# Session SBI41 (2014)

Session started at 01-09-2014 00:00:00 [GMT+1] Session closed at 28-11-2014 23:59:59 [GMT+1]



A compilation of questions to - and answers by – United States of America

Exported 29/11-2014 by the

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Question from: Egypt 2014 at Tuesday, 30 September 2014

Category: Assumptions, conditions and methodologies related to the attainment of

its quantified economy-wide emission reduction target

Title: ambition target

#### in BR1 review report (para 68, p. 17)

In its BR1, the United States provided information on its emission reduction target, which is to reduce its GHG emissions in the range of 17 per cent below the 2005 level by 2020.

Q: please explain how do you consider it as ambition target

Answered by: United States of America at Friday, 28 November 2014

The United States' target of reducing emissions in the range of 17 percent below 2005 levels by 2020 is an ambitious one.

First, the target puts the United States on a trajectory consistent with reducing emissions by 80% from 2005 levels by 2050.

Second, the 2020 target represents a significant reduction from business as usual projections. In the United States' 2010 National Communication, emissions were expected to increase 4.3 percent from 2005 by 2020 under a BAU projection. Even in 2014, when we account for the effects of increased natural gas usage and the recent economic downturn, we would expect our 2020 emissions to be only about 2% below 2005 levels by 2020, because of expected economic expansion. Meeting the target will require an average annual greenhouse gas reduction of 1.2% between 2005 and 2020, representing a significant effort on behalf of the United States. Aggressive policy actions are being implemented to bring the U.S. to its target range of 17%; these include major new vehicle fuel efficiency standards, regulation of CO2 from power plants, continually improving appliance and equipment efficiency standards, building codes, reducing methane emissions, and others.

Question from: Brazil at Tuesday, 30 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: Metric

In Table 1, on page 9, was said that targets were using GWP of the IPCC Fourth Assessment Report. Projections on Table 3 based on the inventories are likely to be using GWPs from the Second Assessment Report but that is not stated on page 18. How can the baseline using one metric be compared with the target using a different metric? Can an explanation be given on this matter?

Answered by: United States of America at Friday, 28 November 2014

It should be noted that the US GHG Inventory submitted to the UNFCCC in 2013 and used for the Climate Action Report 2014 and 1st BR was compiled following older UNFCCC reporting guidelines that require use of the IPCC Second Assessment Report GWP values. The use of the 2013 US inventory submission in the 1st BR is consistent with the BR reporting guidelines under Dec. 2/CP17 (Annex I, para. 2: "The information provided in the biennial report should be consistent with that provided in the most recent annual inventory submission...")

Starting in 2009, a process started under SBSTA to revise and update Annex I inventory reporting guidelines. At the time the US commitment was made, we anticipated the changes that would be implemented in these revisions and which in fact were formalized in Dec. 15/CP17 and Dec. 24/CP19. The commitment reflects these updates. The new Annex I inventory reporting guidelines adopted the use of IPCC AR4 GWP values starting in Annex I inventory submissions in 2015. So, the 1st BR (and Climate Action Report 2014) represent the conclusion of old inventory reporting guidelines.

For the sake of consistency, the projections of GHG emissions in the 1st BR were based on the IPCC Second Assessment Report GWP values to align with the historical GHG emissions presented in the US inventory submitted to the UNFCCC in 2013. This aligns with the reporting guidelines for Annex I National Communications, under para. 31 of Annex II to FCCC/CP/1999/7: "31. Emission projections shall be presented relative to actual inventory data for the preceding years."

In the 1st BR, we try to clarify this difference on page 9. In the footnotes to Table 1 we state: "• Consistent with the formal UNFCCC inventory reporting guidelines for developed countries (IPCC 2006), the Inventory of U.S. Greenhouse Gas Emissions and Sinks, which will be submitted to the UNFCCC in April 2015, will utilize 100-year global warming potential values from the IPCC Fourth Assessment Report (IPCC 2007)." And at the bottom of the page under Figure 1 showing the trends in US GHG emissions from the 2013 inventory submission we state: "Note: The 2013 U.S. GHG inventory is calculated using global warming potential values from the IPCC Second Assessment Report (IPCC 1996)."

The US goal has always been articulated in AR4 GWPs, formally in statements and presentations at UNFCCC meetings, even back to 2010, so we are being consistent there as well. And in presenting historical and projected GHG emissions based on the 2013 US inventory submission (which uses SAR GWPs), we are being consistent with reporting guidelines for Annex I national communications and biennial reports. This inconsistency will be resolved with the revised UNFCCC Annex I inventory reporting guidelines that will use the AR4 GWP values and form the basis of the 2nd BR reporting in 2016.

Question from: Brazil at Tuesday, 30 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: Metric

In Table 2, on page 17, why are the figures presented using the GWPs for the Fourth Assessment Report and for CH4 values were listed using GWP values from the Second Assessment Report? And how the figures were totalized?

## Answered by: United States of America at Friday, 28 November 2014

It should be noted that the US GHG Inventory submitted to the UNFCCC in 2013 and used for the Climate Action Report 2014 and 1st BR was compiled following older UNFCCC reporting guidelines that require use of the IPCC Second Assessment Report GWP values. The use of the 2013 US inventory submission in the 1st BR is consistent with the BR reporting guidelines under Dec. 2/CP17 (Annex I, para. 2: "The information provided in the biennial report should be consistent with that provided in the most recent annual inventory submission...")

