The Gambia
Climate Change Impacts & Small-scale Fisheries

A Case Study of Adaptation and Resilience

Written by
Dawda Foday Saine

International Collective in Support of Fishworkers
ICSF

A fish processor smoking the catch at Old Jeshwang, The Gambia, by Dawda Foday Saine

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Sea-level rise at the fish landing site in Barra, The Gambia by Dawda Foday Saine

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Climate Change

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Map of the Gambia
Source: https://maps.lib.utexas.edu/maps/africa/gambia_pol88.jpg

I. Gambia Fisheries Sector: An Overview

Stretching for 450 km along the Gambia river, the Republic of The Gambia is the smallest country in Africa; measuring only about 11,300 square kilometres (sq km). This land area is doubled by the country's exclusive economic zone (EEZ), extending to 22,650 sq km, of which 10,650 sq km is the fishing economic zone. The country's 60-km coast looks into the Atlantic Ocean and its continental shelf area is about 4,000 sq km. The Gambia has a population of 2.5 million, with 176 people per sq km, making it is one of Africa's most densely populated countries. Nearly 57 per cent of the population is concentrated around urban and peri-urban areas. The country's economy is supported by agriculture, industrial, services and tourism. The country has been affected by variable and degrading environmental conditions, declining agricultural productivity, and economic changes in tourism, petty trade and small-scale manufacturing.

A significant percentage of the country's population lives near the water. Up to 185,000 people live within one km of the coast and 950,000 people live in urban areas near the waters, including the 200-km sheltered coast—which extends inland along the Gambia river and features brackish and fresh water regimes. The waters of The Gambia support an abundance of diverse pelagic and demersal species. The coast consists of rocky red-coloured cliffs, sandy beaches and dunes, mangrove forests, brackish lagoons, mud flats and living reefs.

The mangrove areas are endowed with a rich biodiversity, especially of estuarine species, which contributes to food security through various ecosystem functions, such as regulation of essential ecological processes, supporting life systems and rendering stability, energy and nutrient exchange in the food chain. Species of shellfish and fin fish comprise a significant portion of the food resources harvested from these estuaries. The livelihood of many coastal inhabitants, particularly women, are closely associated with these systems. These livelihoods largely fall within the small-scale fisheries (SSF) sub-sector, but often go unnoticed in official fisheries statistics, both in terms of the volume and value of these harvests.

The Gambia is known for its rich biodiversity. But its fragile ecosystems are threatened by irresponsible human activities like over-fishing, uncontrolled urbanization and charcoal burning. The sustainability of these ecosystems and their services is critical to the well-being of present and future generations. Its position on the eastern Atlantic seaboard makes The Gambia vulnerable to the impacts of climate change: increases in temperature, decreases in rainfall and rising sea levels. In addition, the COVID-19 pandemic severely affected the country's key economic sectors like agriculture, fisheries and tourism, threatening lives and livelihoods across communities.

1. Background

The Gambia's fisheries are divided into two sub-sectors: artisanal/small-scale and industrial. The small-scale sub-sector is labour intensive and the industrial sector is highly mechanized. According to the Food and Agriculture Organization (FAO), fewer than 5 per cent of local fisherfolk are involved in industrial fishing, which employs mostly foreign workers. Under a fishing license and agreement regime, large foreign industrial vessels pay to operate in distant waters within the EEZ, while both artisanal and industrial vessels operate in domestic waters and on the river. Over the past decade, the artisanal sector has accounted for over 80 per cent of total domestic and official fish landings. The SSF sub-sector uses planked dugouts and fibre canoes measuring between 10-20 metres. Its fishing areas are concentrated in the marine, brackish and freshwater regimes. It contributes to food security, economic growth and development of fishing communities. However, its current outlook is not promising due to the rise in illegal and unsustainable fishing. Thus the need for better governance at local, state and national levels.

Mangrove oyster is a commercially important mollusc harvested from mangrove areas in several countries along the West African coast, including The Gambia. The tributaries and wetlands of the Gambia River are some of the main oyster production areas in the country. Meanwhile, the fish farming sector (aquaculture) is at an artisanal level and pursued by small-scale, local fisherfolk. The fisheries sector contributes about 12 per cent of the country's GDP and provides direct or indirect employment for more than 300,000 people in capture fisheries. The FAO estimated in 2022 that fisheries generate about US $55.5 million to the economy, of which production accounts for US $38 million—with industrial processing making up the remainder (roughly US $ 16.1 million). Women are key actors in the fisheries value chain and depend on fisheries for income and food. Women make up 15 per cent of the workforce in harvesting and 10 per cent are involved in fish processing.

While the FAO has cited the fisheries sector as having a "strong" potential to develop into an emerging export market, there is high demand pressure on fisheries resources—particularly since fish forms the primary source of animal protein in Gambian diets. Over-exploitation and marine resource depletion are major concerns, as are rising fish prices, which constrains access to white meat for the country's population. Meanwhile, the decrease in catches as a consequence of deteriorating fisheries resources (and the interlinked loss of habitat and ecosystems) poses further risks to food and nutrition security.

The absence of adequate downstream infrastructure and unstable/weak food value chains, particularly due to gaps in the cold chain and the dearth of cold storage warehouses, leads to wastage levels as high as 20 per cent in the fisheries sector. The FAO highlights the inadequate access to such critical auxiliary services as: processing technologies, appropriate transport facilities to inland markets, handling both at source and distribution points, and market facilities as having exacerbated the problem of post-harvest loss due to fish spoilage, especially during peak fishing seasons.

