Policy Brief
Impact evaluation of the development projects under the Catch the carbon Programme

PTT gaia PART OF SWECO

Catch the carbon

CLIMATE SOLUTIONS IN THE LAND USE SECTOR

What did we do?

Gaia Consulting Ltd and Pellervo Eco-nomic Research PTT evaluated 90 Catch the carbon (Hiilestä kiinni) development projects. The evaluation was commissioned by the Ministry of Agriculture and Forestry of Finland and carried out between October 2022 and April 2023.

What are the development projects?

The Catch the carbon programme consists of multiple measures and projects related to the land use sector climate solutions. The project funding has been targeted at practical applications of climate impacts mitigation and adaptation in the land use sector with the aim of practical climate impact and increase of knowledge base for climate actions. The Catch the carbon programme was launched in early 2020 in conjunction with the Prime Minister Marin Government programme.

During the Prime Minister Marin government term (2020-2023), approximately €100 million has been assigned for the implementation of land use sector measures in the State Budget, to support the achievement of Finland's 2035 carbon neutrality target.

More than half of the budget has been spent on research projects and practical development projects related to climate action in the land use sector. The evaluated development projects have been funded by approximately €33 million.

Impact pathway analysis as evaluation tool

To analyse how the projects were positioned in the axis of the practicality of the results, an **impact pathway framework** was developed in the evaluation. The development projects were divided into 7 different categories (see Figure 1 below), according to their content and intended results. The position on the impact pathway was assessed through project documentation, interviews, a questionnaire, and workshops with the project leaders.

Preparation		Acceleration		Progression	Final stretch	
1. Applied research and modelling	**2. Studies and development reviews**	**3. Methodology development**	**4. Evaluation of methods**	**5. Experiments and piloting**	**6. Indirect influencing of decision-making**	**7. Direct influence on decision-making**
Objective: To apply basic research to a specific object/ subject for the production of new knowledge, using the methods of academic research. Produces fuel for further studies. **Characteristics:** Scientific publications and articles	**Objective:** To answer specific questions or aggregate information. A report, not a new scientific study. **Characteristics:** Study reports, preliminary studies, development reports. Studies based mainly on existing data.	**Objective:** To produce a concrete possible way to achieve emission reductions / carbon removal / adaptation. The development of a new method, e.g. on the basis of research data. **Characteristics:** Developing a new methodology that can be used to achieve Catch the Carbon goals.	**Objective:** To evaluate the methodology and the corresponding impacts and feasibility. **Characteristics:** Not developing a new methodology, but evaluating or comparing existing methods and/or their effectiveness.	**Objective:** Planning and testing the implementation (of the new methodology), possibly disseminating results and demonstrating information. **Characteristics:** Concrete pilots, experiments and demonstrations, e.g. on pilot farms where a new method is being tested.	**Objective:** To prepare for implementation: advisory services, training organisations, indirect communication. **Characteristics:** The aim is to indirectly influence, for example, the decision-making of land/forest owners through organisations and advisory services. Also education of service providers.	**Objective:** To communicate with land/forest owners and other decision-makers, or to influence central/city government decision-making, e.g. to inform the state preparation of support policies, or preparation of normative guidance **Characteristics:** Direct communication to reach the decision-maker.
Prerequisites for impact: Relevant topic, utilising the results on the impact path.	Relevant topic, utilising the results on the impact path.	The method actually has enough desired effects, no (negative) side effects and is cost-effective.	Broad-based assessment of which the best methods are selected to proceed.	Appropriate testing, adequate demonstration, sufficiently low-threshold experiments (enough interested forward-takers).	Reaching the right parties, influencing those with sufficient ability to influence the implementing parties (especially land-/forest owners).	Reaching the implementers (especially land-/forest owners), influencing with the means that bring about change, creating change.

