

ssnup
Smallholder SustaiNability Upscaling Programme

project results

ENHANCING CLIMATE RESILIENCE FOR SMALLHOLDER FARMERS THROUGH REFORESTATION AND AGROFORESTRY IN PERU

Market access | Capacity building | Management system

Beneficiary organisation

Cooperativa Agraria Norandino (Coop Norandino) is a second level union organisation made up of cooperatives and associations. It is the largest cooperative coffee exporter in Peru and the 7th largest coffee exporter in Peru overall. Its purpose is to represent, manage and provide various services to small producers of coffee, cocoa and sugar cane in the regions of Piura, Lambayeque, Cajamarca, Amazonas, San Martin, Ucayali and Tumbes to contribute to sustainable economic development and improve the quality of life of its members. Coop Norandino has more than 6,500 smallholders as cooperative members via 12 cooperatives and purchases from 25,000 others. Coop Norandino´s coffee and cacao smallholders are all certified Organic, Fairtrade, Rainforest Alliance and Small Producers' Symbol.

The challenge

Coop Norandino's smallholder farmers have been experiencing the impacts of climate change, including more frequent prolonged droughts, floods, new pests and crop diseases, which alter agricultural production and affect the prices of staple foods. To support the climate resilience of its smallholder members, Coop Norandino has developed an ambitious reforestation programme – the Sierra de Piura Reforestation Project – a carbon credit programme through which farmers can obtain environmental, social and economic benefits. **To expand its reforestation programme and continue promoting sustainable agroforestry systems that works for coffee farmers, Coop Norandino needs a strategy grounded in applied technical research:** tree density data and mapping of new reforestation areas – including trees within diversified agroforestry systems; a digital system to track growth, carbon capture, and technical work; a balance of exotic and native species for their environmental and cultural value; stronger training for technicians and smallholder farmer members; and an approach linking conservation, coffee productivity, and sustainability for both the environment and Coop Norandino associated growers.

The proposed solution

The ecosystem services provided by agroforestry and reforested areas are to be enhanced through research into native tree species' potential for carbon sequestration and sustainable forest management, in support of Coop Norandino's carbon credit programme. **Agroforestry practices will be promoted by establishing baselines and demonstration plots** to support smallholder farmer training and provide a basis for future carbon financing. Digital tools are also to be introduced to improve data collection, monitoring, and programme oversight. In addition, nursery management and monitoring techniques will be strengthened. Knowledge management is to be enhanced by documenting and sharing the challenges, experiences, and lessons learned in implementing carbon credit and agroforestry initiatives.

The expected outcomes of the project were:

1. The completion of a **baseline** on reforestation potential, and selection and nursery production of **7 high-Andean native species.**
2. The **establishment of 9 research and demonstration plots.**
3. The **training of 261 producers** on reforestation and sustainable agroforestry.

PRIORITY TOPICS

Environment and climate change

IMPACT INVESTOR

incofin invest for impact

BENEFICIARY ORGANISATION

Coop Norandino

Peru

NUMBER OF FARMERS REACHED

261

AGRICULTURAL VALUE CHAIN

Coffee

START DATE

November 2023

END DATE

August 2025

TOTAL EXPENDITURE

€ 78,583

Including € 65,760 (84%) financed by SSNUP

key results





Baseline on **tree cover** and **reforestation opportunities** **developed**
based on 152 mapped and assessed farms

7 **native high-Andean species** propagated
using technical protocols ensuring their adaptation

9 **research and demonstration plots** established
serving as replicable models for training, monitoring, and knowledge exchange

4 **demonstration plots**
for farmer **training** and **knowledge** transfer
featuring native and timber species

5 **research plots**
for **technical trial** and **monitoring** purposes

261 **smallholder farmers trained**
- ✓ in reforestation and agroforestry systems for coffee plots
- ✓ nursery management
- ✓ monitoring techniques

\+ **Community engagement & environmental awareness increased among farmers**

Monitoring and carbon capture

Digital tools for data recording and monitoring were introduced, though a complete digital system for tracking growth and carbon capture was not fully implemented.

Carbon capture estimation was not achieved due to the early age of plantations at sowing, but the baseline, propagation protocols, and research plots now in place allow projections over a 5–10-year horizon.

SDGs supported by the project



1. No poverty
1.5 Building the resilience of vulnerable people

2. Zero hunger
2.4 Adoption of productive, sustainable and resilient agricultural practices

13. Climate action
13.1 Strengthening resilience and adaptive capacity to climate change

15. Life on land
15.2 Sustainable forest management

lessons learnt

✓ **Technical and community outcomes can be achieved through the same activities**

Combining technical work (nursery propagation, plot installation, baseline development) with hands-on training can build technical capacity and community outcomes such as engagement and environmental awareness at the same time. This suggests that capacity-building and community engagement do not need to be designed as separate workstreams, but can instead be pursued through a single, integrated approach where technical delivery is itself the vehicle for community engagement.

✓ **Implementation itself can be the engagement strategy**

Involving producers directly in implementation, rather than training or briefing them separately from it, appears to build stronger and more lasting commitment to conservation and sustainability than communicating results alone. This points to ownership being generated through participation in the process itself, and that engagement strategies should be built into implementation from the start rather than treated as a separate, downstream activity.

✓ **Baseline and technical data generated can serve as a resource for the wider region**

Baseline data and technical protocols generated within a project can form a body of research and community knowledge that extends beyond its original scope. This information can support future initiatives in carbon capture, soil restoration, and biodiversity conservation across the wider region.

Outlook

As the native species planted under this project mature, **the baseline, propagation protocols, and research plots now in place will allow Coop Norandino to project and eventually measure carbon capture over the years.** Consolidating digital monitoring tools will be key to tracking this progress. With prior reforestation in the region having relied predominantly on exotic species (84%), continuing to prioritise native species in future efforts remains central to the path ahead.