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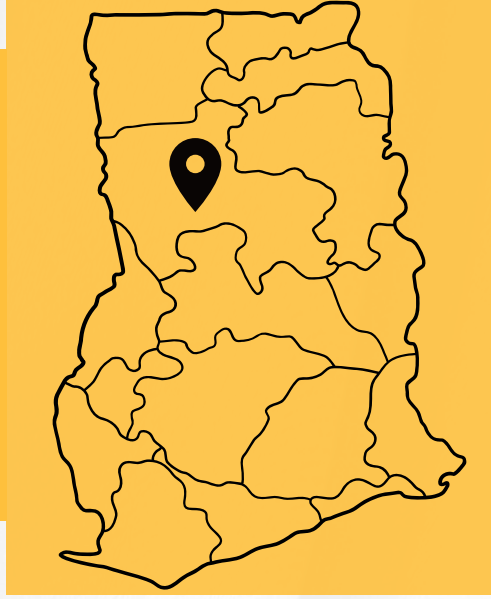
A CASE STUDY PROFILE ON ORGANIC SHEA PROCESSING IN DRYLAND NOTHERN GHANA



CASE BACKGROUND

Climate change impacts in the northern ecological zone of Ghana have left communities vulnerable to food insecurity and poverty. This case study highlights locally-led adaptation practices in northern Ghana, West Gonja District. The adaptation practices include the use of Village Savings and Loans Association (VSLAs) for group-based organic shea processing and community-based conservation efforts such as tree planting and the use of energy-saving stoves in parboiling shea nuts. Through these practices, women have been able to access credit, generate income, and build resilience to climate shocks.

MAIN FINDINGS

MOTIVATION FOR ACTION

This community is motivated by the need to improve and diversify livelihood sources, enhance income levels, restore degraded ecosystem, and to make charcoal and firewood fuel less attractive for domestic and productive use.

PRACTICES & STRATEGIES

Some of the practices adopted include

- The use of VSLAs to promote group-based organic shea processing.
- The use of energy-saving stoves in parboiling shea nuts,
- Promotion of community-based conservation efforts such as tree planting.
- Formulation of local by-laws against logging and charcoal burning.

MAIN OUTCOMES

- VSLAs have increased women's access to credit, enabling them to invest in climate-smart agriculture, tree planting, and organic shea processing.
- Increased income and improved livelihoods.
- Group-based organic shea processing by the women has led to increased production and improved quality of shea butter.
- Promotion of tree planting has led to improved land management and resilience of women's livelihoods to climate change impacts.

ALIGNMENT WITH NDCS

The locally-led adaptation practices are in alignment with Ghana's NDCs and other national climate change policies aimed at increasing the resilience of vulnerable communities to the impacts of climate change by promoting sustainable agricultural practices, afforestation, and community-led adaptation initiatives.

CO-BENEFITS

1. Enhanced gender equality as laid out in SDGs 5 and 10.
2. Enhanced social support network for women to share knowledge and resources and collaborate on community projects.
3. Improved land management, increased crop yields, and restoration of degraded land in the communities in accordance to SDGs 11, 13, and 15

LIMITATIONS AND CHALLENGES

1. Lack of access to financial resources, making it difficult for women to invest and expand the organic shea processing business.
2. Limited availability of equipment and tools to support the organic shea processing business.
3. Lack of proper equipment and storage facilities, affecting the quality and quantity of products and therefore incomes .

OPPORTUNITIES

1. Women´s empowerment in shea nut production and processing through increased access to resources, training, and support to enhance adaptive capacity.
2. Potential to align shea production and processing with sustainable practices.
3. Diversification of community livelihood opportunities and income.

