Session SBI45 (2016)

Session starts: 01-08-2016 00:00:00 [GMT+1]
Session ends: 28-10-2016 23:59:59 [GMT+1]

Exported from Session final result section

Question by Switzerland at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Impact of mitigation actions in the agriculture sector

According to the 2nd BR, New Zealand puts great emphasis on mitigation actions in the agriculture sector, which accounts for almost half of its total GHG emissions. Could New Zealand provide information of the estimated mitigation impact of these measures?

Could New Zealand elaborate on the indicators and methods it intends to use to monitor the contribution of measures in the agricultural sector to its QEWER target?

Answer by New Zealand, Thursday, 27 October 2016

New Zealand has placed great emphasis on agricultural greenhouse gas mitigation due to the nearly 50 percent of emissions that come from agriculture. The focus has been on research to address methane and nitrous oxide from ruminant animals. This research has contributed to a decline of greenhouse gases generated per unit of meat and milk produced on farms by an average of 1 percent per year since at least 1990. This is partly due to improved animal genetics and management combined with better grassland management and feeding practices. The reduced emissions intensity has been offset by increased production so total agriculture emissions have risen by 15 percent since 1990. However, without these efficiency gains achieved through research and innovation, greenhouse gas emissions from animal agriculture would have risen by 40 percent.

New Zealand continues to fund a wide range of mitigation research through the Global Research Alliance on Agricultural Greenhouse Gases, the New Zealand Agricultural Greenhouse Gas Research Centre and the agricultural sector's Pastoral Greenhouse Gas Research Consortium. This year New Zealand also established a Biological Emissions Reference Group to inform options for mitigation in the agriculture sector. This group brings together a range of agricultural, horticultural and farming stakeholders to collaborate with Government with the aim of building a robust and agreed evidence base on the opportunities available now, and in the future, to reduce New Zealand's biological greenhouse gas emissions, and the costs, benefits, and barriers to doing so.

It is very difficult to quantify the current or future mitigation impact of any one of these activities as they are research focused. However, New Zealand conducts this research in the expectation of implementing the findings to reduce emissions as soon as possible, also recognising that agricultural emissions are not only a challenge for New Zealand, but a challenge that has to be addressed globally and collectively.

New Zealand will use its Greenhouse Gas Inventory to monitor progress, which uses the most up to date statistics and research on emission factors.

Question by Japan at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Stakeholder coordination for projections

For preparation of projections, are the coordination with stakeholders (business communities, relevant ministries and NGO) carried out? If so, could you tell us the contents of the coordination?

Answer by New Zealand, Thursday, 27 October 2016

The Ministry for the Environment (MfE) chairs a cross-ministry group to prepare emissions projections, and works closely with Ministries that have the appropriate expertise for each sector (i.e. The Ministry of Business Innovation and Employment and the Ministry of Transport for projections of emissions from energy and transport, the Ministry for Primary Industries for projections of emissions from agriculture and forestry and MfE for projections of emissions from waste). Each Ministry engages with their business communities and other relevant stakeholders as appropriate when preparing projections for the sectors they are responsible for. These sectoral projections then feed into the economy-wide emissions and removals projections compiled by MfE.

For example, forestry stakeholders provide expert opinion on the activity data and drivers for new planting and deforestation – where both activities are key in determining New Zealand's future LULUCF emissions and removals.

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Targets 2

Considering that New Zealand's conditional target for 2020 is 10% to 20% compared to 1990 and also considering that New Zealand's contribution by 2030, as it has been stated in the BR, "corresponds to a reduction of 11 per cent from 1990 levels", how feasible would be the conditional target if 11% of reduction is already being targeted only for 2030?

Answer by New Zealand, Thursday, 27 October 2016

Delivery of a target in the conditional range by New Zealand would likely have required a significant increase in the use of international market mechanisms over the period 2013-2020.

The conditional target was set at a level that could only have been feasible had all the target conditions been met:

- the global agreement sets the world on a pathway to limit temperature rise to no more than 2°C
- developed countries make comparable efforts to those of New Zealand
- advanced and major emitting developing countries take action fully commensurate with their respective capabilities
- there is an effective set of rules for LULUCF
- there is full recourse to a broad and efficient international carbon market.

