a description of the action, an analysis of its impacts, and associated methodologies and assumptions (para 64).

Additionally, Section V of the Agreements launches a process to review the adequacy of the long-term goal of reducing global GHG emissions to prevent an increase in global average temperature to above 2°C, and the overall progress towards achieving it (para 138). This global review should be based on an "assessment of the overall aggregated effect of the steps taken by Parties in order to achieve the ultimate objective of the convention" (para 139iii) and should start in 2013 and be concluded by 2015. Any accurate estimation of the "aggregated effect"—the overall adequacy of emissions reductions—will require more information regarding the details of the action, underlying assumptions, and methodologies.

PLEDGES ANCHORED IN THE CANCUN AGREEMENTS: A BRIEF DESCRIPTION OF NON-ANNEX I PARTY ACTIONS

Given the abovementioned benefits of clarification and clarification-related provisions under the Cancun Agreements, which details, assumptions, and methodologies should be clarified? As previously noted, a diversity of actions was submitted under the Cancun Agreements, and, accordingly, the details that require clarification differ depending on the pledge type.

Non-Annex I Parties have submitted actions that range from economy-wide goals to mitigation policies, projects, and sectoral actions (Figure 2). Actions framed as economy-wide goals have been submitted by Parties such as Chile, China, India, and South Africa. In general, these goals can be divided into four categories (Table 2):²⁰

- emissions reduction in comparison to a base year;
- emissions reduction in comparison to a BAU scenario;
- reduction in emissions intensity; and
- carbon neutrality.

Other Parties, such as Ghana, Colombia, Jordan, and Ethiopia, have submitted actions that are stated in terms of mitigation policies, projects, and/or sectoral actions. Examples include energy efficiency standards, subsidies to increase renewable electricity supply, sustainable transport projects, and policies to

reduce methane emissions from waste. It should be noted that some Parties have put forward both types of actions and, for example, are pursuing both an economy-wide goal and a list of additional mitigation actions.

Figure 1| Calculation of emissions reductions using different estimation methodologies²¹

