

## Climate Dialogues 2020

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Multilateral Assessment  
A compilation of questions to - and answers by –  
Switzerland  
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Question by United Kingdom of Great Britain and Northern Ireland

at Monday, 07 September 2020

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

Type: Before 07 September

Title: Recalculating inventory data

In Switzerland's Fourth Biennial Report and with regards to recalculating inventory data, it outlines the governance structures used to approve recommendations and encouragements to Switzerland's inventory. Does Switzerland have any key lessons learnt on recalculating inventory data and best practices it uses to do so?

Answer by Switzerland

As described in section 1.3.5 of Switzerland's fourth biennial report, recalculations that further improve the inventory or that implement recommendations and encouragements from the various review procedures are considered (and approved) by the greenhouse gas inventory core group. Recalculations that substantially impact total emissions at the national level are presented to the national inventory system supervisory board for approval. Recalculations are documented in sectoral chapters and chapter 10 of Switzerland's national inventory report (see [www.bafu.admin.ch/latest-ghg-inventory](http://www.bafu.admin.ch/latest-ghg-inventory) ). These procedures are in line with the quality management system established to fulfil the requirements of the respective UNFCCC guidelines as well as of ISO 9001:2015. Therewith, responsibilities are clearly defined, ensuring that needed recalculations are elaborated in a timely and transparent manner and discussed within the group of qualified experts (i.e. unjustified changes realised by just one expert are not possible). Switzerland is of the opinion that a clearly defined governance structure with regard to the implementation of changes to the greenhouse gas inventory is key to continuously implement the most recent state of science and to guarantee the quality and transparency of the full process. Switzerland's approach allows individual experts to make direct suggestions for further improvements. The experts are best placed to see where potential for improvement exists. While all improvements are discussed within the core group, the responsibility is divided among a manageable number of experts. This means that the system is not cumbersome and the focus of the work can always be on the actual scientific content.

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Question by United States of America at Monday, 07 September 2020

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

Type: Before 07 September

Title: Progress in agriculture sector

Based on your Fourth Biennial Report to the UNFCCC, emissions from agriculture have decreased by

about 10% from 1990. You indicate that these reductions are driven by decreasing livestock populations and reduced use of nitrogen fertilizer. Are the reductions in livestock populations a result of decreased consumption/export of livestock products (meat, milk), increased efficiency of production (e.g., increased production per animal), increased imports, or some combination of these drivers?

**Answer by Switzerland**

While in the 1990ies the dairy herd decreased, milk production remained constant. Performance and methane emissions per dairy cow increased, emissions per kilogram of milk decreased. However, the higher performance results at least partly from an increasing feeding intensity with imported concentrate feed, which puts the positive trend into perspective.

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**Question by United States of America at Monday, 07 September 2020**

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

Type: Before 07 September

Title: Polices promoting grassland-based milk and meat production

The Fourth Biennial Report to the UNFCCC describes a government led promotion of “grassland-based” milk and meat production. In order to understand the GHG implications of implementing such as policy, have you done studies to assess whether the grassland-based production methods lead to lower net GHG emissions than the current production methods?

**Answer by Switzerland**

An evaluation conducted shortly after introduction of the grassland-based milk and meat production programme identified some weaknesses, i.a. no significant effect on the closing of the farms’ nitrogen and phosphorus cycles and difficulties in terms of controllability. Effects on greenhouse gas emissions were not analysed in detail. Based on these findings, modifications of the programme are proposed in the framework of the new agricultural act aiming at effectively limiting protein concentrate input on farm level. According to recent scientific literature this should lead to slightly higher emissions per kilogram of milk but in the long run to a reduction in overall emissions due to an adjustment of livestock numbers in accordance with the availability of local feed produced on grassland.

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Question by United States of America at Monday, 07 September 2020

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

Type: Before 07 September

Title: Verification activities

The Fourth Biennial Report to the UNFCCC describes verification activities designed to provide independent estimates of methane and nitrous oxide based on atmospheric measurements and inverse modelling. These top-down measurements will then be compared to the bottom-up estimates in your national GHG inventory to help inform potential areas for improvement. Do you have a spatially and temporally gridded inventory of methane and nitrous oxide emissions based on the bottom-up methods from your inventory that can be compared to the top-down atmospheric measurements?

