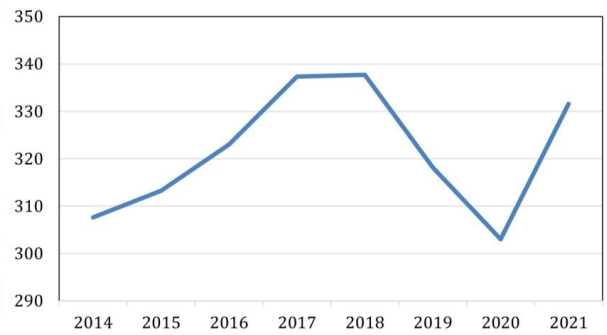
*Audit results of the Strategic project Forests carbon farms*

NIK audited the implementation of a strategic pilotage project *Forests carbon farms* to verify its performance and check if the funds were spent efficiently during its implementation by the General Directorate of State Forests, if it enabled obtaining the best outcomes and if forests divisions correctly and reliably planned and performed their activities included in the project.
NIK audited activities of the Minister of Climate and Environment, the General Directorate of State Forests and 12 out of 25 forest divisions implementing the pilotage *Forests carbon farms* project (out of 429 total divisions in Poland). The audit covered the first phase of project implementation in the years 2017-2023.

The 2030 National Environmental Policy Development Strategy in the Area of the Environment and Water Management adopted in 2019, among others, provided for climate change mitigation through effective reduction of the GHG concentrations in the atmosphere, carbon dioxide concentration reduction and sequestering carbon by forests through further implementation of the project: *Forests carbon farms*, which started in 2017.

Solutions and technologies aimed at carbon dioxide absorption are one of many climate change mitigation activities. Forests play a crucial role in natural $CO^2$ absorption from the atmosphere. In 2021, in Poland forests absorbed a total of 22,2 million tonnes of $CO^2$, accounting for almost 7 % of total national emissions and the value corresponded with the average EU indicator in 2019.

Graph
Annual $CO^2$ emissions in Poland (million tonnes)



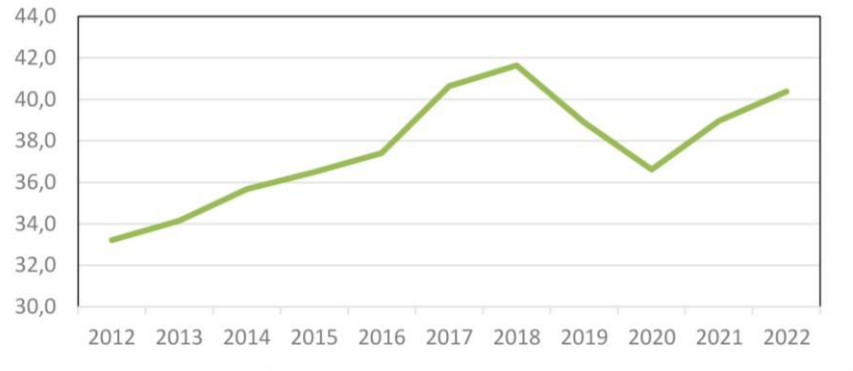

Based on Small statistical yearbooks of Poland 2017-2023 Statistics Poland

Activities undertaken in the selected 23 forest districts were supposed to contribute to the increase of $CO^2$ absorbed by forest ecosystems.
The assumption of the project was to initiate its performance in the years 2017-2026 including activities additional to regular forests management, such as: increasing space of selected areas with underplanting and understorey, use of additional seedlings, reforestation by natural seeding. The remaining additional activities aimed at capturing additional amounts of organic carbon in selected

forest districts or progressive storage of cumulative carbon in the raw wood stored in woodyards for energetic purposes.
Initially, it was intended to create a network of such woodyards in state managed forests in order to store huge amounts of raw wood, which remained after extreme weather events such as winds or hurricanes, more frequent due to climate change. However, NIK stated that none of the post hurricane woodyards were created and, as a result of changes regarding timber turnover regulations the idea was abandoned. It was also assumed that the experimental introduction of a national system of domestic $CO^2$ emissions trading certificates into the market as a result of additional activities in forestry, could allow the entities included in the EU ETS system to purchase units of captured emissions in the years 2017-2020, which would then allow them to meet emission reduction targets resulting from the EU climate regulations. However, the idea has not gained interest neither from the EU policy makers nor from the entities and was discontinued. Also no legal basis for this alternative to the EU ETS was ever created.
State Forests' regulation on *Forests carbon farms* was modified and differently defined as "additional activities" describing them as forests management activities overlapping with the standard procedures adopted in the given locations and circumstances or activities not covered by the binding forests management plan, that were aimed at capturing additional amounts of $CO^2$ along the prognosed implementation phase. Also, the purposes of additional activities of project *Forest carbon farms* were modified as follows: obtaining additional amounts of biomass possible for acquisition for future sale and supply in order to store additional amounts of carbon and reduce greenhouse gases emissions (incl. carbon dioxide) from lands.
NIK stated that the two above project purposes were contradictory. The assumption that biomass, including trees planted to absorb $CO^2$ was to be removed later, means that it should be expected that this would result in a reduction in $CO^2$ absorption, which may reset the activities taken to store additional amounts of organic carbon in this biomass.
Moreover, since the utility value of trees planted in this project would be lower than that of trees planted as a result of the standard forests' management, supposedly, the wood would not be intended for the production of furniture or other wood products, but used as fuel for energetic purposes. This would quickly result in significant increase of $CO^2$ emissions stored in these trees for many years.
According to the NIK audit results, the outcome of *Carbon forest farms* and its continuation: the development project called *Carbon Forest*, had no real impact on the increase of $CO^2$ emission reductions. Annual national average $CO^2$ emissions were approx. 325,6 million tonnes, while basic project outcome was only 1,006 million ton of $CO^2$, and accordingly with later prognosis revaluations, in April 2023 dropped to 0,929 million tonnes of $CO^2$. Prognosed outcome of the project