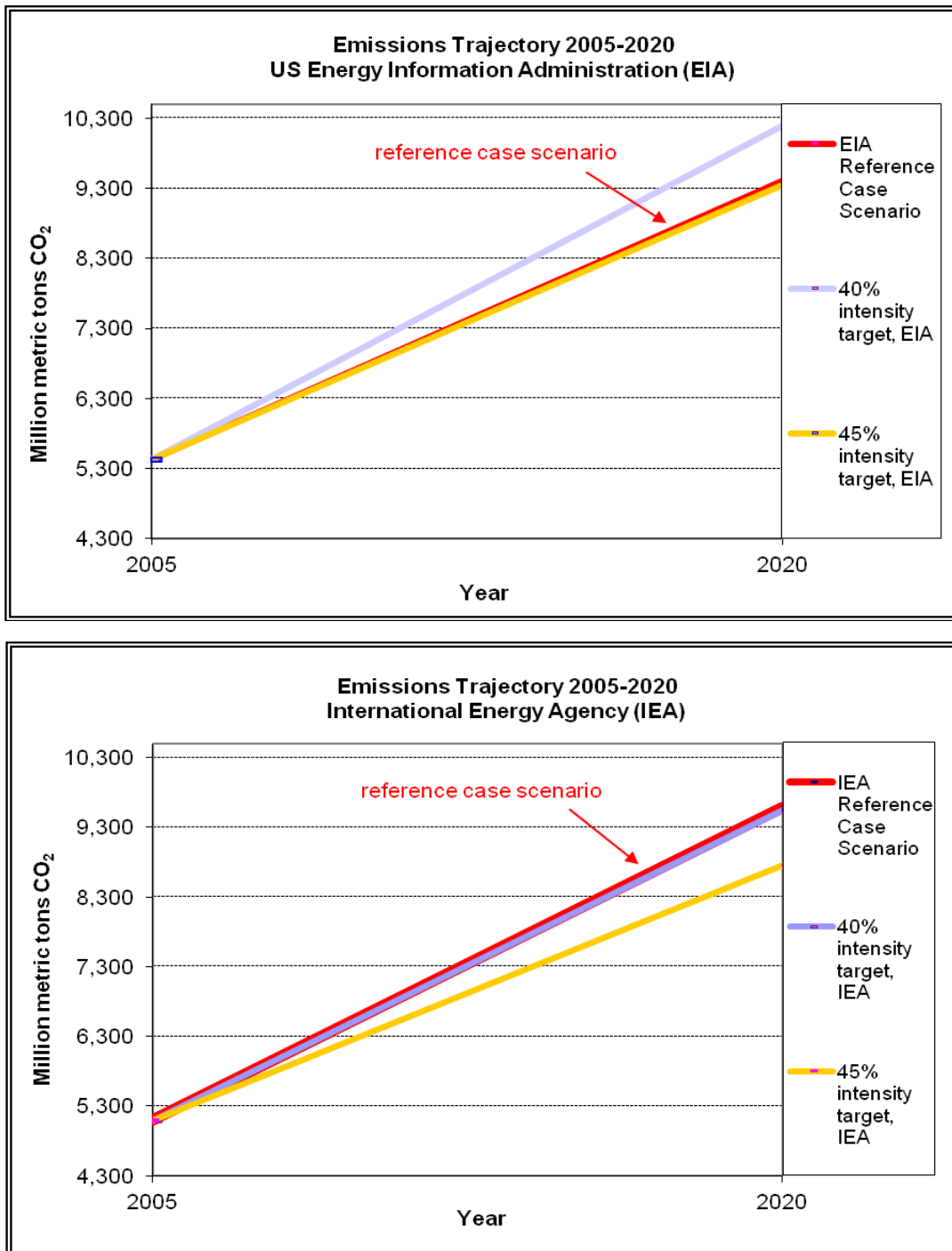


Table 1 | Clarification-related provisions in the Cancun Agreements under the *Ad Hoc* Working Group on Long-term Cooperative Action (AWG LCA)²²

Summary of provision	Relationship of provision with clarification of actions
Non-Annex I	
Request that the secretariat organize workshops aimed at understanding the diversity of mitigation actions submitted by Non-Annex I Parties, underlying assumptions and any financial support, needed or received, for the implementation of these actions (Section III.B.51).	The purpose of these workshops is to clarify mitigation actions, including underlying assumptions. So far two have been held: one in Bangkok in April 2011 and the other in Bonn in June 2011. However, it remains to be seen whether Parties will be more forthcoming with details on their actions.
Decision to enhance reporting in national communications to include mitigation actions and their effects (Section III.B.60).	It will not be possible to accurately estimate the effects of mitigation actions without first clarifying the details related to these actions.
Decision to carry out international consultations and analysis (ICA) of non-Annex I Parties' biennial reports ...with the aim to "increase transparency of mitigations and their effects through analysis by technical experts in consultation with the Party" (Section III.B.63).	An ICA process that increases transparency of mitigation actions and their effects will be limited if actions are not further clarified.
Decision that the information considered for ICA should include ... information on mitigation actions, including a description, an analysis of the impacts and associated methodologies and assumptions (Section III.B.64).	This language arguably represents the most direct call for Parties to clarify the methodologies and assumptions associated with their mitigation actions.
Global Review	
Decision to periodically review the adequacy of the long-term goal of reducing global GHG emissions to prevent an increase of global average temperature to below 2°C above pre-industrial levels, and the overall progress towards achieving it (Section V.138).	Any accurate understanding of overall progress towards achieving the long-term goal of 2°C will require a detailed understanding of the emissions reductions associated with Parties' targets and actions, which will not be possible without clarity of the pledges.
Decision that the global review should ...take into account an "assessment of the overall aggregated effect of the steps taken by Parties in order to achieve the ultimate objective of the convention," and start in 2013 and be concluded by 2015 (Section V.139.a.iii & 139.b).	Any accurate assessment of the overall aggregated effects of the actions taken by the Parties will have to properly account for the methodologies and assumptions that underlie Parties' pledges.