Figure 1. Impact pathway framework

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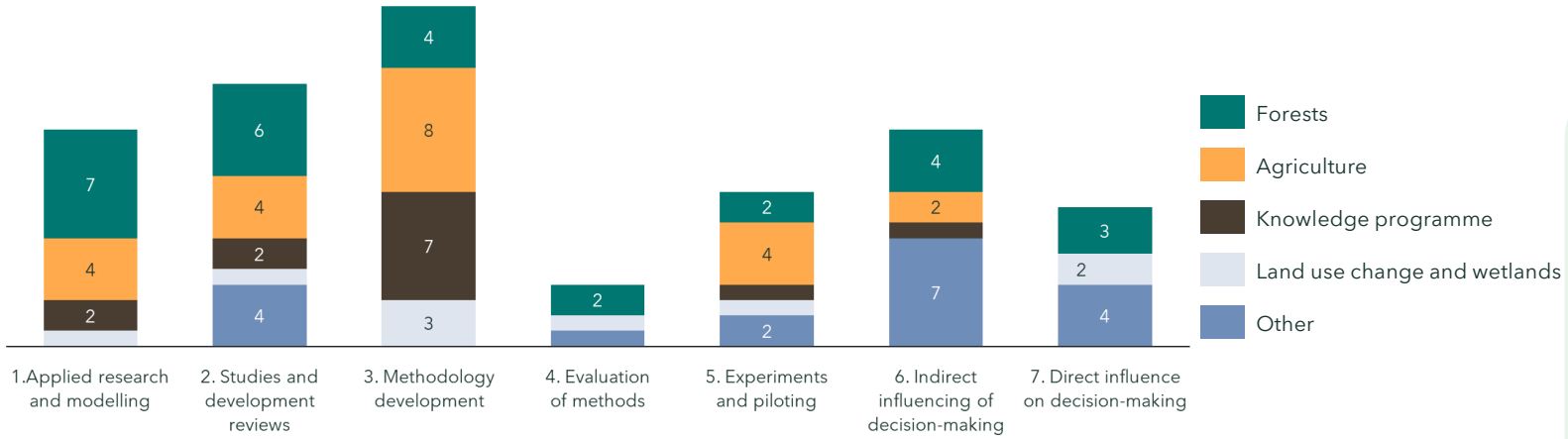

Figure 2. The primary position of the 90 evaluated development projects on the impact pathway (by number of projects), divided into different project themes

Figure 2 presents the projects according to their main theme on the impact pathway.

Key findings of the evaluation

Many of the evaluated projects which were funded by the open calls were found to support the idea of practical development very well. Central ways to take results towards practical use included support for land/forest owners through service providers, bringing in the companies with whom agricultural producers have agreements, and achieving changes in state level land use agreements to support wood construction.

Of the 90 projects evaluated, 66 projects were estimated to contribute to at least one measure in Finland's Climate Plan for the Land Use Sector.

The project implementers estimated a high potential climate impact for most of the projects. The realization of the results is however uncertain and will require further efforts to materialize.

The project coordination and guidance of the program were appraised by project leaders.

The government programme of Prime Minister Marin (2019-2023) aimed to make Finland carbon neutral by 2035 and carbon negative rapidly thereafter. The land use sector was more closely integrated into the design and implementation of national climate and energy policies during this government term. The target net effect of additional climate change mitigation measures in agriculture, forestry and other land use is at least 3 million tonnes of CO2e per year by 2035.

Catch the carbon programme is coordinated by the Ministry of Agriculture and Forestry of Finland.

In total, there are over 100 development projects, of which 90 projects have been evaluated. The funded development projects need to be based on scientific evidence and developed in extensive cooperation with stakeholders.

Development projects have been funded through two open calls for proposals. In addition, projects have been launched through direct procurement and competitive tendering.

The funded projects were guided by Steering Groups and/or appointed Ministry staff members. Also a project group was appointed from Ministry staff to coordinate the programme as a whole.

Project funding has been targeted at climate impacts in the land use sector. Each development projects targets at least one of these goals:
- enhancing carbon sinks and storages
- reducing greenhouse gas emissions
- enhancing adaptation to climate change, and
- broadening the knowledge base on land use sector climate issues.

Some room for improvement was found, too:

- First steps of the impact pathway were accentuated in funding, despite the specific goal of practicality (Figure 2).
- Information sharing between projects was found somewhat limited.
- The project implementers were largely research oriented organisations with limited capability to disseminate results in practice.
- The amount of Ministry staff resourcing for the coordination was quite tight.
- Certain projects were incorporated into funding with unclear connection to the goals of the Programme.

The impact pathway analysis proved out to be an excellent tool for classifying projects and demonstrating the desired contents of projects along the pathway.

Recommendations

The year 2035 is nearing. Future funding should be directed towards the end of the impact pathway to deliver concrete climate impacts more systematically.

Future funding should be aimed at advancing the results of current projects and moving them forward on the impact pathway, instead of producing general-level new information. Here, organisations like universities of applied science and vocational colleges, would be beneficial.

It would be important to set clear and more targeted goals and impact metrics for future projects. These results and the concrete impact should also be followed up even after the projects end.

Sufficient human resources should be allocated to the coordination of the program and the monitoring of results. If large pro term funding is received, fast enough steps for its coordination need to be taken.

The impact pathway framework can be used in e.g. following up on the project results (how they advance on the pathway) and in future open calls for proposals of such projects.

Roadmap for Land Use Sector

The evaluation recommends that a concrete roadmap for the implementation of the climate mitigation goals of the land use sector in 2035 should be drawn up to join the efforts of Catch the carbon programme and Finland's Climate Plan for the Land Use Sector.

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