National Audit Office of Finland
Audit report
D/705/04.09.02/2023

Knowledge base of climate policy (16/2025)

Conclusions and recommendations of the National Audit Office

The climate policy planning system referred to in the Climate Act consists of four different plans. The audit assessed the knowledge base of two plans: the Medium-term Climate Plan (KAISU) and the Climate Plan for the Land Use Sector (MISU). The knowledge base of the Long-term Climate Plan and the National Climate Change Adaptation Plan was not assessed due to their different purposes and timing. Additionally, the audit assessed the knowledge base of the Energy and climate strategy to be prepared in parallel with the KAISU and MISU plans. The objective was to determine if the knowledge base creates preconditions for achieving the emission targets laid down in the Climate Act and if it supports the realisation of cost-effective climate policy.

According to the emission targets set in the Climate Act, Finland should achieve carbon neutrality, or balance between emissions and carbon sinks, in 2035. The Act also sets targets for reducing total emissions for 2030 and 2040. Finland is additionally committed to the EU's sector-specific emission targets.

The planning system laid down in the Climate Act does not guarantee that the targets set in the Act will be achieved

During Prime Minister Marin's government term, the climate policy plans were prepared in compliance with the new Climate Act, which was currently being drafted, and they met the obligations laid down in the Act. The Medium-term Climate Plan (KAISU), the Climate Plan for the Land Use Sector (MISU) and the Energy and climate strategy published in 2022 set sector-specific targets that were in line with the Climate Act targets. However, the scenario calculations indicate that the emissions reduction measures decided in the plans were not quite adequate for achieving the Climate Act targets.

In spring 2022, the proxy estimate data of the greenhouse gas inventory pointed to a significant change in the situational picture of the land use sector as the carbon sink of the previous calculations for this sector became an emission source. The Ministry of Agriculture and Forestry could have addressed the change in the Climate Plan for the Land Use Sector, for example as a justification for drafting an update of this plan in keeping with the updated situational picture during the next government term. During Prime Minister Orpo's government term, the updated situational picture of the land use sector has not led to changes

in the target set for this sector of increasing the carbon sink by 3 million tonnes of carbon dioxide equivalent. Pursuant to the Climate Act, the Climate Plan for the Land Use Sector can be updated during each government term, and had a plan also been drafted during the Prime Minister Orpo's government term, this would have made it possible to address the changed situational picture in the target set for the land use sector.

Efforts to attain the carbon neutrality target have not guided the drafting of climate policy plans and decisions on climate action during Prime Minister Orpo's government term to a significant degree. While achieving the carbon neutrality target has been set down in the Government Programme, the programme also contains entries that are inconsistent with this target. The ministerial working group on clean energy, the environment and security of supply (PEYH) had access to information indicating that the preliminary decisions it made in the drafting phase will not lead to the achievement of the carbon neutrality target or the EU target for the land use sector. However, this has not resulted in any new decisions on climate action.

The targets in the climate policy plans and those set for the different emission sectors (effort sharing, emissions trading and land use sectors) have not been coordinated. The sum total of the targets set for individual sectors, even if they were attained, will not lead to carbon neutrality in 2035. The measures of the first versions of the Medium-term Climate Plan and the Energy and climate strategy are also inadequate to achieve the carbon neutrality target, with a significant shortfall.

Based on emissions reduction estimates, the EU target for 2030 in the effort sharing sector will be achieved with the measures selected for inclusion in the Medium-term Climate Plan. The EU's 2030 target for the land use sector will not be achieved, however. The preparation of measures for the land use sector has been guided by the target of reducing emissions in this sector by 3 million tonnes. This target was based on the outdated knowledge base of the Climate Plan for the Land Use Sector, which was published during Prime Minister Marin's government term. However, achieving this target will not be sufficient to attain the EU target for the land use sector, nor will it contribute sufficiently to attaining the carbon neutrality target.

The results of scenario modelling and emission measures inventory should be available for government formation talks

The climate policy plans are completed at a late stage of the government term, and very little time remains for implementing them. The production of the WEM (With Existing Measures) scenario, which describes the current state of emission trends, and an inventory of potential emissions reduction measures by public officials are only prepared at the beginning of the government term, which is not appropriate. If the WEM modelling and inventory of measures were already prepared before the beginning of the government term, an up-to-date knowledge base could already be used in the government programme talks. This way, the

drafting of climate plans could start earlier than today, based on policies set out in the Government Programme.

An inventory of emissions reduction measures published by public officials would help to separate political decision-making from preparation carried out as part of official duties more clearly. While plenty of information on emissions reduction measures already exists, commensurable information is not comprehensively available even for decision-makers, let alone openly. Many climate measures are eliminated on political grounds during the preparatory work carried out by public servants even before the decision-making phase, and the documents underpinning the decisions do not provide a comprehensive overview of climate action as a whole. A similar approach could be taken in the inventory of emissions reduction measures as in the Ministry of Finance's tax and spending review, consequently producing up-to-date and non-technical information on the range of climate measures around every four years before the government programme talks.