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Targets

New Zealand stated that "is prepared to take on a responsibility target for greenhouse gas emission reductions of between 10 per cent and 20 per cent below 1990 levels by 2020, if there is a comprehensive global agreement".

Considering the adoption of Paris Agreement under the UNFCCC, is New Zealand moving to the commitment of 10% to 20% reduction by 2020 compared to 1990?

Answer by New Zealand, Thursday, 27 October 2016

Alongside New Zealand's unconditional target to reduce emissions to 5 per cent below 1990 levels by 2020, New Zealand has been prepared to take a responsibility target for greenhouse gas emission reductions of between 10 per cent and 20 per cent below 1990 levels by 2020 if there is a comprehensive global agreement for the period to 2020. This means:

- the global agreement sets the world on a pathway to limit temperature rise to no more than 2°C
- developed countries make comparable efforts to those of New Zealand
- advanced and major emitting developing countries take action fully commensurate with their respective capabilities
- there is an effective set of rules for LULUCF
- there is full recourse to a broad and efficient international carbon market.

-

The global agreement that was negotiated in Paris in December 2015 is to come into effect and be implemented from 2020.

The primary condition of our conditional target range is for a comprehensive global agreement to be in place in respect of the period corresponding to the target, i.e. up to 2020. There is no comprehensive global agreement in place for the period to 2020. Therefore, this condition has not been met. While a comprehensive LULUCF rule set is now in place, the other conditions have yet to be fully satisfied.

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Quantified economy-wide emission reduction target

Taking into account that the GHG emission projections without LULUCF for 2020 in BR2, under a 'with measures' scenario, are above to those projections contained in BR1, could this increase in projections indicate additional challenges for New Zealand to meet its Quantified economy-wide emission reduction (QEWER) target?

Answer by New Zealand, Thursday, 27 October 2016

New Zealand's reported projected gross emissions increased between BR1 and BR2 owing largely to changes in reporting methodologies, particularly the switch from AR2 to AR4 GWPs. As shown in table 4.3 of the BR2, projected gross emissions actually decreased from

BR1 to BR2 when the AR4 GWP metric is applied to the BR1 projections (see also answer to question 6 from Brazil on emissions projections).

New Zealand expects to meet its 2020 target. New Zealand tracks progress towards its 2020 target in the Net Position Report. This report, which takes into account projections of emissions and removals to 2020, is updated and published annually on the Ministry for the Environment's website, available here: http://www.mfe.govt.nz/climate-change/reporting-greenhouse-gas-emissions/latest-2020-net-position.

New Zealand will meet its 2020 target through a combination of domestic emissions reductions, the removal of carbon dioxide by forests, participation in international market mechanisms and recognising surplus units from the first commitment period of the Kyoto Protocol.

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Emission projections

Regarding BR1, in table 6(a) "Information on updated greenhouse gas projections under a 'with measures' scenario", the GHG emission projected for 2020 were 75,077.66 kt CO2 eq (with LULUCF) and 77,218.28 kt CO2 eq (without LULUCF). In regards to BR2, the GHG emission projected for 2020 were 64,050.22 kt CO2 eq (with LULUCF) and 84,120.08 kt CO2 eq (without LULUCF).

Could New Zealand please explain why the projections with LULUCF in BR2 are below to those projections contained in BR1?

Could New Zealand please explain why the projections without LULUCF in BR2 are above to those projections contained in BR1?

Answer by New Zealand, Thursday, 27 October 2016

The calculated projected **gross emissions** (i.e. without LULUCF) increased from BR1 to BR2 due to a move from using IPCC Second Assessment Report (AR2) Global Warming Potentials (GWPs) to using IPCC Fourth Assessment Report (AR4) GWPs. In particular,

changing methane's GWP from 21 to 25 increased the calculation of gross emissions because methane makes up a substantial proportion of New Zealand's emissions. This change is in line with reporting guidelines for Biennial Reports.

This is highlighted in tables 4.3 and 4.4 of the BR2, which shows projected gross emissions actually decreased from BR1 to BR2 when the AR4 GWP metric is applied to the BR1.

