



Towards Sustainable Fisheries and Aquaculture in Nigeria

Evidence, Constraints, and Investment Priorities

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EXECUTIVE SUMMARY

Nigeria is Africa's largest fish consumer by volume and a leading producer. Fisheries and aquaculture contribute between 3 and 4 percent of national GDP, provide around 40 percent of the animal-source protein consumed by Nigerians, and support the livelihoods of around 12 million artisanal fishers and fish farmers. Women constitute over 60 percent of the sector workforce. However, the sector is locked in a structural supply-demand crisis. Domestic fish production meets only about one-third of annual demand of between 3.2 million and 3.6 million mt. The domestic supply deficit of approximately 2.4 million mt is filled by imports that cost Nigeria over USD 1.0 billion annually.

Domestic fish production has begun to respond to the growing demand for fish in Nigeria. The Federal Department of Fisheries and Aquaculture reports output rising to 1.4 million mt in 2025 from 1.1 million mt in 2024. This increase in production was attributed to improved federal-state coordination, the use of better aquaculture technology, and establishing more sustainable marine farming systems with the support of Nigeria's development partners.

Nonetheless, the structural deficit in fish supply for Nigerian markets remains large. The constraints hindering growth in Nigeria's fisheries and aquaculture sector include:

- A fish-feed cost crisis—feed makes up 60 to 70 percent of aquaculture production costs,
- The near-absence of cold chains for storing, transporting, and marketing fish, resulting in postharvest losses of up to 40 percent,
- Illegal, unreported, and unregulated (IUU) fishing costs of USD 450 million per year,
- Fragmented fish fingerling supply systems,
- Financial exclusion of artisanal fishers, and
- An outdated governance framework centered on the Sea Fisheries Act of 1992.

Moreover, climate change will acutely affect Nigeria's fisheries and aquaculture sector. Under high-emission climate-change scenarios, its maximum marine catch potential will fall between 23 and 53 percent by 2050. This makes the scaling up of aquaculture not merely an economic growth option but a structural and nutritional necessity. However, aquaculture will also be adversely affected by a changing climate, with growth in aquaculture in Nigeria expected to decelerate from 11 percent per year between 2010 and 2015 to only 2 percent per year in the 2035 to 2050 period.

The National Fisheries and Aquaculture Policy, 2025–2029, provides the operational framework for the growth of the fisheries and aquaculture sector. Its principal target is to achieve aquaculture output of 1.3 million mt by 2029 while cutting postharvest losses in half.

This paper concludes that any strategic action plan for Nigeria's fisheries and aquaculture sector must be built around closing the supply deficit through accelerated sectoral growth that is anchored in improved domestic feed and fingerling supply systems, cold chain investment at 12 priority fish landing sites, reforms of the Sea Fisheries Act to address IUU fishing losses, and a dedicated fisheries investment facility to correct the structural financial exclusion of Nigeria's fisheries and aquaculture sector.

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1. INTRODUCTION AND CONTEXT

Nigeria's fisheries and aquaculture sector is a central pillar of the national agrifood system and the single most important source of affordable animal protein for low-income households. However, the sector faces a structural supply deficit of approximately 2.4 million metric tons (mt) per year, with domestic production of around 1.2 million mt against annual demand of between 3.2 and 3.6 million mt. This gap between demand and domestic supply is met through fish imports costing over USD 1.0 billion annually (Ragasa et al. 2023, Ayo-Aderele 2024, CBN 2025). Nigeria's population, now exceeding 220 million and urbanizing rapidly, is shifting patterns of food consumption toward protein-rich foods (GAIN, Johns Hopkins University, Cornell University, and FAO 2026, NPC 2021). These trends present a clear opportunity for domestic fish producers to expand their production, particularly if the country seeks to reduce its reliance on fish imports.

Figure 1-1 Selected key characteristics of Nigeria's fisheries and aquaculture sector



Source: Authors' compilation based on (Ragasa et al. 2023, Ayo-Aderele 2024, CBN 2025, USDA-FAS 2026)

This opportunity is matched by mounting pressure. Persistent structural constraints, low productivity, weak input systems, limited access to finance, and high postharvest losses limit fish producers' ability to respond to demand, while climate variability and environmental degradation place increasing strain on production systems (FMLD, L-PRES, and ILRI 2026, World Bank 2024a, FAO 2026a). The CAADP Kampala Declaration, 2026–2035, explicitly prioritizes fisheries, aquaculture, and nutrition within integrated food systems, creating a strategic opportunity for Nigeria to reposition the fisheries and aquaculture sector through evidence-based, implementation-ready national strategies (African Union and AUDA-NEPAD 2025). This working paper has been written to provide an integrated, single-sector reference for the process of developing a strategic action plan for the growth and development of Nigeria's fisheries and aquaculture sector.

Two further developments frame the trajectory of the fisheries and aquaculture sector in Nigeria. Globally, aquaculture has, for the first time, overtaken capture fisheries in aquatic-animal production, with total fisheries and aquaculture output reaching a record 223.2 million mt. This shift confirms that the future of fish supply lies in farming rather than in wild harvests (FAO 2026a). Domestically, the Federal Ministry of Marine and Blue Economy was created in 2023. The ministry published in 2024 the National Blue Economy Policy that, for the first time, provides a unified framework for the development of Nigeria's ocean resources that span fisheries (including aquaculture), shipping and marine transport, and ocean-based renewable energy (FMMBE 2025). Together, these global and national developments confirm both the direction that Nigeria must take in developing its fisheries and aquaculture sector and the institutional vehicles that are now available for doing so.

The report sections that follow move from this context to a diagnosis of sector performance, the constraints that suppress it, the policy and institutional landscape, investment and scaling pathways, and the specific inputs required for developing a successful strategic action plan for the growth and development of Nigeria's fisheries and aquaculture sector.

2. SECTOR PERFORMANCE AND BENCHMARKS

Having established the strategic context, this section diagnoses how the fisheries and aquaculture sector actually performs. It examines the sector's macroeconomic role, the structure of the three fish production systems, their productivity benchmarked against regional and global comparators, and the demand-supply trajectory that makes the case that transformation of Nigeria's fisheries and aquaculture sector is necessary and unavoidable.

2.1 Macroeconomic role

Nigeria's fisheries and aquaculture sector contributes between 3 and 4 percent of Nigeria's national GDP and provides around 40 percent of national animal-source protein intake, making fish the dominant protein source, particularly for low-income households. The sector directly supports an estimated 12 million artisanal fishers and fish farmers, with women dominating the workforce in the sector at over 60 percent, particularly in the postharvest processing and trading segments (Ragasa et al. 2023, Ayo-Aderele 2024, FAO 2026a). Nigeria is Africa's largest fish consumer by volume, yet remains in a structural supply-demand crisis. Domestic fish production only meets between 33 and 40 percent of demand, with the remaining deficit being filled by imports costing over USD 1.0 billion annually. Fish, alongside dairy, is one of Nigeria's most significant food import liabilities (CBN 2025, USDA-FAS 2025).

2.2 Fisheries production systems structure

Nigeria's domestic fish production is split across three systems, each with distinct constraints and potential.

- **Marine capture fisheries** (~36 percent of production): This production takes place along the Atlantic coast and in Nigeria's Exclusive Economic Zone in the Gulf of Guinea. Production is dominated by artisanal inshore fishing and a small industrial trawler fleet. However, Nigeria's marine fisheries are structurally constrained by extensive illegal, unreported, and unregulated (IUU) fishing, which results in estimated losses of around USD 450 million per year, an aging fishing boat fleet, and declining catch potential under climate change.
- **Inland capture fisheries** (~36 percent of production): Nigeria's rivers, lakes, reservoirs, and floodplains are important sources of fish. Fisheries in the Lake Chad basin are in long-term decline due to the shrinkage of the lake. The Kainji, Jebba, Shiroro, and Volta reservoirs retain significant but under-exploited quantities of fish. Inland fishing is characterized by the use of traditional artisanal methods and the absence of stock management plans.
- **Aquaculture** (~28 percent of production): Most aquaculture production is small-scale and focused on the African sharptooth catfish (*Clarias gariepinus*) and tilapia. Pond culture is the principal form of aquaculture in Nigeria, with nascent but growing cage culture on inland reservoirs. Nigeria is the world's leading producer of African sharptooth catfish—over 80 percent of fish farmers produce catfish—and the second-largest aquaculture producer in Africa (Ragasa et al. 2023, Ayo-Aderele 2024).

The heavy concentration on a single species in itself poses a structural vulnerability for the sector. African sharptooth catfish accounted for roughly 54 percent of aquaculture production in 2022, and almost all catfish output originates from smallholder farming. In contrast, tilapia production among smallholders remains minimal (FAO 2024). Foresight analysis conducted on Nigeria's fisheries and aquaculture sector explicitly shows that catfish and tilapia alone are unlikely to bridge the demand-supply gap over the coming decade. Rather, greater species diversification must become a strategic priority for the development of the sector, including the increased production of Nile and blackchin tilapia, common carp, African bonytongue, and brackish-water species, such as shrimp and sea bass (Chan et al. 2024). The recent global introduction of Genetically Improved Farmed Tilapia (GIFT) offers a faster-growing, more resilient strain of tilapia that could reshape the tilapia value chain and reduce the risks associated with a catfish monoculture in Nigerian aquaculture (WorldFish 2016). Independent analysis from the University of Stirling's Institute of Aquaculture estimates Nigeria's realistic aquaculture potential at around 2.5 million mt annually, which is several times current output, provided the binding constraints of aquafeed cost and land access are resolved (Yakubu, Falconer and Telfer 2022).