As well, the sector faces threats from an array of social, economic, physical, institutional and technical factors. According to a 2020 European Union study, major issues include:

- Poaching and over-exploitation of fish stocks by industrial fleets, including foreign trawlers. Among the species affected are the bonga shad, sardinellas, white groupers, cuttlefish and pink shrimp

- Pollution, chiefly sewage discharge from urban areas and chemical residue run-offs from farmlands, affected fish spawning sites
- Acidification of fishing waters
- Use of illegal fishing gear and mesh sizes
- Fishing in spawning sites
- Poor implementation of proper stock management measures, as well as monitoring, control and surveillance programmes

Climate Change Impacts on the Gambia

Due to the low elevation and morphological traits of its coast, The Gambia is consistently ranked among the top ten nations most threatened by sea-level rise and its related impacts, including annual flooding, saltwater intrusion and coastal erosion. With nearly half of its total land mass standing under 20 metres above sea level (and almost a third situated below 10 metre above sea level), climate change research predicts that a sea-level rise of 1 metre has the potential to inundate around 8.7 per cent of the country's total land area. In such a scenario, the area affected by salinization will include over 61 per cent of The Gambia's mangrove forest cover, with severe consequences to the ecosystems therein besides threats to other sources of inland water. The Intergovernmental Panel on Climate Change (IPCC) warned, in its 2022 report, that sea temperature rise, acidification and ocean hypoxia will negatively impact several marine species, including fish and crustaceans. The Gambian government has also highlighted the risk of "accentuated changes" in marine species diversity and distribution posed by global warming and climate change in general, which will exacerbate "decades-long fishing pressures" in the country.

In its 'Third National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) in 2020, the government predicted that the effects of ocean warming on the marine environment would impact the population structures and geographic distribution of marine species, including "emblematic" fish like sardinellas (s. maderensis and s. aurita) and the bonga shad (ethmalosa fimbriata). Meanwhile, benthic marine species—with "little or no opportunity for range expansion" —are likely to be severely impacted. The government warned that sea water warming is expected to continue unabated into 2050 and beyond, with temperatures at depths below 100 metres potentially increasing by 0.1°C per decade. These projected changes to the water column are also expected to dampen the intensity of seasonal coastal upwelling of cold, nutrient-rich water, which is key to marine ecosystem productivity.

The retreat of mangrove forests, triggered by salt intrusion, will lead to wetland shrinkage in specific areas, the Gambian government noted, cautioning that this would negatively impact pollution abatement in shallow coastal waters. The increased presence of pollutants combined with the warmer water conditions is expected to: (i) lower harvests of bony fishes, crustaceans and shellfish; (ii) compromise food safety; and (iii) threaten the livelihood strategies of fisherfolk, in particular the fisherwomen around the Tanbi National Park (a wetland reserve where mangrove oysters are harvested).

The problems of climate variability—which has led to dry seasons from November through May, besides rising air and surface temperatures (the former averaging 18-33 degrees Celsius (°C)—are compounded by declining rainfall (to the tune of 800 mm in 2020 from 860 mm in 2000). In its 2020 report, the Gambian government indicated that the average length of the rainy season has decreased by at least six days over the last

30 years, whilst surface temperatures have increased by 0.4°C to 0.67°C per decade, over the same period. It projected that changes in average annual temperatures between 2020 and 2100 will be (at least) more than 3.1 degrees Celsius by 2100, exacerbating the problem of prolonged drought.

In short, the impacts of climate change on the SSF sub-sector in The Gambia stem from sea level rise, increases in water and surface temperatures and variable weather conditions. They include reduced or negative fish growth capability, slow reproduction and redistribution of some native fish species that may result in the introduction of invasive species. The government has warned that the combination of climate change-related concerns and fishing pressure attributed to illegal, unreported and unregulated (IUU) fishing might cause some fisheries to collapse, citing continued downward trends in demersal fisheries.

The Fisheries Act (2007) and Biodiversity and Wildlife Act (2003) have defined effective means to address some of these impacts, providing for conservation measures like closed areas, closed season, and Marine Protected Areas (MPA). Other measures include mangrove and seagrass rejuvenation and restoration. Sea-state weather information supported through the Monitoring for Environment and Security in Africa (MESA) project by the European Union (EU) through ECOWAS provides information to fishers about the sea state. This task was assigned to Gambia Fire and Rescue Services that are located at strategic coastal fish landing sites.

2. Objectives

- **To assess** potential impacts of climate change on small-scale fishers, fishworkers and fishing communities with a specific focus on fishing grounds, fishery resources, living space and fish landing sites, craft and canoes, fishing gears, and fish processing

- **To propose** adaptation and mitigation measures, towards addressing and minimizing the impacts of climate change on the lives and livelihoods of fishers and fishworkers and their communities

3. Scope of the Case Study

The 2016 Fisheries Frame Survey identified 155 fish landing sites in The Gambia. Of these, only 11 are along the Atlantic coast and the remaining in brackish and fresh water areas. Given such a large number of landing sites, the case study compiled a random selection of fishers to be interviewed or consulted. This allowed for the collection of primary information on climate change impacts and mitigation actions from communities, government institutions, environmental organizations, and SSF associations and umbrella organizations.

In Africa, and The Gambia in particular, there is a concept called 'management in information deficient situations' that applies to all sectors linked to natural resources—fisheries, forestry, biodiversity and climate studies. Data available for informed and effective planning and policy is either limited or unreliable. However, the precautionary principle, which is the cornerstone of environmental and natural resources management, states that necessary action to avert serious and irreversible threats and damage should not be held in abeyance in the absence of scientific certainty. One way to deal with this is the

'common sense approach' (CSA), which includes incorporating the local ecological knowledge or indigenous knowledge of fishers and fishing communities.

For concentrated data collection, the villages of Jinack Niji and Jinack Kanjateh were selected due to their high vulnerability to climate change impacts. Situated in the North Bank region of the Lower Niumi District, these two villages are located on the north-western edge of the Gambia River's estuary; they are separated from the mainland delta of the Niumi National Park by the Niji bolong (tributary). The activities in the villages include fishing, harvesting oyster and cockle, crab fishing, whelk gathering, and eco-tourism like bird watching. They are often called 'Paradise Islands' because of a slightly curved and tapering strip of low-lying land. It is about 10 km long with an interior of dry woodland and grassland, comprising vegetation like Tamarisk scrub, baobab trees and acacia. The islands are fringed with mangrove creeks, tidal sand flats, saltwater marsh, low coastal dunes and a coastal lagoon, at Buniadu Point, in the northern section. In the winter season, the isles are often visited by dolphins.