Starting in 2009, a process started under SBSTA to revise and update Annex I inventory reporting guidelines. At the time the US commitment was made, we anticipated the changes that would be implemented in these revisions and which in fact were formalized in Dec. 15/CP17 and Dec. 24/CP19. The commitment reflects these updates. The new Annex I inventory reporting guidelines adopted the use of IPCC AR4 GWP values starting in Annex I inventory submissions in 2015. So, the 1st BR (and Climate Action Report 2014) represent the conclusion of old inventory reporting guidelines.

For the sake of consistency, the projections of GHG emissions in the 1st BR were based on the IPCC Second Assessment Report GWP values to align with the historical GHG emissions presented in the US inventory submitted to the UNFCCC in 2013. This aligns with the reporting guidelines for Annex I National Communications, under para. 31 of Annex II to FCCC/CP/1999/7: "31. Emission projections shall be presented relative to actual inventory data for the preceding years."

In the 1st BR, we try to clarify this difference on page 9. In the footnotes to Table 1 we state: "• Consistent with the formal UNFCCC inventory reporting guidelines for developed countries (IPCC 2006), the Inventory

of U.S. Greenhouse Gas Emissions and Sinks, which will be submitted to the UNFCCC in April 2015, will utilize 100-year global warming potential values from the IPCC Fourth Assessment Report (IPCC 2007)." And at the bottom of the page under Figure 1 showing the trends in US GHG emissions from the 2013 inventory submission we state: "Note: The 2013 U.S. GHG inventory is calculated using global warming potential values from the IPCC Second Assessment Report (IPCC 1996)." The US goal has always been articulated in AR4 GWPs, formally in statements and presentations at UNFCCC meetings, even back to 2010, so we are being consistent there as well. And in presenting historical and projected GHG emissions based on the 2013 US inventory submission (which uses SAR GWPs), we are being consistent with reporting guidelines for Annex I national communications and biennial reports. This inconsistency will be resolved with the revised UNFCCC Annex I inventory reporting guidelines that will use the AR4 GWP values and form the basis of the 2nd BR reporting in 2016.

Question from: Sweden at Tuesday, 30 September 2014

Category: All emissions and removals related to its quantified economy-wide

emission reduction target

Title: Shale gas

According to the information on energy in the National Inventory report and the Biennial report we note the declining trend for use of oil and coal but also the increased trend in use of natural gas. We also note the declining trend in emissions from both oil and coal and in the emissions from natural gas.

**Question**: Is there also an increasing trend for the use of shale gas as part of the increased use of natural gas? What are the assumptions, conditions and methodologies behind the calculations for this trend?

Answered by: United States of America at Friday, 28 November 2014

Our expectation for increased use of natural gas is directly linked to the substantial new supply of natural gas in our economy from shale gas. Shale gas now accounts for roughly 40% of US natural gas production, up from just a few percent a decade ago. Our expectation is that this share will continue to increase to 2020 and beyond. The U.S. Energy Information Administration produces an Annual Energy Outlook every year that includes information on current natural gas production and as well as a wide variety of future scenarios. The most recent AEO and documentation are available at www.eia.gov/forecasts/aeo/

Question from: Brazil at Tuesday, 30 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: MetricIn the BR of USA

Table 1 in page 9 says that the GWP used is "100-year values from the IPCC Fourth Assessment Report (IPCC 2007)." Under the same Table 1 in page 9 under sectors covered is said "All IPCC sources and sectors, as measured by the full annual inventory (i.e., energy, transport, industrial processes, agriculture, LULUCF, and waste)". But under Figure 1, in the same page 9, there is a footnote written "Source: U.S. EPA/OAP 2013.

Note: The 2013 U.S. GHG inventory is calculated using global warming potential values from the IPCC Second Assessment Report (IPCC 1996)"

Can you explain the different GWP used for targets and Inventory and what is the implication of this compare to real emission reduction of CO2 in terms of tons of CO2?

Answered by: United States of America at Friday, 28 November 2014

It should be noted that the US GHG Inventory submitted to the UNFCCC in 2013 and used for the Climate Action Report 2014 and 1st BR was compiled following older UNFCCC reporting guidelines that require use of the IPCC Second Assessment Report GWP values. The use of the 2013 US inventory submission in the 1st BR is consistent with the BR reporting guidelines under Dec. 2/CP17 (Annex I, para. 2: "The information provided in the biennial report should be consistent with that provided in the most recent annual inventory submission...")

Starting in 2009, a process started under SBSTA to revise and update Annex I inventory reporting guidelines. The US commitment anticipated the changes that would be implemented in these revisions and which in fact were formalized in Dec. 15/CP17 and Dec. 24/CP19. The new Annex I inventory reporting guidelines adopted the use of IPCC AR4 GWP values starting in Annex I inventory submissions in 2015. So, the 1st BR (and Climate Action Report 2014) represent the conclusion of old inventory reporting guidelines.

For the sake of consistency, the projections of GHG emissions in the 1st BR were based on the IPCC Second Assessment Report GWP values to align with the historical GHG emissions presented in the US inventory submitted to the UNFCCC in 2013. This aligns with the reporting guidelines for Annex I National Communications, under para. 31 of Annex II to FCCC/CP/1999/7: "31. Emission projections shall be presented relative to actual inventory data for the preceding years."