2.3 Productivity benchmarks and performance gaps

Nigeria's productivity in the fisheries and aquaculture sector sits well below regional and global comparators across every major indicator (Table 2-1). The gap rating presented reflects a qualitative assessment combining three criteria: the magnitude of the gap between Nigeria's current value and the benchmark, the indicator's foundational importance (the extent to which progress on other indicators depends on it), and the difficulty of reversing the gap. A rating of "Critical" indicates that Nigeria's current value is below roughly 40 percent of the benchmark, or a gap exceeding about 60 percent, and that the performance on the indicator is a binding constraint on gains elsewhere in the sector. A rating of "High" indicates a substantial gap of roughly 30 to 60 percent of the benchmark. Performance on indicators with a High gap rating is viewed as still somewhat enabling. A gap rating of "Medium" indicates performance levels roughly 30 percent below benchmarks and generally applies to livestock sector indicators that already are on an improving trajectory. The thresholds are approximate. Moreover, if the underlying data is uncertain, the rating reflects a more conservative reading.

Table 2-1 Nigeria fisheries and aquaculture productivity benchmarks and performance gaps

Indicator	Nigeria (current)	Regional or global benchmarks	Target (2029–2035)	Gap
Total fish production	~1.2 million mt per year	Demand: 3.6 million mt per year; current domestic supply only meets between 33 and 40% of demand	1.3 million m per year from aquaculture by 2029	Critical
Fish supply-demand deficit	~2.4 million mt per year	Zero deficit (self-sufficiency)	Reduce deficit by 40% by 2035	Critical
Aquaculture growth rate	11% growth between 2010 and 2015, but fell to 7% between 2015 and 2025	WorldFish target: sustained growth in aquaculture of ≥10% per year	1.3 million mt by 2029	High
Post-harvest fish losses	Up to 40%	Global best practice: less than 5% losses	Reduce losses in fish value chains by 50% (National Fisheries and Aquaculture Policy)	Critical
Aquaculture feed cost share	60% to 70% of total costs of aquaculture production	Global best practice: 40% to 50%	Reduce costs significantly by 2028 through domestic fish feed manufacturing	Critical
Fish self-sufficiency ratio	~33% to 40% of national fish demand	42% in 2005	60% by 2030; 75% by 2035	High
Per capita fish consumption	~11.2 kg per year	WHO recommendation: 15–20 kg per year	16 kg per year by 2035	Medium
IUU fishing losses	~USD 450 million per year	Zero, with full Vessel Monitoring System (VMS) coverage	Reduce losses by 75% by 2030	High
Landing site cold chain facilities	<5% functional	Universal cold chain coverage	Cold chain operational at 12 sites by 2030	Critical

Source: (Ragasa et al. 2023, World Bank 2024b, CBN 2025)

Note: The 2035 targets are indicative and not officially endorsed.

IUU = “illegal, unreported, and unregulated”

2.4 Demand-supply trajectories and climate risks

Without significant intervention, the WorldFish Foresight Model projects declining growth in coming decades in Nigeria’s aquaculture sub-sector—decelerating from an estimated 11 percent per year between 2010 and 2015, to 7 percent between 2015 and 2025, 5 percent between 2025 and 2035, and 2 percent between 2035 and 2050 (Chan et al. 2024, Ragasa et al. 2023). While per capita consumption of fish is projected to rise only modestly, without interventions, the supply-demand gap for fish will continue to widen.

Moreover, the risks that the changing climate brings for marine fisheries are acute. Under the high-emission scenarios of the impacts of climate change, Nigeria faces a reduction of between 23 and 53 percent in its maximum marine catch potential by 2050 (World Bank 2024b, Lam et al. 2020). This makes the scaling up of aquaculture in Nigeria not merely an economic opportunity but a structural and nutritional necessity for the period through 2050.

3. KEY CONSTRAINTS

The performance gaps documented above for Nigeria's fisheries and aquaculture sector are not accidental. Rather, they are the visible symptoms of a set of binding constraints. Seven specific constraints suppress fisheries and aquaculture performance. They are mutually reinforcing rather than independent. Feed costs, the absence of cold chains in Nigeria's fish value chain, and postharvest fish losses compound one another, while governance and finance gaps cut across the entire system. Consequently, they must be addressed in a systemic, sector-wide manner: Each is presented below with its severity rating; the deeper analysis of root causes and the way these constraints interact is developed in Section 7.

CRITICAL CONSTRAINTS

1. Fish feed cost crisis—the primary aquaculture production bottleneck [Critical]

The cost of fish feed constitutes over 60 percent of total aquaculture production costs. Many farmers rely on imported feed, which has become prohibitively expensive following the Naira depreciation. In stakeholder consultations, fish farmers in Kwara state explicitly pointed to high feed prices as the primary reason Nigeria cannot meet its fish production requirements. FAO launched a USD 135,000 input-financing pilot in June 2025, demonstrating both the severity of the constraint posed by the high cost of fish feed and the gap in scale between current interventions and the need of the sector for cheaper feed. No large-scale domestic fish feed manufacturing industry exists. Over 80 percent of fish farmers in Nigeria produce African sharptooth catfish, the production of which is among the most feed-intensive. Alternative protein ingredients for fish feed, such as black soldier fly larvae, cassava by-products, and brewery waste, are now in early testing for their feasibility but not yet commercially deployed at scale in fish feed manufacturing in the country (Ragasa et al. 2023, Ayo-Aderele 2024, CBN 2025, FAO 2026a).

2. Cold chain—near-absence resulting in postharvest losses of fish of up to 40 percent [Critical]

Landing sites across the Niger Delta, Lake Chad basin, and Atlantic coast lack ice plants and functional cold storage. Up to 40 percent of the catch is lost to spoilage before reaching urban consumers. This is a loss that directly compounds the supply-demand deficit—a sector producing 1.2 million mt but losing 40 percent after production will deliver only about 720,000 mt to consumers, making effective supply of fish less than 25 percent of demand before imports. The National Fisheries Policy 2025–2029 allocates 30 percent of its budget to fish processing and marketing infrastructure, but construction has not yet commenced at scale. The policy targets 12 priority landing sites for cold chain development, which is only a fraction of the national network. Cold chain distribution from inland fisheries to urban wholesale markets is similarly absent (Ragasa et al. 2023, Ayo-Aderele 2024, World Bank 2024b).

HIGH CONSTRAINTS

3. Illegal, unreported, and unregulated (IUU) fishing—significant fish stock and USD 450 million annual revenue losses [High]

Illegal, unreported, and unregulated fishing is estimated to cost Nigeria USD 450 million per year in lost revenue and depleted fish stocks. The Sea Fisheries Act of 1992 predates all modern IUU prevention frameworks and lacks provisions for mandatory vessel monitoring systems, Port State Measures compliance, or catch documentation. While the Deep Blue Project of the Nigerian Maritime Administration and Safety Agency (NIMASA) has deployed a Vessel Monitoring System (VMS), surveillance aircraft, and patrol boats, coverage of inshore artisanal zones where most informal fishing occurs is limited. Nigeria imports fish from over 25 countries while losing significant value from its own fisheries through ungoverned fishing in its Exclusive Economic Zone. Weak inter-agency coordination between NIMASA, the Federal Department of Fisheries and Aquaculture, and the Navy limits enforcement (World Bank 2022, NIMASA 2024, Ragasa et al. 2023).

4. Climate change—existential threat to marine fisheries and aquaculture infrastructure [High]

Under high-emission climate change scenarios, Nigeria faces a 23 to 53 percent reduction in its maximum marine catch potential by 2050. Rising sea temperatures alter fish distribution and survival; erratic flooding destroys pond infrastructure and contaminates grow-out facilities; and changing rainfall patterns disrupt artisanal fishing calendars and processing timelines. Lake Chad has shrunk to approximately 10 percent of its 1960s surface area, eliminating or severely reducing artisanal fisheries in the basin of Lake Chad that historically supported the livelihoods of millions. Climate-resilient aquaculture design, flood-proofed cage systems, mangrove restoration along the Niger Delta coastline, and ecosystem-based fisheries management plans are all urgently needed but largely nascent, and the sector's climate finance pipeline is not yet activated (World Bank 2024b, Lam et al. 2020, LCBC 2022, UNEP 2004, NDC Partnership 2025).

5. Fingerling and seed system fragmentation—limiting aquaculture expansion [High]

Access to quality fish fingerlings was ranked the top input constraint at the November 2024 National Fisheries Policy Validation Workshop. The National Institute for Freshwater Fisheries Research at New Bussa is the primary federal hatchery institution. However, it is significantly under-resourced relative to the national fish demand target of 1.3 million mt. The private hatchery sector is fragmented and lacks quality certification. Farmers frequently receive fingerlings of poor genetic quality or pathogen-contaminated batches from them, leading to high early growth cycle mortality. Six to eight certified hatchery clusters with cold-storage distribution capability are needed nationally, none of which currently exist at this scale (Ayo-Aderele 2024).

6. Finance exclusion for small-scale fishers and fish farmers [High]

Approximately 12 million artisanal fishers and small-scale fish farmers have minimal access to formal financial services. The fisheries sector has no equivalent of the livestock credit line from the Development Bank of Nigeria established under the Livestock Productivity and Resilience Support Project. There are no fisheries-sector insurance products, no functioning warehouse receipt systems for dried or smoked fish, and minimal cooperative savings infrastructure at landing sites. The absence of landing-site infrastructure itself limits formalization in the fisheries and aquaculture sector and, therefore, excludes fishers from financial-inclusion pathways. The Promoting Sustainable Cage Aquaculture in West Africa, an initiative funded by the International Fund for Agricultural Development, demonstrated the viability of cage aquaculture for fish production by rural youth and women. However, the scale up of this aquaculture technique requires structured financial instruments that do not yet exist at the national level (Ragasa et al. 2023, Ayo-Aderele 2024, IFAD 2023, World Bank 2024a).

MEDIUM CONSTRAINTS

7. Overfishing and absence of stock management—inland fisheries in decline [Medium]

Inland capture fisheries, accounting for 36 percent of domestic production, are subject to unregulated exploitation in most water bodies. The Lake Chad basin, historically one of Africa's most productive freshwater fisheries, has seen dramatic long-term decline due to lake shrinkage combined with overfishing. Stock assessment programs for Lake Chad and Kainji and Jebba reservoirs are inadequate. The absence of co-management frameworks engaging artisanal inland fishing communities means the fisheries commons problem is structurally unresolved (Ayo-Aderele 2024, LCBC 2022, Ragasa et al. 2023).

