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Introduction

Climate change and land degradation pose significant threats to rural livelihoods in Dekina LGA, Kogi State. Community assessments involving 378 households revealed challenges, including erratic rainfall, declining soil fertility, deforestation, reduced agricultural productivity, and inadequate access to climate adaptation services. ACET Nigeria implemented the project with support from the UNDP GEF Small Grants Programme to strengthen household resilience, improve livelihoods, and promote sustainable environmental management.

Objectives

The project aimed to:

1. Strengthen household resilience to climate change.
2. Promote climate-smart agriculture and sustainable land management.
3. Improve access to renewable-energy-supported community infrastructure.
4. Enhance financial inclusion through Village Savings and Loan Associations (VSLAs).
5. Support environmental restoration and conservation.
6. Strengthen community governance structures for climate adaptation.



Figure 1: Greenhouse at ACET UNDP GEF-SGP CSALC, Agbada 2, Dekina LGA, Kogi State



Figure 2: Solar-Powered Water Reservoir System at ACET UNDP GEF-SGP CSALC, Agbada 2



Figure 3: VSLA Training Ongoing in the ACET UNDP GEF-SGP Project, Agbada 2, Dekina LGA, Kogi State



Figure 4: Seeds and Seedlings Preparation at ACET UNDP GEF-SGP CSALC, Agbada 2, Dekina LGA, Kogi State



Figure 5: Beneficiary Farm of the Distributed High-Yielding Maize Seeds at Olofu-Anyigba, Dekina LGA, Kogi State



Figure 6: Mud-stove Making at ACET UNDP GEF-SGP CSALC, Agbada 2



Methodology

The project adopted a participatory community-based approach involving:

- Household Vulnerability Assessment of 378 households.
- Establishment of Project Management Committees (PMCs) and Community Environmental Protection Teams (CEPTs).
- Development of Climate Smart Agriculture Learning Centres (CSALCs) with greenhouse and fish production demonstration systems. Farmer training on climate-smart agriculture.
- Distribution of climate-resilient maize seed.
- Formation and strengthening of Village Savings and Loan Associations.
- Cashew value chain research involving 391 respondents.
- Renewable energy investments, including solar-powered water systems.

Results and Discussions

Social Impact

- 326 beneficiaries acquired practical climate adaptation skills.
- Community governance strengthened through PMCs & CEPTs.
- 650 residents gained reliable access to solar-powered water infrastructure.
- Increased awareness of climate adaptation and environmental stewardship.

Economic Impact

- Improved seed provided to 378 households.
- 15.2 hectares cultivated with a 93% germination success rate.
- Five VSLAs enhanced savings, access to credit, and household resilience.
- Greenhouse farming, fish production, and cashew value chain development created additional livelihood opportunities.

Environmental Impact

- Solar-powered water systems reduced dependence on fossil fuels.
- Climate-smart agriculture improved soil management practices.
- 3,520 indigenous locust bean seedlings committed for ecosystem restoration.
- Mud-stove technology reduced pressure on forests and indoor air pollution.

Conclusion and Future Work

The project successfully demonstrated how integrated climate adaptation interventions can strengthen livelihoods, improve environmental outcomes, and enhance community resilience. Community ownership, farmer-to-farmer extension systems, operational VSLAs, renewable energy infrastructure, and demonstration-based learning have created strong foundations for sustainability. Future priorities include: Scaling climate-smart agriculture practices; Expanding VSLA coverage; Increasing tree restoration activities; Strengthening cashew value chain development; Replicating the model in additional vulnerable communities.

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Implementing Organisation: ACET Staff & Board

Project Beneficiaries: Members of Agbada II and Olofu Communities, PMCs, CEPTs, VSLAs, farmers, youth groups, and traditional leaders.