The calculated projected **net emissions** (i.e. with LULUCF) decreased from BR1 to BR2 primarily due to improved calculations within the LULUCF sector. This is explained in detail on page 45 of the BR2, which describes the impact of the inclusion of the harvested wood products pool, the inclusion of the increase of carbon stock in New Zealand's natural forests and revised projections of forestry activity (afforestation, deforestation and harvesting).

Note that the BR2 figures given by Brazil in the question are from the 'without measures' scenario.

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: CTF Table 3

Regarding mitigation actions referred to in "CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects", are there any current estimates of mitigation impacts since the respective years of implementation?

Answer by New Zealand, Thursday, 27 October 2016

The table below includes the estimated mitigation impacts (since their respective years of implementation) of policies and measures for which this data is available.

Name of mitigation action	**Start year of implementation**	**Estimate of mitigation impact from start year of implementation (cumulative) (kt CO^2 eq) to 2013. rounded to nearest kt**
ETS Mitigation	2008 (Entry has been phased by	125

	sector) •€€€€€€ Warm Up New Zealand: Heat Smart Programme ran from 2009-14	
ENERGYWISE homes	•€€€€€€ This was replaced with Warm Up New Zealand: Healthy Homes Programme which began rolling out from August 2013	25
Efficient Products Programme	2006	462
Business Programmes	The current suite of business programmes began in 2012	14
Vehicle fuel economy labelling	2008	51
Heavy vehicle fuel efficiency	2012	3
National Environmental Standard for Landfill Methane	Standard came into effect in 2004 with full compliance required by 2007	2,469
Government forestry planting schemes	1991	13,295

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: MRV of mitigation actions

Regarding “Greenhouse Gas Saving (ktCO2 eq)” in “CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects”, how the actions are being measured, reported and verified?

Answer by New Zealand, Thursday, 27 October 2016

New Zealand reports its progress towards its emissions reductions targets in its Net Position report. The current Net Position covers our unconditional target under the United Nations Framework Convention on Climate Change (UNFCCC) to reduce our emissions to 5 per cent below 1990 level by 2020. The Ministry for the Environment (MfE) is the responsible government agency for updating the Net Position once greenhouse gas inventories and updated projections become available. The latest Net Position is available at: www.mfe.govt.nz/climate-change/reporting-greenhouse-gas-emissions/latest-2020-net-position.

New Zealand’s mitigation actions are monitored by a number of different agencies. For example, administration of the New Zealand Emissions Trading Scheme (NZ ETS) is carried out by two agencies, the Ministry for Primary Industries (MPI) and the Environmental Protection Authority (EPA). The NZ ETS is based on a self-assessment approach, so participants are responsible for measuring and reporting their own emissions and information. The EPA and MPI audit and verify information provided by participants. Further information on this process is included below.

- MPI is responsible for ensuring NZ ETS forestry participants report on carbon stock, file an emissions return to account for changes in the carbon stock and pay units if there is a decrease in carbon stock. On an annual basis MfE verifies land-use cover information from the NZ ETS with land-use cover information from satellite imagery and aerial photographs, collected for the National Greenhouse Gas Inventory estimates and used for projections in the Biennial Report.
- The EPA is responsible for non-forestry participants in the NZ ETS (industrial processes, stationary energy, liquid fossil fuels, agriculture, synthetic greenhouse gases, waste). Participants are required to report emissions and removals and surrender equivalent emission units. The EPA undertakes targeted reviews of emissions reporting by participants, allocation applications, undertake compliance activities and also have the power to require information in support of these activities. NZ ETS participants face penalties if they fail to surrender the right amount of units or provide incorrect information.

Under section 89 of the Climate Change Response Act 2002, the EPA is required to publish information on the NZ ETS each year. This information can be found on the following link - www.epa.govt.nz/e-m-t/reports/ets_reports/annual/Pages/default.aspx

---

Question by Brazil at Wednesday, 31 August 2016

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

Type: Before 31 August

Title: Mitigation actions

Regarding “Greenhouse Gas Saving (ktCO2 eq)” in “CTF Table 3 Progress in achievement of the quantified economy-wide emission reduction target: information on mitigation actions and their effects”, some mitigation actions were listed as “Not Estimated”.