Figure 2| Types of submitted non-Annex I actions

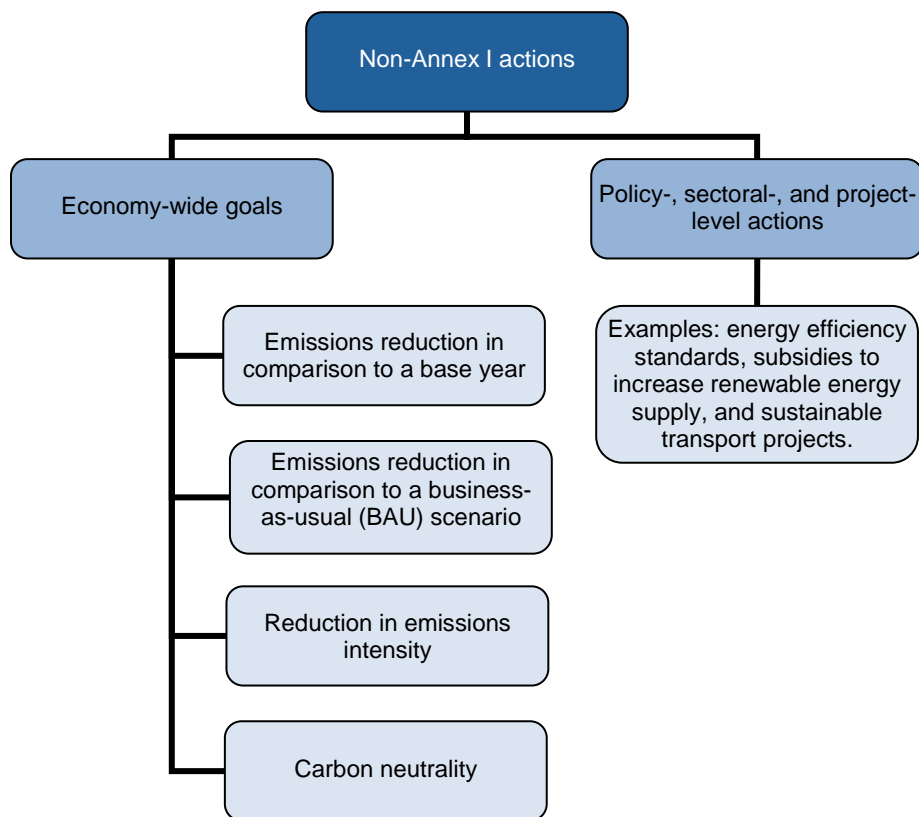


Table 2| Economy-wide goals submitted by non-Annex I Parties grouped by type²³

Reduction in comparison to a base year	
Antigua and Barbuda	25% below 1990 levels by 2020
Marshall Islands	40% below 2009 levels by 2020
Moldova	No less than 25% below 1990 levels by 2020

Reduction in comparison to a BAU scenario	
Brazil	Between 36.1% and 38.9% below projected emissions in 2020
Chile	20% reduction below the BAU in 2020, as projected from 2007
Indonesia	26% below BAU by 2020
Israel	20% below BAU by 2020

Table 2| **Economy-wide goals submitted by non-Annex I Parties grouped by type (continued)**

Mexico	Up to 30% compared with the BAU scenario by 2020
Papua New Guinea	At least 50% before 2030
South Korea	30% below BAU in 2020
Singapore	16% reduction below BAU in 2020
South Africa	34% deviation below BAU by 2020

Reduction in emissions intensity	
China	40-45% reduction in CO ₂ emissions per unit of GDP by 2020 compared with the 2005 level
India	20-25% reduction in emissions intensity of GDP by 2020 compared with the 2005 level

Carbon neutrality	
Bhutan	Has declared its intention to ensure that its emissions do not exceed its sequestration capacity
Costa Rica	Will implement a 'long-term economy-wide transformational effort to enable carbon-neutrality' that will help the Party to significantly deviate from BAU emissions scenarios until 2021 and beyond
Maldives	Aims to achieve carbon neutrality by 2020

CLARIFICATION FOR ACTIONS THAT ARE STATED IN TERMS OF AN ECONOMY-WIDE GOAL

In this section, we first describe the details, methodologies, and assumptions that should be clarified if economy-wide goals are to be accurately assessed. While some Parties have been forthcoming about these details, others have yet to provide such information.²⁴ Some categories of information will need to be clarified for all economy-wide pledge types, while others will be specific to only one particular pledge type. We first list the categories of information common across all economy-wide actions and then discuss information requirements for specific pledge types. We follow this section

with a description of information that should be forthcoming for policy-, sectoral-, and project-level actions.

Information that should be clarified for all economy-wide goals

For all economy-wide goals, it is important that the following be clarified:

- **Emissions reduction goal and metric** (e.g., x% reduction, absolute reduction/intensity of emissions per GDP, etc.): This is necessary for understanding the emissions reductions that are to be achieved by the Party.

- **Target year:** Any assessment of the action will require knowledge of the target year. The large majority of Parties (with a few exceptions, e.g., Costa Rica, in its 2021 carbon neutrality goal) use 2020 as a target year.
- **Coverage of sectors:** The coverage of sectors will have direct implications for the emissions reductions achieved under the emissions reduction goal. If all economy-wide emissions are not covered, the scale of emissions reductions that result from the pledge could be lower. Without knowledge of sectoral coverage, assessment of the effects of such actions will be challenging.

Also, the lack of clarity on coverage could lead to non-covered sectors being used as domestic offsets (which require their own clarification in order to understand resulting emissions reductions and track progress). Any uncovered sectors acting as domestic offsets will need to be clarified, including the associated methodology for estimating emissions reductions.