Answer by Switzerland

As briefly addressed in section 1.3.6 of Switzerland's fourth biennial report, the Swiss Federal Office for the Environment supports a long-term monitoring programme from which Switzerland's emissions of various fluorinated greenhouse gases can be estimated based on atmospheric measurements. Similar research projects are currently looking into developing independent estimates of CH<sub>4</sub> and N<sub>2</sub>O emissions in Switzerland based on atmospheric measurements and inverse modelling of atmospheric transport. The research projects are described in detail in Annex 5 of Switzerland's latest national inventory report (see [www.bafu.admin.ch/latest-ghg-inventory](http://www.bafu.admin.ch/latest-ghg-inventory)). Based on the continuous atmospheric measurements of CH<sub>4</sub> and N<sub>2</sub>O at about four measurement sites distributed across Switzerland, it is not possible to derive a spatially and temporally gridded bottom-up inventory. However, the measurements – in combination with inverse modelling of atmospheric transport – are most useful to validate a priori emissions, i.e. spatially gridded inventories for CH<sub>4</sub> and N<sub>2</sub>O established on the basis of the emission sources as reported in Switzerland's greenhouse gas inventory. On the one hand, the inverse modelling provides estimates for total annual emissions that can be compared to the values as reported in the national inventory report. On the other hand, maps can be produced indicating discrepancies to the a priori distributions of emissions. Moreover, the seasonality of emissions can be analysed. Currently, the available a priori distributions of emissions are reconsidered in a project focussing on emissions cadastres for air pollutants and greenhouse gases.

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**Question by** European Union at Monday, 07 September 2020

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

**Type:** Before 07 September

**Title:** Conditions affecting emissions in the target year 2020

In the year 2020, the activities in many sectors of the economy were affected by the Covid-19 pandemic. Hence, it can be expected that actual emissions in the target year 2020 may be different from those projected. Which conditions or assumptions made in the preparation of the Fourth Biennial Report are expected to have changed, and how may they affect total emissions in the target year?

**Answer by** Switzerland

As all over the world, the COVID-19 pandemic had and still has a major impact in Switzerland. The measures taken by the Swiss government to curb the spread of infections led to a substantial reduction in mobility and economic activities. The effects were most pronounced in March and April 2020, but still clearly noticeable also thereafter. The greenhouse gas inventory which will show greenhouse gas emissions from all sources for the year 2020 will become available in mid-April 2022. In July 2021, the CO<sub>2</sub> statistics will report on CO<sub>2</sub> emissions from fossil fuels in 2020 and provide a first insight on the impact of the pandemic. According to provisional estimates, the decline in fuel sales observed in March to June 2020 resulted in an overall reduction of around one million tonne of CO<sub>2</sub> compared to the emissions observed in most recent years. For buildings, emissions from heating fuels are unlikely to have changed much, while in industry the impact remains to be assessed. This rough estimate indicates that the COVID-19 pandemic led to a short-term reduction of about two per cent of Switzerland's most recent annual greenhouse gas emissions. The long-term impact, in particular up to 2030, remains to be assessed yet. As Switzerland will assess the fulfilment of its quantified economy-wide emission reduction target under the UNFCCC by accounting against its quantified emission limitation or reduction commitment under the second commitment period of the Kyoto Protocol, the reduction of greenhouse gas emissions caused by the COVID-19 pandemic is not expected to have a major impact on the relevant total emissions over the eight years of the second commitment period of the Kyoto Protocol (2013–2020).

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**Question by** European Union at Monday, 07 September 2020

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

**Type:** Before 07 September

**Title:** Projections in the energy sector in the period up to 2020

It is very instructive that Switzerland has provided, starting with its Second Biennial Report, graphs of projection results for the WEM, WAM and WOM scenarios for various sectors, gases and subsectors.

The projections communicated in Switzerland's Second Biennial Report indicated an important emissions reduction potential in the period up to 2020 in the energy sector, when comparing the WEM scenario to the WAM scenario. However, according to the Fourth Biennial Report, estimated and projected emissions in the period up to 2020 remain close to the original WEM scenario communicated in earlier reports. Which are the main reasons why the emissions reduction potential indicated in earlier reports was not realised in the energy sector?