The habitats include mangrove swamps, mudflats, dry woodland, salt marsh, grassland, lagoons, dunes and beach flats. The shallow waters just after the north shore provide excellent feeding grounds for gulls, terns, and other piscivorous species that roost in significant numbers off Buniadu Point, on the northernmost shore and its coastal lagoon. The area is frequented by European migratory birds wintering here. Among the bird recorded here are great egrets, storm-petrels, slender-billed gulls, goliath herons, ospreys, Abyssinian rollers, royal terns, purple herons, Senegal parrots, red-billed hornbills, sunbirds, European spoonbills, yellow-backed weavers, greater flamingos, pelicans, rose-ringed parakeet, laughing doves, greater blue-eared glossy starlings, northern red bishops, green wood-hoopoes, Senegal thick-knees and little bee-eaters.

These villages are highly impacted by sea level rise, which damages residential sites, lodges and farmlands. Hyper-saline intrusion is killing mangroves and salinizing ground water aquifiers used for drinking and cooking. The mitigation measures adopted by the communities include coconut planting, mangrove regeneration, and sea-wall defenses built with used car tyres and sand bags.

4. Methodology

From focus group discussions (FGDs) and key informant interviews (KIIs) with stakeholders, fishers, women fishworkers and the department of fisheries (DoF), it was clear that all of them were aware of climate change and its impacts, including the need to observe and monitor changes in weather patterns and in sea-level rise. The DoF, being the technical arm of the ministry of fisheries, is fully knowledgeable about the adverse effects of climate variability and change on fishing communities and fishing grounds. But it does not not possess the technical know-how and skill to conduct impact assessments, nor does the 2007 fisheries legislation include an articled section on climate change.

(i) Preparatory phase

The case study commenced with a desk review of legal instruments, policies and strategic documents. These included the 2007 fisheries law and various related subsequent regulations, besides laws and regulations that govern biodiversity, wildlife conservation and environmental management, among other subjects.

(ii) Field visits

Field visits were conducted at coastal landing sites in Kartong, Gunjur, Sanyang, Brufut, Tanji, Old Jeshwang and Barra. The inland fish landing sites visited were Jinack Kajateh, Bintang, Besse, Kafuta and Bulock. The focus group discussions (FGDs) were attended by fishermen, women fish processors, fish traders and oyster harvesters.

(iii) Meetings and Interviews

Meetings and key informant interviews (KIIs) were organized with fishermen, fish processors and traders, and representatives of professional artisanal bodies and local environmental organizations. A structured questionnaire, developed to guide the discussions, is included in the annexure.

5. Institutional and Legal Frameworks

This review identified the range of mandated institutions' legal instruments, policies and strategies relevant to natural resource conservation, management and development. It looked into their impacts and the steps of mitigation and adaptation to climate change. The intent was to provide remedial actions to fishers, fishing communities and the government to effectively address climate change impacts on fishing grounds, artisanal fisheries infrastructure and their communities. The institutions included departments and ministries in charge of fisheries and water resources, parks and wildlife management, as well as the National Environment Agency (NEA) of the Ministry of Environment, Climate Change and Natural Resources (MoECCNR).

Specifically, these instruments are: the Fisheries Act, 2007; the Fisheries Regulations, 2008; the Biodiversity and Wildlife Act, 2003; the National Environment Management Act (NEMA), 1994; the Fisheries Amendment Regulations, 2019; the Biodiversity and Wildlife Act, 2003; Environmental Impact Assessment Regulations, 2014; and the and Anti-Littering Regulations, 2007. A new fisheries legislation has been drafted, but not yet formally legislated by parliament.

The reviewed policies, actions plans and strategic documents are as follows:

- The Fisheries and Aquaculture Policy, 2023-2032
- The Gambia Environmental Action Plan (GEAP Phase III), 2021-2030
- The Long-Term Climate-Neutral Development Strategy, 2050
- The National Biodiversity Strategy and Action Plan (NBSAP), 2015-2020

The case study also covered select environmental organizations that may not be directly addressing climate change impacts on artisanal fisheries, but are relevant towards the support of proper biodiversity functioning. These include the Kartong Association for Responsible Tourism (KART), the West Africa Bird Study Association (WABSA), the Gunjur Environmental Protection and Development Group (GEPADG), and the African Fish and Wildlife Conservancy (AFWIC). Their concerns include fish, seabirds, turtles, small cetaceans, food security, as well as mangrove and seagrass ecosystems.

(i) Act No. 2007-6 of 8 October 2007 on the Fisheries Code (FC), "Fisheries Act 2007"

The Fisheries Act of 2007 is generally understood to provide the legal framework for fisheries conservation, management and development in The Gambia. It regulates fishing and aquaculture-related activities conducted by nationals and foreign fishing fleets—artisanal and industrial—operating in national waters including its EEZ. It prescribes rules related to aquaculture, fish processing, fish imports and exports. The act is classified into 17 Parts, namely:

(I) Preliminary
(II) Administration
(III) Fisheries Advisory Committee
(IV) Fisheries conservation, management and development
(V) Fisheries Fund
(VI) General license requirements
(VII) Local licensing requirements
(VIII) Foreign licensing provisions
(IX) High Seas fishing
(X) Aquaculture
(XI) Fish processing, import and export
(XII) Prohibitions
(XIII) Powers of authorized officers
(XIV) Fisheries observers
(XV) Sale, release and forfeiture of retained property
(XVI) Jurisdiction and evidence
(XVII) Miscellaneous

The section most relevant to climate change mitigation and adaptation measures and on the SSF sub-sector is Part IV of the Fisheries Act of 2007 which deals with fisheries conservation, management and development. Its sub-section 9, on guiding principles, gives priority to the following:

- Ensuring long-term conservation and utilization of aquatic living resources to meet the needs and aspirations of present and future generations
- Avoiding, minimizing and mitigating the adverse effects of fishing and aquaculture on the aquatic environment
- Conserving the biodiversity of the aquatic living resources, their ecosystems and habitat
- Application of precautionary approaches to the conservation, management and development of fisheries and aquaculture
- Minimizing pollution, waste, discards, by-catch, lost or abandoned gear and impacts on associated or dependent species, through measures, including, to the extent practicable, the development and use of selective environmentally safe and cost-effective fishing gear and techniques
- Application of management practices based on sound management principles and

the best scientific information available, to be gained through national and international research programmes

- Collecting and sharing, in a timely manner and in accordance with fisheries management agreements and international law, complete and accurate data concerning fisheries and aquaculture as well as information from national and international research programmes
- Preventing or eliminating over-fishing and ensuring that levels of fishing effort do not exceed those commensurate with sustainable utilization of fisheries resources
- Taking into account the interests of artisanal and subsistence fishing and minimizing, to the extent practicable, fishing conflicts among users
- Promotion of broad and accountable participation in the conservation, management and sustainable development of fisheries and aquaculture
- Ensuring that any conservation and management measures allow for the implementation of relevant international agreements to which The Gambia is a party or has consented to be bound

The following sub-sections (to Part IV) are also relevant to this case study:

Section 10: covering the powers of the minister of fisheries in determining the total allowable catch with respect to any fish stock.