Please, explain how the other quantified estimates have been made as well as the difficulties to estimate those “not estimated” mitigation actions.

Answer by New Zealand, Thursday, 27 October 2016

It is difficult to model the mitigation effects of some policies and measures, particularly as there is insufficient data to accurately project how sectors will respond to the policies and measures presented. For example, while we are confident that research into emissions

reductions from agriculture will bear fruit in the future, it is extremely difficult to quantify the emissions reductions from these actions, or to project when these emissions reductions will occur.

The impact of the NZ ETS on energy emissions is modelled in the Ministry of Business, Innovation, and Employment's energy projections model. The NZ ETS price of carbon is an exogenous input into the model that is specified at the agreed values for each year. This carbon price then feeds into the cost of the various fuels, and price elasticities determine how demand for the different fuels are impacted based on changes in their relative prices. Emissions are then determined from the amount of energy produced and used for each year and the appropriate emissions factors. The mitigation of emissions is determined by taking the difference in emissions between a scenario where the carbon price is $0 ('without measures' scenario) and the 'with measures' scenario.

Policies for which quantified estimates have been made

The carbon dioxide reductions from EECA's ENERGYWISE Homes, Efficient Products Programme and Business programmes, Vehicle fuel economy labelling, Heavy Vehicle Fuel Efficiency Programme, Extended Heavy Vehicle Fuel Efficiency Programme, and Fuel Efficient Tyres programme are based on the projected 2020 energy savings for these programmes multiplied by the appropriate emission factors published by the Ministry for the Environment.

Quantified estimates were also provided in the waste sector for the National Environmental Standards for Air Quality (NESAQ). The number of additional landfills using methane capture due to the NESAQ was estimated from historical trends. The total amount of methane captured was then multiplied by the proportion of landfills capturing methane due to the NESAQ.

Question by France at Tuesday, 30 August 2016

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

Type: Before 31 August

Title: Covering techniques in agriculture

Agriculture sector : Agriculture is an important sector for GHG emissions in New Zealand. Manure pit covering and more generally speaking covering techniques can help to reduce GHG emissions of agriculture. Is New Zealand considering developping these kind of

measures?

Answer by New Zealand, Thursday, 27 October 2016

The development of mitigation options for agriculture is a key area of focus for New Zealand. The Government is funding research into a range of mitigation options, particularly for methane from enteric fermentation and nitrous oxide from animal urine on pasture. Emissions from manure management are only a small proportion (3%) of New Zealand's agricultural emissions, as the vast majority of dairy effluent, and all effluent from other cattle, sheep and deer, is deposited directly onto pasture. This means the current potential of manure pit coverings as a GHG mitigation option is limited. However, New Zealand recognises the benefits that that these coverings can have, and organisations such as the National Institute of Water and Atmospheric Research and DairyNZ have studied the potential for covering effluent storage systems and capturing the methane as a source of energy.

Question by France at Tuesday, 30 August 2016

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

Type: Before 31 August

Title: Manure spreading techniques

Agriculture sector : what is done concerning manure spreading techniques to limit emissions?

Answer by New Zealand, Thursday, 27 October 2016

New Zealand's Pastoral Greenhouse Gas Research Consortium (PGGRC) has been set up to provide knowledge for farmers to mitigate their greenhouse gas emissions. The PGGRC provides information on good management practices to limit emissions, and advises that farmers avoid spreading manure when soils are wet and nitrous oxide emissions and nitrate leaching losses are high. Leaders in New Zealand's agriculture industry also promote good management practices which can have a range of environmental benefits, including for climate change. For example, DairyNZ produces guides on environmental management and on managing farm dairy effluent.

Question by France at Tuesday, 30 August 2016

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

Type: Before 31 August

Title: Factors explaining emissions growth for agriculture and energy

Betweeen 1990 and 2013, New Zealand's net greenhouse gas emissions (all five sectors including the LULUCF sector) represent an increase of 42,4% (16, 134.82 kt CO2 eq) . For agriculture and energy sectors, the increases are respectively +14.1% and +31.9 %. What are the main factors explaining such a growth in these two sectors?