To learn more or contribute to these actions please contact APRI's climate change program team:
Dr. Grace Mbungu or Isabella Roberts

A CASE STUDY PROFILE ON STRENGTHENING GRASSROOT COMMUNITIES TO EMPLOY CLIMATE-SMART AGRICULTURE IN GHANA

CASE BACKGROUND

Development challenges compounded by climate change impacts on agricultural production have left communities struggling to meet their basic needs in the Savannah and northern regions of Ghana. This case study involves working with communities to employ climate-smart agricultural practices to help improve soil fertility and conservation of natural resources, as part of the locally-led responses to the impacts of climate change.

MAIN FINDINGS

MOTIVATION FOR ACTION

Communities are motivated by the need to increase food security by improving soil health, restoring degraded ecosystems, and enhancing landscape biodiversity.

PRACTICES & STRATEGIES

The community has incorporated strategies such as

- Climate-smart agriculture/agroecological practices such as conservation agriculture, sustainable land management, the use of drought-resistant crop varieties, water resource management, the use of agroforestry to improve soil fertility and provide shade, and the adoption of integrated pest management techniques.
- Tree planting.
- Community-based solar-powered irrigation.

MAIN OUTCOMES

- Many farming households are integrating different farming practices such as the use of organic manure and application of organic matter from crop residues, ultimately increasing the crop productivity and yields.
- The promoted practices also improve soil health and fertility, strengthening the communities' resilience to climate change impacts.

ALIGNMENT WITH NDCS

The practices align with the national policies, strategies, and actions, including Ghana's NDCs, to achieve low carbon development through sustainable land use, afforestation, and reforestation. The use of climate-smart agriculture and solar-powered irrigation systems align with these goals by promoting sustainable agriculture and water management practices. They also emphasize the need for adaptation and resilience-building, particularly in vulnerable regions.

CO-BENEFITS

1. Climate-smart agriculture and agroecology has led to improved food productivity security for households in line with SDG 2.
2. Trees provide shade and shelter for livestock, improving animal health and productivity,
3. Tree are also vital for carbon sequestration, which can contribute to climate mitigation efforts, in accordance to SDG 13 and the Paris Agreement
4. Increased community cohesion and empowerment through the establishment of community-based organizations and sharing of knowledge and resources.

LIMITATIONS AND CHALLENGES

1. Lack of a reliable water resource to support tree planting activities.
2. Existing policies and regulations do not provide adequate support or incentives for locally-led adaptation practices.
3. Solar panels are not as reliable especially because their use depends on sunlight.

OPPORTUNITIES

1. Promotion of land management practices based on a community's understanding of local ecosystems.
2. Promotion of livelihood opportunities for the youth and women in climate-vulnerable agriculture landscapes and food systems.

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A CASE STUDY PROFILE ON EARLY WARNING SYSTEMS AND RESPONSE TO FLOODING IN PERI-URBAN AREAS

CASE BACKGROUND

Urbanization in the Ashanti regions of Ghana has outpaced the provision of basic amenities and infrastructure, leading to excessive waste generation and stress to existing infrastructure. This case study is located in Aboabo, an area characterized by poor infrastructure, inadequate drainage systems, and unplanned settlements. Solid waste is indiscriminately dumped into the Aboabo River valley, causing a gradual shrinkage of the canal and overwhelming the discharge capacity of the river. This shrinkage leads to frequent flooding with devastating impacts on the lives and livelihoods of the people in the slum. To reduce the vulnerability of slum households to floods, local communities have implemented adaptation practices and early warning systems.

MAIN FINDINGS

MOTIVATION FOR ACTION

The the main motivation for action is to minimize floods and their impacts on lives and livelihoods. Actions are also motivated by the sense of community responsibility.

PRACTICES & STRATEGIES

Strategies and practices include:

- Climate change education and awareness raising to empower communities to integrate flood preparation into their daily decisions.
- Raising the foundation level of wooden houses.
- Desilting of gutters and drainage systems

MAIN OUTCOMES

- Protection of lives and property.
- Enhanced social cohesion and empowerment through community-based adaptation practices.
- The implementation of adaptation practices has also strengthened local knowledge and innovation.