- **Land use, land-use change, and forestry (LULUCF):** It remains to be seen whether non-Annex I Parties will treat LULUCF emissions removals akin to that of Annex I Parties. If LULUCF is not a covered sector and is acting to offset other sectors' emissions, the assessment methodology for LULUCF will need to be clarified. This will include answering such methodological questions as whether LULUCF is activity- or land-based; which activities are included and what their associated methodologies are, including baseline calculations; which definitions are being used; whether there is a cap on the amount of removals that can offset emissions reductions in other sectors; and how natural disturbances are treated. Different LULUCF assessment methodologies can have significant implications for the emissions reductions that are generated by pledges,²⁵ and thus require clarification, if applicable.
- **Coverage of greenhouse gases:** The choice of coverage of greenhouse gases will have direct implications for the emissions reductions achieved under the pledge. If only selected gases are covered (e.g., only carbon dioxide), the

scale of emissions reductions that result from the pledge could be lower, since other gases may increase over the same time period. It is also conceivable that uncovered greenhouse gases (e.g., methane) could be used as domestic offsets. It will be difficult to assess mitigation actions without understanding which greenhouse gases are covered by the pledge, and whether any domestic offsets are used for uncovered greenhouse gases.

- **Role of offsets:** It is important that non-Annex I Parties clarify whether they intend to buy offsets to reach their reduction targets. It is similarly important for non-Annex I Parties to clarify whether they intend to sell their own emissions reductions as credits on the international carbon market in addition to claiming them towards their own actions. In the post-2012 regime, both Annex I and non-Annex I Parties have taken on emissions reduction goals that could lead to double claiming of emissions reductions between Annex I offset buyers and non-Annex I sellers. Double claiming of emissions reductions can have significant implications for the calculation of global emissions reductions achieved. It is important to note that both international offset rules and a common tracking system would facilitate transparency and avoid double counting.
- **Offset assessment methodologies:** If a Party intends to purchase offsets, the methodologies used to assess the emissions reductions or enhanced removals associated with the offset can play a large role in determining emissions reductions achieved both domestically and globally. To the extent that non-Annex I Parties are purchasing offsets to meet their actions, it will be important to clarify methodologies for estimating offset emissions reductions and enhanced removals. Lenient rules impact the amount of emissions reductions achieved.²⁶ The adoption of stringent international offset rules would not only facilitate transparency but also keep Parties from advancing multiple methodologies for offsets.²⁷

- **Global warming potential (GWP) of covered gases:** While it is straightforward to convert emissions reductions calculated with one GWP value to those calculated with another GWP value, if the GWP in use is not clarified, assessment of emissions reductions is challenging, as different GWP values can result in different emissions reduction assessments.
- **Methodology for national inventory:** Most Parties have agreed to use the IPCC's 2006 inventory guidelines, but if this is not the case for some Parties, the methodology for national inventory should be disclosed, as it will have implications for the emissions reductions associated with the pledges. Also, in many cases, inventory data have yet to be compiled for base year emissions (for example, China's emissions levels for 2005 have not been submitted, leading to uncertainty in assessment as demonstrated in Figure 1).

It is important to note that the combined effects of these details can be significant on the emissions reductions achieved both domestically and globally, and thus clarification of such details can assist in assessing the effects of mitigation actions.²⁸

Additional information that should be clarified for economy-wide goals that are stated as emissions reductions in comparison to a base year

For actions that are stated in terms of a reduction of emissions in comparison to a base year (e.g., 20% reduction from 1990 levels by 2020), it is important that, in addition to the abovementioned categories, the following category of information, with which many Parties have yet to come forward, also be clarified:

- **Base year choice and methodology for estimation of base year emissions:** The choice of a base year (1990 vs. 2005) can have implications for the emissions reductions generated from the base year to the target year. In addition, if the emissions calculated in the base year are not one and the same as those included in the inventory, methodological assumptions should be disclosed. For

example, in the case of Annex I Parties, the Kyoto Protocol's Article 3.7 does allow for an exception to be made in base year emissions calculation, permitting Parties for which LULUCF was a net source of emissions to include net emissions from the sector in their base year calculation.

Additional information that should be clarified for economy-wide goals that are stated as reductions in emissions in comparison to a business-as-usual (BAU) scenario

For actions that are stated in terms of emissions reduction in comparison to a BAU scenario (e.g., 20% reduction from BAU by 2020), the following additional category of information should also be clarified:

- **Projected BAU emissions level in target year and calculation methodology used:** The methodological assumptions involved in projecting BAU emissions, including economic growth, population, energy prices, and historical emissions trends, can have significant consequences for the resulting emissions reductions generated by the pledge (see Figure 1). Therefore, Parties should be clear about the assumptions underlying the calculation of their BAU emissions. Furthermore, to the extent possible, Parties should describe any models that are used to calculate BAU emissions. This is a complex and technical area, but one that is nonetheless critical to clarify.

Additional details that should be clarified for economy-wide goals that are stated as emissions intensity goals

For actions that are stated in terms of a reduction in the emissions intensity of GDP (e.g., 20% reduction in GHG emissions per unit of GDP by 2020), it is important that the following details also be clarified:

- **Base year choice and methodology for estimation of base year emissions:** As mentioned above, the choice of a base year, and the methodology for estimating base year emissions, can have implications for the emissions reductions generated from the base year to the target year.

