Session SBI59 (2023)

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A compilation of questions to - and answers by - Netherlands [exported on 02-12-2023] by the UNFCCC secretariat

Question by New Zealand at Saturday, 30 September 2023

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

Type: Before 30 September

Title: Transport and mobility policies

New Zealand noted that the Netherlands transport policies currently include EV targets, emission performance standards, and efficient logistics. New Zealand was also interested to know more about any policies relating to public transport to reduce kilometers travelled by car and their impacts on emissions reductions in the transport sector?

Answer by Netherlands, Monday, 13 November 2023

Although there are no specific national policies to stimulate a shift from cars to public transport, there are several policies that (indirectly) encourages the use of public transport as a means to reduce CO2-emissions. For personal mobility by businesses, the Alternative Travel approach has been in place since 2016. In that approach large companies pledge to (voluntarily) reduce the carbon footprint on business mobility per FTE by 50% in 2030. Best practices are developed and shared (e.g. increased travel-cost reimbursement for cycling to work, issue of a public-transport card, restrictions on (free) parking at the workplace etc). More information on the Alternative Travel approach can be found here: https://www.andersreizen.nu/

Furthermore, the government decided that companies with 100 or more employees are required to report annually on the distances travelled (by modality/fuel, excluding aviation). The first reporting (on the year 2024) is due by June 2025. When reported CO2-emissions do not decline sufficiently to meet the target of 1.5 Mt emission reduction by 2030, the government will introduce emission targets per employer. More information on this reporting obligation and emission target can be found here: https://english.rvo.nl/topics/wpm

The infrastructure for public transportation is also constantly being improved in order to meet the (changing) needs in personal mobility. In the multiannual programme on infrastructure and transport, various national and regional projects are included to improve public transport such as new railroad connections, multi-modal hubs and stations. The government also stimulates cycling as an alternative to cars by further improving the cycling infrastructure (‘bicycle highways’, transfer stations etc). More information on the multiannual national programme can be found here: https://www.mirtoverzicht.nl/ (Dutch only).

The impact on CO2-emissions of these policies individually is not easy to determine, as this depends on the mobility that has been avoided and/or replaced by public transport which are also influenced by other policies and external factors. Increased use of public transport could also increase emissions, depending on the fuels used. In order to track progress on meeting climate targets, the National Climate and Energy Outlook (KEV), annually published by the

Netherlands Environmental Assessment Agency (PBL), assesses the impact of all policy measures on greenhouse gas emissions in an integrated manner. The KEV published in 2023 expects that the emission reduction target of 1.5 Mt CO2 in 2030 for personal mobility companies with 100 or more employees, could be met with the policies measures currently in place (including the ones mentioned above) and those that have been announced in the Spring of 2023 (including policies on electrification, blending biofuels and the introduction of a pay-by-km taxation in 2030). See for more information on the KEV: https://www.pbl.nl/publicaties/klimaat-en-energieverkenning-2023

Question by New Zealand at Saturday, 30 September 2023

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

Type: Before 30 September

Title: Projects funded by the Innovation Fund and Modernisation Fund

The Netherlands noted that funding mechanisms such as the Innovation Fund and Modernisation Fund have been established in the industry and the power sector. Could the Netherlands provide more information on the type of projects in the “Innovation Fund and Modernisation Fund” and the expected impacts on emissions?

Answer by Netherlands, Monday, 13 November 2023

The Modernisation Fund is a programme from the European Union to support 10 Member States to meet 2030 energy targets by helping to modernise energy systems and improve energy efficiency. The Netherlands is not a beneficiary, however. The fund was mentioned as part of the European legislation on the fourth phase of its emission trading scheme (EU ETS).