ALIGNMENT WITH NDCS

Action in this community are alighted with Ghana's NDCs, which call for building resilient infrastructure. It also aligns with the NDCs' goal of promoting sustainable water management and reducing the vulnerability of communities to water-related hazards.

CO-BENEFITS

1. Minimized water-born diseases.
2. Reduced economic losses for households and the community as a whole.
3. Informal early warning systems enhance community cohesion and social capital by leveraging local knowledge and experience to promote collaboration and information-sharing among community members.

LIMITATIONS AND CHALLENGES

1. Raising platforms and foundations of wooden structures may not be effective if floodwater levels are too high, allowing water to enter homes through windows or doors.
2. Desilting gutters and drainage channels requires regular maintenance, and community participation during communal labor periods can be challenging.
3. Early warning systems face challenges due to their lack of specificity.
4. Lack of financial resources.

OPPORTUNITIES

1. Enhancing community awareness to promote resilience and implement adaptation practices.
2. Strengthening local livelihoods presents an opportunity for enhancing resilience and adaptive capacities of communities.
3. Promoting gender equity can provide an opportunity for deepening locally-led adaptation practices.

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A CASE STUDY PROFILE ON COASTAL EROSION AND FLOODING IN GHANA'S COASTAL REGION

CASE BACKGROUND

Ghana's coastline spans 550km, with 25% of the country's population residing by the sea. Rising sea levels worsened by climate change are rapidly affecting coastal-fringe communities along the coastline. Tidal waves in November 2021 submerged homes and displaced residents in the Volta Region. Coastal erosion, exacerbated by climate change, poses a severe threat to the livelihoods of fisherfolk, necessitating an exploration of community practices, initiatives, and strategies to adapt to the impacts. This case study, focusing on Keta town, Volta Region, aims to understand the nature of practices, initiatives, and strategies that communities are employing to adapt to the climatic impacts of coastal erosion.

MAIN FINDINGS

MOTIVATION FOR ACTION

The main motivation is flood prevention, especially to protect lives, livelihoods, and property such as housing. The need to assert agency in the face of government inaction and support was also a key motivating factor.

PRACTICES & STRATEGIES

Empolyed practices and strategies inlcude

- Building of gabions and boulder revetments to prevent erosion.
- Beach nourishment, involving the placement of sand on eroded beaches to restore them
- Community-led monitoring and early warning systems and relocation or transnational fishing.
- Creation of water passages (dual canals), which limit the extent of vulnerability that comes with sea erosion.
- Replanting and restoration of mangrove forests along the coastline.
- Relocation, as a last resort adaptation response, has also been employed by some households in the coastal region.

MAIN OUTCOMES

- The use of community institutions such as by-laws has been effective in regulating economic practices such as sand winning, which contributed to coastal erosion.

ALIGNMENT WITH NDCS

These practices and strategies are aligned with Ghana's government priorities to streamline early warning and disaster risk management as well as integrated water resource management, as underscored in the NDCs and other national climate change policies.

CO-BENEFITS

1. Nature-based solutions such as the planting of mangroves and the restoration of wetlands have helped to enhance biodiversity and ecosystem services in the Keta-Ada coastal stretch area, in line with SDGs 14 and 13.
2. By working together to implement adaptation measures, communities have strengthened their social networks and built a sense of collective ownership and responsibility.

LIMITATIONS AND CHALLENGES

1. Lack of financial resources needed to implement effective adaptation measures.
2. Limited institutional support, especially from the local authorities and central government.
3. Coastal erosion and sea level rise are uncertain and unpredictable, making it difficult for households to appropriately plan and implement effective adaptation measures.
4. Limited livelihood options available to the residents.

OPPORTUNITIES

1. The creation of enhanced awareness about coastal erosion could further strengthen the resilience and adaptive capacity of the community.
2. Effective stakeholder engagement and collaboration can promote the development of locally-appropriate and effective adaptation strategies.

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