## Session SBI42 (2015)

Session started at 01-03-2015 00:00:00 [GMT+1] Session closed at 29-05-2015 23:59:59 [GMT+1]



A compilation of questions to - and answers by - Iceland Exported 29-5-2015 by the UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE Question by Brazil at Tuesday, 31 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target Type: Before 31 of March Title: Mitigation actions

Regarding Table 3, does Iceland plan to estimate the impact of mitigation actions that have not being estimated (NE and IE)? If not, what are the main reasons? If possible, give the explanation by mitigation action or by cluster/sector.

Answer by Iceland at Thursday, 28 May 2015

No decision has been made to estimate the effect of individual mitigation actions. Lack of resources is the primary obstacle for conducting an estimate. Iceland's overall emissions are small on a global scale, about 4.5 million tons CO2-eq annually. A thorough economic analysis of the effect of individual actions could, however, require similar costs as in the case of much larger emissions. With limited funds, the emphasis has been on ensuring a satisfactory GHG inventory and implementing requirements of the UNFCCC and European climate legislation. More resources would be needed to strengthen analytical work, like improving emissions forecasting, estimating impact of mitigation action and improving estimates of emissions from selected sources.

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Question by United States of America at Tuesday, 31 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target Type: Before 31 of March Title: Carbon Tax Levels

Is Iceland's carbon tax a dynamic one, with stringency adjusted in order to achieve a specified mitigation effect, or set at a static level? How is the level reviewed?

Answer by Iceland at Thursday, 28 May 2015

The level of the carbon tax was set in relation to the price of emissions units in the EU-ETS, first at 50% of market prices, and in 2011 at 75% of market prices at that time. The purpose of the tax was to provide a clear economic signal with a price on carbon in sectors outside the EU-ETS, in direct relation to the amount of carbon emitted. It is not designed to achieve a specified mitigation effect.

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Question by Canada at Tuesday, 31 March 2015 Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target Type: Before 31 of March Title: Land sector accounting

Canada notes that Iceland did not include projections for LULUCF in its BR1, but reported on projections for forestry and re-vegetation (CTF Table 5). Are these values similar to what could be achieved when accounting for LULUCF?

Answer by Iceland at Thursday, 28 May 2015

Due to technical considerations and lack of human resources Iceland did not include projections for LULUCF in its BR1. However, as afforestation and revegetation are key activities in Iceland's mitigation efforts, an effort was made to update predictions on the development in those fields. These two categories are the main carbon sinks in the LULUCF sector and represent the majority of carbon sequestration in the sector.

Question by New Zealand at Monday, 30 March 2015 Category: All emissions and removals related to its quantified economywide emission reduction target Type: Before 31 of March Title: Opportunities to reduce greenhouse gas emissions

Has Iceland identified any cost-effective ways of further reducing its greenhouse gas emissions, given that a vast majority of primary energy supply is already from renewable sources? If so, which sectors of the economy provide these opportunities?

Answer by Iceland at Thursday, 28 May 2015

Iceland commissioned a comprehensive study of mitigation options which was published in 2009. Indeed, as stated, the mitigation potential from energy production is very limited, as almost 100% of electricity and heating is provided by hydro- and geothermal energy. The 2009 study pointed out several mitigation options in different sectors that were seen to be practical and cost-effective, not least in transport, land use and forestry. In transport, mitigation opportunities were seen in advancing fuel efficient cars and cars using electricity or alternative fuels, and in encouraging bicycling, walking and public transport. In fisheries, mitigation opportunities were seen in substituting electricity for oil in fish-meal production, and in using biofuels in ships. In the waste sector, opportunities were seen in minimizing organic waste production and in recovering methane from landfills. Technical opportunities for mitigation in industrial emissions (aluminium and ferrosilicon) were seen as minimal, but it was noted that heavy industry was to be regulated by the EU Emissions Trading Scheme, which would provide incentives to minimize emissions. Opportunities in agriculture were also seen as limited. Efforts have been made to realize the mitigation opportunities in Iceland's 2010 Climate Mitigation Action Plan. The plan focuses on 10 "key actions" where two are economy-wide (carbon tax and application of the EU-ETS), three actions deal with transport and two with fisheries. Iceland also has substantial mitigation options in LULUCF. Afforestation and revegetation have for a long time been an important part of Iceland's climate change policy, as there is great potential for CO2 uptake from the atmosphere in soil and vegetation. Recently, large mitigation efforts have also been identified in reducing emissions from drained wetlands.