The Innovation Fund, is the EU fund for climate policy, more specifically for the deployment of net-zero and innovative technologies, with a focus on energy and industry. It is financed from the EU ETS and aims to bring to the market solutions to decarbonise European industry and support its transition to climate neutrality while fostering its competitiveness. Up until now, The Netherlands has been granted 6 projects, and 4 more are being prepared. Most of the (granted) projects involve large scale innovative hydrogen production. Other (smaller) projects involve bio-LNG for shipping, carbon capture, bio-refinery of sugar and electrification of glass wool production. All projects estimated the avoided GHG emissions avoided during the 1st ten years of the operation. The national impact of increasing green hydrogen production in the Netherlands has been estimated in the National Climate and Energy Outlook (KEV) of 2023. It is estimated that the production of green hydrogen grows to 27-40 petajoule by 2030, while the use of green hydrogen results in emission reductions of 1-1.8 Mton CO2 in (primarily) the industry (including refineries). This emission reduction is however

largely offset by a substantial increase of electricity consumption of 15-19 TWh due to green hydrogen production and electrification in end-use sectors, resulting in an increase of 2 Mt of CO2-emissions in the power sector by 2030 compared to the previous KEV of 2022. The impact on CO2-emissions is however highly uncertain as this largely depends on the flexibility of the electrolizers to utilize renewable electricity production, the production from fossil fuels plants and import/export of electricity.

More information on the Innovation Fund projects can be found here: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/innovation-fund-projects_en.

More information on the estimated green hydrogen production can be found in the KEV (2023): https://www.pbl.nl/publicaties/klimaat-en-energieverkenning-2023

Question by Canada at Friday, 29 September 2023

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

Type: Before 30 September

Title: How is atmospheric measurement data considered in your GHG inventory?

Improved measurement technologies in recent years have resulted in the advancement of emissions data derived from atmospheric measurements which can be compared to emissions/removals data reported to the UNFCCC. Could you please share information about how atmospheric measurement data are considered in the development of your GHG inventory, including any plans to incorporate such measurements into inventory methodologies?

Answer by Netherlands, Monday, 13 November 2023

Atmospheric measurement data are currently not actively incorporated in the development of the GHG inventory, but with the rapidly improving temporal and spatial resolution in atmospheric observations the aim is to incorporate such data in the near future for verification purposes. Based on the experience and knowledge gained through active Dutch participation in, amongst others, the AVENGERS project (‘Attributing and Verifying European and National Greenhouse gas and aerosol Emissions and Reconciliation with Statistical bottom-up estimates’), the goal is to include a dedicated annex on atmospheric data and inverse modelling results in the NIR 2027. The AVENGERS project (2023-2026) is a research and innovation project funded under the Horizon Europe programme, which seeks to develop methodologies to make use of improved atmospheric data in national GHG inventory reports through close cooperation between atmospheric scientists and inventory compilers. See for more information: www.avengers-project.eu.

Question by United States of America at Friday, 29 September 2023

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

Type: Before 30 September

Title: National Level Policy Tracking

Can the Netherlands share lessons learned on improvements to the inventory to track impacts of national-level policies like the 2019 National Climate Agreement, noted on p. 13 of the TRR?

Answer by Netherlands, Monday, 13 November 2023

The inventory captures and reflects the overall impact of relevant national-level policies on GHG emissions, but is not actively used to track the impacts of specific individual policies as such. Where relevant the underlying methodological approach is reviewed and improved in order to be able to accurately reflect the emission reduction impact of introduced policies. For example, the policy to simulate the injection of biogas in the natural gas network necessitated adjustments in the existing emission estimations (based on the national energy balance) in order to correctly report the emissions in the national inventory under the relevant memo item, as well as close monitoring of the impact on the natural gas emission factor.

Of particular relevance in regard of tracking policy impacts is the Netherlands Climate and Energy Outlook (Klimaat- en Energieverkenning, KEV), published yearly since 2019 by the Netherlands Environmental Assessment Agency (PBL), which offers an overview of past and projected emission trends and describes the contribution of national climate and energy policies to these developments, as well as estimating progress towards achievement of (inter)national climate goals. The KEV 2023 can be found here: https://www.pbl.nl/publicaties/klimaat-en-energieverkenning-2023.