Section 11: empowering the minister to determine participatory rights in a fishery, such as total allowable catch or total allowable level of fishing.

Section 12 (1): stating that the director of fisheries shall prepare and keep under continual review plans for the management and development of fisheries and aquaculture.

Section 14: empowering the minister of fisheries to declare Special Management Areas (SMAs) for the purpose of community-based fisheries conservation and management.

Section 15: empowering the minister to establish Community Fisheries Centres (CFCs) for the purpose of community-based fisheries conservation and management of SMAs or parts of it.

In terms of participation and consultation for decision making and devolution of authority, the approved and gazetted Sole Fishery Co-management Plan in 2012 and 2013 delegated exclusive use rights to the National Sole Fishery Co-management Committee (NASCOM) for the sustainable conservation and management of the sole fishery in The Gambia. A part of NASCOM's mandate is to implement a one nautical area closure each year from May 1 to October 31 in partnership with the DoF and other relevant natural resources institutions. Other initiatives that pertain to small-scale fisheries include the temporary ban on night fishing of small pelagics each year from June 1 to November 30, supported by the fisheries ministry. The purpose for this ban is to minimize accidents at sea, reduce post-harvest losses and allow spawning and breeding to take place.

Sedimentation impacting SSF fishing operations at the Old Jeshwang fish landing site in the Gambia, by Dawda Foday Saine

(ii) Regulation No. 2008-6 of 9th of June 2008, as amended in 2019, "Fisheries Regulations, 2008"

Made under section 106 of the Fisheries Act of 2007, these provide for amending the existing fisheries regulations. The amendments have to do with replacing terms and definitions concerning semi-industrial vessels, the amount of the special fisheries fund, and the limit of the restricted areas for fisheries conservation measures. They also provide for the substitution of licence fees for foreign and local fishing vessels, according to the species of fish, shrimps and cephalopods. The regulations provide details of the permitted fish size, the fish weight limitations and sanctions for offences such as penalties and fines. Part XI of the regulations has to do with fisheries conservation, including measures like area restrictions, gear restrictions, fish size limitations, by-catch, and sharks and lobsters.

Sections in the 2008 regulations were amended in 2019; changes that are relevant to the SSF sub-sector include.the institution of a permanent ban on fishing within the 01 nautical mile (nm) zone; the prohibition of all fishing operations, including artisanal fishing, within the 02 nautical mile zone between May to October annually for fish stock regeneration purposes; the requirement for all fishing vessels, including artisanal fishing craft, authorised to fish in the Gambian EEZ to be equipped with the Automatic Identification System (AIS). Additionally, the amendment allowed industrial fishing vessels under 50 gross registered tonnes (GRT), other than small-scale fishing craft, sport fishing vessels or semi-industrial fishing vessels, to fish beyond 9 nautical miles. It also barred trawlers and semi-industrial fishing vessels at or under 50 GRT from fishing within 07 nautical miles of the low water mark.

(iii) Biodiversity and Wildlife Act, 2003

This legislation provides for the protection of biodiversity in The Gambia and for the establishment and management of protected areas. It also establishes a Biodiversity Fund and regulates hunting and harvesting of scheduled biological resources and their import and export. Biological resource refers to a genetic organism or other biotic component of ecosystems with actual or potential use or value for humanity. Scheduled biological resource refers to a resource listed in the schedule or such other biological resource as may be specified by the secretary of state.

The act consists of 97 sections divided into 13 Parts. They are:

(I) Preliminary
(II) Administration
(III) Protected Areas
(IV) Management of Protected Areas
(V) Biodiversity Fund
(VI) Control of Hunting and Harvesting
(VII) Prohibited methods of Hunting And Harvesting
(VIII) Sale of Schedule Resources
(IX) Import and Export of Schedules Biological Resources
(X) Enforcement Powers
(XI) Presumptions, Penalties And Forfeitures
(XII) Biodiversity And Wildlife Coordination Mechanism
(XIII) Miscellaneous

The secretary of state is responsible for the administration of this law, with the directors of various departments or public agencies taked with carrying its provisions into effect. The Department of Parks and Wildlife is responsible for cooperating with national and international organizations and bodies on matters of biodiversity and wildlife conservation. The law calls for the establishment of a Biodiversity and Wildlife Training Centre. The secretary of state may, on recommendation of the directors, declare protected areas for the purposes of biodiversity and wildlife conservation and sustainable use. The law sets out conditions and procedures for such declarations. The protected areas shall be classified into national parks, national reserves, fisheries protected areas, local sanctuaries, and culture and heritage sites. The director of parks and wildlife shall encourage community participation, in the form of a Local Biodiversity Areas and Wildlife Committee.

(iv) National Environment Management Act, 1994 (NEMA)

This law has 65 articles divided into 13 Parts comprising the principles of environmental protection and the instruments to carry out an environment protection policy in the Gambia. They are:

(I) contains definitions
(II) outlines the general principles of environmental protection
(III) provides for establishment of the National Environment Management Council (NEMC), headed by the president, and the NEA to coordinate the environment policy. It also creates several national and local committees

(IV) calls for NEA to make an action plan as the key instrument for national environment planning. Local planning units are to prepare local environment plans

(V) requires a developer to submit environment project briefs and environmental impact statements for projects listed in the Schedule. Its section 25 provides for environmental audits

(VI) specifies that the NEA is mandated to form environmental standards

(VII) deals with environmental management and contains provisions for coastal zone management

(VIII) provides for pollution control

(IX) deals with inspection and analysis

(X) looks at education

(XI) handles offences

(XII) deals with legal proceedings

(XIII) contains miscellaneous matters. This Schedule gives a list of the projects to be considered for Environmental Impact Assessment

The NEMC is the policymaking organ of the NEA and coordinates all policies, whether by government or the private sector, which have or are likely to have a significant impact on the environment. It is also responsible for integration of environmental considerations in all aspects of social and economic planning; harmonizing the plans and policies of the various sectors dealing with the environment; and approving all environmental plans and policies. The NEA's functions include implementation of policies laid down by the NEMC; liaising with the various ministries, departments, and agencies on all issues relating to the environment to ensure that environmental concerns are integrated into all spheres of national planning and project implementation; liaising with the private sector, inter-governmental organizations, non-governmental organizations, governmental agencies of other states on all issues relating to the environment; and preparing proposals for environmental policies and strategies. The NEMC has a finance committee and a technical advisory committee (TAC) with 15 members who have technical expertise in various fields of environmental management.