In the 1st BR, we try to clarify this difference on page 9. In the footnotes to Table 1 we state: "• Consistent with the formal UNFCCC inventory reporting guidelines for developed countries (IPCC 2006), the Inventory

of U.S. Greenhouse Gas Emissions and Sinks, which will be submitted to the UNFCCC in April 2015, will utilize 100-year global warming potential values from the IPCC Fourth Assessment Report (IPCC 2007)." And at the bottom of the page under Figure 1 showing the trends in US GHG emissions from the 2013 inventory submission we state: "Note: The 2013 U.S. GHG inventory is calculated using global warming potential values from the IPCC Second Assessment Report (IPCC 1996)." The US goal has always been articulated in AR4 GWPs, formally in statements and presentations at UNFCCC meetings, even back to 2010, so we are being consistent there as well. And in presenting historical and projected GHG emissions based on the 2013 US inventory submission (which uses SAR GWPs), we are being consistent with reporting guidelines for Annex I national communications and biennial reports. This inconsistency will be resolved with the revised UNFCCC Annex I inventory reporting guidelines that will use the AR4 GWP values and form the basis of the 2nd BR reporting in 2016.

Question from: Japan at Tuesday, 30 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target

Title: Enhancement of measures

What kind of systems and processes work to improve existing policies and measures in response to the progress towards the achievement of emission reduction target?

## Answered by: United States of America at Friday, 28 November 2014

Emissions reductions implemented under the U.S. Climate Action Plan and those implemented from earlier U.S. Government actions are rooted in a broad array of policies and measures. Some of those policies and measures have a mandated review period; others are updated according to other criteria. When evaluating our options to reach ambitious levels of emission reduction, we examine the possibilities both of creating new policies or regulations; and of improving, enhancing, or updating existing policies. The Climate Action Plan is an example of this. It was rooted in a broad review of opportunities to improve policies and measures that address greenhouse gas emissions in all sectors and gases. Some new areas were identified, such as regulating CO2 from the electric power sector. In addition, earlier policies have been expanded and updated, such as our robust system of standards for improving efficiency in equipment and appliances. In addition, we regularly review progress toward our emissions goals to ensure that our policies are appropriately calibrated to keep us on track.

## Question from: Japan at Tuesday, 30 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

**Title:** Frequency of revision of GHG projectionsHow often are GHG projections revised?

It would be helpful if the party could describe the institutional arrangement and process for the revision of projections and policies and measures.

Answered by: United States of America at Friday, 28 November 2014

Energy-related CO2 emissions projections are drawn from the U.S. Department of Energy's Energy Information Administration Annual Energy Outlook. The Annual Energy Outlook is updated once each year. Non-CO2 and LULUCF projections were previously updated every four years (for National Communications) and in the future will be updated every two years (for Biennial Reports and National Communications). As described in CAR6, EPA produces non-energy CO2 and non-CO2 emissions projections, and EPA and USDA jointly produce LULUCF projections. EPA also coordinates the projections chapter of the national communication. Estimates of reductions associated with each policy or measure are prepared by agencies and staff responsible for each program or policy. The schedule for revising these estimates varies by policy.

Question from: Malaysia at Tuesday, 30 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target

Title: International market mechanism and mitigation effects

While the USA has demonstrated that a reduction in emissions and how the President's CLimate Actin Plan (CAP) will contribute towards mitigation actions, it is unclear from the BR if the USA will also include international market mechanism to achieve her emission reduction target? a number of the actions are at sub national and on a voluntary basis and how would these effects be tracked?

Answered by: United States of America at Friday, 28 November 2014

The United States does not intend to use market mechanisms to achieve its target to reduce emissions in the range of 17% below 2005 levels by 2020.

We track energy use and emissions in the overall economy. All impacts of subnational and voluntary policies and measures have impacts reflected in national statistics.

**Question from:** Saudi Arabia at Tuesday, 30 September 2014 **Category:** Progress towards the achievement of its quantified economy-wide emission reduction target

**Title:** Assessment of the economic and social consequences of response measures – BR Box 1

How can the USA track progress of the effectiveness of the listed program in addressing adverse impacts of response measures?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on the international impacts of measures to respond to climate change, please see Box 1 on page 19 of our Biennial Report.

**Question from:** Saudi Arabia at Tuesday, 30 September 2014 **Category:** Progress towards the achievement of its quantified economy-wide emission reduction target

**Title:** Assessment of the economic and social consequences of response measures, assisting non-AnX1

What programs will be directed to developing Parties who are facing development challenges such as poverty eradication, to assist them in meeting their capacity-building needs to address these impacts?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on the international impacts of measures to respond to climate change, please see Box 1 on page 19 of our Biennial Report. For more information on U.S. efforts to increase capacity building, please see pages 25-28 of our Biennial Report.

**Question from:** Saudi Arabia at Tuesday, 30 September 2014 **Category:** Progress towards the achievement of its quantified economy-wide emission reduction target

**Title:** Assessment of the economic and social consequences of response measures – BR Box 1

Has the program on EC-LEDS been assessed for suitability in different developing Countries?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on the EC-LEDS, please see pages 19-28 of our Biennial Report.

Question from: Saudi Arabia at Tuesday, 30 September 2014 Category: Progress towards the achievement of its quantified economy-wide emission reduction target

**Title:** Assessment of the economic and social consequences of response measures - BR Box 1

The USA has listed different programs in BR Box 1 that aims to address specific needs and concerns of developing country Parties arising from the impact of the implementation of response measures; could the USA provide information on how these programs are consistent with the unique national circumstances and indigenous resources of individual developing Countries? For example, how can these programs promote cooperation in the technological development of non-energy uses of fossil fuels, for developing Parties with sufficient capacities?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on the programs mentioned, please see pages 19-28 of our Biennial Report.