Another relevant tracking instrument is the Climate Policy Dashboard, which provides information about the progress of national climate policy and the development of GHG emissions in the Netherlands. It provides insight into developments per following sector: Electricity, Built Environment, Industry, Mobility, Agriculture and Land Use. The Dashboard also offers information about developments over a number of cross-sectoral themes such as Energy System or Labor Market & Training. The Climate Policy Monitor (a summary of the information available through the Dashboard) is also incorporated as an Annex in the yearly Climate Memorandum ('Klimaatnota') offered to parliament, as set out in the Climate Law. The Climate Policy Dashboard can be found here: www.dashboardklimaatbeleid.nl/home (Dutch only).

Question by United States of America at Friday, 29 September 2023

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

Type: Before 30 September

Title: Nitric Acid Production

On p. 73 of NC8, the Netherlands notes that the biggest contribution to the significant decrease in N2O emissions is a change in nitric acid production. On pgs. 142 and 146 of the 2023 NIR, it's noted that two plants were closed in 2010 and measures to improve catalytic effect in the remaining plants were put in place to be compliant with the EU ETS. Can the Netherlands share lessons learned regarding the impact of EU ETS compliance on the country's chemical industry?

Answer by Netherlands, Monday, 13 November 2023

In 2008 the Netherlands included N2O emissions from Nitric Acid production in EU ETS as a unilateral opt-in. The allocation of free emission allowances for these N2O emissions was based on a declining Benchmark in the period 2008-2012, anticipating on the benchmark methodology for EU ETS from 2013 onwards (Third emission trading period, 2013-2020). In the first (2005-2007) and second (2008-2012) emission trading period, the allocation of free allowances was by default based on historical emissions (grandfathering). As a result of the applied (declining) benchmark methodology, the inclusion of N2O emissions from nitric acid production into the EU ETS created an incentive to invest in emission reduction. The companies implemented technical measures to reduce the N2O emissions from Nitric Acid production, which reduced these emissions by more than 90%. Therefore the Netherlands considers carbon pricing and emission trading as a feasible and effective instrument to stimulate companies to invest in emission reduction. See for more information on the opt-in: https://climate.ec.europa.eu/system/files/2016-11/decision_n20_nl_en.pdf

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Question by United States of America at Friday, 29 September 2023

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

Type: Before 30 September

Title: Domestic Mitigation Actions

The Netherlands noted in its reporting that it has domestic mitigation actions that are under development including a legislative proposal to facilitate the transition to sustainable alternatives for district heating, as well as a possible subsidy to promote electric taxiing by aircraft. Could you discuss these proposals and any updates to these since your report submission?

Answer by Netherlands, Monday, 13 November 2023

With regard to district heating: the Netherlands has a National Program for Buildings to reduce the greenhouse gas emissions in the building sector (households and services) with 67% in 2030 compared to 1990 and to become climate neutral by 2050. To reach these targets it is key to reduce and - ultimately - phase out the consumption of natural gas which is the dominant fuel to heat buildings in the Netherlands. Various legislative proposals are being developed which stimulates insulation improvements, the use of (hybrid) heat-pumps and/or the expansion of district heating.

More information on the National Program for Buildings can be found here: https://www.volkshuisvestingnederland.nl/onderwerpen/programma-verduurzaming-gebouwde-omgeving/documenten/publicaties/2022/06/01/programma-verduurzaming (Dutch only).