Question by New Zealand at Monday, 30 March 2015 Category: All emissions and removals related to its quantified economywide emission reduction target Type: Before 31 of March Title: Electric vehicle policy

Has the waiving of VAT on electric or hydrogen vehicles had any discernible impact on the size of the zero-emissions vehicle fleet? If so, what has been the increase (proportion of total fleet and absolute) in the electric and hydrogen vehicles fleet since Act No 69/2012 was amended?

Answer by Iceland at Thursday, 28 May 2015

The waiving of VAT on electric, hydrogen and methane vehicles has had a discernible if small impact on the composition of the vehicle fleet of Iceland, as it has helped bring such vehicles to a more competitive price compared to conventional vehicles. In 2005 there were only a handful of electric vehicles in use. In 2014, 203 electric vehicles were sold, or about 4% of total sales that year. So far in 2015, some 150 electric cars have been sold, and their share of total sales looks certain to be higher than in 2014. The figure below shows the increase (new additions) in zero-emissions vehicles over the past few years and the table shows the proportion of zero-emissions vehicles as well as the total number of vehicles in Iceland in the period 2010 to 2014.

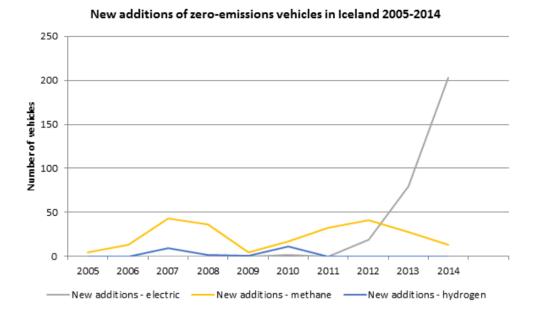


Figure shows number of new additions of zero-emissions passenger vehicles by energy source in Iceland from 2005 to 2014.

Table shows total number of all and zero-emissions vehicles (by energy source) in Iceland from 2010 to 2014.

	2010	2011	2012	2013	2014
Total number of vehicles	237.324 (100%)	238.375 (100%)	242.526 (100%)	245.898 (100%)	251.130 (100%)
Electric	15 (0%)	15 (0%)	34 (0%)	113 (0%)	315 (0,1%)
Methane	160 (0,1%)	191 (0,1%)	232 (0,1%)	259 (0,1%)	271 (0,1%)
Hydrogen	24 (0%)	21 (0%)	21 (0%)	19 (0%)	19 (0%)

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Question by China at Monday, 30 March 2015

Category: Progress towards the achievement of its quantified economywide emission reduction target Type: Before 31 of March

Title: participation in EU ET

Title: participation in EU-ETS

Does the "European Union Emissions Trading System" totally correspond with Iceland's domestic policy? If there are some conflicts, which one will be the priority?

Answer by Iceland at Thursday, 28 May 2015

The EU-ETS has been inscribed into Icelandic law, as it is a part of the Agreement on the European Economic Area, which Iceland is a part of. Therefore there are no conflicts between the EU-ETS and Iceland's domestic policy.

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Question by China at Monday, 30 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target Type: Before 31 of March Title: additional PaMs

In WM scenario, in 2020the GHG emission excl. LULUCF in Iceland will be 24% higher than the 1990level. It will be quite challenging for Iceland to achieve the 20% decrease target. What additional polices and measures will Iceland take to achieve the target?