These constraints are not beyond the reach of policy; several are already named, if not yet resolved, in Nigeria's evolving fisheries and blue-economy frameworks. The following section assesses that policy and institutional landscape, including the architecture now in place to address the constraints and the coordination gaps that continue to limit delivery of services and resources to see sustainable growth in Nigeria's fisheries and aquaculture sector.

4. POLICY AND INSTITUTIONAL LANDSCAPE

The institutional landscape has undergone significant structural change since 2023. The migration of responsibility for fisheries from the former Ministry of Agriculture and Rural Development (FMARD) to the Federal Ministry of Marine and Blue Economy (FMMBE) in 2023 reshaped the governance architecture, creating both new opportunities for focused investment and new risks of coordination gaps (FMLD 2024, PLRIC 2025). FMMBE oversees the fisheries agencies and parastatals, including the Nigerian Institute for Oceanography and Marine Research, the National Institute for Freshwater Fisheries Research, the Nigerian Maritime Administration and Safety Agency, the Federal Department of Fisheries and Aquaculture, and the federal fisheries colleges. The sector is also shaped by cross-sector agencies, including the National Agency for Food and Drug Administration and Control, the National Bureau of Statistics, and the National Inland Waterways Authority, and by non-state actors, including the Fisheries Cooperative Federation of Nigeria, representing around 12 million fishers, and the Nigerian Trawler Owners Association for industrial fishing.

4.1 The National Fisheries and Aquaculture Policy, 2025–2029

The NFAP 2025–2029 is Nigeria’s most recent comprehensive fisheries policy framework. It was co-developed with IFPRI and WorldFish under the CGIAR National Policies and Strategies initiative (Ragasa et al. 2023, Ayo-Aderele 2024). The policy sets out five core objectives for Nigeria’s fisheries and aquaculture sector:

- Achieve fish supply security by closing the 2.4 million mt deficit.
- Reduce import dependency.
- Expand and modernize aquaculture as the primary growth pathway for the sector, with a target of producing through aquaculture 1.3 million mt by 2029.
- Improve governance, regulation, and enforcement within the sector.
- Ensure inclusive access to resources and financing to enable women, youth, and artisanal fishers to expand their share of total fish production in Nigeria.

A set of performance targets has been established to motivate the strategic implementation of the policy (Table 4-1). In terms of financing of the policy, a budget allocation framework developed under the policy devotes 30 percent of financing to infrastructure, 30 percent to research and innovation, 20 percent to capacity building, 11 percent to regulation, and 8 percent to market development and promotion, leaving 1 percent of the budget unspecified.

Validated in November 2024, NFAP is still at an early implementation stage. Consequently, policy achievements to date are generally process-oriented. These include the development of a strong evidence base through the Foresight modeling exercises done for the sector with IFPRI and WorldFish. These will guide strategic implementation of the policy.

Key implementation gaps that will be addressed in coming years include the 2.4 million mt deficit in domestic fish production, data gaps in aquaculture production and fish food manufacturing, a national fish feed strategy that is not operationalized, underdeveloped monitoring systems, and the absence of cold chains for fish marketing across Nigeria (Ragasa et al. 2023, Ayo-Aderele 2024).

Table 4-1 National Fisheries and Aquaculture Policy 2025–2029—key priorities and targets

Priority area	Specific target / action
Aquaculture production expansion	Increase aquaculture production to 1.3 million mt by 2029
Post-harvest loss reduction	Reduce postharvest losses by 50% through improved fish processing facilities, cold chain logistical infrastructure, and cold storage (30% of budget)
Fish consumption	Increase annual per capita consumption of fish in Nigeria from 11.2 kg To maintain current levels of consumption, an additional 752,000 mt will need to be produced each year by 2030
Input systems	Improve access to quality feed, fish fingerlings, and hatchery systems Address aquafeed constraints
Cold chain and infrastructure	Construct or renovate landing sites, harbors, and jetties and processing and cold storage facilities (30% of budget)
Research and innovation	Increase knowledge on fisheries productivity and management, disease control, feed formulation; and generating real-time data on fisheries and aquaculture (30% of budget)
Regulatory strengthening	Strengthen regulatory frameworks, surveillance, and enforcement to combat illegal fishing (11% of budget)
Climate resilience	Foster climate-resilient and eco-friendly practices across fisheries and aquaculture

Source: (Ragasa et al. 2023, Ayo-Aderele 2024).

4.2 Supporting frameworks and programs

Fisheries also features within the overarching policy frameworks of the government. The Agriculture Promotion Policy (2016–2020) identified fish as a commodity with significant potential in Nigeria’s export markets, and the National Agricultural Technology and Innovation Policy (2022–2027) supports inland and marine fisheries expansion and aquaculture development (FMARD 2016, FMAFS 2022). The National Agrifood Systems Investment Plan (NASIP), 2026–2027, references Nigeria’s Policy on Fisheries Development in Section 2.1.4 (FMAFS 2025). On the investment side, the World Bank-funded West Africa Regional Fisheries Programme (WARF-P), which has mobilized over USD 170 million, supports fisheries governance, stock assessment, and artisanal fisher support, while IFAD’s ProSCAWA program and the FAO input-financing pilot provide models for smallholder inclusion and feed and fingerling supply (World Bank 2024b, IFAD 2023, FAO 2024). The defining sector governance gap remains the Sea Fisheries Act of 1992, which predates all modern fisheries sustainability and IUU frameworks.

Above these sector-specific instruments sits the National Blue Economy Policy adopted in 2024 (FMMBE 2025). This policy for the first time provides a unified framework to integrate fisheries and aquaculture with shipping, marine transport, coastal tourism, and ocean-based renewable energy under a single ministry (FMMBE 2025, Ragasa et al. 2023). The maritime-security dimension is anchored by the Suppression of Piracy and Other Maritime Offences Act of 2019, the first dedicated anti-piracy legislation in the West and Central African sub-region, under which Nigeria has secured piracy convictions and helped drive Gulf of Guinea piracy to a multi-decade low (NIMASA 2024). Remaining gaps in appropriate legislation are significant, however. Analysts note that several reform bills and a modernized fisheries statute to replace the 1992 Act are still pending. Without the appropriate laws in place, enforcement against illegal fishing is left under-resourced relative to the scale of the problem (Olugbode 2026).

4.3 Institutional coordination challenges

Three coordination gaps and how they are closed are material to the implementation of any strategic action plan for the fisheries and aquaculture sector.

- **Institutional bifurcation.** Governance of the sector is split between the Federal Ministry of Marine and Blue Economy, which has a mandate for fisheries and marine resources policy, and the Federal Ministry of Agriculture and Food Security, as aquaculture is a part of its broad agricultural mandate. However, the Federal Department of Fisheries, which is under the Federal Ministry of Marine and Blue Economy, is responsible for some oversight of aquaculture inputs, even as aquaculture extension services are the responsibility of the fall under the Federal Ministry of Agriculture and Food Security. The result is that no single ministry has comprehensive oversight of the full fisheries and aquaculture sector. Moreover, additional actors, including the Ministry of Environment and its responsibilities for watershed and mangrove management, the Ministry of Water Resources, which provides oversight on water rights associated with inland fisheries as well as aquaculture, and the Central Bank, hold overlapping mandates governed only by informal, episodic coordination.

Establishing a standing inter-ministerial fisheries coordination mechanism and confirming the Federal Ministry of Marine and Blue Economy as a co-convenor of Joint Sector Reviews of the sector, alongside the Federal Ministry of Agriculture and Food Security, are therefore foundational governance actions for inclusion in any strategic action plan for the fisheries and aquaculture sector. These governance reforms for the sector mirror several of the coordination needs and governance reforms also sought for Nigeria's livestock sector.

- **Federal–state coordination failure.** The delivery of most services associated with the fisheries sub-sector, including extension, landing-site regulation, and inland water management, occurs at state and local levels. Mechanisms to coordinate federal mandates on fisheries with state implementation are chronically weak. Crucially, no binding federal-state compact on fisheries activities and oversight governs resource transfers or accountability.
- **Weak regional and transboundary coordination.** Nigeria's Exclusive Economic Zone in the Gulf of Guinea is patrolled insufficiently, implementation of the FAO Port State Measures Agreement to target illegal, unreported, and unregulated (IUU) fishing is weak, coordination with the ECOWAS fisheries bodies is limited, and cooperation on shared inland fisheries under the Lake Chad Basin Commission remains technically and politically challenging given the fragile security conditions in the basin (World Bank 2024b, NIMASA 2024, LCBC 2022, FAO 2026c).

5. INVESTMENT AND SCALING PATHWAYS

The diagnoses and policy reviews point clearly to where capital must flow for the development of Nigeria's fisheries and aquaculture sector. This section translates that evidence into practical, scalable investment pathways.

Six priority investment areas anchor the fisheries growth agenda, with aquaculture as the central pathway to close the domestic fish supply gap. These investments are sequenced so that effective input systems, particularly fish feed and fingerlings, and adequate infrastructure, particularly cold chain facilities and landing sites, create the conditions for significantly scaling up fish production in Nigeria. As cross-cutting enablers, the scaled-up fish production will be supported by strategic and timely research and the inclusion of many small-scale fishers (FAO 2026a, World Bank 2024b).

5.1 Priority investment areas

Aquaculture expansion. The National Fisheries and Aquaculture Policy, 2025–2029, has a target of achieving 1.3 million mt of aquaculture output annually. Analyses of Nigeria's fisheries and aquaculture sector using the WorldFish Foresight model showed that aquaculture is the only viable pathway to close the domestic fish supply gap (Ragasa et al. 2023, Ayo-Aderale 2024). Nigeria's marine catch potential may decline by between 23 and 53 percent by 2050, making aquaculture scale up an existential imperative. Priorities for expanding aquaculture include the intensification of existing catfish and tilapia pond systems, cage culture expansion on the Kainji, Jebba, and Shiroro reservoirs, recirculating aquaculture systems for year-round peri-urban supply,¹ and shrimp and sea bass culture along the Atlantic coast.