Information on individual emissions reduction measures is inadequate to support decision-making

A list of various climate measures and their impact assessments compiled under the leadership of the Ministry of Economic Affairs and Employment has made up a central part of the knowledge base for decision-making. Estimates of emission impacts and costs are central in the knowledge base for individual climate measures. While the emission impacts of individual measures cannot be added up, the estimates make it easier to compare the measures and help to perceive the adequacy of the measures for achieving the emission targets. There are differences between the ministries in how broadly the impacts of the measures have been assessed. Having access to information on both the emission impacts and costs at the early stages of preparation and following uniform practices in information production in all sectors would be preconditions for comparing climate actions from the perspective of cost-effectiveness.

The knowledge base used during Prime Minister Orpo's government term does not make it possible to select climate measures on the basis of their cost-effectiveness. The most significant decisions on climate action relied on the knowledge base of spring 2024, which included a list of individual climate measures and their impact assessments jointly prepared by the ministries, as well as the results of the WEM scenario modelling. In spring 2024, little information on the emission impacts of the measures was available, and no data on cost-effectiveness had been collected. While the knowledge base was supplemented during the process, this had little impact on the selection of measures. An emissions reduction inventory based on public officials' work published before the beginning of the government term could lend better support for compiling a comprehensive knowledge base and enable its timely use in decision-making.

Assessing the impact of climate action can be challenging. Some of the measures have been presented vaguely or in form of targets, in which case there may be no credible steering instruments for achieving the targets. Taking such measures into account in the scenario modelling is also difficult. The selection of climate measures as a whole does not change significantly from one parliamentary

term to the next, which has made it possible to use information gathered during previous parliamentary terms in the impact assessments. However, impact assessments may become outdated for many reasons, which is why continuous updates and systematic information collection would improve the quality of the knowledge base.

Scenario modelling should be developed to provide better support for decision-making

Emission and removal scenarios are produced as part of the climate planning system. The methods and underlying assumptions used in scenario modelling are not fully consistent, and they do not support the reliability and comprehensiveness of the knowledge base. The land use and other emission sectors have different interpretations of which measures should be included in the With Existing Measures (WEM) scenarios. Variations in defining the scenarios weaken the situational picture based on scenario calculations of how much the net emissions reductions should be increased to achieve the targets set in the Climate Act. A correct situational picture is essential when drawing up climate policy plans.

In scenario modelling, the total roundwood removal from forests is based on predictions of timber use derived from market forecasts for forest industry products. This limits the modelling framework's ability to produce impact assessments of climate measures that would limit the roundwood removal. The modelling framework is also technically poorly suited for modelling the effects of climate measures on roundwood removal. This is problematic as implementing climate measures that restrict felling is an effective way of reducing net emissions in the short and medium term.

The scenarios and impact assessments resulting from the modelling involve uncertainty that has not been systematically addressed in scenario calculations or assessment of the emissions gap. This poses the risk of inadequate climate action in relation to the Climate Act targets.

Due to its slowness and timing, scenario modelling does not play a significant role in the selection of climate measures. The first modelling results concerning the trend in total emissions with the set of measures selected for further preparation were presented to the ministerial working group on clean energy, the environment and security of supply in early 2025. The idea was to support final decision-making. However, no alternative modelling results were produced for the ministerial working group on the basis of which the trends in total emissions could have been outlined with slightly different selections of measures or by resizing the scale of the selected measures in different ways.

The quality of the models on which climate policy preparation relies is mainly high, considering the complexity of the relevant phenomena, but there are shortcomings in the documentation and coordination of the modelling. This makes it difficult to understand the scenarios as a whole and the significance of different factors for the end result, which is why the information is not optimally usable for decision-makers.

Recommendations of the National Audit Office

1. The Ministry of the Environment, Ministry of Economic Affairs and Employment and Ministry of Agriculture and Forestry should work together to ensure that targets are set for different sectors in the climate policy plans and to promote target coordination in preparatory work, ensuring that the combined targets for the emissions trading and land use sectors lead to the achievement of the carbon neutrality target in 2035 and that the sector-specific targets are in line with the EU emission targets. To promote their coordination, the Medium-term Climate Plan and the Climate Plan for the Land Use Sector should be prepared concurrently during each parliamentary term.
2. The Ministry of the Environment, Ministry of Economic Affairs and Employment, Ministry of Agriculture and Forestry, Ministry of Finance and Ministry of Transport and Communications should ensure that the following are available for government programme talks:
   - scenario modelling (WEM, With Existing Measures) that describes the current trends in emissions
   - a public inventory of climate measures and their impacts on emissions and costs, which is produced by public officials and by engaging experts.
3. The Ministry of the Environment, Ministry of Economic Affairs and Employment, Ministry of Agriculture and Forestry, Ministry of Finance and Ministry of Transport and Communications should see to the appropriateness of the scenario modelling and the impact assessment of climate measures by ensuring that
   - WEM scenarios are defined consistently in the different sectors
   - the modelling framework can also be applied to assessing climate action affecting fellings
   - permanent resources are allocated to scenario modelling that supports decision-making.