The main legislative proposals which have been in development since the submission and are expected to have a profound impact on district heating are:
- The law that gives municipalities the possibility to phase out natural gas in a neighborhood (Wgiw) has been sent to the parliament. The government has proposed the law to come into force by July 2024: https://www.volkshuisvestingnederland.nl/actueel/nieuws/2023/06/28/wetsvoorstel-wet-gemeentelijke-instrumenten-warmtetransitie-wgiw-ingediend (Dutch only);
- The law collective heat (Wcw). This law is under preparation for the parliament. The law stipulates that the district heating companies shall be public and the law give a big role for the municipalities to decide on new areas for district heating. Also, gradually declining CO2-norms will be included which should lead to zero CO2-emissions by 2050. Foreseen is that the law will come into force by 2025. See for more information: https://www.rijksoverheid.nl/documenten/kamerstukken/2023/07/06/kamerbrief-wet-collectieve-warmtevoorziening (Dutch only);
- The proposal to phase out mono natural gas boilers. The proposal is that a heating system should be without the use of fossil fuels or only us a limited amount of fossil fuels. From 2026 the installation of a new gas-only boiler in an existing building is not allowed anymore. The default technology will be the hybrid heat pump. There are exemptions for buildings that have no good alternative options, like monuments and high-rise buildings. More information can be found here: https://www.rijksoverheid.nl/documenten/kamerstukken/2023/05/01/kamerbrief-over-reikwijdte-normering-verwarmingsinstallaties (Dutch only)
- An investment subsidy for district heating (WIS) has been implemented in 2023, which allows investors to apply for a grant to cover a part of the investment in order to become financially viable. Maximum CO2-norms are part of the conditions, which have been set at 25 kg CO2 per gigajoule delivered heat (ultimately in 2030). See for more information: https://www.rvo.nl/subsidies-financiering/wis (Dutch only)

In order to monitor the CO2-performance of district heating, a reporting requirement for heat companies has been in place since 2020. In 2022, the renewable energy share of the produced heat was almost 38%. The report can be found here: https://www.rvo.nl/sites/default/files/2023-10/Duurzaamheidsrapportage%202022-V2.pdf. See for more information on the reporting requirement: https://www.rvo.nl/onderwerpen/verduurzaming-warmtevoorziening/publicaties-warmte-en-koude/rapportage-duurzaamheid (Dutch only).

With regard to electric taxiing, a first pilot and feasibility study was conducted in 2021. Its aim was to study the impact of air polluting emissions, but the measure would als reduce CO2-emissions. The pilot indicated that electric taxiing had positive impact on reducing emissions, but further research on how to implement this was needed. Therefore, the airport decided in 2022 to scale up the pilot and purchased two electric taxibots. When successful, the program will be expanded. The results of this pilot would also inform the needs for a successful adoption. The airport is developing a roadmap together with other stakeholders, which is foreseen by the end of 2024. The government will then also inform the parliament on the (possible) application of electric taxiing on other major airports.

Question by Japan at Friday, 29 September 2023

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

Type: Before 30 September

Title: CCU technology covered by SDE++

It is mentioned on p.108 of the NC8 that CCU was added in 2021 to SDE++ (Stimulation of Sustainable Energy Production and Climate Transition), which is the government's renewable energy promotion policy. What specific CCU technologies were covered by the SDE++?

Answer by Netherlands, Monday, 13 November 2023

Since 2021, SDE++ subsidies may also be approved for the use of the captured CO2 in greenhouse horticulture in the Netherlands. This avoids the combustion of natural gas for CO2-fertilization of crops. The CO2 may be captured pre- or post-combustion from processes and post-combustion from waste incineration and biomass plants. The CO2 may be transported by pipeline or by truck or ship. An annual declaration must be submitted at the end of every calendar year to demonstrate that the carbon captured has actually been supplied to the greenhouse horticulture sector.

See for more information on the SDE++: https://english.rvo.nl/en/subsidies-financing/sde/features

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Question by Japan at Friday, 29 September 2023

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

Type: Before 30 September

Title: Application of projection results to policy making

According to the projection results provided on p156-157 of the NC8, the emission reduction target of 55% reduction of national total emissions from 1990 level by 2030 will not be reached under any of the "With Existing Measures" (WEM) scenario, the "With Additional Measures" (WAM) scenario, or the "With Scheduled Measures" (WSM) scenario. How are the results of the projections reported in the NC and the BR used in future policy making?