Fish feed and fingerlings. Access to quality feed and to certified fish fingerlings are the principal constraints restricting the growth of aquaculture in Nigeria (Ragasa et al. 2023). Feed makes up between 60 and 70 percent of the costs of aquaculture production. Priorities for developing improved supplies of fish feed and fingerlings are the creation of four to six fish feed manufacturing plants and six to eight certified fish hatchery clusters. Research will be done on the use of local agro-industrial by-products as feed ingredients. In parallel, systems for feed quality certification and the provision of technical extension on the profitable use of fish feed in aquaculture will be developed. To improve the access of catfish producers using aquaculture to both fish feed and fish fingerlings, FAO launched a USD 135,000 input-financing pilot in 2025 (FAO 2026b).

The case for prioritizing the acquisition of alternative feed ingredients from local sources is strengthening rapidly. Because feed is the largest single cost in aquaculture and Nigeria's fishmeal is predominantly imported, locally produced insect protein is among the most promising routes to cost reduction. The global market for protein meal produced from black soldier fly larvae for use in fish feed production was valued at USD 245 million in 2024 and is forecast to grow at over 20 percent annually through 2033. This growth in the market reflects both commercial viability and regulatory acceptance internationally (Adeoye et al. 2020). Controlled trials confirm that black soldier fly larvae meal can substitute for a meaningful

¹ A recirculating aquaculture system is a fish farming method that filters, cleans, and reuses water through a closed-loop design. Mechanical and biological filters and oxygenation components are used to maintain water quality, enabling almost all of the water to be reused.

share of fishmeal in African sharptooth catfish and Nile tilapia diets without compromising growth performance or feed conversion. Moreover, substitution of fishmeal with insect protein meal can reduce the global-warming potential of fish feed production by up to 30 percent (Market Intelo 2026). Because the larvae are reared on organic agro-industrial waste streams, a domestic insect-protein industry would simultaneously cut feed costs, reduce import dependence, and create a circular-economy system of waste management. A strategic action plan for the fisheries and aquaculture sector of Nigeria should explicitly highlight these co-benefits of the use of domestically-produced black soldier fly larvae meal when prioritizing both public and private investments in domestic fish feed manufacturing.

Cold chain and fish processing infrastructure. The fisheries and aquaculture policy allocates 30 percent of its budget to infrastructure development in the sector. Postharvest losses of fish of up to 40 percent are attributed to the absence or poor quality of fish cold chain networks in Nigeria. The fisheries and aquaculture policy seeks to cut these losses in half by 2029 (Ragasa et al. 2023). Investment priorities to address this barrier to growth of the fisheries and aquaculture include establishing cold storage facilities at priority landing sites, ice plants in major fishing communities, and cold chain networks to link inland fisheries to urban markets. In addition, fish processing clusters that are linked to export markets will be created. These facilities will be designed to ensure that the sanitary and phytosanitary standards for fish in potential importing countries are met for any fish processed in them.

Landing sites, harbors, and jetties. Physical infrastructure for landing, handling, and trade in fish is critically underdeveloped across Nigeria. The fisheries and aquaculture policy includes a target of renovating 12 priority landing sites across the Niger Delta and Atlantic coast and in the Lake Chad basin. The government will invest in vessel monitoring systems to deter IUU fishing, which is estimated to cost Nigeria USD 450 million per year in lost revenue.

Research, innovation, and technology. Thirty percent of the budget under the fisheries and aquaculture policy is allocated to research and development, with WorldFish and IFPRI as active co-investors (Ragasa et al. 2023). Among the research priorities are genetic improvement for endemic tilapia and catfish, water productivity research, disease diagnostics and biosecurity, and the establishment of fish stock assessment platforms and real-time data systems on fisheries and aquaculture.

Small-scale fisher inclusion. Approximately 12 million Nigerians depend on artisanal fishing; IFAD's ProSCAWA project demonstrated the significant employment potential of cage aquaculture for rural youth and women (IFAD 2023). To improve the participation of women and youth in fisheries and aquaculture, policy priorities include the development of credit schemes for cooperatives that are focused on fisheries and aquaculture inputs, establishing warehouse receipt systems for dried and smoked fish, training in postharvest handling of fish to ensure food safety, and the provision of extension services focused on commercial fishing and aquaculture production for women and youth.

5.2 Fisheries and aquaculture scaling pathway

A pathway for scaling up the development of Nigeria's fisheries and aquaculture sector can be described based on sequentially meeting the investment needs described in the previous sub-section. There are five phases to this development pathway—foundational investments in the policy architecture, expansion of production, strengthening input systems,

strengthening production, storage, and marketing infrastructure within the sector, and taking actions that will mitigate the adverse effects of climate change on the sector in Nigeria and build the resilience of fishers and aquaculture producers (Table 5-1).

Table 5-1 Scaling pathways for Nigeria’s fisheries and aquaculture sector

Investment phase	Focus and key actions	Horizon
1. Policy architecture	Enact the National Fisheries and Aquaculture Policy, 2025–2029. Establish a Fisheries Investment Facility under the Federal Ministry of Marine and Blue Economy. Gazette illegal, unreported, and unregulated (IUU) fishing regulations and activate vessel monitoring across Nigeria’s Exclusive Economic Zone in the Gulf of Guinea. Establish a Fisheries and Aquaculture Donor Working Group.	2026
2. Production expansion	Reach the 1.3 million mt annual aquaculture production target through: –Intensification of catfish and tilapia ponds. –Cage culture in major reservoirs. –Recirculating aquaculture system clusters in peri-urban Lagos, Kano, and Port Harcourt. Mobilize blended private-public finance for at least five major aquaculture clusters across Nigeria.	2029
3. Input value chains	Target: Cut the effective cost of fish food by half per kg of fish produced by aquaculture producers. Establish 6 to 8 certified fish hatchery clusters. Develop 4 to 6 fish feed manufacturing plants that make intensive use of agro-industrial by-products as feed ingredients. Scale up the FAO pilot aquaculture input financing pilot from USD 135,000 to USD 50 million to 100 million program.	2028
4. Infrastructure	Construct or renovate 12 priority fish landing sites. Install ice plants and cold storage at each of the 12 fish landing sites. Develop an extensive cold chain network to link inland fisheries to Nigeria’s urban centers. Align cold chain development for the fisheries and aquaculture sector with the 30% of the fisheries and aquaculture policy budget devoted to infrastructure. Establish public-private partnership for fish cold chain operations.	2026–30
5. Climate resilience	Address the projected drop in Nigeria’s marine catch potential of between 23 and 53 percent by 2050 due to the effects of climate change on marine fisheries Invest in marine ecosystem rehabilitation, mangrove restoration, and climate-resilient aquaculture Integrate fish production into Nigeria Nationally Determined Contribution (NDC). Obtain financial resources for taking climate action within Nigeria’s fisheries and aquaculture sector from the Green Climate Fund, the Climate Risk and Early Warning Systems (CREWS) Initiative, and funding windows of the Adaptation Fund.	2028–35

Source: Authors’ construction based on (Ragasa et al. 2023, FAO 2026b, World Bank 2024b, Saba et al. 2024).

5.3 Key opportunities for investment in the Nigerian fisheries and aquaculture sector

Seven opportunities in Nigeria’s fisheries and aquaculture sector are now investment-ready.

- The 1.3 million mt annual aquaculture production target is achievable by 2029 through catfish and tilapia intensification, expansion of cage aquaculture in reservoirs, and establishing peri-urban recirculating aquaculture system clusters.
- The USD 1.0 billion import substitution opportunity related to fish feed costs is rendered even more attractive by the depreciation of the naira. The cheaper naira makes domestic fish production more price-competitive, which offers a structural advantage

that is rare among agricultural sectors in Nigeria—each 1 percent substitution of fish feed imports is equivalent to over USD 10 million in domestic revenue.

- Alternative feed ingredients, such as insect protein meal from black soldier fly larvae, cassava by-products, or brewery waste, could cut fish feed costs for aquaculture producers by between 20 and 30 percent.
- The policy architecture established under the National Blue Economy Policy of 2024 provides strong institutional momentum for reforms in Nigeria’s fisheries and aquaculture sector. All 10 agencies of the Federal Ministry of Marine and Blue Economy have signed 2025 performance bonds, which commit the agencies to achieving measurable service delivery outcomes—a commitment which includes tracking their progress towards achieving the targets and publishing quarterly metrics on that progress.
- Expansion of fish export markets across Africa under the African Continental Free Trade Area (AfCFTA) could position Nigeria as a net exporter of processed fish by 2034.
- Nigeria’s standing as the second-largest aquaculture producer in Africa provides a strong advantage for accelerated growth.
- The West Africa Regional Fisheries Programme (WARF-P), which has mobilized over USD 170 million, supports fisheries governance, stock assessment, artisanal fisher support, and anti-IUU fishing enforcement systems (World Bank 2024b, Ragasa et al. 2023, FAO 2024).

6. STRATEGIC ACTION PLAN INTEGRATION INPUTS

The investment pathways set out above acquire their full strategic weight only when their economy-wide effects are made visible. Economy-wide modeling captures the spillover, multiplier, and macroeconomic effects that sector-only analyses cannot. For any strategic action plan for Nigeria's fisheries and aquaculture sector to reflect the true value of investment in the sector, it must reference this modeling evidence base, and not simply production targets (FMAFS 2025). The National Fisheries and Aquaculture Policy, 2025–2029, was grounded in a foresight analysis conducted in partnership with WorldFish and IFPRI (Ragasa et al. 2023). The models used for this analysis collectively generate the economy-wide evidence that any strategic action plan for Nigeria's fisheries and aquaculture sector must incorporate.