planned for 30 year implementation (2017-2046) was an additional value of captured $CO^2$. The value was calculated by Forests Research Institute with the use of specialised software (so called Canadian model CBM-CFS3) ordered in the form of two research services. For calculations, the services used data bases which included: species, age, space of forests divisions, type of treatment, area of treatment, growing stock curve.
Implementing the current research results into the used algorithm resulted in a smaller planed project outcome. The amount of additionally captured $CO^2$ calculated with the use of the above method would not have noticeable impact on national $CO^2$ emissions reduction. The assumed $CO^2$ compensation of approx. 0,031 million tonnes $CO^2$ annually was more than a thousand times lower than emissions of just one power plant Bełchatów[1] (38 million tonnes) and less than 0,1 per mile of total national $CO^2$ emissions in Poland, that was 331,6 million tonnes of $CO^2$ in 2021.

Graph
Timber harvesting in forests managed by State Forests in Poland (million cubic meters)




Based on Forestry statistical yearbooks of 2017-2023 Statistics of Poland

At the same time, State Forests in every year of the project implementation increased tree harvesting. NIK stated that the real purpose of the project was solely to improve the State Forests' image through greenwashing forest cutting, to create the illusion that the company mitigated climate change and to distract the public opinion from robbery deforestation.

NIK stated that a much more efficient activity intended to reduce $CO^2$ emissions would be increasing forest areas and limiting tree harvesting, especially that intended for biomass purposes, which could further reduce final $CO^2$ emissions.
Besides greenwashing the image of State Forests and of the involved entities co-financing some project activities, it only marginally contributed to real solutions resulting from excessive $CO^2$ emissions in Poland.

[1] https://en.wikipedia.org/wiki/Be%C5%82chat%C3%B3w_Power_Station

The NIK audit revealed that in 2017–2023 research project expenditures of 65,5 million PLN (approx. 15 million euro) were used inefficiently and the results of the main objective of project implementation, i.e. increasing carbon dioxide absorption by forests, had insignificant impact on increasing $CO^2$ emission reduction**.**

The activities carried out within it were, on the one hand, supposed to lead to storage of additional amounts of organic carbon in forests from $CO^2$ absorption, and on the other hand, they were to be used to obtain additional biomass that could be obtained and sold, which, if used for energy purposes, would result in the emission of previously absorbed $CO^2$.

Project *Forest Carbon Farms* was improperly prepared: expected expenses that would be incurred for its implementation were not specified, and they were estimated only in 2023, during the NIK's audit, and their amount was set at PLN 78.6 million.

The missing financial plan of the Project was not conducive for the effective use of funds due to resulting limitations in the ability to effectively control expenses and focus them on achieving the main objective of the Project, including the increase in the amount of CO2 absorbed by the forest ecosystem.

The minister responsible for the environment did not exercise reliable supervision over the planning and implementation of the Forest Carbon Farms project.

He did not ensure sufficient influence on the preparation and implementation of the project by the Director General of the State Forests, even though, according to the strategy of responsible development in Poland, the Ministry of the Environment was responsible for its preparation and implementation, and the Minister was responsible for supervising the State Forests and forest management in the divisions where the Project was implemented.

The Minister did not undertake any activity to obtain a reliably estimated budget of the project budget from the Director General of the State Forests, which limited his ability to supervise expenditures intended for its implementation.

The Minister's supervision over State Forests during the project implementation was insufficient and limited to accepting only periodic reports, but without sufficiently thorough analysis of the data contained therein, which, as NIK's audit proved, turned out to be unreliable.

In the area of nearly 1/3 of all forest divisions included in project Carbon Farms, State Forests conducted activities that did not contribute to achieving the main purpose of the project, which was increasing the amount of CO2 absorbed by the forest ecosystem, because the forecasted additional amount of CO2 to be absorbed over 30 years was either a negative value or equal to zero. This meant that their implementation in these divisions in fact brought results of reduced CO2 absorption compared to regular activities without the project implementation (when reductions would be higher), or it could not produce any positive additional effect of carbon dioxide absorption.

Continuation of the so-called additional activities' that projected effects (forecasted in 2018) indicated for their non-compliance with the objectives of the project was unjustified, as were further expenditures for those activities within the project.

State Forests' failure to accurately select both forest divisions for project implementation and exact activities specified for them, as well as failure to make appropriate corrections in this regard during the project progress, made the estimated final outcome unreliable.

Information contained in periodic progress reports in 2019–2023 (1st half) submitted by State Forests Director General to the Minister of Climate and Environment were not consistent with the actual situation in terms of both the amount of incurred costs, the degree of implementation of individual activities, as well as the achieved results. State Forests monitored the project's progress in an unreliable manner, and some reporting documents were prepared only during the NIK audit, including State Forests internal regulations specifying the assumptions and implementation rules.

The forest districts participating in the project performed their tasks in accordance with the adopted assumptions, prudently using allocated funds. By the end of 2022, they carried out activities in approximately 76% of the area covered by the project in 2017–2024.

Initially, forest divisions carried out their activities only on the basis of arrangements with the State Forests Director General, without information on their projected impact on the environment, including the amount of CO2 absorption, because the application enabling development of individual tasks under the Project was made available to forest districts only in September 2018.

However, in more than half of the forest districts, cases of late submission of annual progress reports were found as well as cases of unreliable reporting of data, including understatements of incurred costs.