

A Capital Choice

A participatory, bottom-up approach will go a long way in ensuring sustainable livelihoods for communities in the small-scale fisheries sector of Nigeria

Nigeria's small-scale fisheries are very diverse, providing livelihood and food for millions of people engaged in the fisheries value chain. Fishing activity occurs in the vast network of inland water bodies, such as lakes, wetlands, creeks, estuaries, rivers, streams and lagoons, as well as in the sea. The country's waters are rich in a wide range of commercially important species, both freshwater and marine, such as catfish, tilapia, prawns, crayfish, croakers, shiny nose, shrimps and many others.

The country's small-scale fisheries can be described as multi-gear, multi-species, multi-technique enterprises that preserve the culture of the fisherfolk. However, in recent times, the small-scale fishing communities have been confronted with many challenges.

The environmental problems include climate change, aquatic weed infestation, pollution, salinity intrusion, coastal flooding and erosion. The socioeconomic challenges comprise a long list: rapid coastal development, excessive sand mining, rising inflation, inadequate government-subsidised fishing inputs and gears, illegal, unreported and unregulated (IUU) fishing practices, inadequate fish preservation and processing facilities, pricing monopoly by middlemen, piracy, insecure tenure, and a general lack of governance in the fisheries. All these make it very difficult for fisherfolk to sustain their livelihoods.

Forms of capital

Sustainable livelihoods can be described as the capabilities and availability of assets—social and material—as also activities that can absorb and recover from shocks and stress, enhancing resources and capabilities for present and future use without negatively

affecting the natural resource base. The sustainable livelihood framework uses the concept of capital as the key feature and considers its interaction with the vulnerability context, transforming structures and processes to create livelihoods strategies that result in different livelihood outcomes. The types of capital that small-scale fisheries in Nigeria can use to build their livelihoods are natural, social, cultural, human, physical, financial and political capital.

Natural capital refers to all natural resources utilized for fish production in the aquatic environment—rivers, streams, lakes, creeks, estuaries,

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wetlands, mangroves, lagoons and the sea. These water bodies are usually open-access but traditional authorities and individuals control fishing rights in most inland water bodies in Nigeria. Diverse fish species inhabit them; their harvest meets the protein and micronutrient requirement of the fishing communities and provide livelihood for the fishers.

Social capital connotes the networks and connectedness of fishing communities; it increases their trust and ability to cooperate, form relationships and access wider social institutions that support their livelihoods. Fishing communities draw on social networks—neighbourhood, nearby relatives, cooperative societies and other associations—for financial aid for fishing activities and livelihood sustenance. Most fishing communities

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lack health institutions, and the few available usually lack basic drugs and qualified health personnel; thus, fishing communities resort to treatment from traditional medicine or spiritual practitioners.

Human capital refers to the skills, knowledge, leadership, capacity to work and good health of fishworkers; these can be utilized to develop and multiply the benefits derivable from other resources. This capital is exhibited by artisanal fishers in various forms, including in the use of local materials such as branches of trees, worn-out tires and polyvinyl chloride (PVC) pipes to make fish aggregating devices and fish fences. However, their adoption of modern techniques of fishing is limited by the low levels of education among fishing communities. Fishers are known

of electricity, resulting in significant post-harvest losses. It is very evident that the essential physical capital is mostly unavailable to fisherfolk.

Financial capital refers to the economic or monetary resources. They can take the form of savings, credit, regular remittances or pensions. Most fishers have no access to formal sources of credit; they rely on personal savings and loans from family, friends, cooperatives and moneylenders. These sources of capital are usually limited, they hardly meet the fishers' financial requirement.

Cultural capital refers to how people perceive their world, how they operate in it, including through their traditions and language. It determines whose views are respected and who holds influence in a community. It expresses in the novel ways they think, strategize, create and innovate to adapt to emerging challenges. Cultural capital can be seen in the adoption of *beel* fishing and brush park fishing by artisanal fishers operating in inland areas, examples of aquaculture-based fisheries enhancement to bolster productivity.

Political capital refers to people's ability to access power, authority and important institutions; to establish a sound relationship and communication with the government; to influence their decisions and obtain resources for development and governance of their communities. This can be accessed by the fisherfolk through persistent complaints and appeals to the government and relevant organizations. Fishers can lodge complaints with the head fisher, who relays this to the traditional authorities that are in a better position to pass them on to the local authorities. However, most fishing communities are isolated and inaccessible, with no direct contact with their elected representatives; hence political capital is mostly unavailable as a part of their livelihood strategy.

Obstacles

The challenges small-scale fisheries face—their vulnerability—are the risks, shocks, threats and stresses affecting their artisanal livelihoods. It comprises three layers: shocks, seasonality and

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to draw on their fishing experience to anticipate the weather conditions and tidal currents; they collectivize resources to decide the time and location for fishing, multiplying their catches, also forecasting demand to obtain higher prices for their harvests.