Here, we first present the results from the scenario modeling using the economy-wide model for Nigeria and then provide assessments of how the development of Nigeria's fisheries and aquaculture sector will contribute to achieving each of the six strategic objectives under the Comprehensive Africa Agriculture Development Programme (CAADP). The findings from this economy-wide modeling of the fisheries and aquaculture sector in Nigeria could be directly integrated into the narrative and results matrix for a strategic action plan for the sector.

6.1 Economy-wide modeling findings

The modeling findings summarized in Table 6-1 were generated by researchers at the International Food Policy Research Institute (IFPRI). These scientists developed several agrifood sector development scenarios that were then assessed using an economy-wide model for Nigeria developed by IFPRI and its partner institutions (IFPRI 2026). These modeling results are presented here to provide an explicit analytical foundation for the content of a strategic action plan for the development of Nigeria's fisheries and aquaculture sector.

Table 6-1 Economy-wide modeling findings with relevance for fisheries and aquaculture sector development in Nigeria

Modeling finding	Economy-wide implications
Substitution of Nigeria's fish imports: Closing 50% of the import gap will result in a 0.4% improvement in current-account GDP	Each 1% reduction in Nigeria's fish supply gap of over USD 1.0 billion in annual imports reduces the current-account deficit by about USD 10 million and generates equivalent domestic production value. Closing the fish import gap by 50% would improve the current account by about 0.4% of the current account GDP.
Climate scenario with high greenhouse gas emissions: A 23 to 53% drop in Nigeria's marine catch potential by 2050	WorldFish/WARF-P modeling projects a 23–53% reduction in the maximum marine catch potential for Nigeria by 2050 Such a reduction in marine fisheries products makes the scaling up of aquaculture a structural food-security necessity for Nigeria. Every year that there is a delay in expanding Nigeria's aquaculture sub-sector increases Nigeria's long-run fish import-substitution costs.
Systematic reduction in Nigeria in the cost of domestically-produced fish feed: Lower aquaculture production costs, higher farmed fish output	Target reducing by half the effective cost of fish feed per kg of fish produced through aquaculture. Reducing fish feed costs for aquaculture through domestic manufacturing and the use of alternative feed ingredients directly raises fish production and lowers fish prices for Nigerian consumers.

Modeling finding	Economy-wide implications
Trade under the African Continental Free Trade Area (AfCFTA): Nigeria can become a net exporter of processed agrifood products by 2034	The results from modeling of future trade scenarios under AfCFTA project Nigeria to be a net exporter of processed livestock and fish products by 2034. However, this will require the establishment of appropriate sanitary and phytosanitary (SPS) systems, cold chain networks, and significantly greater value-addition in Nigeria's fisheries and aquaculture sector.
Gender inclusion: Fish productivity gains and welfare improvements for those working in in Nigeria's fisheries and aquaculture sector	Women constitute over 60% of the fish processing and trading workforce. Closing gaps in finance and extension raises sector productivity and household welfare. Will require that more than 40% of the beneficiaries of disbursements from the proposed Fisheries Investment Facility and National Agrifood Systems Investment Plan (NASIP) are women. To do so, fisheries and aquaculture activities should be integrated into the NASIP Gender Equality and Social Inclusion theme.

Source: (FMAFS and IFPRI forthcoming, Ragasa et al. 2023, Ayo-Aderele 2024, World Bank 2024b, Chan et al. 2024, FMAFS 2025, IFPRI 2026).

Three modeling streams are relevant for contributing to a strategic action plan for the development of Nigeria's fisheries and aquaculture sector:

- First, the aquaculture growth trajectory and supply-demand projections, including the deceleration of annual growth of the sector from 11 percent per year between 2010 and 2015 to 2 percent between 2035 and 2050, and, secondly, the 2.4 million mt deficit between domestic fish supply and national demand are derived from the WorldFish Foresight Model. This sector-specific projection model simulates fish supply, demand, trade, and consumption to 2050 under alternative investment and policy scenarios (Chan et al. 2024). This analysis, prepared with IFPRI, underpinned the National Fisheries and Aquaculture Policy, 2025–2029 (Ragasa et al. 2023).
- Second, the production potential decline of 23 to 53 percent in Nigeria's marine fisheries under climate change is drawn from the published results of modeling of fisheries under climate change using high-emission climate change scenarios. These model scenarios were applied to West African regional fisheries (Lam et al. 2020).
- Third, the cross-sectoral multiplier, AgGDP-growth, and the African Continental Free Trade Area (AfCFTA) trade results are drawn from IFPRI's economy-wide modeling for Nigeria, which uses a Social Accounting Matrix (SAM) multiplier and Computable General Equilibrium (CGE) framework, specifically the Rural Investment and Policy Analysis (RIAPA) model (Aragie et al. forthcoming). The model is used to trace how investment in a given sector propagates through production, employment, incomes, and demand across the wider economy. This RIAPA analysis underpinned the National Agrifood Systems Investment Plan (NASIP) 2026–2027, developed with analytical support from IFPRI's Nigeria Strategy Support Program (FMAFS 2025, IFPRI 2026). Because these are secondary results, the specific figures cited in Table 6-1, including multiplier ranges, AgGDP growth, and trade balance projections, should be read cautiously as only being indicative of the direction and approximate magnitude of likely impacts.

6.2 Integration language by CAADP strategic objective

Strategic Objective 1—Production, agro-industrialization, and trade. Nigeria commits to reaching 1.3 million mt of aquaculture output by 2029 and 1.8 million mt by 2035, reducing

fish import dependency from 60 to 25 percent of demand (Ragasa et al. 2023, Ayo-Aderele 2024)). Specific investments to increase productivity in the sector include:

- Six to eight certified fish hatchery clusters established between 2025 and 2027.
- Four to six fish feed manufacturing plants brought into operation between 2025 and 2025. These manufacturing facilities will be designed to use locally available alternative protein sources and other feed ingredients as a substantial amount of their inputs.
- Cold chain facility construction and fish landing site renovations at 12 priority sites by 2030.
- Cage aquaculture expansion on the Kainji, Jebba, and Shiroro reservoirs.
- Peri-urban recirculating aquaculture systems developed near Lagos, Kano, and Port Harcourt.

Strategic Objective 2—Investment and financing. The envisioned strategic action plan for Nigeria's fisheries and aquaculture sector will establish:

- A Fisheries Investment Facility under the Federal Ministry of Marine and Blue Economy that is to be operational in 2027.
- A dedicated credit line for fisheries and aquaculture equivalent to the livestock sector financing window of the Development Bank of Nigeria.
- Warehouse receipt finance for processed fish, particularly smoked catfish and dried tilapia. Such financing is targeted to reach 100,000 fish producers and traders by 2030.
- Sustained financial resources for fisheries and aquaculture that build on the foundations of the West Africa Regional Fisheries Programme (WARF-P), which has mobilized over USD 170 million, the FAO's aquaculture financing pilot project, and the Green Climate Fund, the Climate Risk and Early Warning Systems (CREWS) Initiative, and funding windows of the Adaptation Fund (World Bank 2024b, FAO 2026b). Financing for fisheries and aquaculture of over USD 500 million is to be mobilized by 2030.

Strategic Objective 3—Food and nutrition security. The strategic action plan for Nigeria's fisheries and aquaculture sector will position the sector as a central nutrition delivery system for Nigerians. The National Fisheries and Aquaculture Policy, 2025–2029, commits to increasing per capita national fish consumption from 11.2 kg per year to 16 kg by 2035 (Ragasa et al. 2023). One part of achieving this goal will be to take the steps necessary so that smallholders producing livestock and fish supply 20 percent of the protein required by the National School Feeding Programme by 2030. To safeguard the safety of Nigeria's aquatic animal food sources, the government will implement CODEX-aligned fish quality certification at all priority fish landing sites by 2028 and operationalize an aquatic animal health program under the Federal Ministry of Marine and Blue Economy by 2027.

Strategic Objective 4—Inclusivity. Women constitute over 60 percent of workers involved in fish processing and trading in Nigeria (Ragasa et al. 2023, Ayo-Aderele 2024). The envisioned strategic action plan for Nigeria's fisheries and aquaculture sector will commit to at least a 40 percent female beneficiary share in the Fisheries Investment Facility and

National Agrifood Systems Investment Plan (NASIP) disbursements. By 2029, women-specific fish-processing upgrading programs and financial support programs for artisanal fishers at 12 priority fish landing sites will be developed and implemented. Jobs for youth in the sector will be promoted through scaling up of the ProSCAWA program on cage aquaculture (IFAD 2023). Representation of artisanal fishers on the governance boards of any fisheries and aquaculture sector institutions or facilities nationwide will be required.

Strategic Objective 5—Resilience. The projected 23 to 53 percent decline in Nigeria’s fish catch from marine fisheries due to the adverse effects of climate change requires sustained efforts to build increased resilience in Nigeria’s fisheries and aquaculture sector (World Bank 2024b). The strategic action plan for the sector will commit to:

- Establishing flood-resistant cage aquaculture protocols for the Lake Chad basin, Niger River, and coastal systems by 2029.
- Mangrove restoration along 200 km of Niger Delta coastline by 2033
- Drafting ecosystem-based fisheries management plans for Lake Chad, the Kainji reservoir, and Nigeria’s Exclusive Economic Zone in the Gulf of Guinea by 2030.
- To better assess the climate change vulnerabilities and risks in Nigeria’s fisheries and aquaculture sector and address the adaptation needs required, integrate fisheries and aquaculture activities into Nigeria’s National Adaptation Plan (FMEEnv 2020).
- Activate financing for climate-change adaptation activities in the sector from the Green Climate Fund, the Climate Risk and Early Warning Systems (CREWS) Initiative, and Adaptation Fund windows by 2027.