Answer by Netherlands, Monday, 13 November 2023

The projections reported in the NC8/BR5 were from the National Climate and Energy Outlook (KEV) published in 2022, which included policies up to May 2022. Those projections indeed indicated that the 55% emisson reduction target was not within reach. In response to these projections, the government announced an additional package of new policies in June 2023 in order to ensure that target will be met. The recently published updated projections in the KEV 2023, which include an estimation of this new policy package, indicates that an emission reduction of 46-57% could be met. The national emission reduction target of 55% falls therefor now falls within the range of the latest projections. This demonstrates the importance of projections for the policy planning cycle in the Netherlands. The KEV is an yearly assessment made by the Netherlands Environmental Assessment Agency (PBL). More information on the KEV can be found here: https://www.pbl.nl/publicaties/klimaat-en-energieverkenning-2023

Question by Japan at Friday, 29 September 2023

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

Type: Before 30 September

Title: Public review of the inventory

According to p.93 and 96 of the NC8, a public review of the GHG inventory is conducted annually, and it focused on the topic of biomass in 2022. Could the Netherlands tell us who the participants were and what was discussed? Also, how were the results of the public review reflected in the GHG inventory?

Answer by Netherlands, Monday, 13 November 2023

Due to the detailed and technical nature of the inventory, a request is generally first sent out through the contact persons of involved institutions to nominate any contacts with relevant expertise in the particular field of study for that year's public review (but who are themselves not directly involved in the inventory process). In addition, an open invitation is also sent to a number of known experts in the relevant field and any experts that previously engaged with the NIR (e.g. in past peer reviews). This usually results in participation of experts such as from Statistics Netherlands (CBS), the Dutch Emission Authority (NEa) and the Netherlands Enterprise Agency (RVO). The preferred format is a commenting round in writing. Possible areas of interest are the completeness of emission estimates, the use of the best available activity data and proper documentation of the sources, emission factors and calculation methods were highlighted to participants beforehand, but all participants are encouraged to provide in writing any comments and observations they may have. Received comments are shared with the writers of the sector/chapter under review. Depending on the type of comment, some of these results are incorporated right away (e.g suggestions for minor editorial improvements or corrections in the tables related to biofuels) while others may take longer to implement or are not deemed to be applicable (but a brief explanation/justification should be provided by the writer). Recommendations for improvements from the public review are collated and maintained within an overarching NIR issue list, which allows for tracking the implementation of recommended improvements from different sources over a longer period of time.

A main finding from the public review in 2022 (on biomassa) was the difficulty for 'outsiders' (i.e. experts not directly involved in or familiar with the inventory process) that might face in tracking the topic of biomass throughout the relevant sections in the NIR and accompanying methodology reports, which resulted in recommendations to improve the overall legibility of the text over the coming years through clearer referencing, introductory texts and summary tables.

Question by Australia at Thursday, 28 September 2023

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

Type: Before 30 September

Title: Submitted Question #2

We understand the Netherlands has an innovative scheme, the ‘Stimulation of Sustainable Energy Production and Climate Transition’ (SDE++) plan, to support greenhouse gas emission reductions from renewable energy, low-carbon heat, CCU/CCS, hydrogen and

renewable transport fuels. **Can the Netherlands provide an update on the uptake of CCU and transport fuels under the SDE++ scheme since 2021, when these were added as eligible activities?**

Answer by Netherlands, Monday, 13 November 2023

Since 2021, both CCU (in horticulture) and advanced renewable fuels are eligible for a SDE++ subsidy. Up until 2023, 57 applications were received for CCU, of which 19 have been granted so far (decisions on the applications for 2023 are still pending). The budget claimed by the granted applications amounts to 1,163 mln euros and will reduce nearly 0.7 Mt CO2 per year. Only one application has been received for advanced renewable fuels (in 2021).

Question by Australia at Thursday, 28 September 2023

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

Type: Before 30 September

Title: Submitted Question.