Question from: Egypt at Tuesday, 30 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target **Title:** Technology transfer

how can we build sustained technology transfer bridge to adopt MRVs system and GHG inventory between annex 1 and non annex 1 countries?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on the technology development and transfer, please see pages 25-27 of our Biennial Report.

Question from: Algeria at Monday, 29 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target

Title: IAR issues1.

How does the IAR enhance the implementation of the reviews under the Convention, and the mechanisms for review and assessment? Relatedly, are BRs subject to more, or less, strengthened reviews than those currently conducted under the Convention? Is the same mechanism of review to be used for the IAR? 2. How does the IAR bridge the gap in the implementation of commitments to be reported in Annex I Parties' national communications, as provided for in Article 12.2 (a) and (b) and in particular as concerns the implementation of obligations by Annex II Parties under Article 12.3 (which provides that "each developed country Party and each other developed Party included in Annex II shall incorporate details of measures taken in accordance with Article 4, paragraphs 3 (provision of new and additional, adequate and predictable financial resources to developing country Parties and appropriate burden-sharing among developed country Parties), 4 (meetings costs of adaptation of developing country Parties particularly vulnerable to the adverse effects of climate change. A listing of these "particularly vulnerable" situations is contained in preambular paragraph 19 of the Convention, and covers situations in ALL developing country Parties), and 5 (promotion and facilitation of access to and financing transfer of environmentally-sound technologies and knowhow to developing country Parties)?

- 3. What has to be done in order to bridge these gaps, identified in the syntheses of national communications of Annex I Parties? Should there be further revisions of guidelines for national communications of Annex I Parties that should be undertaken under the SBI to bridge these gaps?
- 4. What is the progress in the work of the SBSTA on a common reporting format for the communication of information related to the implementation of obligations

under Article 12.3, in particular the provision of disaggregated information that would allow comparability of efforts among developed country Parties?

5. What are the financial implications of the IAR process to the secretariat? (Please remember that the budget of the Convention is taken from the assessed contributions of ALL PARTIES and are not donor contributions, so it concerns all of us). How does this compare to the budgetary allocations made for the ICA process for non-Annex I Parties on their BURs?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question. Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets.

#### Question from: Algeria at Monday, 29 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

**Title:** Progress towards the achievement of its quantified economy-wide emission reduction target.

Progress towards the achievement of its quantified economy-wide emission reduction target.

- [1]. NC6 shows that without additional PaMs, the U.S. GHG emissions in 2020 will be only 5.3% below 2005 level, which is far behind the 17% target. Therefore, the US has to take additional measures. In this regard, could the US provide further information on the following issues?
- a. The BR1 only provided CAP's reduction potential by gas, namely energy-related CO2, CH4 and HFCs, we would like to ask for the further clarification on the estimation of emission reduction potential by each PaM of CAP.
- b. LULUCF will make a big portion of contribution in attaining the target. However, in the chapter 5 of NC6 and BR1, the estimations of LULUCF sink are in a wide range, which generate great uncertainty. It is necessary to further clarify as to how to treat this uncertainty.
- c. To close the gap, the President Climate Action Plan (CAP) announced in 2013 and other additional measures would play very important roles. However, the CAP and proposed Clean Power Plan are still pending for the legislation. What alternative approaches will the U.S. take in the absence of the measures mentioned above?

Answered by: United States of America at Friday, 28 November 2014

The President's Climate Action Plan builds on the successes achieved in the first five years of the Obama administration and initiates additional actions that put the United States on a course to meet its goal of reducing emissions in the range of 17 percent below 2005 levels by 2020. The policies and measures that put us on track to meet our goal are detailed in the biennial report.

a. Where possible, we have reported the estimated mitigation impacts of significant implemented mitigation measures in Table 3 of the CTF tables that accompany the Biennial Report. The methodologies for these mitigation impact estimates were submitted and are also available on the UNFCCC website. For policies and measures that aren't final, we cannot report estimated mitigation impacts. Draft policies must undergo a robust, open, and transparent domestic process, including public comment and cost-benefit analysis. In many cases agencies may make their own emission reduction estimates publicly available for draft rules and regulations. b. The range of the projected LULUCF sink in the NC6 and the first Biennial Report represents a range of possible outcomes based on a projected decrease in the forest carbon stock. The potential decrease in the stock is due to natural forest maturation that results in decreased incremental annual tree growth. We have improved our modeling capabilities since publication of our Biennial Report and narrowed the range of projected LULUCF emissions. The revised range is closer to the optimistic sink estimate in the Biennial Report

c. Actions to meet our 2020 target are being taken under existing laws that have already been passed by Congress. No new legislation is necessary to realize these reductions.

Question from: Algeria at Monday, 29 September 2014

**Category:** All emissions and removals related to its quantified economy-wide emission reduction target

**Title:** Assumptions, conditions and methodologies related to the attainment of its quantified econ

Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

- [1]. According to FCCC/SB/2011/INF.1/Rev.1, the U.S. submission mentioned that "the pathway set forth in pending legislation would entail a 30% emission reduction by 2025 and a 42% emission reduction by 2030, in line with the goal to reduce emissions by 83% by 2050". However, there is no further information related to these long term targets in the biennial report nor the national communication. Could the U.S. provide further information in this regard?
- [2]. The US set the emission reduction target as "in the range of 17 per cent below the 2005 level by 2020". What is the exact meaning of "in the range of"?
- [3]. Could the US provide the further clarification on the comparability of its target with those of other developed country Parties', e.g. the EU?
- [4]. It is recognized that the projection on the emissions in 2020, 2025 and 2030 is made by a modelling exercise consist of three distinguished components: energy-related CO2 is projected based on the NEMS of DOE, non-energy-related CO2 and non-CO2 GHG are projected based on the models run by EPA, and LULUCF related projection is conducted by others. It is understandable to use such approach to make the projection, but further explanation on consistency and coordination among these three parts will be very helpful for the purpose of clarity (e.g. do these modelling exercises use the same assumption on GDP growth?) .