(v) Designation of special management areas (SMAs) notice no. 34 of 2013

This notice implements the section of the 2007 fisheries law that has to do with the development of management plans; with the designation of special management areas for the sole species complex; cockle and oyster fisheries management; community-based co-management in the interest of conservation, management and sustainable utilization of fisheries resources; enhancing artisanal fisheries; and allocating property rights over fisheries resources.

This notice defines the principles for management of the fisheries, including: the precautionary approach; traditional and local knowledge; adaptive management approach; ecosystem-based management approach. The contents of management plans need to include: overview description of the fishery, vessels and fishing areas; by-catch species; current status of the fish stocks; legal basis for management under this plan; management objectives and related measures to achieve those objectives; and means for enforcement, monitoring and evaluation of the plan development of oyster aquaculture; penalties and fines.

(vi) Environmental impact assessment regulations, 2014

These regulations for the NEMC were made under section 63(1) of the National Environment Management Act, 1994. They regulate the environmental impact assessment (EIA) and environmental monitoring and auditing. These regulations apply to all projects included in the law and also to any major repairs, extensions, alterations or non-routine maintenance or any existing project, which is included in the law. No developer can implement a project falling under these regulations without carrying out an EIA in accordance with these regulations. The licensing authority under any law requires the production of a certificate of environmental approval before issuing a license for any project identified as requiring an EIA.

(vii) The Gambia environmental action plan (GEAP) Phase III, 2021-2030

This plan is a multi-sectoral framework for environmental planning and natural resource management. The third phase of this plan covers the years 2021 to 2030 and aims to address environmental challenges such as climate change, deforestation and land degradation through a coordinated approach involving multiple stakeholders. It also sets targets for reducing greenhouse emissions by 47.2 per cent compared to 2030 levels.

6. Strategies and Action Plans

(i) Long-term climate-neutral development strategy 2050

The country's 'Long-Term Climate-Neutral Development Strategy 2050' (LTS) focuses on five key greenhouse gas emitting sectors, namely: energy, agriculture, waste management, transport, and Land Use Land Use Change and Forestry (LULUCF). Building upon the Gambia's Second Nationally Determined Contribution in 2021, the LTS focuses on mitigation and adaptation actions that would require funding for the country to reach net-zero emissions by 2050, in line with its commitments under the 2015 Paris Agreement.

The strategic areas for LTS's Long Term Vision (LTV) are climate-resilient food and landscapes, agriculture, food security, forestry and natural resources, including water, biodiversity and wildlife, low emissions and resilient economy. It encompasses energy, transport, infrastructure, and the key economic sectors of tourism and financial services. It envisions a climate resilient people in terms of healthcare, education, equitable social development, and human settlements and coastal management in a changing environment. The LTV includes climate-aware Integrated Coastal Zone Management.

It recommends that the government work for the following:

- Regularly and systematically implement measures aimed at raising awareness on issues related to climate change
- Ensure that issues related to climate change are integrated into primary, secondary and tertiary curricula. Both primary and secondary measures may be used for enhanced climate mainstreaming in the education sector, in research and development, innovation and awareness raising

The primary set of measures to be implemented by the government include:

- Mainstreaming climate change related aspects into a National Strategy for Education
- Mainstreaming climate change related aspects into a National Strategy for Gender Equality
- Developing an action plan for the introduction of climate-related education into the curricula of all education levels and in life-long learning, teacher education and in-service training
- Developing a national programme for raising awareness on climate change
- Establishing a coordination mechanism on climate change education among all relevant stakeholders
- Allocating resources for the implementation of climate change education activities at all educational levels
- Allocating resources for the implementation of climate change awareness raising activities, in which a number of behavioural measures get promoted, such as sustainable food production, vegan diet and lifestyle, environment and climate friendly consumer practices, primary waste selection, local waste composting, and promotion of local and low carbon products

(ii) National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020

The plan envisioned the conservation and promotion of the rational use of biological diversity. It was intended to recognize different forms of life and maintain a nurturing and dynamic world rich in biodiversity. As well, it provided an overarching framework for all the biodiversity-related issues at national level. The NBSAP's strategic goals included:

- Addressing the underlying causes of biodiversity loss by mainstreaming biodiversity across Government and society
- Reducing the direct pressures on biodiversity and promoting sustainable use
- Improving the status of biodiversity by safeguarding ecosystems, species and genetic diversity
- Enhancing the benefits to all from biodiversity and ecosystem services
- Enhancing implementation through participatory planning, knowledge management and capacity building. Gender mainstreaming in biodiversity planning is intended to bring the diverse roles, needs and knowledge of women and men to bear on national strategies to reverse the loss and unsustainable use of biodiversity

The NBSAP stated that biodiversity, its conservation and sustainable use is the responsibility of all Gambians; that community participation and informed stakeholder involvement in planning, implementation and decision-making are a prerequisite for effective conservation and sustainable use programmes. It noted that successful conservation of biological diversity requires incorporation of the conservation and sustainable use concepts into relevant decision-making and management processes. These include: resource allocation and management, development appraisals and decisions and sectoral policies.

Target 7 of the plan stated that 50 per cent of areas under agriculture, aquaculture and forestry should be managed sustainably and in a time-bound manner, ensuring conservation of biodiversity. It extended to the promotion of fisheries and forestry sectors to efficiently engage in conservation, management and development of the inland and marine fisheries. It talked of maintaining, developing and managing 30 per cent of the total land area under forest with a view to enhance environmental protection through minimizing soil degradation and erosion, with a view of ensuring the optimum and sustainable utilization of the fisheries and forestry resources for the benefit of the Gambian people.

