CARIAA
Collaborative Adaptation Research Initiative in Africa and Asia

DECCMA

Examples of Adaptation in the Volta Delta, Ghana

This work was carried out under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAA), with financial support from the UK Government's Department for International Development (DFiD) and the International Development Research Centre (IDRC), Canada. The views expressed in this work are those of the creators and do no necessarily represent those of DFiD and IDRC or its Board of Governors.

IDRC | CRDI
International Development Research Centre
Centre de recherches pour le développement international

Canada

Improved farm maintenance
& cultural practice

Flood control Gate

Sea Defence Wall

Tube Well irrigation

Planting of heat and drought resistant crops

Improved farm maintenance & Cultural Practices

Individual households and ccommunities within the Dangme East district such as Hwakpo, Addokope, Ebenezer, Luhour and Nahuley who could afford the cost resorted to improved farm practices such as timely planting, crop diversity and regular weeding having observed erratic and unpredictable rainfall patterns with poor seasonal distribution.

References

- ***Agbeve, M.S., Titiati, A., and Quaye, W. (2011). Emerging Technologies for Climate Change Adaptation: A Case Study in Dangbe East District of Ghana. African Technology Policy Studies Network, Kenya, Nairobi.***

- ***Nhamo, N.; Donald, M.; Fritz, O. T. 2014. Adaptation Strategies to Climate Extremes among Smallholder Farmers: a Case of Cropping Practices in the Volta Region of Ghana. British Journal of Applied Science and Technology.***

Sea Defence Wall

Sea level rise causing coastal erosion has necessitated the construction of groynes and revetments as well as beach nourishments. These revetments are found in the Keta Municipality and the Ada East district. The Keta Sea Defense for instance, involves the construction of seven groynes that are rocky projections extending from the shoreline into the sea. These groynes are to protect the boulders that have been placed along the 2.7 kilometer stretch of the shore line, in order to protect coastal communities, their livelihoods and infrastructure in the Keta municipality against tidal waves. The Keta Sea Defense Project also protects the major road to Anyanui and Dzita towns against tidal waves.

References:

- ***Appeaning Addo, K. (2015). Assessment of the Volta Delta Shoreline Change. Journal of Coastal Zone Management. 18: 408. doi: 10.4172/jczm.1000408***"
- ***Drammeh, F. (2013). Assessing and adapting to climate-change induced sea level rise on the southern coastline of the Gambia. UN Oceans and Law of the Sea. Pg 47-51***
- **http://www.undp-aap.org/sites/undp aap.org/files/Ghana_Mentoring%20and%20Coaching%20Initiative%20-%20Field%20Trip%20Report.pdf**

Tube well Irrigation

Through the ADAPTS Ghana project, there was an increase in farmers capacity to adapt to climate change and also in incorporating climate and social concerns into water management policy. This was done through the provision of irrigation schemes to farmer groups in three communities namely Woadze, Vakpo and Gbefi. Communal irrigation was used as a substitute for rain-fed farming hence sinking tube wells for regular water supplies through the irrigation scheme.

Reference:

- **Meta, M., and van Steenbergen, F. (2012). Evaluation report ADAPTS. Both ENDS, Amsterdam The Netherlands.**

Flood Control Gate

The flood control bridge located near the mouth of the Keta Lagoon where there is a naturally created sandbar separating the lagoon from the sea. The bridge was built with manually operated concrete passage ways that are opened during flooding periods to allow water from the main lagoon to flow through the gates, break the sand bar and join the sea

References:

- ***Appeaning Addo, K. (2015). Assessment of the Volta Delta Shoreline Change. Journal of Coastal Zone Management. 18: 408. doi: 10.4172/jczm.1000408***"
- ***Drammeh, F. (2013). Assessing and adapting to climate-change induced sea level rise on the southern coastline of the Gambia. UN Oceans and Law of the Sea. Pg 47-51***

Use of drought and heat resistant crops

Particularly in the Ketu North district, changing of planting dates, use of different crop varieties, and use of drought and heat resistant varieties are the widely used adaptation measures to reduce their vulnerabilities and food insecurities.

Reference:

Acquah D. H and Frempong A.K.F (2011) Farmers perception of Impact of Climate Change on Food Production in Ketu North District in the Volta Region. 1st World Sustainability Forum