Answer by New Zealand, Thursday, 27 October 2016

Agriculture

The largest sources of emissions from New Zealand's Agriculture sector were methane emissions from the *Enteric fermentation* category and nitrous oxide emissions from the *Agricultural soils* category.

The emission increase of 14.1% between 1990 and 2013 from the Agriculture sector is associated mainly with domestic and international demand for New Zealand agricultural produce and favourable growing conditions for most of the years since 1990. This resulted in a 2.1 Mt CO_2-e (8.1 per cent) increase in methane (CH_4) emissions from the *Enteric fermentation* category driven largely by the population of dairy cattle (88.4 per cent increase) as the relative profitability of dairy products has risen compared with that of sheep and beef products. There was also a 1.6 Mt CO_2-e (23.0 per cent) increase in nitrous oxide (N_2O) emissions from the *Agricultural soils* category. The key driver for this change was a five-fold increase in synthetic fertiliser nitrogen (N) applied during this time.

Although agriculture was New Zealand's largest emitting sector in 2013, the emissions intensity of New Zealand's agricultural production has decreased by about one per cent per year since 1990. Agricultural productivity has increased due to improvements in technology, feed and stock management, and animal breeding. Without these efficiency gains agriculture emissions would have increased by more than 40 per cent.

Energy

The growth in emissions in the Energy sector is primarily driven by the emission increases from road transportation, which increased by 5.2 Mt CO_2-e (69.4 per cent), and public electricity and heat production, which increased by 1.6 Mt CO_2-e (44.4 per cent).

The main drivers for the increase in greenhouse gas emissions from road transportation are population growth and the per capita growth in ownership of light vehicles. In addition, most freight transportation occurs by road rather than rail as New Zealand has no extended rail infrastructure. This is offset by fuel efficiency improvements for new vehicles. However, the vehicle turnover rate is slower in New Zealand than many other countries, and the fuel efficiency improvements take longer to have an effect in New Zealand relative to other developed countries.

The trend in emissions from public electricity and heat production is largely influenced by growing demand for energy due to population and economic growth, and hydro inflows affecting the levels of hydro generation.

Question by European Union at Monday, 29 August 2016

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

Type: Before 31 August

Title: NZ ETS (2)

Chapter III of New Zealand's BR includes a reference to the Environmental Protection Authority which administers operational elements of the NZ ETS, including decisions about industrial allocations and entitlements. The NZ ETS includes free allocation to emissions-intensive, trade-exposed industry. Could New Zealand provide more information on the metrics that are used to make these allocations and how do they impact on the assessment of the progress to the QEWERT?

Answer by New Zealand, Friday, 28 October 2016

1. *Overview of free allocation in the NZ ETS*

-

In the NZ ETS free allocation (also called industrial allocation) is targeted only at activities (production processes) that are both emissions intensive and trade exposed. Its purpose is to prevent "carbon leakage" from the NZ ETS damaging the international competitiveness of firms undertaking these activities, who face competition from foreign firms or products not subject to carbon pricing.

Because of this strong targeting at emissions intensive and trade exposed activities, only a minority of New Zealand emitters receive free allocation. Some significant emitting activities such as electricity generation, transport (land, coastal shipping and domestic aviation), waste and most agricultural processing plants do not meet the trade exposure or emissions intensity tests and therefore are ineligible to receive any free units.

As an example of the scale of free allocation in the NZ ETS, in 2015 105 firms received freely allocated units. Less than 15 of these firms were NZ ETS participants, out of around 300 total NZ ETS mandatory participants (excluding the over 2000 voluntary NZ ETS participants from the forestry sector). Some of these firms received free allocation for only one or two activities out of several emitting activities for which they have to surrender units, because not all their activities meet the eligibility criteria.

The remaining free allocation recipients were firms that do not participate directly in the NZ ETS but receive units because they are affected by pass-through costs from fuel or electricity use (please note that in the NZ ETS, the point of obligation is generally upstream). Many of these firms are small horticultural producers (growers of cut roses, cucumbers, capsicums and tomatoes).