The Netherlands' National Communication discusses the development of a Green and Digital Jobs Action Plan to help reduce labour shortages in technical sectors and ICT. **Can the Netherlands please provide examples of initiatives or plans under the program aimed at increasing the supply of workers with climate-related expertise?**

Answer by Netherlands, Monday, 13 November 2023

The issue of workforce shortages in the green and digital transition is complex and requires targeted and more far-reaching policy. A solution to reduce labour shortages requires cooperation between employers, workers, education and governments. The Green and Digital Jobs Action Plan is therefore a coherent package of initiatives of the employers, educational institutions and governments. The Action Plan is a package of measures that require action from the various parties on the following 4 pillars. 1) increasing the inflow in education on science, technology, engineering and/or mathematics, 2) increasing the inflow and retention of technical personnel in the labor market 3) focusing on productivity growth through the use of (process) innovations and digitalization and 4) strengthening governance and reducing fragmentation. The Action Plan focuses on flexible and modular education through the program 'Scaling up public-private partnerships in vocational education'. In this program, the government will invest 123 million euros in regional public-private partnerships in the coming years to further improve the connection between vocational education and the labour market.

In addition, the National Growth Fund (NGF) will invest 352 million euros in more science and technology education in primary and secondary schools in the coming years. By allocating these NFG-resources, the Dutch government aims to boost science and technology education, in addition to existing programs such as Strong Technology Education and the Regional Investment funds. Furthermore, the Dutch Government is exploring options for using current generic labor market measures in a more targeted manner for crucial social sectors (such as jobs for the climate transition). Some options being considered focus on providing a training budget and learning rights for every individual.

More information on the Green and Digital Jobs Action Plan can be found here (Dutch only): https://www.rijksoverheid.nl/documenten/kamerstukken/2023/02/03/inzet-op-arbeidsmarktkrapte-in-de-klimaat-en-digitale-transitie-het-actieplan-groene-en-digitale-banen and https://www.rijksoverheid.nl/documenten/kamerstukken/2022/07/15/inzet-op-arbeidsmarktkrapte-voor-de-klimaat-en-digitale-transitie

More information on the regional public-private partnerships can be found here (Dutch only): https://www.rijksoverheid.nl/documenten/kamerstukken/2023/07/14/toekenning-opschaling-15-publiek-private-samenwerkingen-in-het-beroepsonderwijs

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Question by United Kingdom of Great Britain and Northern Ireland at Friday, 22 September 2023

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

Type: Before 30 September

Title: Question to the Netherlands on Green Deal programme

Thank you, Netherlands, for the opportunity to comment on your 5th Biennial Report and 8th National Communication. We'd like to congratulate your ongoing success in stimulating sustainable economic growth through the Green Deal programme. You mention in your report that this programme does not measure CO_2 reduction of energy saved or produced. Can you provide more information on the type of data being collected to measure success?

Answer by Netherlands, Monday, 13 November 2023

The Green Deals-approach intends to resolve obstacles experienced by stakeholders in their effort to increase sustainable economic growth. These obstacles can relate to many kinds of issues, like difficulties to acquiring permits, lack of cooperation, legislative issues etc. The monitoring of Green Deals is therefore focused on the categorisation and progress of the

activities agreed in the Green Deals. This is mostly qualitative information. The impact (on emissions for example) after resolving the obstacle is not monitored as impacts are usually influenced by many other policies and external factors. To track progress on meeting (inter)national climate targets, the National Climate and Energy Outlook (KEV), annually published by the Netherlands Environmental Assessment Agency (PBL), assesses the impact of all policy measures on greenhouse gas emissions in an integrated manner. This also avoids double counting of interacting policies.

However, specific Green Deals can have agreements on quantified results and monitoring. For example, Green Deals on marine waste reduction included quantified targets on the reduction of amount of waste (from seafaring vessels) and the amount of waste to be recycled. Another example is the Green Deal on the sales of electric vehicles. In such instances, data is collected in order to monitor and evaluate the progress.

More information on the Green deal approach and the deals themselves can be found here: https://www.greendeals.nl/ (Dutch only)

A policy evaluation of the green deal approach in 2016 can be found here: https://www.greendeals.nl/sites/default/files/2022-02/Evaluation%20Green%20Deals%20KWINK%202016-%20summary-%20EN.pdf (English summary)

More information on the KEV can be found here: https://www.pbl.nl/publicaties/klimaat-en-energieverkenning-2023

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Session closes at 30-11-2023

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