



How can the private sector benefit from balancing economic, social and cultural development whilst enhancing the environment

Engaging the Private Sector on balancing economic, social and cultural development

- The West Africa coastal region is an economically important area accounting for more than 50% of the entire region's GDP.
- Climate change and human-induced activities are destabilizing the economic, social and cultural development of the area.
- Business opportunities do exist to develop blue-green infrastructure otherwise called "building with nature".
- The West African fishing sector has a wholesale value of USD \$2.5 billion but can be greater if correctly managed.

The loss of habitats and ecosystem services has a significant economic, social and cultural impact in the West African coastal region. Climate change in West Africa is exacerbated by unsustainable human activities. The reducing coastlines and the rising ocean jeopardises

a number of local formal and informal businesses, for example hotels, fish landing sites, agriculture, logging, and pastoralism among many etc. are affected. Other major industries will also be affected by climate change, these include offshore petroleum exploration and production, and tourism etc. Through the sustainable management of the West African coast, the future prospects for regional businesses are promising. Tourism is estimated to rise in the coming years. Legally captured fish amounts to more 1.6 million tons captured in West African waters each year, with an estimated wholesale value of USD\$ 2.5 billion. Oil and gas reserves furthermore provide enormous potential for the local economy.

Challenges

Of the many climate change impacts on coastal regions, coastal erosion has probably the widest impact on all businesses, inducing the loss of infrastructure and communication networks such as roads. It also threatens populations, who can no longer live close to the coastline and therefore forces the local workers to migrate. Despite the major role the fishing industry plays in West Africa

it attracts a very low financial assistance of only USD\$71 million in 2013 (OECD, 2016). Local businesses, therefore, face a lack of long term funding in the coastal regions. Furthermore, they have difficulty in mobilizing financial resources with mature markets, which are primary commodity dependent. Tourism is a growing industry and will be important to the economic growth of local business, however tourism has a significant impact on fragile ecosystems, natural parks and coastal infrastructures.

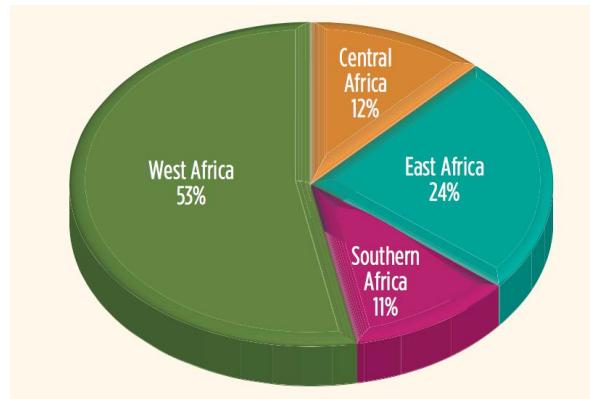
Potential Solutions

The coastal farming sector improves the coast when sustainable cropping systems include crop varieties that withstand higher temperatures—these are resilient to droughts, pests, weeds, salinity and flooding. Farmers can integrate trees with crops to act as nutrient pumps to enhance soil nitrogen with a higher guarantee on continued crop yield. Local farmers in the coastal regions can implement technologies to capture and retain the increased run-off from changing climatic condictions (such as small reservoirs) for storage for the dry season (Van de Giesen et al. 2010). One example is Zäi cultivation, a traditional form of agriculture in Burkina Faso and Mali that involves planting crops in small, circular pits perpendicular to the slope to capture rainwater and retain soil moisture.

Farming does not have to be confined to the coastal land. With declining natural fish stocks, local companies can set-up aquaculture areas to farm certain fish. For example in Ghana it is estimated that the production from ponds and culture-based fisheries is worth about US\$ 1.5 million a year. This aquaculture sub sector in Ghana comprises largely of small-scale subsistence farmers who practice extensive aquaculture in earthen ponds in contrast to the intensive practices of commercial farmers (FAO, 2005). The aquiculture sector in West Africa provides a massive opportunity to take up the challenges of providing inputs such as fish feed as viable commercial activities to support the development of the industry. Local businesses can also develop innovative solutions to create ecological ocean barriers and technologies for controlling fishing catch quotas, which will aid the local fishing industry.