This approach means that free allocation is a relatively small proportion of unit supply in the NZ ETS and is proportionately smaller compared to many other ETS around the world. In 2015, the total number of units provided through free allocation was 4.3 million while the total number of units surrendered from sectors other than forestry was 19.3 million, i.e. free allocation only amounted to about 22 per cent of annual unit demand from industrial sectors.

1. *Detail about the metrics for free allocation in the NZ ETS*

Free allocation is provided for activities (production processes). To be eligible to receive free allocation, the activity must meet both an emissions intensity test showing that the activity produces a large amount of emissions in relation to the revenue it generates, and a trade exposure test which considers whether there is international trade of the activity's output and whether importing/exporting the output is viable. For example, electricity cannot be imported or exported from New Zealand, so although electricity production can be emissions intensive it does not meet the trade exposure test and therefore cannot receive any free allocation. There are currently 26 eligible activities, the full list of which is available on the Environmental Protection Authority's website.

There are two allocation tiers, depending on the emissions intensity of the activity:

- e / NZ$ 1 million of revenue): 90% free allocation$_2$ (emissions intensity greater than 1,600 tCO**Highly emissions intensive activities**

- e / NZ$ 1 million of revenue): 60% free allocation $_2$ (emissions are greater than 800 tCO

Moderately emissions intensive activities

Eligibility was established for all firms carrying out an activity based on historical emissions across the sector, generally using emission levels from the 2006-2008 period.

Individual firms must apply to receive the free allocation. The exact number of NZUs provided each year is adjusted for production so when firms increase or decrease their output, the amount of assistance that they receive correspondingly rises or falls. This means the free allocations are based on actual, current production which avoids the problem of over-allocation from grandfathering allocation to historic production levels.

Free allocation has fiscal implications for the Government, but has no significant impact on New Zealand's progress to meeting its QEWERT.

Question by European Union at Monday, 29 August 2016

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

Type: Before 31 August

Title: Use of market mechanisms

In Chapter II of the BR New Zealand states that scale of contributions of market mechanisms in meeting its 2020 target will not be known until the end of the accounting period for the period 2013–2020. Could New Zealand provide some estimates of the expected contributions from domestic and international market mechanisms needed to meet its 2020 target (even though the actual amounts may not be known until the end of the 2013–2020 accounting period)?

Answer by New Zealand, Thursday, 27 October 2016

New Zealand tracks progress towards its 2020 target in the Net Position Report. This report, which takes into account projections of emissions and removals to 2020, is updated and published annually on the Ministry for the Environment's website, available here: http://www.mfe.govt.nz/climate-change/reporting-greenhouse-gas-emissions/latest-2020-net-position.

New Zealand will meet its 2020 target through a combination of domestic emissions reductions, the removal of carbon dioxide by forests, participation in international market mechanisms and recognising surplus units from the first commitment period (CP1) of the Kyoto Protocol. Based on current projections (which include anticipated domestic emissions reductions), units from international market mechanisms are not expected to be required to meet the 2020 target. This is because New Zealand is projecting to have sufficient removals from eligible forestry activities and sufficient surplus CP1 units to account for its projected gross emissions over the 2013–2020 period.

Question by European Union at Monday, 29 August 2016

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

Type: Before 31 August

Title: Agriculture

In Chapter I of the BR New Zealand confirms that agriculture is largest contributor to its total greenhouse gas emissions and in Chapter III of the BR2 information is provided on research, technology development and sharing of technical expertise in the agricultural sector. Given the significance of agriculture in New Zealand's emissions profile and the unlikelihood that agricultural emissions will be included in the NZ ETS, what measures are being undertaken to deliver emission reductions in New Zealand's agriculture sector?

Answer by New Zealand, Friday, 28 October 2016

While acknowledging that agricultural emissions are a challenge that has to be addressed globally and collectively, New Zealand also recognises that the agriculture sector needs to play a role in New Zealand's climate change mitigation, especially given the sector produces almost 50% of our emissions. Reducing methane and nitrous oxide emissions from ruminant animals remains challenging and there are few cost-effective and commercially viable options to reduce these emissions currently. This is why New Zealand is making significant investments into research to find new ways to reduce agricultural emissions.