Strategic Objective 6—Governance. Needed governance reforms in Nigeria’s fisheries and aquaculture sector include:

- Reform the Sea Fisheries Act of 1992 by 2027.
- Expand Nigeria’s vessel monitoring system to reduce illegal, unreported, and unregulated (IUU) fishing. This will also require that a coordination protocol come into force between the Nigerian Maritime Administration and Safety Agency, the Federal Department of Fisheries and Aquaculture, and the Navy.
- The Federal Ministry of Marine and Blue Economy should be designated as a full Joint Sector Review co-convenor from the 2026 cycle.
- Recapitalize the National Institute for Freshwater Fisheries Research so that it can readily undertake the research needed to guide growth in Nigeria’s fisheries and aquaculture sector.
- Put in place a National Livestock and Fisheries Data Observatory by 2030. This data institution from 2027 should be in a position to report to the African Union sex-disaggregated fisheries and aquaculture indicators for use in preparing the 2027 CAADP Biennial Review.

6.3 Alignment with NASIP and the 2026 Budget

The National Agrifood Systems Investment Plan (NASIP), 2026–2027, which has seven programs and an indicative budget of N 6.5 trillion (USD 4.75 billion), is Nigeria’s primary implementation vehicle for the Comprehensive Africa Agriculture Development Programme (CAADP) (FMAFS 2025). Nigeria’s National Fisheries and Aquaculture Policy, 2025–2029 (NFAP), is cited in Section 2.1.4 of the NASIP. Still, the fisheries and aquaculture sector is not yet structured as an explicit sub-window of the NASIP program with dedicated budget lines and results indicators. To incorporate fisheries and aquaculture more strongly into this investment plan, the required actions include:

- Adding the programs to strengthen the National Institute for Freshwater Fisheries Research and to establish sex-disaggregated fisheries data systems as explicit NASIP Program 1 deliverables.
- Naming aquaculture, capture fisheries, and postharvest fish processing as sub-windows under NASIP Program 2.
- Naming the creation of fish processing infrastructure at 12 landing sites with associated fish cold chain investments under NASIP Program 3.
- Integrate into the fisheries and aquaculture envelope of the NASIP budget framework the NFAP’s budget structure that devotes 30 percent of financing to infrastructure, 30 percent to research and innovation, and 40 percent to capacity building, regulation, and market development and promotion.

On the fiscal baseline, Nigeria’s 2026 budget of N68.3 trillion allocates N1.45 trillion to FMAFS, with the Federal Ministry of Livestock Development receiving approximately NGN 75 billion (State House 2026, Agribusiness Africa 2026). The Federal Ministry of Marine and Blue Economy has a budget allocation comparable to that of the Federal Ministry of Livestock Development. The share of the total annual budget going to agriculture, livestock, and fisheries and aquaculture in 2026 is 2.2 percent. Consequently, reaching the CAADP target of 10 percent of the annual public budget being directed to the agrifood sector—or NGN 6.83 trillion—requires a phased increase of over NGN 5 trillion of the government budget that is annually allocated to agricultural activities, including for the livestock and the fisheries and aquaculture sectors.

7. CHALLENGE ANALYSIS: ROOT CAUSES AND INTERLINKAGES

The constraints limiting growth in Nigeria’s fisheries and aquaculture sector that are summarized in Section 3 of this report are factors that, if unresolved, will prevent any other investment or policy intervention in the sector from achieving its intended impact. This section examines the root causes and systemic interlinkages of the four most critical challenge areas in Nigeria’s fisheries and aquaculture sector:

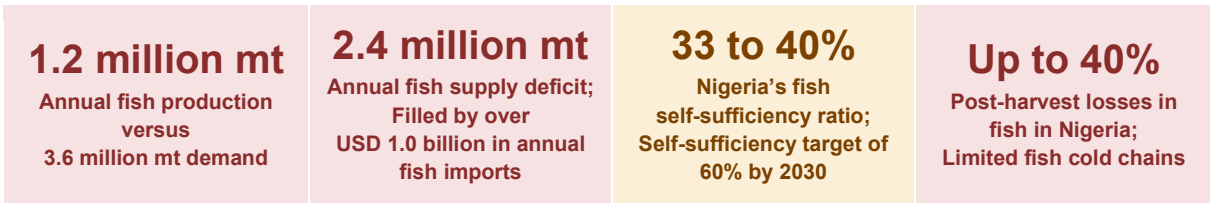
- Low production and the fish supply-demand deficit for the country.
- Inadequate aquatic animal health services and biosecurity controls.
- Limited systems for fish feed manufacturing and insufficient fish cold chains for storage, transport, and marketing.
- Weak governance structures that are unable to sustain the fisheries and aquaculture sector.

Each of these challenge areas is analyzed for its structural drivers, sector-level impacts, and implications for the contents of the envisioned strategic action plan for Nigeria’s fisheries and aquaculture sector.

7.1 Productivity and the supply–demand deficit

Several key statistics to document the poor productivity of Nigeria’s fisheries and aquaculture sector are presented in Figure 7-1. The root causes of the productivity gap are structural and mutually reinforcing:

Figure 7-1 Selected fisheries productivity and supply indicators for Nigeria against benchmarks



Source: (Ragasa et al. 2023, Ayo-Aderele 2024, FMMBE 2025, CBN 2025, FAOSTAT 2026).

- **Fish feed cost and availability crisis.** The single largest driver of the aquaculture productivity gap in Nigeria is the high domestic cost of fish feed. Feed accounts for between 60 and 70 percent of aquaculture production costs and has become even more prohibitively expensive following the recent depreciation of the naira. FAO launched a USD 135,000 aquaculture input-financing pilot project in June 2025 in direct response to these rising feed costs. That such a pilot project was viewed to be necessary underlines both the severity of the constraint on aquaculture production posed by the high cost of fish feed and the scale of the gap between current interventions to improve access to fish feed for aquaculture producers and their needs for lower-cost feed (Ragasa et al. 2023, FAO 2026b).

- **Fish fingerling system failure.** Access to high-quality fish fingerlings was ranked as the top aquaculture input constraint at the November 2024 National Fisheries Policy Validation Workshop (Ragasa et al. 2023). The National Institute for Freshwater Fisheries Research at New Bussa, which is the principal institution responsible for fish fingerling production, is severely under-resourced. It cannot meet the demand for fingerlings that would be needed if aquaculture in Nigeria is to reach the annual production target of 1.3 million mt. At the same time, private fish hatcheries are fragmented, generally lack any certification of the quality of the fingerlings they produce, and commonly supply pathogen-contaminated or genetically inferior fingerlings (Ragasa et al. 2023).
- **Cold chain absence compounds production shortfalls.** Up to 40 percent of the fish caught or farmed in Nigeria is lost to spoilage before reaching consumers due to the absence of ice plants, cold storage, and refrigerated transport at landing sites. A sector producing 1.2 million mt of fish annually but which loses 40 percent of that production delivers only 720,000 mt to consumers. Postharvest fish losses make the effective supply of fish from domestic sources in Nigeria less than 25 percent of total demand (Ragasa et al. 2023, Ayo-Aderele 2024).
- **Overfishing and declining inland capture fisheries.** Inland capture fisheries, which make up 36 percent of Nigeria's domestic fish production, are subject to unregulated exploitation. Lake Chad, once one of Africa's most productive freshwater fisheries, has suffered dramatic long-term decline from the shrinkage of its water area and overfishing. Without fish stock management, the depletion of capture fisheries on inland waters will accelerate, shifting more pressure onto an underdeveloped aquaculture sector (Ragasa et al. 2023, LCBC 2022).
- **Technology adoption gap.** The majority of fish farmers and artisanal fishers in Nigeria use traditional methods. Recirculating aquaculture systems, improved pond management, biofloc technology to enhance water quality, and optimized feed conversion are technologies available for aquaculture producers in Nigeria to use. However, the technologies reach very few producers, since weak extension services in the fisheries and aquaculture sector cannot cover the estimated 12 million artisanal fishers and fish farmers nationally (Ragasa et al. 2023).

7.2 Aquatic animal health and biosecurity

Aquatic animal health is an emerging but under-resourced challenge in Nigeria's fisheries and aquaculture sector. The intensification of catfish and tilapia aquaculture in high-density pond and cage systems creates conditions for rapid pathogen transmission, yet the institutional response is limited (Ragasa et al. 2023, Ayo-Aderele 2024). The root causes of the limited attention to fish health in Nigeria are structural:

- **No national aquatic animal health program.** The Federal Ministry of Marine and Blue Economy does not yet have an operational program for aquaculture disease surveillance, biosecurity standards, or advising aquaculture producers on fish health management. The National Fisheries and Aquaculture Policy, 2025–2029, commits 30 percent of its research and development budget to disease management, but implementation of this aspect of the policy has not commenced (Ragasa et al. 2023).

- **Antibiotic misuse in aquaculture.** Small-scale fish farmers routinely provide antibiotics to their fish as both treatment and prophylaxis. These are often human-grade pharmaceuticals obtained informally. Their use raises significant risks of farmed fish developing antimicrobial resistance, while also contaminating water bodies and threatening the safety of fish products for human consumption.
- **Pathogen contamination of fingerlings.** Poor quality control in the fragmented private fish hatchery sector means that fish fingerlings are frequently contaminated with bacterial, viral, or parasitic pathogens when they are sent to aquaculture producers for stocking their ponds. High early-cycle fish mortality is frequently attributable to the health of fingerlings being compromised at the source hatchery, a problem that compounds the fish fingerling supply challenge.

Discharge of water from aquaculture production ponds contaminates surface water used for drinking and irrigation downstream. Moreover, the movement of human populations into biodiversity-rich zones, particularly in southern Nigeria, increases the risks of zoonotic spillovers undermining human health. These risks place aquatic animal health within the broader One Health agenda co-led by the Federal Ministries of Health, Agriculture and Food Security, and the Environment (FMOH, FMARD, and FMEEnv 2019).