7. Climate Change Impacts in the Gambia—Results from the Field

During the field visits at 12 coastal and inland fish landing sites, a total of 80 fishers were met, of whom 65 (81.25 per cent) were fishermen and 15 (18.75 per cent) were women fish workers, processors and traders. The fishermen were aged between 30 and 65 years, while the women participants were between 35 and 60 years of age. The discussion provided firsthand insights and clear evidence about how climate change is leading to shifts in fisheries—that it is a reality severely impacting small-scale fishers and their communities, whose entire livelihood depends on fisheries.

Among the most urgent challenges reported by the participants through a questionnaire (see annexure) were decreasing fish catches and access to fish (with 46 per cent of respondents raising this issue). This has exacerbated the challenges of accessibility, adaptability, affordability and stability. Besides the reduced catches, the participants also listed the displacement of fish stocks due to climate change, which was reported to have resulted in increased costs—since fishing operations needed more fuel, more ice and more food. More than 25 per cent of the responses raised concerns about fish availability and fishing operations. The participants noted that fish landing sites are more vulnerable to climate change because of existing fisheries infrastructure and institutional challenges. They were also apprehensive about facing worsening effects in the future, with the increasing frequency and intensity of rough weather and sea surges being reported. Participants also spoke of warmer sea surface temperatures and flooding of fish landing sites, which was impacting fishing operations and shortening fishing days. Associated events, including the die-back of mangroves, algae and seaweed, were also reported.

To adapt to these challenges, the SSF communities have adopted a number of strategies: the most commonly reported by the participants was borrowing money from individual money lenders—30 participants (38 per cent) reported having to resort to this adaptation strategy. Another 10 (13 per cent) revealed they are forced to stop fishing operations and wait for better weather, while the remaining respondents said they had to withdraw their savings to continue fishing. While 15 participants (19 per cent) reported modifying their fishing gears and shifting their fishing grounds, another 20 (25 per cent) said they had increased their fishing efforts. These were viewed as simply coping strategies to pursue over the long and short terms and thought of as ineffective adaptations because of the increased likelihood of aggravating over-fishing or increased IUU fishing.

In summary, the field visits revealed that fishers and fishing communities have limited capacities—of knowledge, financial and technical resources, or in terms of obtaining timely political support—to ensure or put in place transformative strategies to address the many

challenges of climate change. SSFs need to be provided with accurate and regular weather information, alternative fishing options and other livelihood options. As well, the government and the donor community should conduct training activities on resource conservation and management, focused on, for example, planting of mangroves and restoration of seagrass. Closed areas and closed seasons are ways to ensure marine resources regeneration, provided the small-scale fishers are provided alternative livelihoods.

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Figure 1. Map of select fish landing sites (highlighted by location markers) across the Gambia. The locations with a red marker are described in detail below.

II. Site-specific Observations

1. Kartong

The village of Kartong is located in the Kombo South district, West Coast region, on the country's southwest coast, and near the international border with Senegal, which is demarcated by the Allahein river (also known as the Hallahin Bolong). The settlement, one of the oldest and smallest in the district, is surrounded by ocean, as well as salt pans, streams and mangroves next to the river.

The Kartong fish landing site was observed as being cut-off by the increase in sea-level, which has created a lagoon. To serve as a buffer against the rising sea, the community has taken to collecting and planting mangrove propagules. They also use canoes to facilitate the transfer of landed fish catch through the lagoon to the places where fish traders wait and for onward distribution to fish markets and processing sites.

Voluntary collection of mangrove propagules to serve as a buffer against sea-level rise at the Kartong fish landing site in the Gambia, by Dawda Foday Saine

2. Barra

A small settlement on the north bank of the Gambia river estuary, Barra falls in the Lower Niumi district of the North Bank region. It is located 5 km across the river from Banjul, the capital of the Gambia, to which it is connected via a ferry service. Sea level rise has led to encroachment of fishing landing sites in Barra, which was observed during the field visit. To mitigate the effects of this erosion, the community has planted coconut trees to protect residences, shops and the landing sites. This was made possible through funds mobilized by the community and donor interventions as well as fostering community awareness about the impacts of climate change.

3. Bintang

Situated near the Bintang bolong, a major tributary of the Gambia river, Bintang is a key inland fish landing site. The settlement was observed to have suffered from soil erosion. The community has constructed a sea-wall defense using large rocks, in order to prevent damage to the fish landing jetty and agricultural produce.

4. Essau

A small town in north-western Gambia, Essau is located in the Lower Niumi district in the North Bank division. Its fish landing site was observed to be mushroomed by the rising sea levels, making water levels rise to knee-height during high tide. Already difficult to access, fishers predicted that the landing site would be consumed by water inundation in five years time. This will result in the forced displacement of the fishing community. Asked about their mitigation efforts, the respondents noted that no actions had been taken, adding that the presence of natural mangrove cover has been a blessing in terms of reducing and withstanding the strength of the sea waves. Nevertheless, fishers pledged to engage in communal tree and mangrove planting, with some reporting that the voluntary collection and planting of mangrove propagules by community members, both men and women, will serve as a buffer against the rising sea.

The fish landing site at Essau is being mushroomed by sea-level rise, by Dawda Foday Saine

5. Bakau

Located in the Kombo North district on the west coast region of the Gambia, Bakau is part of the northernmost strip of coastline that overhangs the meeting point of the Atlantic Ocean and the Gambia river. The fishing settlement is characterized by fish smokehouses and the brightly coloured pirogues (small fishing craft) that bring fresh catch to shore. Intrusion by the sea into the smokehouses, run by women, was observed during the field visit. To tackle this issue, the community has collected and placed large rocks, and planted trees, in front of fisheries infrastructure such as smokehouses, fishing gear stores, fish drying racks, fishing gear repairs and maintenance space, and toilets facilities.

6. Old Jeshwang

Situated in the Gambia's Kanifing district, the SSF community of Old Jeshwang has had fishing outings impacted by sedimentation along the landing site. Fishers attributed the deposits to private at-sea mining efforts by a company operating on government license. Respondents noted that they had approached the government on several occasions to help dredge the affected area. As an adaptation measure, fishers are now having to off-load catch at low tide as far as 100 metres—which results in additional off-loading costs borne by the canoe-owner.