#### Answer by Switzerland

Compared to Switzerland's second biennial report, the methodology applied to project emissions for the energy sector has been revised completely. While in Switzerland's second biennial report projections based on an earlier study by Prognos (2012), a computable general equilibrium model (EPFL and Infras, 2016 and 2017) was applied to derive emission projections for Switzerland's third and fourth biennial report. This led to some changes in the projected emissions, most pronounced in the transport sector. Indeed, the perspective of the future development of transport demand was reconsidered, in particular substantially reducing the projected use of biofuels and considering a more realistic share of electric vehicles (see section 5.3.8 of Switzerland's seventh national communication and third biennial report). Therewith, the emission reductions projected for the transport sector in Switzerland's second biennial report for both the WEM and WAM scenario turned out to have been overly optimistic.

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#### Question by European Union at Monday, 07 September 2020

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

Type: Before 07 September

Title: Policies and measures implemented in the period 2013-2020

Of those policies and measures for which an estimate of the mitigation impact is available, most were implemented before 2013. Which are the main reasons why few additional policies and measures were implemented in the period between 2013 and 2020?

#### Answer by Switzerland

The policies and measures implemented before 2013, e.g. in the framework of the first CO<sub>2</sub> Act, already covered all relevant sectors. For subsequent revisions of the CO<sub>2</sub> Act, policies and measures were not reinvented, but the focus was on improving and strengthening established, widely accepted and successful policies and measures. Switzerland views the continuity of policy measures as essential, not only to improve their acceptance, but also because it takes time for the regulatory incentives to reach the relevant stakeholders and to develop their full effect. Indeed, many policies

and measures were subject to substantial strengthening in the course of the last years. In the following, a few examples are provided (the list is not exhaustive, see chapter 3 of Switzerland's fourth biennial report for more details and further polices and measures):

1. The CO<sub>2</sub> levy on heating and process fuels was introduced in 2008 with an initial rate of 12 Swiss francs per tonne of CO<sub>2</sub>. The legislation defined an automatic increase of the rate to a maximum of 36 (first CO<sub>2</sub> Act) and 120 (second CO<sub>2</sub> Act) Swiss francs per tonne of CO<sub>2</sub> in case CO<sub>2</sub> emissions from heating and process fuels exceed intermediate targets. With the third CO<sub>2</sub> Act, the maximum rate of the CO<sub>2</sub> levy is increased again (to a maximum rate of 210 Swiss francs per tonne of CO<sub>2</sub>), in combination with more stringent intermediate targets for the upcoming years. The current rate of the CO<sub>2</sub> levy is 96 Swiss francs per tonne of CO<sub>2</sub>.
2. The rules applicable within the emissions trading scheme are continuously adapted, ensuring a steadily increasing mitigation impact.
3. The funds available for the national buildings refurbishment programme increased over time.
4. With regard to transport, CO<sub>2</sub> emission regulations for newly registered vehicles become continuously more stringent, while the share of CO<sub>2</sub> emissions from motor fuel use to be compensated by fuel importers increases over time (from two per cent in 2014 to 10 in 2020, with a further increase up to 2030).

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**Question by** Republic of Korea at Monday, 07 September 2020

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

Type: Before 07 September

Title: Projections

1. The reported projection for international transport emissions (calculated separately from the total) in BR4 showed significant changes (21.1% higher for 2020 and 36.4% higher for 2030) than in the previous submission for WEM scenario. Could you please clarify briefly the presumption that such a drastic shift has resulted in?
2. Given that the economy of Switzerland is closely linked to and affected by its neighboring countries (e.g. through power trading and tank (fuel) tourism), how do you view this aspect in longer term GHG projections from sectoral model?
3. Sensitivity analyses were given in Switzerland's BR4. Sensitivity analyses for some of the significant external assumptions, such as GDP, and oil and gas prices, were performed. Could you please explain if the supposed energy price sensitivity is compatible with the observed changes in energy prices?

4. For 2020 and 2030 Switzerland provided sector-by-sector WEM and WAM scenarios (BR4 CTF table 6). Could you please explain why LULUCF contributes significant net positive emissions under both the WEM and WAM scenarios?