- **Base year GDP and methodology for estimating GDP:** Similar to base year emissions, the estimation of GDP in the base year can have implications for assessment of the target, as different base year levels will result in different GDP trajectories. It is also important to indicate the source of GDP data, as well as the unit of measure for GDP (local currency, US dollars, or international dollars [ppp]), and whether the figure was adjusted for inflation.²⁹
- **Projected BAU emissions level in target year and calculation methodology used:**³⁰ The methodological assumptions involved in projecting BAU emissions, including economic growth, population, energy prices, and historical emissions trends, can have significant consequences on the anticipated emissions reductions generated by the pledge (see Figure 1). An intensity goal can be achieved via either reductions in emissions or GDP, so it is helpful to understand the anticipated trajectory when estimating ex ante emissions reductions.
- **Projected GDP level in target year and methodology used for estimating target year GDP:**³¹ In clarifying methodologies and assumptions underlying projections of GDP, it is also important to indicate the source of GDP data, as well as the unit of measure for GDP (local currency, US dollars, or international dollars [ppp]), and whether the figure was adjusted for inflation.³² As mentioned above, an intensity goal can be achieved via either reductions in emissions or GDP, so it is helpful to understand the anticipated trajectory when estimating ex ante emissions reductions..

Additional information that should be clarified for carbon neutrality goals

For actions that are stated in terms of a carbon neutrality goal (e.g., zero net emissions by 2020), it is important that the following details also be clarified:

- **Description of how carbon neutrality will be achieved:** The Party should define what it means by carbon neutrality and put forward an outline of how it intends to achieve it. In particular, it should clarify the estimated percentage of its emissions that will be mitigated and the remainder that will be offset, and whether the remainder will be offset domestically (through the use of uncovered sectors and/or enhanced removals) or internationally.
- **Methodology used to estimate emissions reductions/enhanced removals from domestic and international offsets:** If carbon neutrality is achieved in part or fully via domestic offsets/enhanced removals or international offsets, it will be important to understand the methodology used for assessing emissions reductions and/or enhanced removals from domestic and international offsets. It will also be critical to understand whether any international offsets are being claimed by the host country to meet its own emissions reduction actions.³³

CLARIFICATION FOR POLICY-, PROJECT-, AND SECTORAL-LEVEL NAMAs

Most Parties have not put forward estimated emissions reductions expected to result from their policy-, project-, and sectoral-level actions. Some, however, have quantified and provided emissions reduction estimates alongside their actions. For example, Brazil has estimated that its energy efficiency actions will reduce emissions by 12 to 15 MTCO₂e in 2020.³⁴ For actions with quantified emissions reduction estimates, the following are examples of categories of information that should be clarified about the methodology used to assess emissions reductions:

- greenhouse gas and sectoral coverage;
- methodologies and assumptions for calculating projected baseline or BAU emissions;
- GWP values used;
- the boundary of the projected reduction and which, if any, indirect effects are included in addition to direct effects;
- any consideration of the risk of emissions leakage and design of measures to mitigate the risk; and
- methodologies for avoiding double counting of GHG reductions between submitted actions, considering possible interactions and overlap between actions.

PROCESS FOR MOVING FORWARD ON CLARIFICATION, BEGINNING WITH COP17 IN DURBAN

While the provisions under the Cancun Agreements, as outlined above, are a helpful start in moving a clarification process forward, a more formal process for clarification will need to be agreed to in Durban. Workshops have yet to be sufficient in clarifying all details of the actions. We suggest three steps forward:

1. a one-time questionnaire submission from Parties, filled out by COP-18, that will feed into the first biennial reports and the ICA process;
2. inclusion of any updates on the details, assumptions, and methodologies underlying actions through the biennial reports and the ICA process; and
3. a work program for developing assessment methodologies for actions.

Questionnaire

As a first step, non-Annex I countries should clarify the details of their actions by filling out a questionnaire. The Secretariat or another technical body could provide assistance for those Parties that require additional assistance to fill out the questionnaires. The questionnaire would be a one-time submission to be considered in the ICA processes, and it would be carried out in the year after Durban, prior to the 18th Conference of the Parties. It would ideally lock Parties into the information provided related to their actions, which is necessary so that Parties do not adjust assumptions, methodologies, and other details in ways that are not justified (e.g., switching calculation methodology when the one first used does not result in the desired emissions reductions). Unusual circumstances that require adjustment could be accommodated (see next section). The filled-out questionnaires will then be fed into the first biennial reports and the ICA process accordingly.³⁵ For sample questionnaires that list the clarification needs for various pledge types, see Appendix A.