Physical capital consists of material infrastructure and private assets: fishing craft, gear and engines, landing centres, jetties, roads, storage facilities, potable water, shelter, energy, transport, and communication; it includes equipment for production and processing. Most fishing communities in Nigeria's coastal and inland areas are not accessible by road. Hence, the waterways navigable by boats, canoes and ferries remain the only viable means of transportation to areas such as creeks and estuaries that are very difficult to access for researchers, fisheries officers and fish dealers, thus denying the fishing communities opportunity, in terms of fisheries assessment, extension services and better pricing from urban markets. Most fishing communities lack storage and processing facilities due to the lack



Orimedu fishing village in Lagos state. The challenges small-scale fisheries face—their vulnerability—are the risks, shocks, threats and stresses affecting their artisanal livelihoods

unfavourable trends. Shocks include climatic and non-climatic factors like floods, storms, tides, coastal erosion, invasive aquatic weeds, market forces, multiple user conflicts, loss of a family member, piracy, unregulated movement of timber on water bodies, sand dredging and other destructive activities that affect fishing communities. Some fishermen are also involved in IUU fishing, transshipment and other related activities such as cross-border smuggling of banned goods.

Critical trends like rural-urban migration and population increase pose daunting challenges to livelihoods, food security and employment. Coastal fishing communities like the Maroko, Ilubrin Otodogbame, Itedo, Iubirin and Ebute Ikate have recently been displaced from their dwellings to pave the way for urban development along the Lagos waterfront. More fishing communities along the waterfront will likely suffer the same fate, thus adversely affecting the livelihood of communities that depend on fisheries resources for survival.

Nigeria has two distinct seasons: wet and dry. The rainy season lasts from

April to October; the dry season from November to March. Fishing is highly seasonal; catches vary according to the season due to behavioural changes in the fish, induced by fish morphology and a combination of changes in water temperature and other hydrological parameters. Seasonality in fisheries is responsible for the migratory nature of fishers and is more prominent in flooding rivers. Recently, climate change has affected the seasonality, disrupting the predictability of fish catch and production. During peak fishing seasons, fishers suffer significant post-harvest losses due to the lack of storage facilities and poor processing techniques, leading to poor prices.

Prospects

Sustainable livelihoods in small-scale fisheries are dependent on the effectiveness of the governance system, the structures and processes of both formal and informal institutions, organizations, policies and legislation. This regulates access to the various forms of capital, determining the success or failure of fisheries

livelihoods. It includes traditional authorities participating in resolving conflicts among fishers, between fishers and other users of water bodies, thus reducing their vulnerability.

The awareness of the multiplicity of problems confronting the fishing communities and the need for proper management, control and sustainable exploitation of artisanal inland and coastal fisheries resources led to a response in 1975. That's when two fisheries research institutes were set up for freshwater and marine environments, respectively. These have intervened in several areas. Yet small-scale fisheries remain vulnerable to dynamic political and economic processes, resulting in higher cost of fishing inputs and reduced investment returns.

For instance, home-grown improved fish smoking kilns developed to upgrade fish-processing practices and assist in minimizing post-harvest losses have not been adopted widely. This can be attributed to low awareness; in some cases, the new technology is unaffordable. The research institutes are hamstrung by a paucity of human capacity and resources. This retards their ability to provide evidence-based inputs to fisheries authorities for them to recommend appropriate policies and management measures in monitoring, control and surveillance of fisheries resources.

The fisheries authorities concerned are the Federal Department of Fisheries and Aquaculture at the national level and the State Department of Fisheries and Aquaculture at regional level, respectively. Some states in Nigeria lack fisheries edicts; those that exist are already outdated, out of sync with current realities. The fisheries authorities are underfunded, lack qualified manpower and resources, bogged down by bureaucratic rules that limit their capacity to effectively govern the sector. Thus, the small-scale fisherfolk are mostly left on their own to devise strategies to combat their various challenges.

A long-term outlook

Livelihood strategies can be described as the dynamic process by which people come together and make choices, taking

into cognizance their vulnerability and the transforming structures and processes that result in livelihood outcomes. Livelihood strategies in fishing communities mainly depend on natural capital assets. Artisanal fishing is a usually multi-species and multi-gear venture; thus, various fishing gear are deployed, depending on the season, the target species and the type of craft employed. Due to the seasonality of fisheries, off-season migration is one option. Fishers have adopted a number of alternative livelihood strategies, diversifying into animal husbandry, crop farming, aquaculture and trade to minimize their vulnerability.

For example, the small-scale fisheries in Lokoja, Kogi had been seriously affected by flooding induced by climate change, as also by excessive sand mining along the banks of River Niger. This destroyed the nursery grounds, causing aquatic species to migrate, thus reducing catches. The fishers, consequently, utilized the capital available to them, adopting strategies to change the fishing duration, effort and location; they also began fishing in deeper waters. Accordingly, they have shifted to mechanized boats, banned chemical fishing and finally diversified into aquaculture.

Successful interventions can certainly fortify livelihood strategies. However, strengthening the governance system and adopting a participatory, bottom-up approach will go a long way in ensuring sustainable livelihoods and abating the challenges for the small-scale fisheries in Nigeria. 

For more

Fear of Flight

<https://www.icsf.net/samudra/fear-of-flight/>

A Heavy Blow

<https://www.icsf.net/samudra/a-heavy-blow/>

Small-scale fisheries in the context of traditional post-harvest practice and the quest for food and nutritional security in Nigeria

<https://agricultureandfoodsecurity.biomedcentral.com/articles/10.1186/s40066-017-0110-z>