#### Answer by Switzerland

1. In previous reports, emissions from international transport were based on a study performed several years ago. The projections for international aviation at that time underestimated substantially the increase in flight movements observed during the most recent years. As described in section 4.3.7 of Switzerland's fourth biennial report, the most recent projections assume a constant growth rate of passenger numbers of 3.2 per cent per year. This growth rate is expected to slow down after about 2027, due to the capacity limits of Swiss airports. This projections was performed before the COVID-19 pandemic and has not yet been revised since. The pandemic might have short-term (2021–2024) and longer-term (2027–2030) consequences on the traffic recovery and therefore also on the emissions from international aviation.
2. As described in section 4.3.1 of Switzerland's fourth biennial report, the differences in fuel prices between Switzerland and neighbouring countries levelled as a consequence of a substantial change in the exchange rate for the Swiss franc to the Euro in January 2015. Therefore, the so-called 'tank tourism' was declining and, for gasoline, ceased completely. In the absence of justifiable estimates for the future exchange rate for the Swiss franc to the Euro, it is assumed that 'tank tourism' remains constant for projected years.
3. The sensitivity analyses represent the expected impact of a "hypothetical" change in energy prices on greenhouse gas emissions on the longer term. The sensitivity analyses did not focus on the emission pathways resulting for a range of plausible values for key underlying assumptions such as energy prices (see section 4.3.9 of Switzerland's fourth biennial report). Relating observed changes in energy prices to observed changes in greenhouse gas emissions would be a difficult task, because other drivers of greenhouse gas emissions can hardly be separated from the impact of energy prices. Moreover, short-term changes in energy prices may not instantly impact greenhouse gas emissions, as e.g. industry, businesses and private households may not be able to swiftly adapt to a new situation with regard to energy prices.
4. The WEM, WOM and WAM scenarios for LULUCF are described in detail on page 89 of Switzerland's fourth biennial report. In brief, under the WEM and WAM scenarios, LULUCF is projected to contribute net emissions because harvesting rates are assumed to increase under these scenarios. Indeed, implemented and planned policies and measures in the LULUCF sector intend to ensure a sustainable forest management, avoiding unstable forests and using the potential sustainable wood supply (see also Tab. 33 on page 112 of Switzerland's fourth biennial report). Overall, in Switzerland, the climate-related goal of forest policy is to adapt forests by increasing resilience to climate change and – taking into account the high growing stock – to reduce CO<sub>2</sub> emissions by substituting other materials or fossil fuels rather than enhancing sink capacity (see section 3.7 and in particular section 3.7.1 of Switzerland's fourth biennial report).

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**Question by** Australia at Monday, 07 September 2020

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

Type: Before 07 September

Title: The CO<sub>2</sub> Ordinance

The CO<sub>2</sub> Ordinance set out sectoral interim targets for emissions in 2015. The 2017 evaluation of progress to these targets noted that transport sector emissions had risen above the sector's target (of 100% of 1990 emissions in 2015). What if any additional measures is Switzerland putting in place to address growing emissions in transport?

**Answer by** Switzerland

Regarding non-compliance with the national sectoral targets, the CO<sub>2</sub> Act does not foresee any sanction mechanisms. However, the current evolution of transport emissions, which is not in line with targets set in the CO<sub>2</sub> Act for this sector, has been considered during the legislation process with regard to the third CO<sub>2</sub> Act, leading to stronger policies and measures for the time after 2020. Importantly, there are sanction mechanisms in place with regard to single policies and measures such as the CO<sub>2</sub> emission regulations for newly registered vehicles and the partial compensation of CO<sub>2</sub> emissions from motor fuel use (see Tab. 12 on page 39 of Switzerland's fourth biennial report).

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**Question by** Australia at Monday, 07 September 2020

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

Type: Before 07 September

Title: Technology Fund

Switzerland's BR4 mentioned the Technology Fund which provides loan guarantees to promote innovative technologies that reduce greenhouse gas emissions and the consumption of resources, support the use of renewable energy and increase energy efficiency. What technologies have received support to date?

**Answer by** Switzerland

The website of the Technology Fund contains detailed information on the conditions and procedures to receive loan guarantees, and on the portfolio with innovative companies that already received a loan guarantee due to their contribution to climate protection:

<https://www.technologyfund.ch>

<https://www.technologyfund.ch/portfolio>

Moreover, the website of the Swiss Federal Office for the Environment ( <https://www.bafu.admin.ch/tech-fund> ) presents annual review reports, e.g. for 2019:

[https://www.bafu.admin.ch/dam/bafu/de/dokumente/klima/fachinfo-daten/zur\\_Veroeffentlichung\\_Jahresbericht\\_2019.pdf](https://www.bafu.admin.ch/dam/bafu/de/dokumente/klima/fachinfo-daten/zur_Veroeffentlichung_Jahresbericht_2019.pdf)