7. Jinack Kajateh

Falling in the North Bank region of the Lower Niumi district, Jinack Kajateh is located on the north-western edge of the Gambia river's estuary. The village is separated from the mainland delta of the Niumi National Park by the Niji bolong.

The fishing community has constructed a barrier using secondhand car tyres to prevent soil erosion as a result of rising waterline levels. The mitigation measure to protect the fish landing site and houses was coordinated by 'Ndangola Sula Kafo', an environmental concern group.

Intrusion of the sea into a fish smokehouse at Bakau in the Gambia, by Dawda Foday Saine

Focus group discussions with women fish processors smoking the catch at Old Jeshwang, the Gambia, by Dawda Foday Saine

The fishing community at Jinack Kajateh village, the Gambia, uses secondhand car tyres to fight coastal erosion, by Sarjo Manneh >

Table 1. Direct Climate Change Drivers, Overall Impacts on Marine, Inland Fisheries and Adaptation

Climate Change Drivers	Overall Impacts	Marine Fisheries	Inland Fisheries	Adaptation Measures
Sea temperature changes	- Changing fish location or fishing grounds	- Harder for fishers to locate and catch fish, reducing catch volumes and incomes	- Harder for fishers to locate and catch fish, thus reducing catch volumes and incomes	- Increased fishing days and use of ice on- board for fish preservation - Change in fishing grounds
Increased salinity	- Increased fish mortality - Fish migration - Appearance of invasive species	- Limited fish catches - Fish migration and distribution altered	- Limited fish catches - Fish migration and distribution altered	- Women fish processors should shift to value additions to increase shelf life of the catch - Establish closed seasons or construct artificial devices for fish aggregation and stock enhancement
Variability and extreme weather	- Reduced catches - Increased accidents at sea - Increased flooding of low-lying coastal areas	- Decreased catches and incomes	- Decreased catches and incomes - Encouragement for young fishers to risk going to Europe illegally	- Establish stock enhancement activities - Introduce and implement weather forecasting - Ensure use of safety equipment such as life jackets, reflector lights, fire extinguishers - Training on safety at sea to change behaviour

8. Roadmap for follow-up actions

The case study makes it evident that the impacts of climate change are expected to be felt the heaviest by small-scale fishers in several regions, but there are also possibilities that the changes in species abundances and distributions could create new opportunities for them. To this end, it must be ensured that:

- Observed and predicted impacts of climate change on coastal and inland waters are shared and communicated to SSF communities. Climate change impacts, vulnerabilities and adaptation in capture fisheries must be collectively identified with SSF and simple mitigation and adaptation measures have to be planned and supported for action
- Adaptation in post-harvest processes is improved, for example, by the development or improvement of storage and processing equipment and capacity. Robust biosecurity systems are needed to ensure the quality of fish and fish products through to the consumers, as well as to facilitate possible access to higher value credits and markets
- Adaptive management within the framework of an ecosystem approach to fisheries is further developed for maintaining, and restoring, resilience of ecosystems and species to the coming changes

- Measures to improve early warning systems and safety at sea are implemented. There has to be increased protection of fisheries-related infrastructure like fish landing sites
- Adequate support structures and systems are created for alternative livelihood opportunities such as finfish and shellfish aquaculture
- There is effective adaptation to strengthen and maintain all natural resources sectors, specifically fisheries and aquaculture. This must be taken into consideration in future national plans, strategies and policies, with particular attention to meeting global goals of employment generation, poverty reduction and food security
- There is sufficient financial support by the government and the international donor community to address all recommendations in the report

9. Recommendations

In order to ensure sustainable adaptive management of fisheries resources, the following actions are recommended:

i. **Strengthen** the resilience of fishers through sustainable fisheries management, including taking steps to mitigate unsustainable by-catch of Endangered, Threatened and Protected species (ETPs) and avoiding IUU fishing

ii. **Support** the DoF in integrating climate change risks into its planning activities, including the creation of a reliable database on species diversity

iii. **Develop and improve** partnerships in research, information, education and communication exchange. This must be done at the local, regional, national and international levels on climate change mitigation and adaptation measures. It should include strengthening fishers, their organizations and communities by sharing knowledge and expertise on affordable adaptation strategies such as mangrove restoration and planting and sea-wall defences using locally available materials

iv. **Promote** awareness creations of climate change risks and build capacities and support local communities in co-management

v. **Enhance** institutional capacity at all levels to respond to climate change threats in coastal areas, including through support from local councils to fund actions focused on coastal adaptation and capacity building. Capacity development efforts should include the private sector and stakeholders who are affected by coastal erosion and other climate impacts

vi. **Develop** research and education capabilities for building national capacity in Integrated Coastal Zone Management (ICZM) and assessing the impacts of climate change on coastal areas, including through a trans-boundary operational management plan with Senegal

vii. **Improve** the ability of government departments to effectively mobilize financial resources for implementation of their programmes, through programme management knowledge, attitudes and practices

viii. **Enhance** easy access to credit and insurance opportunities in coastal and inland communities to support disaster mitigation and compensation, through an operational framework for disaster risk financing and insurance

ix. **Develop** robust budgeted awareness creation plans on overall climate change impacts on threats and risks to livelihoods, fishing communities and fisheries resources

x. **Support** women harvesters involved in oyster and cockle aquaculture

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Annex 1. Questionnaire

Case study on the impacts of climate change on small scale fisheries in the Gambia

1. What is your name?
2. What is your age?
3. What is your occupation?
4. How long have you been engaged in your occupation?
5. Do you know what climate change is?
6. Have you ever attended any training or awareness creation workshop about climate change?
7. If yes, which topics were covered?
8. If yes, can you tell me what you know about climate change?
9. What are the impacts of climate change on fisher's infrastructure/ livelihood and income generation?
10. Have you ever been compelled to lend/borrow money from anywhere as a result of low fish catches?
11. If yes, how many times has it happened, and how much did you lend/borrow?
12. What are the impacts of climate change on fish species?
13. What are the impacts of climate change on fishing grounds?
14. Have climate change impacts ever forced you to migrate/move to another place?
15. If yes, where? And how did you cope at the new location?
16. Are you aware of any government or NGOs working on any climate mitigation and adaptation actions?
17. If yes, can you name them?
18. Are you aware of any fishers-based or fishers community–based climate mitigation and adaptation actions?
19. If yes, can you name them?
20. What would you say are the most severe climate impacts on fishers (fishermen, fish processors & fish traders, etc?)
21. What do you think are easy mitigation and adaptation strategies you can suggest to minimize the impacts of climate change on fishers and fishing communities?
22. What do you think the government or NGOs should do to effectively address climate change impacts on fishers and their communities?
23. Are you aware of any grievance redressal mechanisms employed by the government to address climate change impacts on fishers, infrastructure, etc?
24. Do you have any additional information you want to share or say about climate change?

