Nigeria



Organization: Sustainable Environment and Fisheries Foundation (SEFFA)
Location: Jos South, Plateau State, Nigeria
Solution: Train communities in two Nigerian villages on climate-smart agriculture and greenhouse technology to increase food security and income
Factsheet Period: First round of UNDP AFCIA funding (17 months); Second round of UNDP AFCIA funding (12 months)



Farmers implementing integrated farming practices in combination with greenhouse technology in Plateau State @SEFFA

Food insecurity poses a major challenge in Nigeria, where over 30% of the population in 2019 faced food shortages (WFP). This problem is multi-faceted and has been linked to increasing climate shocks driving forced migration, inflation and greater social conflicts (UN, 2024). This solution focuses on building the resilience of communities to climate change by promoting greenhouse farming. Planting in a controlled environment allows communities to protect their crops from pests, floods and strong winds, greatly increasing yield. The solution involves training semi-illiterate farmers and fishers in climate-smart agriculture, greenhouse technology and circular economy practices. SEFFA places a strong emphasis on empowering women as key environmental stewards, ensuring they take on leadership roles within their cooperatives. By promoting women's active participation, SEFFA fosters inclusive and sustainable community development.

Key achievements

- 560 community members trained in climate-resilient agriculture
- 19.5 tonnes of vegetables produced from greenhouse farming (US$62,042 generated from sales)
- 10.2 hectares of land restored to productive use
- Increased food security for 4,500 people
- Four cooperatives were formed, improving financial inclusion and community resilience. Through practices like year-round irrigation, greenhouse farming, using fish pond waste as fertilizer, and planting fruit trees.
- 3 greenhouses constructed, harvesting 285 kg of vegetables per week
- 340 women received specialized training in financial literacy and rice and vegetable processing
- 300 households benefited from increased income from rice and vegetable sales
- 15,000+ citizens sensitized on climate change through partnerships with federal institutions and media

Social impact

- The solution creates sustainable livelihoods for disadvantaged and illiterate youth from the marginalized Berom tribe, offering alternatives to hunting and illegal mining as sources of income
- The solution is enhancing the status and capacity of women in local agriculture by enhancing their economic and advocacy skills
- The initiative aims to transform livelihoods through higher family incomes per year around farming and scaling up climate smart agriculture



Adaptation benefits

- Training in drought-tolerant crops and resource conservation enhances resilience against climate variability
- Greenhouses and solar-powered irrigation enable year-round production

Innovation

- Greenhouse farming for both vegetables and fish
- Recycling fish waste as fertilizer to enhance plant growth
- Use of disease-resistant crops for higher yields
- Land restoration through sustainable farming practices
- Introduction of solar-powered water boreholes for reliable, eco-friendly water access

Replication potential

- The model is replicable in regions with illegal mining, unsustainable farming, and/or bushfires using agroforestry

Funding snapshot

- UNDP-AFCIA grant: $170,000 (initial grant: $60,000; scaling grant: $110,000)

Investability	
Revenue per year	$199,516 per year $62,042 from 17.5 tonnes of produce, 2020-2022 (with support of first UNDP-AFCIA grant)
Sustaining criteria	Solution has achieved self-sufficiency through independent marketing, robust farming and processing, operational greenhouses and processing hubs 'Off-take agreements' established with 250 farmers, with the income ploughed back into the project, and a rice processing hub under construction UNDP-AFCIA grants supported the trainings, knowledge sharing and capacity building for sustainable operations
Financial innovation	Established a fund to manage shortfalls in working capital and ensure operational continuity Pursuit of diversified revenue sources (sales channels and buyers) to manage risk of financial losses due to currency fluctuations Opened bank accounts and provided seed funding for 18 women farmers Provides business loans, builds cooperatives and reinvests repayments to strengthen communities
Expected return	The solution is expected to achieve $68,250 in gross return and overall profitability by the end of 2024 with a three-year internal rate of return of 22%

ADAPTATION FUND Climate Innovation Accelerator

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To read their story, visit UNDP-AFCIA

To watch their video, click here

To contact the initiative, visit SEFFA