Regarding branches: Mobility, components/sensors, agriculture/forestry and “other sectors” together account for about half of the total loan guarantees. Mobility (16 per cent) includes companies that build electric commercial vehicles or energy-efficient refrigerated containers or develop software for fleet management or tracking of containers or freight railcars. The components/sensors segment (15 per cent) includes companies that offer Internet of Things (IoT) solutions, line monitoring, measurement devices for coating thickness, resource-saving surface treatment, inspection drones or compressors. The companies in the agriculture/forestry category (13 per cent) sell solar-powered water pumps, locally produced shrimps, fish and other food products, drones for optimised fertiliser use, products to promote bee health, and farm management software. For many companies, it is difficult to classify them by sector. They are thus summarized as “Other sectors” (12 per cent). They sell, for example, software for measuring CO<sub>2</sub> emissions, sustainable clothing or CO<sub>2</sub> ratings for securities, stocks and bonds, improved weather forecasts, data and apps on consumer goods (palm oil), online translation services for major events or methods for reducing shipping in online trading.

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**Question by** Australia at Monday, 07 September 2020

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

Type: Before 07 September

Title: Third CO<sub>2</sub> Act

Switzerland’s 4th Biennial Report notes the Third CO<sub>2</sub> Act, due to begin in 2021, was at the time of writing still under debate in Parliament. Has there been any progress on the Third CO<sub>2</sub> Act since the BR4 was written? And if so, have any substantive changes been made to the drafting of the Act?

**Answer by** Switzerland

The third CO<sub>2</sub> Act was passed by parliament on 25 September 2020. It is most likely that – as a consequence of an optional referendum – a popular ballot will take place in 2021 for the final approval by the Swiss people. The third CO<sub>2</sub> Act can therefore come into force in 2022 at the earliest. For 2021, parliament has passed a transitional law which extends the most important instruments of the current CO<sub>2</sub> Act by one year.

Parliament has significantly tightened up the CO<sub>2</sub> Act compared to the Federal Council's proposal as presented in Switzerland's fourth biennial report (as additional policies and measures). For example, an air ticket levy and a climate fund have been introduced. In addition, the proposed measures have also been tightened up in the buildings and transport sectors. The third CO<sub>2</sub> Act as passed by parliament is available in French ( <https://bit.ly/33jPeMT> ), German ( <https://bit.ly/3cU4cfN> ) and Italian ( <https://bit.ly/3kXg6s2> ).

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### Question by Japan at Monday, 07 September 2020

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

Type: Before 07 September

Title: Outreach on policies and measures progress on Climate Change

Japan recognizes that the dissemination of information on the progress of each policy and measure towards achieving the 2020 and 2030 emission reduction targets, as reported in the BR, is very important from the perspective of raising awareness about climate change. Please share any outreach measures you are implementing to publish and communicate the progress of main policies and measures towards the target in 2020 and 2030. Also, if you publish the information online, please provide the URLs of them.

### Answer by Switzerland

Switzerland's legislation process includes strong elements of direct democracy. The Swiss people are ultimately the supreme political authority, i.e. decisions by the Swiss Parliament are subject to optional referendums (federal acts) or mandatory referendums (constitutional amendments) by the Swiss population. Indeed, it is most likely that a ballot will take place in 2021 with regard to the third CO<sub>2</sub> Act (for the period up to 2030). To be ultimately successful, the legislative process thus needs to include public consultation of early drafts of new acts. Accordingly, the responsible federal authorities publish detailed information, e.g. on the ongoing work with regard to the third CO<sub>2</sub> Act on the following website:

<https://www.bafu.admin.ch/bafu/de/home/themen/klima/recht/totalrevision-co2-gesetz.html> .

With regard to the communication of progress of policies and measures towards the target, the respective federal authorities publish, on a regular basis, press releases and assure that updated information is available on the respective website (see e.g. [www.bafu.admin.ch/co2-statistics](http://www.bafu.admin.ch/co2-statistics) and [www.bafu.admin.ch/greenhouse-gas-inventory](http://www.bafu.admin.ch/greenhouse-gas-inventory) ). Concerning single policies and measures, reports summarizing the current state are published on a regular basis. A few examples:

- CO<sub>2</sub> emission regulations for newly registered vehicles:  
<https://www.bfe.admin.ch/bfe/en/home/efficiency/mobility/co2-emission-regulations-for-new-cars-and-light-commercial-vehic.html>

- National buildings refurbishment programme:  
<https://www.dasgebaeudeprogramm.ch/de/publikationen-und-fotos/berichte-und-statistiken>
- CO<sub>2</sub> levy on heating and process fuels:  
<https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate-policy/co2-levy.html>

Of importance for the raising of awareness about climate change are the activities related to the climate programme ( <https://www.bafu.admin.ch/climate-programme> ). Studies focussing on projections of emissions are made publicly available on the following website:  
<https://www.bafu.admin.ch/bafu/en/home/topics/climate/state/data/emission-perspectives.html> .