Inclusion in biennial reports of any updates on details, assumptions, and methodologies underlying the action

The details surrounding the pledges will be identified in the questionnaire. There may be unusual situations (e.g., a different means than expected are adopted domestically for meeting the action) that require updating of such details. These cases will need to be justified to the ICA analysts and other Parties during the ICA process, based on established criteria for adjustments. The adoption of stringent criteria for adjustment will ensure that Parties do not change the details of their pledge ex post because they have found, for example, that their use of assessment methodologies does not result in the desired emissions reductions. If Parties do alter assumptions, methodologies, and other details, these will need to be reflected in biennial reports, and previous calculations of emissions reductions would be recalculated accordingly, as is done in inventory adjustment procedures. These reports would then be subject to analysis by the technical body of the ICA.

A work program for developing assessment methodologies for actions

It will take some time to develop assessment methodologies for understanding emissions reductions and other effects of actions, given the diversity of actions. However, Durban is a key opportunity to launch a work program for Parties to collectively develop such methodologies. This work program should be coupled with capacity building opportunities to strengthen Parties' abilities to carry out such assessments.

CONCLUSION

Many Annex I and non-Annex I Parties have not been clear about the assumptions, methodologies, and other details surrounding their pledges. Durban is a key opportunity to ensure that Parties provide the necessary additional information. Common accounting rules for Annex I Party targets are needed to ensure the environmental integrity of the regime and will address challenges regarding clarification. Durban must therefore launch a process for designing the rules and modalities for accounting of Annex I emissions reductions and enhanced removals associated with the targets. For non-Annex I Parties, a formal clarification process can help

establish trust among Parties, lower the risk of inaccurate assessment methodologies, serve domestic goals such as tracking performance, and facilitate assessment of whether the overall aggregate mitigation effort is adequate, in particular in the context of the 2013–15 review.

In summary, we argue that COP-17 in Durban should achieve the following:

- first and foremost, a decision that furthers the development of common accounting rules for Annex I Parties, which will eliminate the need for clarification procedures for their targets;
- a decision to seek additional information from non-Annex I Parties through the completion of questionnaires (see Appendix A for samples), to be filled out by COP-18 and included in first biennial report;
- a decision to establish a process to develop stringent criteria for adjustment of methodologies, assumptions, and other pledge details in updates to biennial reports, and related review procedures for updated reports; and
- a decision that launches a work program to develop assessment methodologies for actions.

APPENDIX A

Sample questionnaires for clarifying non-Annex I actions. Parties would be asked to complete the one that is relevant to their submitted action(s). Answers to the questions should be as specific as possible. For example, inventory methodologies and GWP values should specify name and publication date, e.g., “IPCC 2006,” not simply “IPCC.” All references to emissions levels should be made in terms of MTCO_{2e}.

Emissions reduction in comparison to a base year
What is the emissions reduction target?
What is the base year?
What was the emissions level in the base year (in terms of MTCO _{2e})?
Which methodology was used to calculate the inventory in the base year?
What is the target year?
Which methodology will be used to calculate the national inventory?
Which sectors are covered?
Which gases are covered?
Which GWP values are used?
Role of international offsets: <ul style="list-style-type: none"> • Which methodology will be used to assess emissions reductions from offsets, if applicable?³⁶ • Are emissions reductions being sold to Annex I Parties in addition to being counted towards meeting your action?
For uncovered sectors acting as domestic offsets, if applicable, what methodology was used to assess domestic offsets?

Emissions reduction in comparison to a business-as-usual (BAU) scenario
What is the emissions reduction target?
What is the target year?
Which methodology will be used to calculate the national inventory?
What is the projected emissions level in the target year (in terms of MTCO _{2e})?
Which methodology and assumptions, including those regarding economic growth, population, energy prices, and historical emissions trends, were used to calculate BAU emissions in the target year?
Which sectors are covered?
Which gases are covered?
Which GWP values are used?
Role of international offsets: <ul style="list-style-type: none"> • What methodology will be used to assess emissions reductions from offsets, if applicable?³⁷ • Are emissions reductions being sold to Annex I Parties in addition to being counted towards meeting your action?
For uncovered sectors acting as domestic offsets, if applicable, what methodology was used to assess domestic offsets?

Reduction in emissions intensity
What is the emissions intensity reduction target?
What is the base year?
What was the emissions level in base year (in terms of MTCO ₂ e)?
Which methodology was used to calculate the inventory in the base year?
Base year GDP: <ul style="list-style-type: none"> • What was the GDP in the base year? • What is the source of base-year GDP data? • What is the unit of measure for GDP (local currency, US dollars, or international dollars [ppp])? Is it adjusted for inflation?
What is the target year?
Which methodology will be used to calculate the national inventory?
What is the projected emissions level in the target year, and which methodology and assumptions, including those regarding economic growth, population, energy prices, and historical emissions trends, were used to calculate it?
What is the projected GDP in the target year, and which methodology was used to calculate it? What is the unit of measure for GDP (local currency, US dollars, or international dollars [ppp])? Is it adjusted for inflation?
Which sectors are covered?
Which gases are covered?
Which GWP values are used?
Role of international offsets: <ul style="list-style-type: none"> • Which methodology will be used to assess emissions reductions from offsets, if applicable?³⁸ • Are emissions reductions being sold to Annex I Parties in addition to being counted towards meeting your action?
For uncovered sectors acting as domestic offsets, if applicable, which methodology was used to assess domestic offsets?