7.3 Fish feed and cold chain systems

Compared to feed challenges in Nigeria's livestock sector, the fish feed challenge is structurally more severe than the livestock feed challenge. This is because fish feed represents a higher share of aquaculture production costs and there are fewer natural feed substitution options for aquaculture than there are in livestock production systems. The root causes of the high share of aquaculture production costs in Nigeria being made up by fish feed are:

- **No large-scale domestic fish feed manufacturing.** African sharptooth catfish make up over 80 percent of aquaculture production in Nigeria. This fish species requires high-protein balanced pellet feeds, which are either imported at high cost or produced domestically by small fish feed manufacturers. This domestically produced pellet feed is often of inconsistent quality. No fish feed manufacturing cluster with the scale, quality assurance, and distribution logistics exists to enable the aquaculture production target for Nigeria of 1.3 million mt annually to be met (Ragasa et al. 2023, Ayo-Aderele 2024).
- **Fishmeal dependency and import vulnerability.** Fishmeal, the primary high-protein ingredient for fish feed manufacturing, is predominantly imported. The recent depreciation of the naira has resulted in fish feeds made with imported fishmeal becoming unaffordable for small-scale farmers, contributing directly to the aquaculture output stagnation documented by the WorldFish foresight model (Chan et al. 2024, Ragasa et al. 2023).
- **Gap in research and development of alternative ingredients for fish feed.** Protein meal made from black soldier fly larvae, cassava by-products, duckweed, and brewery waste have potential as locally sourced ingredients for the manufacture of fish feed. Feasibility trials by the University of Ibadan and FAO on catfish feed that incorporates protein meal made from black soldier fly larvae are promising, but as yet no such fish feed is being produced at commercial scale. The research and development to

commercialization pathway for fish feed in Nigeria lacks institutional support and sufficient investment (FAO 2024).

- **Near-absence of cold chain for processing, storing, transporting, and marketing fish.** Landing sites across the Niger Delta, Lake Chad basin, and Atlantic coast lack ice plants and functional cold storage. The National Fisheries and Aquaculture Policy, 2025–2029, allocates 30 percent of its budget to infrastructure including fish landing site renovation and cold storage, but construction has not commenced at scale. Moreover, the policy targets only 12 priority fish landing sites, a fraction of the national network (Ragasa et al. 2023).

A set of structural solutions to the domestic fish feed value chain crisis is proposed (Ragasa et al. 2023, Ayo-Aderele 2024, FAO 2024, FMMBE 2025):

- Develop 4 to 6 dedicated fish feed manufacturing factories by 2028 that use domestic agro-industrial by-products as some of the main feed ingredients.
- Build the capacity of the National Institute for Freshwater Fisheries Research to undertake fish feed quality surveillance nationwide and to inspect and certify private fish fingerling hatcheries. These activities will be done in partnership with the Standards Organisation of Nigeria and the National Agency for Food and Drug Administration and Control.
- Scale up the FAO aquaculture input financing pilot project to annually provide between USD 50 million and USD 100 million to aquaculture producers across the country so as to better enable them to access the fish feed they require.

The interlinkages between the fish feed crisis and limited growth in Nigeria’s fisheries and aquaculture sector are decisive. High fish feed costs drive the productivity gap in aquaculture, which causes income losses for aquaculture producers and stagnation in the aquaculture sub-sector, which contributes to and possibly expands Nigeria’s fish supply deficit, which results in higher levels of annual fish imports, which contributes to a drain in foreign exchange for Nigeria and, ultimately, higher prices for fish consumers.

A similar linear set of linkages can be seen between insufficient cold chain networks for fish processing, storage, transport, and marketing and Nigeria’s domestic fish production shortfall. The absence of cold chain facilities results in up to a 40 percent loss in the amount of fish harvested, which reduces the effective supply of fish in the country, which requires increased fish imports to make up for the domestic supply deficit, the costs of which reduce the resources that can be directed to investments that will result in sustainable increased in domestic fish production in Nigeria, whether through capture fisheries or aquaculture.

7.4 Fisheries sustainability, control of illegal, unreported, and unregulated (IUU) fishing, and governance

Nigeria’s fisheries sub-sector faces a compounding sustainability crisis in which IUU fishing, gaps in the governance of Nigeria’s marine and inland fisheries, and the absence of fish stock management in those fisheries reinforce one another (World Bank 2024b, NIMASA 2024):

- **Outdated governance framework.** The Sea Fisheries Act of 1992 for Nigeria predates the global Port State Measures Agreement (2009), FAO Voluntary Guidelines for Small-Scale Fisheries (2015), and the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA–IUU) (2001). To control IUU fishing, the legislation lacks provisions for the deployment of a mandatory vessel monitoring system, Port State Measures compliance, or catch documentation schemes.
- **Enforcement gap.** The Deep Blue Project of the Nigerian Maritime Administration and Safety Agency (NIMASA) has deployed vessel monitoring, surveillance aircraft, patrol vessels, and coastal radar and has achieved near-zero piracy levels with these efforts. However, IUU enforcement, which requires different operational protocols, remains limited, particularly in inshore artisanal fishing zones where most unregistered fishing occurs. Weak coordination between NIMASA, the Federal Department of Fisheries and Aquaculture, and the Navy limits the effectiveness of any such enforcement efforts.
- **Limited assessments of Nigeria’s fish stocks.** Nigeria lacks the scientific infrastructure, research vessels, sampling programs, and population-modeling capacity for systematic assessment of fish stocks in its marine Exclusive Economic Zone or major inland water bodies. Without the monitoring resources, fishing efforts cannot be calibrated to sustainable yield levels.
- **Community exclusion from co-management.** Effective fisheries management requires co-management frameworks that engage fishing communities as resource stewards with defined rights and responsibilities. Nigeria’s fisheries governance model is predominantly top-down and enforcement-focused. Consequently, it generally excludes the 12 million artisanal fishers whose behavior determines the sustainability of fish stocks in Nigeria’s fisheries

The scale of the enforcement challenge for the sustainable management of Nigeria’s fisheries is now quantified more precisely than the headline loss figure of USD 450 million annually attributed to illegal, unreported, and unregulated (IUU) fishing alone conveys. Nigeria’s waters account for nearly 47 percent of all vessel traffic in the Gulf of Guinea. Between January 2024 and January 2025, vessel monitoring systems recorded 1,723 vessels conducting ‘dark activities’—that is, operating without transmitting Automatic Identification System signals to evade tracking (Olowofoyeku 2025). At the regional level, IUU fishing is estimated to account for between 40 and 65 percent of catches in the Gulf of Guinea, with annual regional losses of approximately USD 2.3 billion. This regional figure situates Nigeria’s national losses due to illegal fishing within a much larger regional crisis (Amani Africa 2026).

Two recent developments offer a stronger platform for combating IUU fishing. Nigeria is positioned to draw on the EUR 59 million West Africa Sustainable Ocean Programme (WASOP) of the European Commission to strengthen surveillance, fisheries monitoring, and enforcement capacity, and to extend the Deep Blue Project to additional maritime corridors (EC 2025). In parallel, the ECOWAS Combined Maritime Task Force, headquartered in Lagos with Nigeria contributing ships, aircraft, and facilities, is transitioning from a conceptual plan to an operational regional mechanism. The task force offers a route to harmonized, cross-border enforcement that national action alone cannot achieve (Amani Africa 2026). Any strategic action plan for Nigeria’s fisheries and aquaculture sector will explicitly anchor

its response to controlling IUU fishing in these instruments rather than relying on the obsolete 1992 Sea Fisheries Act.

Considering jointly the challenges for Nigeria's fisheries and aquaculture sector examined here, Table 7-1 summarizes how these various challenges interact to slow down growth or contribute to a decline in the sector. The interactions of these specific technical and institutional challenges pose reinforcing cycles that limit growth in fisheries and aquaculture production and productivity and require a range of systemic responses that must be undertaken simultaneously. Relying on single-point interventions will not build substantial momentum for fisheries and aquaculture sector growth in Nigeria.

Table 7-1 Summary matrix of the interactions of challenges to growth in Nigeria's fisheries and aquaculture sector

Challenge	Links to	CAADP Strategic Objective	Fisheries and aquaculture sector strategic action plan response
Supply-demand deficit	Fish feed crisis Losses due to inadequate fish cold chain network Decline in capture fisheries	SO1	Aquaculture production to scale up to 1.3 million mt annually 12 landing-site upgraded with cold chain facilities
Aquatic animal health	Fish fingerling quality Sufficient, affordable high-quality fish feed Combating water contamination	SO3 (One Health)	National Aquatic Animal Health Program Fish hatchery quality certification mechanism
Fish feed manufacturing; fish cold chain network	Fish productivity Postharvest losses of fish Finance for fishers and aquaculture producers	SO1 + SO2	Build and operate 4 to 6 fish feed manufacturing plants Explore and operationalize the use of locally available ingredients in domestic fish feed manufacturing, including insect-based protein sources and cassava by-products Scale up the FAO pilot on providing credit to aquaculture producers to obtain fish feed
Fisheries sustainability	Combat IUU fishing Mitigate the adverse impacts of climate change on Nigeria's marine fisheries Improve fisheries governance, both marine and inland Improve information on fish stocks in Nigeria's fisheries to foster better management	SO1 + SO6	Sea Fisheries Act reform Expand initial work under the WARF-P project on fisheries stock assessment Institute participatory co-management approaches to the management of local fisheries across Nigeria, both marine and inland
Climate risks	All challenges, as climate change is an amplifier of all challenges affecting the sector	SO5 + SO3	Expand the use of flood-resilient aquaculture systems Mangrove restoration Unlock Nationally Determined Contribution (NDC) finance
Financial exclusion of fishers and aquaculture producers	All challenges, as insufficient financing is an amplifier of all challenges affecting the sector	SO2 + SO4	Launch and adequately finance the proposed Fisheries Investment Facility Develop warehouse receipts for smoked and dried fish Build on the cage aquaculture models promoted under IFAD's ProSCAWA program

Source: Authors' synthesis. See section 3 and earlier in this section 7 for references to the primary sources in the literature that describe how these challenges for the fisheries and aquaculture sector in Nigeria are linked.