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**Question by** Japan at Monday, 07 September 2020

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

Type: Before 07 September

Title: Means of implementation for the policy target of increasing wood consumption

Among the WEM, WOM and WAM scenarios for projections of emissions from the LULUCF sector, difference of the harvesting rates are considered. Under the scenario of increasing wood production (WAM), how does Swiss assume to use these increased wood productions in the demand side (usage side)?

**Answer by** Switzerland

The wood that would be available from increasing harvesting rates would be mainly used for long-lived harvested wood products (HWP). The Wood Action Plan describes that wood should be used in an optimised cascade use (if possible wood products and afterwards for energy purposes). Further, the Wood Acton Plan envisages to increase the amount of wood for construction (“climate-appropriate building and refurbishment”). The Wood Action Plan serves the implementation of the Wood Resource Policy (see section 3.7.3 of Switzerland’s fourth biennial report).

It is expected that the demand for energy wood will also increase. With the planned step-by-step phasing out of nuclear energy as part of Switzerland’s Energy Strategy 2050 (see section 4.3.1 of Switzerland’s fourth biennial report), renewable energy sources will play a central role. This is likely to lead to a more intensive use of energy wood and an increase in timber harvesting.

Question by New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: Carbon dioxide levy on heating and process fuels

Switzerland's CO<sub>2</sub> levy on heating and process fuels has had a significant impact on emissions reductions. In Switzerland's BR4, it is stated that companies can qualify for an exemption from the CO<sub>2</sub> levy by establishing binding agreements to reduce their emissions. What penalties do companies face if they fail to reduce emissions to the agreed level?

Answer by Switzerland

As described in Tab. 12 on page 39 of Switzerland's fourth biennial report, companies not fulfilling their negotiated reduction commitments (for exemption from the CO<sub>2</sub> levy) need to pay a sanction of 125 Swiss francs per tonne of CO<sub>2</sub> equivalents that has been emitted in excess. In addition, for the excess tonnes CO<sub>2</sub> equivalents emitted, emission reduction certificates must be surrendered to the Confederation in the following year. The sanction mechanism is stipulated in Article 32 of the CO<sub>2</sub> Act ( <https://www.admin.ch/opc/en/classified-compilation/20091310/index.html#a32> ).

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Question by New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: Linking of the Swiss ETS with the EU ETS

The BR4 notes, 'due to the planned linking of the Swiss emissions trading scheme with the emissions trading scheme of the European Union, the effective reductions of greenhouse gas emissions may be realised outside Switzerland.' Are there any limits on the amount of reductions that can be realised outside Switzerland?

Answer by Switzerland

There are no legal limits on the amount of reductions that can be realised outside Switzerland by companies participating in the emissions trading scheme. However, since the share of freely allocated emissions rights in Switzerland is rather high (up to 95 percent of the cap can be allocated freely to the stationary installations in the emissions trading scheme), there will be limits in the real world. More so, the Swiss Parliament decided that European emissions rights are not considered as mitigation within Switzerland (i.e. European emissions rights cannot be used to fulfil the domestic

target). Combined with a higher domestic target (–37.5 per cent compared to 1990 by 2030), the incentive to reduce emissions within Switzerland is large for the period up to 2030.

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**Question by** New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: Reductions in energy sector

Based on Tab 29, WEM and WAM scenarios for the energy sector shows annual reduction of 6.2 Mt CO<sub>2</sub> eq in 2030 and 6.2 Mt CO<sub>2</sub> eq in 2035. Could we have expected this annual reduction to be larger under the WAM scenario?

**Answer by** Switzerland

As described in section 4.2.2 of Switzerland's fourth biennial report, the additional effect of planned policies and measures between 2030 and 2035 comes from agriculture and F-gases (no planned policies and measures are so far considered for the energy sector). While the Swiss government has formulated long-term targets, the concrete implementation of Switzerland's climate policy, i.e. the revision of the CO<sub>2</sub> Act to put in place updated policies and measures for the upcoming years, usually follows a rhythm of about ten years. Currently, the legislation process for the period up to 2030 is ongoing (see Switzerland's third CO<sub>2</sub> Act in section 3.2.4 of Switzerland's fourth biennial report). Therefore, no additional policies and measures were yet considered in the energy sector for the projections under the WAM scenario after 2030.

