



project results

GENDER AND CLIMATE SMART CAPACITY BUILDING FOR MACADAMIA SUPPLIERS IN KENYA



Beneficiary organisation

Afrimac Nut Company Ltd, incorporated in 2011, is a macadamia processor and exporter with a domestic and global footprint. It is the oldest member of the Afrimac consortium of five leading macadamia processors and exporters in Kenya. Afrimac's core business is the processing of raw macadamia kernels (drying, shelling, grading and packing) and macadamia oil for export markets. The Afrimac consortium processes a significant portion of Kenya's annual macadamia harvest and hence plays an important role in the local macadamia value chain. Afrimac sources from over 10,000 smallholder farmers.

The challenge

The quality of macadamia nuts produced in Kenya has declined slightly, primarily due to increased insect damage associated with changing climatic conditions, as well as the harvesting of immature nuts driven by farmers' cash-flow constraints and concerns over nut theft. At the same time, **productivity remains low, reflecting the combined effects of erratic weather patterns, heightened pest and disease pressure, and limited adoption of Good Agricultural Practices (GAP).** Many smallholder farmers also lack access to technical knowledge, quality inputs, and improved seedlings, further constraining yields and nut quality. Beyond supply-side challenges, internal operational constraints at Afrimac reduced efficiency and scalability. Accounting and reporting processes were largely manual, limiting timely oversight and increasing operational risk.

The proposed solution

The proposed solution was to supply farmers with improved seedlings and video-based training on climate-smart GAP to strengthen smallholder households' resilience to climate change and de-risk deeper engagement with macadamia smallholder farmers in both existing and new areas, including more arid regions that would otherwise remain underserved. A pilot activity involving Community-Based Organisations (CBOs) supported this by **building the capacity of smallholder farmer leaders through on-farm demonstration field days,** enhancing adoption and quality while creating incentives for Afrimac to continue providing extension services. At the same time, improvements to Afrimac's accounting systems and financial and production reporting were expected to strengthen operational efficiency and support more effective decision-making. Together, these measures were expected to contribute to improvements in the yield, quality, and market value of macadamia produced by smallholder households, as well as the reliability of Afrimac's internal systems.

The expected outcomes of the project were:

- 1 **3,000 smallholder farmers (60% women) trained with video training.**
- 2 **300 leads of smallholder households (60% women) organised in 4 CBOs trained via 4 pilot demo farms and contracted with Afrimac.**
- 3 **Improved financial control environment and financial and production reporting.**
- 4 **Pilot digitisation of Afrimac extension services, data collection and buying process.**

PRIORITY TOPICS

Environment and climate change

Gender equality

IMPACT INVESTOR

AgDevCo

BENEFICIARY ORGANISATION

Afrimac Nut Company Ltd
Kenya

NUMBER OF FARMERS REACHED

8,234

AGRICULTURAL VALUE CHAIN

Macadamia nuts

START DATE

May 2022

END DATE

October 2024

TOTAL EXPENDITURE

€ 267,094

Including € 165,516 (62%)
financed by SSNUP





key results



Sage system implemented

- ✓ Automated accounting and reporting
- ✓ Payroll system analysed
- ✓ Reduced manual processes
- ✓ Improved operational efficiency

8,234
30% women

smallholder farmers whose data has been digitised (number of trees, yield)

Proof of transaction, accurate measurement, faster purchases and transparency

A total of
2,478 smallholder farmers



video trained on orchard establishment, pest and disease identification and control, harvesting, household budgeting and gender inclusion



2,156 farmers
32% women

Together with
693 household members

322 farmers
34% women

Together with
476 household members (60% women)

also trained on
demo farm field days
via 4 CBOs

56% of them declaring having applied at least one GAP



Improvements observed in harvest timing & pest pressure

- 13% of immature nuts
- 26% of insect damage

- Only
- 9% of immature nuts
- 19% of insect damage



Farmers earned a
25% premium for nut
quality in the 2023 season



SDGs supported by the project



2. Zero hunger

- 2.3 Improving agricultural productivity and increasing smallholder farmers' income
- 2.4 Improving agricultural productivity and increasing smallholder farmers' income

5. Gender equality

- 5.5 Women's participation in economic life

13. Climate action

- 13.1 Strengthening resilience and adaptive capacity to climate change



lessons learnt

✓ Small-scale piloting enables comparative learning

Implementing farmer training intervention through a small, manageable pilot allows to test approaches in a controlled setting and directly compare outcomes across farmers. By combining video training with hands-on demo farm field days, the pilot made it possible to observe how deeper, practical engagement influenced farmer behaviour. The subset of farmers who received the full package of support achieved higher-quality produce, including improved kernel crack-out rates, demonstrating that pilot training can provide concrete evidence of what works before scaling up.

✓ Sustained engagement is required for measurable impact

Significant improvements in smallholder productivity and quality require more than short-term interventions. Adoption of GAPs and the benefits of hands-on training often take multiple seasons to translate into measurable results. External factors can delay or limit observable gains, even when farmers adopt recommended practices. To achieve meaningful impact, interventions need to be planned over several seasons and supported by robust data systems and close monitoring, enabling tracking of adoption, yields, and quality. Farmers to integrate new techniques into their seasonal workflows, maximising both short-term benefits and long-term resilience.

✓ Technical solutions alone are insufficient

While training and piloting can improve adoption of good practices, measurable gains in smallholder productivity and revenue are constrained if external challenges are not addressed. Persistent insect pressure can limit improvements in nut quality and yields, even when farmers receive deeper, hands-on support. Market volatility and increased competition from buyers can also affect outcomes, encouraging early sales and side-selling despite adherence to recommended practices and quality standards. Likewise, social and cultural norms can limit the participation of women in farming, meaning that long-term, multi-stakeholder interventions are needed to create lasting change.

Outlook

Afrimac will continue to build on the pilot by establishing at least one additional CBO to expand support for smallholder farmers. Training will continue using a combination of video sessions and demo farm field days, while extension officers will receive ongoing train-the-trainer capacity building to ensure high-quality guidance. Pest management measures will also be implemented and monitored over the coming seasons to track effectiveness and inform further interventions.