[5]. According to FCCC/SB/2011/INF.1/Rev.1, the final emission reduction target of the U.S. will have to be in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the secretariat in the light of the enacted legislation. Hence, the question is, what's the current legislation development associated with the mentioned target.

## Answered by: United States of America at Friday, 28 November 2014

- 1. Like many countries, the United States made a 2020 commitment. The pathway that was referenced in our submission following Copenhagen indicated the trajectory that was reflected in the context of legislation that was pending before Congress at the time. The reference years after 2020 were not a separate commitment.
- 2. The United States is fully committed to reducing emissions in the range of 17% below 2005 levels by 2020. The set of actions the President outlined in the Climate Action Plan will put us on a path to achieve this ambitious goal. We have not ascribed a specific margin to the range on one side or the other. The range recognizes the important effect of external factors in determining emissions in a single year. The range is not a conditional commitment, and there are no underlying assumptions.
- 3. Without commenting on other countries' targets, the United States' target of reducing emissions in the range of 17 percent below 2005 levels by 2020 is an ambitious one. The target puts the United States on a trajectory consistent with reducing emissions by 80% from 2005 levels by 2050. Meeting the target will require an average annual greenhouse gas reduction of 1.2% between 2005 and 2020, representing a significant effort on behalf of the United States.
- 4. Although different components of the projections are prepared by different agencies, using different methodologies, the components use consistent assumptions regarding key variables. This relates both to macroeconomic variables (such as population and GDP) and sector specific variables. For example, energy-related CO2 projections are prepared by the U.S. Department of Energy's Energy Information Administration (EIA). EPA (which prepares the non-CO2 projections) uses EIA's projections for coal and natural gas production when calculating CH4 from coal mining and natural gas systems.
- 5. Actions to meet our 2020 target are being taken under existing laws that have already been passed by Congress. No new legislation is necessary to realize these reductions.

Question from: Burkina Faso at Monday, 29 September 2014 Category: All emissions and removals related to its quantified economy-wide emission reduction target

Title: Carbon reduction

By now what about the target for Annex I countries to reach 45% of reduction by 2020?

I would like to know if the commitments of developped countries to provide 100 billion dollars by 2030 and 30 billion by 2012 have been acheived?

Answered by: United States of America at Friday, 28 November 2014

The United States has committed to reducing its greenhouse gas emissions to in the range of 17% below 2005 levels by 2020. With regard to your second question, per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on finance topics, please see pages 19-25 of our Biennial Report.

Question from: Egypt at Monday, 29 September 2014

Category: All emissions and removals related to its quantified economy-wide

emission reduction target

Title: Green House Gases Data Base

what are the main cores in Greenhouse Gases Database and what are the responsible entities to mange this database and how many times should feed it by the update data annually ?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on U.S. greenhouse gas data and monitoring, please see pages 5-8 of the Biennial Report.

Question from: China at Monday, 29 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target **Title:** Addtional PAMs

The NC6 shows that without additional PaMs, the U.S. GHG emissions in 2020 will be only 5.3% below 2005 level, which is far below the 17% target. Thus, additional measures are needed. In this regard, further information on the following issues is needed:

- a. The BR1 only provided CAP's reduction potential by gas, namely energy-related CO2, CH4 and HFCs, further clarification on the estimation of emission reduction potential by each PaM of CAP is needed.
- LULUCF will make a big portion in the contribution to achieve the target. However, in Chapter 5 of the NC6 and BR1, the estimations of LULUCF sink are in a wide

- range, thus with great uncertainty. It is necessary to further clarify on how to treat this uncertainty.
- c. To close the gap, the President Climate Action Plan (CAP) announced in 2013 and other additional measures will play a very important role. However, the CAP and proposed Clean Power Plan are still pending for the legislation. What alternative approaches will the U.S. take in the absence of the measures mentioned above?

## Answered by: United States of America at Friday, 28 November 2014

The President's Climate Action Plan builds on the successes achieved in the first five years of the Obama administration and initiates additional actions that put the United States on a course to meet its goal of reducing emissions in the range of 17 percent below 2005 levels by 2020. The policies and measures that put us on track to meet our goal are detailed in the biennial report.

- a. Where possible, we have reported the estimated mitigation impacts of significant implemented mitigation measures in the Table 3 of the CTF tables submitted accompanying the Biennial Report. For policies and measures that aren't final, we cannot report estimated mitigation impacts. Draft policies must undergo a robust, open, and transparent domestic process, including public comment and cost-benefit analysis. In many cases agencies may make their own emission reduction estimates publicly available for draft rules and regulations.
- b. The range of the projected LULUCF sink in the NC6 and the first Biennial Report represents a range of possible outcomes based on a projected decrease in the forest carbon stock. The potential decrease in the stock is due to natural forest maturation that results in decreased incremental annual tree growth. We have improved our modeling capabilities since publication of our Biennial Report and narrowed the range of projected LULUCF emissions. The revised range is closer to the optimistic sink estimate in the Biennial Report
- c. Actions to meet our 2020 target are being taken under existing laws that have already been passed by Congress. No new legislation is necessary to realize these reductions.