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**Question by** New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: National buildings refurbishment programme

Page 52 of the BR4 identifies that the national buildings refurbishment programme can reduce emissions. How has the implementation of this been managed by the cantons, and are there any measures to ensure alignment at the national-level?

## Answer by Switzerland

The cantons receive global contributions from the federal government (funds from the partial earmarking of the CO<sub>2</sub> levy on heating and process fuels) to provide financial support for energy efficiency improvements and the replacement of fossil heating systems. The cantons coordinate their energy-related activities within the scope of the Conference of Cantonal Energy Directors (EnDK). The EnDK is composed of the members of cantonal governments who are in charge of their canton's energy dossier. The Conference of Energy Specialists (EnFK) which deals with technical issues is affiliated to the EnDK. The EnDK has agreed on a set of joint model cantonal provisions in the energy sector (MuKE), i.e. an "overall package" of model energy legislation in the buildings sector jointly developed by the cantons based on their enforcement experience. The aim here is to ensure that the legislation in the 26 cantons relating to energy in buildings can be harmonised to the greatest extent possible. The EnDK together with the federal government has also created a harmonised subsidy model (HFM) which ensures that the subsidy programmes are adjusted to regional conditions, always respecting federal regulations (CO<sub>2</sub> Act, CO<sub>2</sub> Ordinance) and seeking for harmonisation wherever possible. The cantons also receive funds to finance the implementation of the subsidy programmes.

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## Question by New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: Price controls for agricultural products

Can Switzerland provide additional information on the use of controls on the prices of agricultural products to influence emissions from the agricultural sector?

## Answer by Switzerland

Price controls for agricultural products are not applied in Switzerland and this issue is therefore not mentioned in Switzerland's fourth biennial report.

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Question by New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: Information on climate strategy for agriculture

Can Switzerland provide additional information on the guidelines, priorities, and areas of action identified by the climate strategy for agriculture?

Answer by Switzerland

Additional information is available in the English summary of the climate strategy for agriculture attached to the answer to this question.

Attachment: [Swiss climate strategy for agriculture at a glance.pdf](#)

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Question by New Zealand at Monday, 07 September 2020

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

Type: Before 07 September

Title: Achieving the emissions reduction target for agricultural sector

Switzerland's 2050 target for emissions reductions from the agricultural sector is stated as 'at least one-third.' Has Switzerland set any interim objectives or goals towards achieving this long-term target?

Answer by Switzerland

The reduction target set in the climate strategy for agriculture is in fact a linear emission reduction path from 100 per cent in 1990 to 33 to 67 per cent in 2050. Therefore, interim targets can be deduced for any period. However, they are not legally binding since the strategy is rather a declaration of intent. In congruence with the emission reduction path of the climate strategy for agriculture the federal council proposed a mandatory interim target for agricultural emissions of –10 per cent for 2025 compared to 2014/16 (equal to –19 per cent compared to 1990) in its message for the further development of the agricultural policy 2022+, and a mandatory interim target of possibly –20 to –25 per cent for 2030 compared to 1990 in its message for the revision of the CO<sub>2</sub> Act for the period after 2020 (third CO<sub>2</sub> Act). The agricultural policy 2022+ awaits approval by the Swiss parliament. The third CO<sub>2</sub> Act was accepted by the Swiss parliament but will likely have to be



confirmed in a referendum by the Swiss people in 2021 (the final sectoral targets will subsequently be defined in the CO<sub>2</sub> ordinance).

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**Question by** Canada at Monday, 07 September 2020

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

Type: Before 07 September

Title: Transportation: domestic and marine navigation methods

What is Switzerland's approach to separating emissions from domestic and international navigation and what are the main challenges associated with doing this ?

**Answer by** Switzerland

Both domestic and international navigation are of minor importance for Switzerland's total annual emissions. Domestic navigation accounts for 0.11 MtCO<sub>2</sub> eq corresponding to 0.25 per cent of the national total. Emissions reported under international marine bunkers – i.e. from fuels sold within Switzerland but used for international shipping – are 0.02 MtCO<sub>2</sub> eq and thus even smaller. Switzerland's emissions from international marine bunkers result from cross-border activities on the river Rhine (Basel–Rotterdam) as well as on Lake Geneva (bordering France) and Lake Constance (bordering Germany and Austria).