## Answer by Iceland at Thursday, 28 May 2015

Iceland has joined the EU and its 28 Member States in a joint fulfillment target of -20% for the second commitment period of the Kyoto Protocol. The target is delivered jointly by the 29 countries and the individual shares of different countries are determined by internal agreement of the countries involved. Part of the target is achieved by a pooled effort within the EU-ETS, but the rest by individual countries, with allocated shares for each country. National emissions targets are laid down in EU legislation through the 2009 Effort Sharing Decision. In the case of Iceland, its national emissions target was decided in a bilateral agreement signed in 2015, using a comparable methodology as in the Effort Sharing Decision. About 40% of Iceland's emissions is regulated by the EU-ETS, where companies bear the main responibility; if they emit more than their allocated units allow, they must meet their obligations by buying emissions units within the ETS pool. As for non-ETS emissions, Iceland has a target that can be roughly translated as demanding a little over 20% reduction in net emissions from 2005 to 2020. Iceland hopes to be able to achieve that target by current measures, but will monitor its non-ETS emissions trends closely and consider additional measures if the target looks unlikely to be reached. At the end of the period there is a process of evaluation, where Iceland as well as other Parties can buy emissions units if needed, in order to avoid non-compliance.

Question by China at Monday, 30 March 2015 Category: All emissions and removals related to its quantified economywide emission reduction target Type: Before 31 of March Title: reporting of GHG inventory

The 2014 annual inventory review report pointed out that 6 recommendations proposed by expert group in 2013 annual review report had not been adopted, could you provide further clarification regarding this issue?

The expert group recommendations, and Iceland's clarifications, are listed here below:

Issue: Ensure that one organization has a full understanding of the complete energy balance and can compile a transparent and complete energy balance.

Answer: The Environment Agency (EA) is working with relevant organizations to gain the information needed to compile a transparent and complete energy balance. As things stand, the data collection is under review to improve the possibility to do so.

Issue: Provide more transparent information on the modification methodologies applied when re-categorizing the data received from the National Energy Authority of Iceland (NEA).

Answer: The EA is working with the NEA to improve the data in accordance with IPCC 2006 guidelines.

Issue: Continue to make efforts to apply higher-tier methods for calculating emissions from Road Transportation.

Answer: Lack of human resources and insufficient data has been a problem in implementing higher tier methods. The EA is working on getting better data to apply higher tier methods, where possible.

Issue: Include more information in the NIR regarding the circumstances under which the country-specific N excretion data have been estimated to demonstrate that emissions have been accurately reported.

Answer: The excretion data is based on unpublished results. The scientists behind the research are working on getting the data published.

Issue: Include in the inventory a comparison of the country-specific value of the EF associated with the N2O emissions from the cultivation of histosols with peer-reviewed studies.

Answer: The emissions are based on unpublished results. The scientists involved are working on getting the data published in peer-reviewed journals.

Issue: Include in the NIR more information on landfill gas utilization (e.g. energy content of recovered gas, place of utilization).

Answer: Due to human resources constraints this was not completed in time.

Issue: Investigate the issue on value per capita protein intake further and report on any new results based on the yearly per capita protein intake.

Answer: The per capita protein intake in Iceland is based on in country studies. No newer studies have been made.

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Question by European Union at Monday, 30 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target Type: Before 31 of March Title: Policies included in projection scenario

Which policies and measures, including those from the Action Plan, are included in the 'with measures' scenario as reported by Iceland in its biennial report?

Answer by Iceland at Thursday, 28 May 2015

The projection scenario in the biennial report is based on the latest Energy forecast, an exercise which is conducted regularly in Iceland by energy authorities, but does not explicitly take into account individual policies and measures for climate mitigation. It is therefore not possible to say that some policies and measures are taken into account but others not. This is noted in the UNFCCC Report on the technical review of the first biennial report of Iceland. Iceland did conduct a "business as usual" forecast when developing its 2010 Action Plan on climate mitigation, and then estimated the likely effect of combined and individual measures on emissions levels up to 2020. The projection scenario in the biennial report is not set up in the same way as this previous forecast. In the future, Iceland would like to improve emissions forecasts, and make better estimates for the likely contributions of present and future policies and measures, pending resources.

Question by European Union at Monday, 30 March 2015 Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target Type: Before 31 of March Title: Projection methodologies

Table 5, page 196 of the biennial report provides a summary of key variables and assumptions used in the projections analysis. What are the changes since the previous NC in the methodologies used for the preparation of projections?