References

Avadí, A., Dème, M., Mbaye, A., Ndenn, J. 2020. 'Fisheries value chain analysis in The Gambia. Report for the European Union', DG-DEVCO. Value chain analysis for development project (VCA4D CTR 2016/375-804), 134p

Access Gambia Information Site. 'Bakau beach and town, Gambia.' Accessed May 21, 2025. https://www.accessgambia.com/information/bakau-gambia-resort.html

Access Gambia Information Site. 'Gunjur beach and town information, Gambia.' Accessed May 21, 2025. https://www.accessgambia.com/information/gunjur.html

Access Gambia Information Site. 'Kartong beach and village information, Gambia.' Accessed May 21, 2025. https://www.accessgambia.com/information/kartung.html

Department of Fisheries (DoF), Gambia, 2017. 'Fisheries statistics.' Presented at Data Producer-User Forum (2017), Gambia Bureau of Statistics, Banjul.

Diénaba Beye Traore, (March 2022) 'Artisanal fishing zone issues in the Gambia', African Confederation of Professional Organizations of Artisanal Fisheries (CAOPA). https://caopa.org/wp-content/uploads/2023/10/Gambia_ENG_Nov_2022_final_low_res.pdf

FAO, European Union and CIRAD. 2022. 'Food systems profile—The Gambia. Catalysing the sustainable and inclusive transformation of food systems.' Rome, Brussels and Montpellier, France. https://doi.org/10.4060/cb9542en

Government of The Gambia (GOTG), 2020. 'Third national communication under the UNFCCC.' Ministry of Climate Change environment and Natural Resources (MECCNAR), Banjul. 75p. https://unfccc.int/documents/231735

IPCC (2022) 'Climate change 2022: impacts, adaptation and vulnerability.' Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge. Edited by S. L. H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig and B. R. S. Löschke, V. Möller, A. Okem. Cambridge, UK and New York.

Jaiteh Malanding, S. (2010) "Climate Change and Development in the Gambia Challenges to Ecosystem Goods and Services," (May 2011). The Government of The Gambia, Banjul. doi: 10.13140/2.1.1731.1040.

Muhammad Leroy Albert Gomez, Olatundun Janet Adelegan, Joshua Ntajal, Dodou Trawally, 'Vulnerability to coastal erosion in The Gambia: empirical experience from Gunjur,' International Journal of Disaster Risk Reduction, Volume 45, 2020, https://doi.org/10.1016/j.ijdrr.2019.101439.

The World Bank. 2023. 'World Bank in the Gambia' https://www.worldbank.org/en/country/gambia/overview.

World Health Organization, COVID-19 Dashboard, https://data.who.int/dashboards/covid19/cases.

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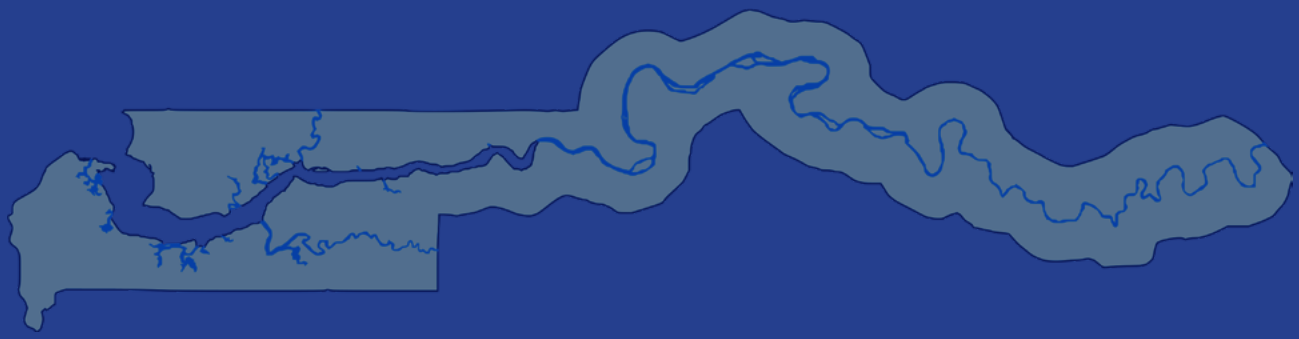
This case study identifies **climate change** impacts, vulnerabilities and adaptation in capture fisheries with SSF in **the Gambia,** and mitigation and adaptation measures as planned and supported for action. It shares/communicates the observed and predicted impacts on coastal and inland waters to SSF communities. The case study notes that the impacts of climate change are expected to be most severe for small-scale fishers in several regions, but argues that there are also possibilities that changes in distribution could create new opportunities.

Adaptation in post-harvest processes will also be improved, for example, by developing or improving storage and processing equipment and capacity and implementation of robust biosecurity systems in order to ensure the quality of fish and fish products to the consumers, as well as facilitating possible access to high value credit and markets. Adaptive management within the framework of an ecosystem-based approach to fisheries is further developed for maintaining, and restoring, resilience of ecosystems and species to the expected changes.

Measures to improve early warning systems, safety at sea and for protection of fisheries-related infrastructure such as fish landing sites are considered and implemented. Alternative livelihood opportunities such as finfish and shellfish aquaculture are supported for fishers.

Effective adaptation to strengthen and maintain all natural resources sectors, specifically fisheries and aquaculture, must be taken into consideration in future national plans/strategies and policies, with particular attention to meeting global goals of employment generation, poverty reduction and food security as contained in the United Nation Convention on the Right to Food and FAO Right to Food Guidelines. Financial support by the government and international donor community is needed to address all the recommendations in the report.



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