8. STRATEGIC RECOMMENDATIONS

For any strategic action plan for Nigeria's fisheries and aquaculture sector to be effective, actions must be taken by government agencies at all levels, by Nigeria's development partners, and by fishers, aquaculture producers, and fisheries and aquaculture-related enterprises in the private sector. Here, recommendations are made on the role that each of these actors must play to sustainably and substantially expand fish production in the country.

8.1 For government

- Enact the National Fisheries and Aquaculture Policy, 2025–2029, and establish the Fisheries Investment Facility with a dedicated investment promotion unit.
- Reform the Sea Fisheries Act of 1992 by 2027, expand vessel monitoring systems, and formalize a Nigerian Maritime Administration and Safety Agency–Federal Department of Fisheries and Aquaculture–Navy coordination protocol to address IUU fishing losses estimated at USD 450 million per year.
- Prioritize the 12 priority landing-site improvement and cold chain investments under the 30 percent infrastructure budget allocation of the National Fisheries and Aquaculture Policy to address postharvest losses of up to 40 percent.
- Establish an operationalized domestic fish feed manufacturing strategy, support research on the use of domestically available alternative fish feed ingredients for commercial fish feed production, and scale up the FAO aquaculture input financing pilot program.
- Invest in fisheries data systems in parallel with the national livestock baseline study. The data collection activities should include an aquaculture production census, stock assessment of marine fisheries in Nigeria's Exclusive Economic Zone in the Gulf of Guinea, and a catch documentation system operational across the country.

8.2 For development partners and financiers

- Continue to collaborate with WorldFish and IFPRI in building comprehensive data on the performance of Nigeria's fisheries and aquaculture sector to provide the evidence needed to guide sector management and to contribute information on the sector for the CAADP Biennial Review process of the African Union.
- Prioritize blended-finance structures for fish feed manufacturing and fish cold chain development, particularly where commercial returns may be viable, but first-mover risks are high and pose a barrier to initial investments being made.
- Scale the FAO aquaculture input financing program from USD 135,000 to a program with between USD 50 million and USD 100 million in funding obtained through development finance institutions.
- Design smallholder-inclusion conditions for anchor investments in the sector to ensure that commercial operators do not displace artisanal fishers and female fish processors.

8.3 For private sector investors

- Provide incentives to encourage investment in cage aquaculture in inland reservoirs to produce catfish and tilapia. Such aquaculture production systems offer payback periods of between 18 and 24 months with established domestic market demand for the fish.
- The recent depreciation of the naira makes domestic fish production more price-competitive relative to fish imports, which is a structural advantage rare among Nigerian agricultural sectors. Encourage import substitution efforts in the fisheries and aquaculture sector, as each 1 percent of import substitution is worth over USD 10 million in domestic revenue.
- Domestically sourced alternative fish feed ingredients, such as protein meal from black soldier fly larvae, cassava by-products, and brewery waste, offer cost reductions in fish feed manufacturing of up to 30 percent relative to the costs of using imported ingredients exclusively.
- Fish processing clusters linked to African Continental Free Trade Area (AfCFTA) export markets benefit from established regional demand for smoked catfish and tilapia, contingent on sanitary and phytosanitary (SPS) compliance and cold chain development.

8.4 Summary of actions to foster growth in Nigeria's fisheries and aquaculture sector

Government agencies, Nigeria's development partners, and private enterprises in the fisheries and aquaculture sector will not operate in isolation as they work to expand Nigeria's fisheries and aquaculture sector. For the main challenges constraining growth in the sector, Table 8-1 summarizes the three most important issues on which action is needed under each challenge and who among the various fisheries and aquaculture stakeholders should be expected to be part of those efforts in the near- to medium-term.

Table 8-1 Priority actions for the fisheries and aquaculture sector

Challenge	Priority actions	Lead(s)	Timeline
Fish feed cost crisis	• Construct and bring into operation 4 to 6 fish feed manufacturing plants • Scale up the FAO aquaculture input financing program to between USD 50 million and USD 100 million • Conduct a research and development program on local alternative fish feed ingredients, such as protein meal from black soldier fly larvae, cassava by-products, and brewery waste	Federal Ministry of Marine and Blue Economy Development Bank of Nigeria Food and Agriculture Organization of the United Nations (FAO) WorldFish Private sector	2025 to 2028
Insufficient fish cold chain network	• Construct or upgrade 12 priority fish landing sites, including with cold chain facilities • Establish ice plants in fishing communities nationwide • Strengthen network of cold chain facilities linking Nigeria's inland fisheries to urban centers	Federal Ministry of Marine and Blue Economy Private sector, particularly those able to participate in public-private partnerships	2026 to 2030

Challenge	Priority actions	Lead(s)	Timeline
Fish fingerling systems	- Establish 6 to 8 fish hatchery clusters for production of high-quality fingerlings - Recapitalize the National Institute for Freshwater Fisheries Research - Establish a fish fingerling quality certification scheme for fish hatchery operators	Federal Ministry of Marine and Blue Economy National Institute for Freshwater Fisheries Research Private fish hatcheries	2025 to 2027
IUU fishing control Improved fisheries governance	- Reform by 2027 the Sea Fisheries Act of 1992 to make it fit for current best practices of fisheries governance - Expand Nigeria's vessel monitoring system; improve governance and oversight of fishing activities in Nigeria's Exclusive Economic Zone in the Gulf of Guinea - Formalize a coordination protocol between the Nigerian Maritime Administration and Safety Agency, the Federal Department of Fisheries and Aquaculture, and the Nigerian Navy to address IUU fishing losses	Federal Ministry of Marine and Blue Economy Nigerian Maritime Administration and Safety Agency (NIMASA) Federal Department of Fisheries and Aquaculture West Africa Regional Fisheries Program (WARF-P)	2025 to 2028
Finance exclusion of fishers and aquaculture producers	- Establish a Fisheries Investment Facility to provide credit to fishers and aquaculture producers - Enable producers and traders of dried and smoked fish to obtain warehouse receipt financing - Ensure that more than 40% of beneficiaries of financing for fishing and aquaculture activities are women	Federal Ministry of Marine and Blue Economy International Fund for Agricultural Development (IFAD) Development Bank of Nigeria	2026 to 2029
Adverse impacts of climate change	- Promote the use of flood-resilient aquaculture systems - Conduct restoration activities of mangrove over 200 km of the Atlantic coastline - Develop through consultative processes ecosystem-based management plans for the Lake Chad basin, the Kainji reservoir, and the Exclusive Economic Zone in the Gulf of Guinea	Federal Ministry of Marine and Blue Economy Federal Ministry of the Environment Green Climate Fund Climate Risk and Early Warning Systems (CREWS) Initiative Adaptation Fund	2027 to 2035

Source: Authors' synthesis based on (Ragasa et al. 2023, Ayo-Aderele 2024, FMMBE 2025, World Bank 2024b, IFAD 2023, African Union and AUDA-NEPAD 2025)

9. CONCLUSIONS

Nigeria's fisheries and aquaculture sector sits at a decisive juncture. It provides about 40 percent of the nation's animal-source protein. Yet, domestic production meets less than two-fifths of national demand for fish, leaving a structural deficit of more than 2.4 million mt. This deficit is filled by annually importing fish valued at over USD 1 billion. The National Fisheries and Aquaculture Policy, 2025–2029, provides a credible and costed framework for development of the sector. The inclusion of oversight of fisheries in the mandate of the recently established Federal Ministry of Marine and Blue Economy has created focused institutional attention on the sector. The policy foundations now in place for the growth and development of Nigeria's fisheries and aquaculture sector are sound.

The central finding of this paper is that the scaling up of aquaculture production, specifically, is not merely an economic opportunity but a structural and nutritional necessity for Nigeria. Under high-emission climate change scenarios, Nigeria's marine fish catch could fall by between 23 and 53 percent by 2050. At the same time, the country's inland fisheries are under threat—Lake Chad, once one of Africa's most productive freshwater fisheries, has shrunk to roughly a tenth of the size of its historical area. As Nigeria's capture fisheries decline, the burden of meeting protein demand through fish shifts inexorably onto aquaculture, a sector currently constrained by a feed cost crisis, fingerling system failure, and the near-absence of cold chain infrastructure that loses up to 40 percent of the fish produced. These constraints are reinforcing. The recent depreciation of the naira, while it raises fish feed costs, also gives domestic production a structural price advantage over imports that is rare among Nigerian agricultural sectors.

The findings of this paper, which was drafted to inform the process of creating a strategic action plan for Nigeria's fisheries and aquaculture sector, imply five priorities.

- Resolve the fish feed cost constraint through domestic fish feed manufacturing and the commercialization of alternative fish feed ingredients. In addition, the aquaculture input financing pilot project that is being led by the FAO should be expanded significantly.
- Build cold chain infrastructure at 12 priority fish landing sites to safeguard fresh fish quality and convert current postharvest losses into effective supply.
- Reform the Sea Fisheries Act of 1992 and strengthen the enforcement of controls on illegal, unreported, and unregulated (IUU) fishing to recover the estimated USD 450 million lost annually to such fishing in Nigeria's Exclusive Economic Zone.
- Establish fish fingerling and hatchery certification systems to ensure that the 1.3 million mt target of annual aquaculture production is met using high-quality fish.
- Build data systems on fisheries and aquaculture in Nigeria and establish a financial architecture for the sector, similar to what is being done in Nigeria's livestock sector.

As it has important marine and inland fisheries and is Africa's second-largest aquaculture producer, Nigeria fisheries and aquaculture sector is not starting from zero. However, its performance is constrained, and it does not adequately meet the needs for fish of Nigerian consumers. With disciplined implementation of the fundamentals for improving the performance of the sector that are described in this paper, closing Nigeria's supply-demand deficit for fish is possible in the next decade.

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