Answer by Iceland at Thursday, 28 May 2015

The variables and assumptions have been updated in line with latest information, data and forecasts for individual sectors, but with basic methodologies remaining similar.

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Question by European Union at Wednesday, 25 March 2015 Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target Type: Before 31 of March Title: Use of market mechanisms

Does Iceland 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?

## Answer by Iceland at Thursday, 28 May 2015

Iceland is part of the EU-ETS, a market mechanism, under which over 40% of Iceland's emissions are regulated. Iceland does not intend to use other market mechanisms or use international credits. Iceland does not rule this option out completely, however. Should Iceland be fall short of meeting its internal target for non-ETS emissions, as prescribed in the recent bilateral agreement between the EU and Iceland, Iceland retains the option of buying emissions units according to the rules within that arrangement.

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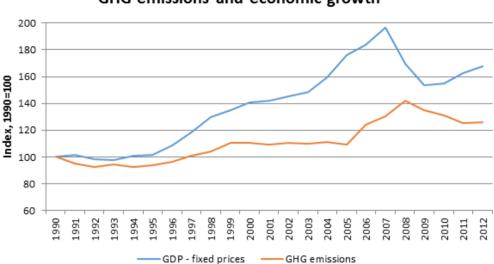
Question by European Union at Wednesday, 25 March 2015 Category: Progress towards the achievement of its quantified economywide emission reduction target Type: Before 31 of March Title: Decoupling of economic growth from GHG emissions

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?

Answer by Iceland at Thursday, 28 May 2015

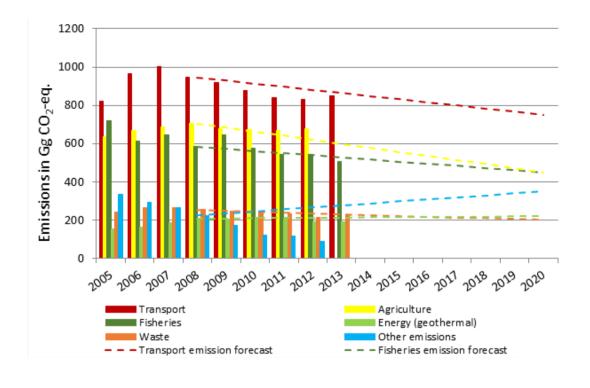
Emissions in Iceland have grown since 1990, mostly due to emissions from new or expanded heavy industry plants (aluminium and ferrosilicon), but less so than GDP. Iceland has therefore achieved relative decoupling of emissions and GDP, but not

absolute decoupling. The following figure gives an indication of to what extent economic growth is decoupled from GHG emissions.



GHG emissions and economic growth

The Icelandic government adopted in 2010 an action plan for reducing GHG emissions with 10 "key actions", as well as additional actions. These actions include application of EU-ETS and a carbon tax, as well as reducing emissions from transport, fisheries, agriculture, waste management, energy industries and other sectors. The action plan introduces emissions targets for each sector mentioned above and the overall target is to reduce Iceland's net emissions in non-ETS sectors by 30% by 2020, compared to 1990. So far, Iceland's emissions reduction is on track (within target values) despite the fact that some sectors have in occasional years been over target values. This is illustrated in the figure below. In 2012 only the agriculture sector exceeded the target emissions, where the emissions were 9% (58 Gg CO2-eq) above the target value. On the other hand, agricultural emissions were 8% lower than 1990 emission levels. This is mainly due to a decrease in sheep livestock population, decreasing methane emissions from enteric fermentation and reduced use of fertilizers. Other sectors were below 2012 emission target values.



Question by European Union at Wednesday, 25 March 2015 Category: Assumptions, conditions and methodologies related to the attainment of its quantified economy-wide emission reduction target Type: Before 31 of March

Title: Estimation of LULUCF emissions and removals

How does Iceland 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?

Answer by Iceland at Thursday, 28 May 2015

Afforestation and revegetation have an impact on the assessment of the progress to Iceland's quantified economy-wide emissions reduction target.