Carbon neutrality
What is the target year?
Which sectors are covered?
Which gases are covered?
What are the GWP values?
Which methodology will be used to calculate the national inventory?
<p>Role of international offsets:</p> <ul style="list-style-type: none"> • Which methodology will be used to assess emissions reductions from purchased international offsets, if applicable?³⁹ • Are emissions reductions being sold to Annex I Parties in addition to being counted towards meeting your action?
Are uncovered sectors acting as domestic offsets? If so, which methodology was used to assess domestic offsets?
Are enhanced removals assisting in the achievement of carbon neutrality? If so, which methodology is used to assess emissions reductions and enhanced removals in the land-use sector, if it differs from the inventory assessment methodology?

Policy-, project-, and sectoral-level actions
Which sectors are covered?
Which gases are covered?
Which GWP values are used for covered gases?
<p>Which methodology was used to estimate reductions?</p> <p>For example:</p> <ul style="list-style-type: none"> • How are projected baseline or BAU emissions calculated? Which assumptions are used? • What is the boundary of the projected reduction? What, if any, indirect effects are included in addition to direct effects? Is leakage considered? • Is double counting of GHG reductions avoided between submitted actions, considering possible interactions and overlap between actions? If so, how?

NOTES

¹ We use the term “economy-wide” as shorthand for pledges that are not framed in terms of sectoral-, project-, or policy-level goals and instead are national in scope. While many of these actions are indeed “economy-wide,” it is worth noting that not all are truly economy-wide, as some sectors may be excluded.

² We use the term “pledge” to represent Annex I targets and non-Annex I actions.

³ See K. Levin et al., “Remedying Discord in the Accord: Accounting Rules for Annex I Pledges in a Post-2012 Climate Agreement,” WRI Working Paper (Washington, DC: World Resources Institute, 2010).

⁴ We use the term “clarification” to describe the process by which Parties are more forthcoming about critical information (described in this paper) on the details, methodologies, and assumptions underlying their actions.

⁵ Or that require some input related to emissions, such as intensity targets, as contrasted with actions that do not require any emissions-related inputs. For simplicity, we use the term “actions stated in terms of emission reductions” as shorthand for actions stated in terms of emissions reductions or emissions limitations (many non-Annex I pledges are not absolute reductions and will involve emissions growth).

⁶ While this is an important topic for exploration, clarification of these types of actions will by its very nature be different and could be the topic of another paper altogether.

⁷ See UNEP, *The Emissions Gap Report: Are the Copenhagen Pledges Sufficient to Limit Global Warming to 2°C or 1.5°C?*, November 2010, www.unep.org/publications/ebooks/emissionsgapreport/Cache-d-Similar.

⁸ See UNFCCC, “Quantified economy-wide emission reduction targets by developed country Parties to the Convention: assumptions, conditions and comparison of the level of emission reduction efforts,” FCCC/TP/2011/1, June 3, 2011, <http://unfccc.int/resource/docs/2011/tp/01.pdf>.

⁹ For a more detailed discussion of the importance of accounting rules for Annex I Parties, see Levin et al., “Remedying Discord in the Accord.”

¹⁰ For example, the EU would move to a 30% target as part of a global comprehensive agreement for the period beyond 2012, provided that all Parties contribute their fair share to emission reduction pathways, emissions reductions are comparable across developed countries, and developing

countries contribute adequately according to their responsibilities and respective capabilities. New Zealand will go from 10% to 20% reduction if developed countries make comparable efforts to those of New Zealand, advanced and major emitting developing countries take action, among other provisions.

¹¹ For a detailed analysis of design options for both IAR and ICA, see J. Ellis et al., “Design Options for International Assessment and Review (IAR) and International Consultations and Analysis (ICA),” COM/ENV/EPOC/IEA/SLT (2011) Paris, Organisation for Economic Co-operation and Development.

¹² See Levin et al., “Remedying Discord in the Accord.”

¹³ Or that require some input of emissions reductions, such as intensity targets, as contrasted with actions that do not require any emissions-related inputs.

¹⁴ Examples include the Republic of Congo’s goal of setting up air pollution, water, and soil quality monitoring stations and Afghanistan’s goal of preparing its initial national communication.

¹⁵ See WRI, “Q&A: Transparency in the Cancun Agreements,” <http://www.wri.org/stories/2011/01/qa-transparency-cancun-agreements>.