Question from: China at Monday, 29 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: legislation development

According to FCCC/SB/2011/INF.1/Rev.1, the final emission reduction target of the U.S. will have to be in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in the light of the enacted legislation. Hence, further information as well as update is needed regarding the current legislation development associated with the target mentioned above.

## Answered by: United States of America at Friday, 28 November 2014

The 2020 target of the United States is unconditional, and actions to meet our 2020 target are being taken under existing laws that have already been passed by Congress. No new legislation is necessary to realize these reductions.

Question from: China at Monday, 29 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: consistency of data

It is recognized that the projections of emissions in 2020, 2025 and 2030 is made by modelling exercises using three distinguished data sources: energy-related CO2 projection based on the NEMS of DOE, non-energy-related CO2 and non-CO2 GHG projection based on the models run by EPA, and LULUCF related projection conducted by others. Although it is understandable to use such an approach for projections, further explanation is needed on the consistency of data and coordination among these data sources for the purpose of clarity, e.g. do these modelling exercises have the same assumption on GDP growth.

## Answered by: United States of America at Friday, 28 November 2014

Although different components of the projections are prepared by different agencies, using different methodologies, the components use consistent assumptions regarding key variables. This relates both to macroeconomic variables (such as population and GDP) and sector specific variables. For example, energy-related CO2 projections are prepared by the U.S. Department of Energy's Energy Information Administration (EIA). EPA (which prepares the non-CO2 projections) uses EIA's projections for coal and natural gas production when calculating CH4 from coal mining and natural gas systems.

Question from: China at Monday, 29 September 2014

Category: Assumptions, conditions and methodologies related to the attainment of

its quantified economy-wide emission reduction target

Title: comparability

Further clarification is needed on the comparability of its target with those of other developed country Parties', e.g. the EU.

Answered by: United States of America at Friday, 28 November 2014

Without commenting on other countries' targets, the United States' target of reducing emissions in the range of 17 percent below 2005 levels by 2020 is an

ambitious one. The target puts the United States on a trajectory consistent with reducing emissions by 80% from 2005 levels by 2050. Meeting the target will require an average annual greenhouse gas reduction of 1.2% between 2005 and 2020, representing a significant effort on behalf of the United States.

## Question from: China at Monday, 29 September 2014

Category: Assumptions, conditions and methodologies related to the attainment of

its quantified economy-wide emission reduction target

Title: clarification of the 2020 target

The US has set the emission reduction target as "in the range of 17 per cent below the 2005 level by 2020". Explanation is needed for the meaning of "in the range of".

## Answered by: United States of America at Friday, 28 November 2014

The United States is fully committed to reducing emissions in the range of 17% below 2005 levels by 2020. The set of actions the President outlined in the Climate Action Plan will put us on a path to achieve this ambitious goal. We have not ascribed a specific margin to the range on one side or the other. The range recognizes the important effect of external factors in determining emissions in a single year. The range is not a conditional commitment, and there are no underlying assumptions.

#### Question from: China at Monday, 29 September 2014

**Category:** Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: long term target

According to FCCC/SB/2011/INF.1/Rev.1, the U.S. submission mentioned that "the pathway set forth in pending legislation would entail a 30% emission reduction by 2025 and a 42% emission reduction by 2030, in line with the goal to reduce emissions by 83% by 2050". However, there is no further information regarding these long term targets in its biennial report or national communication. Further information is needed in this regard.

Answered by: United States of America at Friday, 28 November 2014 Like many countries, the United States made a 2020 commitment. The pathway that was referenced in our submission following Copenhagen indicated the trajectory that was reflected in the context of legislation that was pending before Congress at the time. The reference years after 2020 were not a separate commitment. We will submit an ambitious post-2020 commitment as part of the 2015 agreement.

Question from: European Union at Monday, 29 September 2014 Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Title: Impacts of the changes in LULUCF emissions and removals

United States' biennial report (table 3 page 18) contains a value for removals from LULUCF in 2020 in between 614 and 898 Mt CO2eq., down from previous estimates of about 1210 Mt (cf US' 5<sup>th</sup> National Communication, table 5-1 page 78). Please explain and comment on the impact of this change in terms of broader mitigation goals.

Answered by: United States of America at Friday, 28 November 2014

The estimate for 2020 provided in the 5th National Communication was based on LULUCF inventory data published in 2009. Due to changes in data collection and analysis, the estimates across all years in the 2009 inventory indicated a greater carbon sink than prior or subsequent inventory years. This was corrected in subsequent inventory years. The ongoing improvements in the inventory continue to reduce uncertainty and also reduce variability in the annual sink estimates. The effect of this change is that there is a smaller contribution from the LULUCF sector to total net emissions.

**Question from:** European Union at Monday, 29 September 2014 **Category:** Progress towards the achievement of its quantified economy-wide emission reduction target

Title: Emissions per capita

Emissions per capita are higher in the US compared to most other Parties and emissions per capita are projected to remain high above the levels in the pathways consistent with staying below 2°C as reported by science. How would you describe the progress to the target and the relation with long term pathway connected to this issue?

Answered by: United States of America at Friday, 28 November 2014

The United States is on track to reach our 2020 target, with a significant projected decline in emissions per capita. The target puts the United States on a trajectory consistent with reducing emissions by 80% from 2005 levels by 2050.