This research has already contributed to improved animal genetics and management, as well as better feeding practices and grassland management – which in turn have contributed to reductions in the emissions intensity of New Zealand agriculture. The greenhouse gases generated per unit of meat and milk produced on farms has declined by an average of 1 percent per year since at least 1990.

The reduced emissions intensity has been offset by increased production and total agriculture emissions have risen by 15 percent since 1990. However, without these efficiency gains achieved through research and innovation, greenhouse gas emissions from animal agriculture would have risen by 40 percent.

This year New Zealand also established a Biological Emissions Reference Group to look at further options for agricultural emissions mitigation in order to help New Zealand achieve its ambitious first NDC under the Paris Agreement. This group brings together a range of agricultural, horticultural and farming stakeholders to collaborate with Government with the aim of building a robust and agreed evidence base on the opportunities available now, and in the future, to reduce New Zealand's biological greenhouse gas emissions, and the costs, benefits, and barriers to doing so.

Question by European Union at Monday, 29 August 2016

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

Type: Before 31 August

Title: NZ ETS (1)

Chapter VI of New Zealand's BR refers to the Climate Change Response Act which established the New Zealand Emissions Trading Scheme (NZ ETS) and sets out all the legislated obligations and requirements. The NZ ETS legislation includes provisions to introduce auctioning of New Zealand Units (NZUs) within an overall cap on non-forestry sectors.

Can New Zealand provide more information on the expected timeframe for the introduction of auctioning and a cap on the supply of NZUs?

Answer by New Zealand, Thursday, 27 October 2016

Whether auctioning of NZUs within a limit will be implemented in future is a matter being considered in the current review of the NZ ETS. A policy decision on this issue is likely to be made in mid-2017.

For more information about the current review of the NZ ETS, please refer to http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand-emissions-trading-scheme/about-nz-ets

---

Question by China at Monday, 29 August 2016

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

Type: Before 31 August

Title: agriculture emission

Agriculture is the major contributor for the total GHG emission of New Zealand, however currently the abatement cost is relatively higher than other sectors. Has New Zealand implemented or planned any projects on mitigation technology innovation for agriculture sector?

Answer by New Zealand, Thursday, 27 October 2016

As noted in answers to questions 1 and 16, New Zealand is strongly focused on research and innovation to find solutions for agricultural emissions mitigation. The Government invests approximately $20 million annually in collaboration with the agriculture sector to research and develop new mitigation options. These include breeding low-methane animals, exploring low methane-emitting and low nitrogen-containing feeds, administering methane vaccines, and developing methane/nitrification/urease inhibitors. The Government is also investing in programmes to help farmers overcome the non-price barriers to gains in productivity and emissions efficiency, such as the Primary Growth Partnership and the Sustainable Farming Fund.

Our commitment to research is starting to generate results with strong potential for practical, and world-wide, future application. For example, in April this year New Zealand scientists announced that they had identified animal-safe compounds that can reduce methane emissions from sheep and cattle by up to 90%. They also recently showed that global solutions to reduce methane emissions from ruminant animals are feasible because the rumen microbes causing emissions are similar globally. The potential contribution of this research to agricultural mitigation across the world is even more significant than for reducing our own emissions, given New Zealand produces only 0.6 per cent of global agricultural emissions.

To convert these scientific advances into commercially viable, safe and practical mitigation options for farmers, further investment is required and the New Zealand Government is committed to continuing to support these efforts with funding. Alongside this work, officials continue to explore options to further enable and incentivise farmers to reduce their emissions.

Emissions from the agriculture sector are a challenge that needs to be addressed

collectively, and New Zealand recognises the value of global collaboration to address this challenge. New Zealand was a founding member of the Global Research Alliance on Agricultural Greenhouse Gases (GRA), and continues to fund a wide range of mitigation research through the GRA and other organisations such as the New Zealand Agricultural Greenhouse Gas Research Centre and the agricultural sector's Pastoral Greenhouse Gas Research Consortium.