¹⁶ For information on options for tracking international units transactions, see A. Prag et al., “Tracking and Trading: Expanding on Options for International Greenhouse Gas Unit Accounting after 2012,” COM/ENV/EPOC/IEA/SLT (2011) Paris, Organisation for Economic Co-operation and Development.

¹⁷ We use the term “assessment” here to mean estimating emissions reductions and enhanced removals from an action.

¹⁸ For more on China’s intensity goal and the data underlying these calculations, see D. Seligsohn and K. Levin, “China’s Carbon Intensity Goal: A Guide for the Perplexed,” ChinaFAQs, (Washington, DC: World Resources Institute, 2010), <http://www.chinafaqs.org/library/chinafaqs-chinas-carbon-intensity-goal-guide-perplexed>.

¹⁹ It should be noted that a number of provisions under the Cancun Agreements also call for clarification of Annex I targets, but, as we explain above, agreement on common accounting rules will address this need.

²⁰ See T. Fransen and J. Hatch, “GHG-Framed Mitigation Actions by Developing Countries,” WRI Working Paper (Washington, DC: World Resources Institute, 2011),

<http://www.wri.org/publications/ghgframedmitigation-actions-by-developing-countries>.

²¹ Modelers at the IEA and EIA prefer the more policy-neutral term “reference case” to the term “business as usual.” We use these terms interchangeably.

²² From UNFCCC, “The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention,” Decision 1/CP.16, FCCC/CP/2010/7/Add.1, March 15, 2011, <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf>.

²³ All pledges and pledge language taken directly from UNFCCC, Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention, FCCC/AWGLCA/2011/INF.1, March 8, 2011. Hereafter referred to as INF.1.

²⁴ See Fransen and Hatch, “GHG-Framed Mitigation Actions by Developing Countries.” This is also evidenced by the document of submitted actions itself, which demonstrates the diversity of information that Parties have submitted. See INF.1.

²⁵ For example, the UNEP Emissions Gap Report estimated that if lenient, rather than stringent, rules are used for LULUCF, this could result in an emissions increase of 0.8 Gt CO₂e.

²⁶ For example, see UNEP, Bridging the Emissions Gap: A UNEP Synthesis Report, November 2011, http://www.unep.org/pdf/UNEP_bridging_gap.pdf.

²⁷ See Levin et al., “Remedying Discord in the Accord.”

²⁸ See paragraph 63 of the Cancun Agreements.

²⁹ See T. Herzog, K. Baumert, and J. Pershing, “Target: Intensity: An Analysis of Greenhouse Gas Intensity Targets,” WRI Report (Washington, DC: World Resources Institute, 2006).

³⁰ It is important to note that assessing whether a country has met its pledge can be determined by an ex post evaluation of observed emissions in 2020 compared with emissions in the base year. However, for estimating emissions reductions prior to 2020 (for example, for the purposes of the 2013–15 review), information on projections would be necessary.

³¹ It is important to note that assessing whether a country has met its pledge can be determined by an ex post evaluation of observed GDP in 2020 compared with GDP in the base year.

However, for estimating emissions reductions prior to 2020 (for example, for the purposes of the 2013–15 review), information on projections would be necessary.

³² See T. Herzog, K. Baumert, and J. Pershing, “Target: Intensity: An Analysis of Greenhouse Gas Intensity Targets.”

³³ Again, it is worth noting that the adoption of stringent international offset rules would not only facilitate transparency but also keep Parties from advancing multiple methodologies for offsets.

³⁴ From INF.1.

³⁵ During the third part of the 14th Session of the AWG-LCA in Panama City in October 2011, draft decisions on guidelines for biennial update reports from Parties were forwarded. As part of non-Annex I biennial reports, the draft decisions on guidelines include information on the base year, coverage, and goal of NAMAs, progress of implementation, and methodologies and assumptions, including, when relevant, methods for developing baselines, BAUs, and other metrics. These should be updated to reflect the categories requiring clarification for each pledge type, as listed in this paper and in Appendix A.

³⁶ If international accounting methodologies for offsets are agreed to, this question will not be necessary.

³⁷ If international accounting methodologies for offsets are agreed to, this question will not be necessary.

³⁸ If international accounting methodologies for offsets are agreed to, this question will not be necessary.

³⁹ If international accounting methodologies for offsets are agreed to, this question will not be necessary.

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ACKNOWLEDGMENTS

The authors gratefully acknowledge: Jennifer Morgan, Andrew Prag, Ariane Labat, David Rich, Remi Moncel, Taryn Fransen, and Vitor Gois Ferreira for their guidance and helpful suggestions on earlier drafts of this paper; Ashleigh Rich and Hyacinth Billings for editorial and publication support; and Alex Martin for editorial support.

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