Question from: European Union at Monday, 29 September 2014 Category: Progress towards the achievement of its quantified economy-wide emission reduction target

**Title:** Gap between target and projected level of emissions; the expected effects of the CAP

Projections 'with additional measures' reported in the US biennial report take into account the actions in the presidential Climate Action Plan (CAP), while reported projections 'with existing measures' capture the policy baseline scenario of 2012. The data reported in the US Biennial report suggests that the variability in the CAP may or may not ensure that the 2020 target is reached (page 17 and figure 4). What is the latest assessment of the scale of the distance to the 2020 target and what measures have been undertaken to reduce the gap to the target? How would you assess the consistency of the projected trends in light of the US 2030 goal of -30% (compared to 2005) put forward in the wake of Copenhagen Summit of 2009?

## Answered by: United States of America at Friday, 28 November 2014

The President's Climate Action Plan builds on the successes achieved in the first five years of the Obama administration and initiates additional actions that put the United States on a course to meet its goal of reducing emissions in the range of 17 percent below 2005 levels by 2020. The policies and measures that put us on track to meet our goal are detailed in the biennial report. In the year since we submitted our Biennial Report, we have made progress on a number of actions under the Climate Action Plan. We remain on track for implementing additional policies under the Climate Action Plan. In addition, we have improved our modeling capabilities since publication of the Biennial Report and narrowed the range of projected LULUCF emissions. The revised range is closer to the optimistic sink estimate in the Biennial Report.

The post-2020 pathway that was referenced in our submission following Copenhagen indicated the trajectory that was reflected in the context of legislation that was pending before Congress at the time. The reference years after 2020 were not a separate commitment.

Question from: European Union at Monday, 29 September 2014 Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Title: Use of market mechanisms

Does the United States of America intend to use market mechanisms to achieve the targets? If yes, to which extent and what is the associated effect on the emission level projections for the period up to 2020? Is use of international credits foreseen and if so, to what extent?

Answered by: United States of America at Friday, 28 November 2014

The United States does not intend to use market mechanisms to achieve its target to reduce emissions in the range of 17% below 2005 levels by 2020.

Question from: European Union at Monday, 29 September 2014

Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target

Title: Estimation of LULUCF emissions and removals

How does the United States of America estimate its LULUCF emissions and removals in its emission levels' projections over the period? What are the methodological approaches used and how do they impact on the assessment of the progress to the QEWERT?

Answered by: United States of America at Friday, 28 November 2014

LULUCF net emissions are estimated using a combination of statistical projections and mechanistic model projections of LULUCF drivers. In both cases, these drivers include projected changes in population, GDP, supply and demand of natural resources, and land-related policies and measures. The aforementioned drivers are used in conjunction with existing inventory data on land cover and land use change for agriculture and forest lands. Estimates of net emissions from LULUCF currently reduce total economy-wide emissions.

Question from: European Union at Monday, 29 September 2014 Category: Progress towards the achievement of its quantified economy-wide emission reduction target

Title: Decoupling of economic growth from GHG emissions

To what extent is economic growth decoupled from GHG emissions?

What have been the main effects of the existing policies and measures on the emission trends? What have been the main deviations from expected results and what in your view has caused this?

Answered by: United States of America at Friday, 28 November 2014

The projections chapter of the Sixth U.S. Climate Action Report includes a top-down estimate of the effects of new policies and measures implemented between CAR5 and CAR6. Use of the kaya factors can be used to distinguish changes in emissions due to macroeconomic factors (such as GDP and population) from energy-intensity and emissions-intensity. When this analysis was performed on the change in emission projections from the 2010 CAR to the 2014 CAR, about three-fifths of the change in 2020 emission projections was found to be associated with changes in

energy and emission intensity, resulting in an estimated reduction of about 350 TgCO2e in both 2015 and 2020 from new policies and measures implemented between 2009 and 2013.

The kaya analysis can also be used to understand the extent to which the U.S. economy is expected to grow without proportionate increases in GHG emissions. Under the 2012 policy baseline scenario, the factor for energy intensity of GDP declines by 25% and the factor for emissions intensity of energy declines by 6% between 2005 and 2020.

The Energy Information Administration has tracked long-term trends in energy consumption relative to GDP. The October 2014 Monthly Energy Review shows that between 1950 and 2013, total energy consumption per real dollar of GDP has declined 60% (from 15.85 to 6.21 thousand Btu per chained 2009 dollars).

**Question from:** New Zealand at Sunday, 28 September 2014 **Category:** Progress towards the achievement of its quantified economy-wide emission reduction target

Title: Progress towards 2020 target and mitigation policies

The USA's 2011 greenhouse gas inventory shows that emissions are growing in the following sectors:

- PFC emissions from industrial processes
- Nitrous oxide emissions from the agriculture sector and waste management

How does the USA reconcile this growth in emissions with meeting its 2020 target? Does the USA have any particular policies in place to address the emissions growth in these sectors, and what is the observed/expected impact of these policies/measures?

Answered by: United States of America at Friday, 28 November 2014

Taking into account projected changes in all sectors, U.S. action on climate change puts the United States on a path to reach the ambitious but achievable goal of reducing U.S. greenhouse gas (GHG) emissions in the range of 17 percent below 2005 levels by 2020.

PFC Emissions from Industrial Processes:

Since 1995, EPA and the US primary aluminum industry have worked together through the Voluntary Aluminum Industrial Partnership (VAIP), to reduce perfluorocarbon (PFC) emissions from aluminum production, which are generated as byproducts of the smelting process. EPA supports partners by providing technical assistance to evaluate the factors that influence PFC emissions, sharing best practices, and recognizing partners for their commitment to reducing emissions. (http://www.epa.gov/aluminum-pfc/) All aluminum manufacturers report their data through the Greenhouse Gas Reporting Program.