Question by China at Monday, 29 August 2016

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

Type: Before 31 August

Title: ETS

Could New Zealand provide more information on the emission percentage covered by the national ETS? What is the contribution of the national ETS to emission reduction? Are there any plans to enlarge the scale of current national ETS?

Answer by New Zealand, Thursday, 27 October 2016

About 50 per cent of New Zealand's gross emissions are currently covered by the NZ ETS. All gases and sectors are subject to NZ ETS surrender obligations, except for methane and nitrous oxide from agriculture. Together these on-farm emissions make up 49 per cent of New Zealand's gross emissions. Agricultural processors must comply with NZ ETS emissions reporting requirements for these emissions, but do not currently have to surrender units.

Forestry is also covered by the NZ ETS. Emissions from all pre-1990 deforestation are covered by NZ ETS surrender liabilities. Participation by post-1989 forestry in the NZ ETS is voluntary. Opting in to the NZ ETS enables post-1989 foresters to earn units for carbon removals, but also means that they have to pay units to the Government when the trees are harvested or deforested. Currently 47 per cent of eligible post-1989 forest land is registered in the NZ ETS and is therefore subject to NZ ETS liabilities for harvest or deforestation.

It is difficult to attribute emissions reductions specifically to the NZ ETS versus other factors that have affected New Zealand since the scheme was established, such as the Global Financial Crisis and a significant drought. New Zealand's Ministry for the Environment released an evaluation of the NZ ETS in February 2016, which found that there is evidence that high emission unit prices in the first few years of the NZ ETS influenced new forest planting decisions and reduced net GHG emissions below business as usual. This reduction

was small, however, compared with net emissions over the Kyoto Protocol first commitment period, and there is uncertainty over the exact amount of reductions caused by carbon pricing compared to other economic factors.

The main way available to enlarge the scale of the NZ ETS would be to impose surrender obligations on nitrous oxide and methane emissions from agriculture. There are a number of challenges that would have to be overcome to do this, such as developing methodologies for farm-level emissions measurement and reporting. Fully incorporating agriculture into the NZ ETS is not on the agenda for the short term, as this issue is not in scope for the current review of the NZ ETS. Nevertheless New Zealand recognises that the agriculture sector needs to play a role in climate change mitigation. For this reason the Government has recently convened a Biological Emissions Reference Group which brings together a range of agricultural, horticultural and farming stakeholders to collaborate with Government with the aim of building a robust and agreed evidence base on the opportunities available now, and in the future, to reduce New Zealand's biological greenhouse gas emissions, and the costs, benefits, and barriers to doing so.

Question by China at Monday, 29 August 2016

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

Type: Before 31 August

Title: market mechanisms

New Zealand indicated in the BR2 that credits from international market-based mechanisms will be used for meeting 2020 target. What kinds of credits are considered qualified by New Zealand for compliance purposes? Are there any preliminary estimations on the amount of credits that will be needed to achieve the 2020 goal?

Answer by New Zealand, Thursday, 27 October 2016

New Zealand will meet its 2020 target through a combination of domestic emissions reductions, the removal of carbon dioxide by forests, participation in international market mechanisms and recognising surplus units from the first commitment period (CP1) of the Kyoto Protocol. Based on current projections (which include anticipated domestic emissions reductions), units from international market mechanisms are not expected to be required to meet the 2020 target. This is because New Zealand is projecting to have sufficient removals from eligible forestry activities and sufficient surplus CP1 units to account for its projected gross emissions over the 2013–2020 period.

Decisions taken at CMP.8 in Doha clarified that New Zealand is able to continue to participate in the clean development mechanism and receive certified emission reduction

units into its registry.

New Zealand tracks progress towards its 2020 target in the Net Position Report. This report, which takes into account projections of emissions and removals to 2020, is updated and published annually on the Ministry for the Environment's website, available here: http://www.mfe.govt.nz/climate-change/reporting-greenhouse-gas-emissions/latest-2020-net-position

---

Session SBI45 (2016)

Session closes at 28-10-2016

UNFCCC - LAST PAGE OF EXPORT