Other than farming, coastal protection also offers economic opportunities while preserving the social and cultural development. For instance, local engineering companies can undertake studies or implement solutions to protect the coastlines. For example implementing blue-green infrastructures (mangrove plantation and restorations, landscaping, water systems to act as buffers – treated wastewater to buffer the salinization of aquifers) will all improve ecosystem

services in the coastal areas. However solutions or studies should be culturally sensitive and should ensure that the opinions of the local community are taken into account as certain trees or animal species have cultural significance.



Hotel Chain development in Sub-Saharan Africa showing a substantial market share for West Africa. Source: ADB, 2015

The coastal area should not only be in balance for economic activities but for cultural and social development as well. Although an increase in tourism brings more people to the coastal area, it's the attention to culturally significant crafts which can bring in an alternative economic income to the local community while preserving and enhancing cultural development. Local businesses can also implement eco-tourism activities by involving people from the local communities as tour guides knowledgeable of the local area. Further, growth in West Africa's tourism will have a positive knock-on effect to the construction sector for building hotels etc. (see chart). Through bringing in and building climate resilient and eco-buildings, it allows local companies to diversify their activities resulting in sustainability in the tourism industry.

BEST PRACTICE

Restoration of an island landscape, Tiengemeten - Netherlands

Tiengemeten is a 1000 ha. island lying in the Haringvliet estuary in the Dutch Rhine-Maas delta, just south of Rotterdam (Netherlands). It was a predominately agricultural area. Severe storm damage of floods and sea intrusion had a disastrous effect on the agriculture, and thus the economy of the local community. A number of sea defence structures were built to protect the

agricultural land from future storm damage. The area was well protected from the rising sea and storms, but the consequence was that the tidal nature completely changed with severe fish and plant loss. In this case, although a solution was found for the first problem, it created a secondary problem for another industry that then also faced significant economic losses. Therefore, the restoration of the tidal movements became part of a wider estuary restoration project. Floodgates were built (2007) to allow for a natural tidal range to return to the way it was before the sea defense systems were constructed. This has resulted in plant and fish life returning to near their 1970 levels, triggering a boost in economic livelihood improvement at the local community. This solution shows that through adapting to the challenges, taking a holistic approach and focussing businesses on more sustainable, ecological and environmentally friendly practices, companies can grow economically while enhancing the environment and bringing benefit to local communities and cultures.



*Photo showing the floodgates that were built in the Haringvliet estuary.
Photo: Vladimír Šiman*

REFERENCES

- African Development Bank (ADB). 2015. African Tourism Monitor. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Africa_Tourism_Monitor_-_Unlocking_Africa's_Tourism_Potential_-_Vol_3_-_Issue_1.pdf
- Organisation for Economic Co-operation and Development (OECD). 2016. Creditor reporting system. Paris: OECD (<http://stats.oecd.org/Index.aspx?QueryId=58192>).
- FAO. 2005. National Aquaculture Sector Overview. Ghana. National Aquaculture Sector Overview Fact Sheets. Text by Awity, L. Fisheries and Aquaculture Department [online]. Rome. Updated 10 October 2005. [Cited 5 September 2017]. http://www.fao.org/fishery/countrysector/naso_ghana/en
- van de Giesen, N., Liebe, J., Jung, G. 2010. Adapting to climate change in the Volta Basin, West Africa CURRENT SCIENCE, VOL. 98, NO. 8

The West Africa Coastal Areas Management Program (WACA) is a convening platform that aims to assist West African countries to sustainably manage their coastal areas and enhance socio-economic resilience to the effects of climate change. The program also seeks to facilitate access to technical expertise and financial resources for participating countries.



West Africa Coastal Areas
Management Program