(http://www.epa.gov/ghgreporting/ghgdata/reportingdatasets.html).

Nitrous oxide emissions from the agriculture sector:

The view that annual N2O emissions from US agricultural sources are increasing is highly dependent on the point of reference chosen. As shown in table 1, these emissions increased over the period 1990 to 2007 (from 296.6 TgCO2 in 1990 to 341.4 TgCO2 in 2007). Since 2007, N2O emissions from U.S. agriculture have continuously declined. For 2012, they were assessed to be 324.7 TgCO2. From a 2005 reference point, N2O emissions have increased by about 10 Tg CO2. There are both economic and policy related reasons to believe that N2O emissions will continue to trend modestly downward over the next several years. The most important economic reason is the increase in nitrogen fertilizer prices in recent years. Table 2 shows historical price data for four types of nitrogen fertilizers. In all cases, the prices per ton increased 78.0 to 100.0 percent between 2005 and 2013. Historically, nitrogen fertilizers have been a relatively inexpensive input. The upward trend in nitrogen fertilizer prices and the historical high levels of these prices create an economic incentive for farmers to improve nitrogen use efficiency. From a policy perspective, helping the United States and U.S. agriculture respond to the challenges posed by climate change has emerged as a priority conservation concern for USDA. As part of this concern, the Department developed a comprehensive Climate Change Science Plan. Element 3 of this plan covers efforts to promote GHG mitigation and explicitly includes analyzing technologies and strategies to reduce N2O emissions. At the agency level, the Agricultural Research Service has a number of research programs underway to better understand and manage N2O emissions from agricultural lands. In the field, the Natural Resources and Conservation provides both technical and financial assistance to farmers to help them understand and implement a suite of conservation technologies and practices and a number of these directly reduce N2O emissions. The most important of these relate to improving nutrient management, which involves managing the amount, placement, and timing of plant nutrients.

Given the current trend in agricultural N2O emissions, the current trend in nitrogen fertilizer prices, and the increasing focus of USDA policy climate change mitigation actions, it is reasonable to conclude N2O emissions from agriculture will continue to decrease modestly over the next several years.

Table 1: N2O Emissions from U.S. Agriculture (Tg CO2 Eq.)

1990 2005 2006 2007 2008 2009 2010 2011 2012

N2O 296.6 314.5 311.5 341.4 336.9 334.2 327.9 325.8 324.7 Agric. Soil Management 282.1 297.3 293.6 323.4 319 316.4 310.1 307.8 306.6 Manure Management 14.4 17.1 17.9 18 17.8 17.7 17.8 18 18 Field Burning of Residues 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1

Source: http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html

Table 2: Average U.S. farm prices of selected nitrogen (N) fertilizers

Year Month Anhydrous ammonia N solutions (30%) Urea 44-46% nitrogen Ammonium nitrate

#### Dollars per material short ton

```
1990 Apr. 199 132 184 180 2005 Apr. 416 215 332 292 2006 Apr. 521 232 362 366 2007 Apr. 523 277 453 382 2008 Apr. 755 401 552 509 2009 Mar. 680 320 486 438 2010 Mar. 499 283 448 398 2011 Mar. 749 351 526 479 2012 Mar. 783 373 554 506 2013 Mar. 847 410 592 544
```

Source: Agricultural Prices, National Agricultural Statistics Service, USDA.

http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=10 02

Emissions from waste:

As reported in the NC6, USA has multiple policies and measures to address GHG emissions from the waste sector. Significant mitigation impact is being achieved by PaMs which target the methane emissions from landfills, consistent with existing opportunities and the magnitude of these emissions. Methane from landfills accounted for 83% of total waste sector GHG emissions in 2012, after an 8% reduction in methane emissions from landfills from 2005 to 2012. Additional GHG emissions from the waste sector come from wastewater treatment and composting. Methane emissions from these sources make up the largest contribution, contributing 12% to total waste sector GHG emissions in 2012, after declining 4% since 2005. N2O emissions from wastewater treatment and composting have increased about 10% from 2005 to 2012, however N2O emissions represent only 5% of waste sector GHG emissions and 0.1% of total US GHG emissions.

Question from: Burundi at Saturday, 27 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target

Title: Agreements implementation

How will you contribute in supporting adherence to the 2015 agreement on climate change?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets.

Question from: Burundi at Saturday, 27 September 2014

Category: Progress towards the achievement of its quantified economy-wide

emission reduction target

Title: Agreements implementation

1. What are the criteria considered in establishing standards for accounting and reporting of emissions? 2. Everybody knows that climate change is a global problem, some countries signed a convention (UNFCCC) and a protocol (KP) to deal with this scourge. Among the signatories, there are some who do not implement their commitments. What steps to take for those who do not respect their commitments and what steps to take for those who have not signed? What benefits should benefit those who respect their commitments? 3. The 2015 agreement provides for the commitment of all parties to the identification and implementation of mitigation measures. Yet most undeveloped and developing countries opted for adaptation. If they do not signthe agreement what's next?

Answered by: United States of America at Friday, 28 November 2014

Thank you for your question.

Per Decision 2/CP.17, the scope of Multilateral Assessment is the implementation of quantified-economy-wide emission reduction targets. For more information on U.S. greenhouse gas data and monitoring, please see pages 5-8 of the Biennial Report