Emissions from domestic navigation are calculated by a Tier 3 method with the non-road transportation model described in section 3.2.4.5.1 of Switzerland's latest national inventory report (see [www.bafu.admin.ch/latest-ghg-inventory](http://www.bafu.admin.ch/latest-ghg-inventory) ). Estimates for fuel consumption by international navigation are based (i) on detailed information by the customs administration available due to an exemption from fuel taxation (Rhine) and (ii) on surveys among the shipping companies since 1995 as well as on passenger data for the years before 1995 (Lake Constance, Lake Geneva). Using a proxy such as passenger data may lead to higher uncertainties, but as marine lake bunkers provided only a minor share of the total international navigation in the early 1990s (about 7 per cent) this approach is justified.

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**Question by Japan at Friday, 04 September 2020**

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

Type: Before 07 September

Title: Assessment of policies and measures

According to page 43 of the BR4, the Swiss Federal Office for the Environment is responsible for monitoring the progress of policies and measures, and the Swiss Federal Audit Office regularly inspects the implementation of policies and measures. What is the difference in roles between the two? Also, we understand that the Swiss Federal Audit Office publishes the results of the evaluations of several key policies as the respective reports, but are the results of the evaluations of all policies and measures published?

**Answer by Switzerland**

Article 40 of the second CO<sub>2</sub> Act requests the Swiss government to periodically evaluate the effectiveness of single policies and measures, and to consider the necessity of additional policies and measures. This evaluation task is fulfilled by the Federal offices responsible for the different policies and measures, as detailed in section 3.1.2 of Switzerland's fourth biennial report. As indicated by the reports cited in the mentioned section of Switzerland's fourth biennial report, the outcome of the evaluations of the different policies and measures is usually made publicly available. Such evaluations are key to estimate the mitigation impacts of policies and measures, but they are also valuable for the further development and strengthening of policies and measures to reach upcoming mitigation targets. In addition to these assessments of policies and measures led by the Swiss government, the Swiss Federal Audit Office – the supreme financial supervisory body of the Swiss Confederation – inspects the implementation of Federal policies and measures according to an annually defined programme (based on a risk analysis and on further criteria such as regularity, legality and economic efficiency). The assessments of the Federal Audit Office are completely independent, as guaranteed by the Federal Audit Office Act (FAOA). For further details regarding the legal mandate of the Swiss Federal Audit Office see <https://www.efk.admin.ch/en/about-us/act.html>.

**Question by China at Friday, 04 September 2020**

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

Type: Before 07 September

Title: Assumptions on projections

According to TRR, Switzerland may face challenge on achieving the 2020 target. Taking considerations of the Covid-19, does Switzerland have any adjustment on the assumptions on its WEM and WAM projections for 2020 and 2030?

## Answer by Switzerland

As all over the world, the COVID-19 pandemic had and still has a major impact in Switzerland. The measures taken by the Swiss government to curb the spread of infections led to a substantial reduction in mobility and economic activities. The effects were most pronounced in March and April 2020, but still clearly noticeable also thereafter. The greenhouse gas inventory which will show greenhouse gas emissions from all sources for the year 2020 will become available in mid-April 2022. In July 2021, the CO<sub>2</sub> statistics will report on CO<sub>2</sub> emissions from fossil fuels in 2020 and provide a first insight on the impact of the pandemic. According to provisional estimates, the decline in fuel sales observed in March to June 2020 resulted in an overall reduction of around one million tonne of CO<sub>2</sub> compared to the emissions observed in most recent years. For buildings, emissions from heating fuels are unlikely to have changed much, while in industry the impact remains to be assessed. This rough estimate indicates that the COVID-19 pandemic led to a short-term reduction of about two per cent of Switzerland's most recent annual greenhouse gas emissions. The long-term impact, in particular up to 2030, remains to be assessed yet. As Switzerland will assess the fulfilment of its quantified economy-wide emission reduction target under the UNFCCC by accounting against its quantified emission limitation or reduction commitment under the second commitment period of the Kyoto Protocol, the reduction of greenhouse gas emissions caused by the COVID-19 pandemic is not expected to have a major impact on the relevant total emissions over the eight years of the second commitment period of the Kyoto Protocol (2013–2020).

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