

Revolving around an Axis

Nicaragua's government seeks to ensure productivity growth in the fisheries sector, all the while maintaining food security and sovereignty

The current state and trajectory of the artisanal fishing sector in Nicaragua's autonomous regions along the Caribbean coast deserve a closer look and conversation. Such an examination can draw from several sources of official information of the Government of Reconciliation and National Unity of Nicaragua. Through the fishing sector institute Nicaraguan Institute of Fisheries and Aquaculture (INPESCA), the government presented the axes and lines of action for the year 2024. This is a part of the National Plan to Fight Poverty under the Strategy for Production, Promotion and Monitoring of Fisheries and Aquaculture 2022-2026.

These strategies and plans seek to ensure the growth of productivity, production, exports, food security and sovereignty, capacity development and technology transfer, and market diversification. These are with full and effective participation of all stakeholders.

The connection between Indigenous Peoples and their lands is multifaceted, aimed at maintaining livelihoods, preserving cultural heritage, and empowering communities to resist external pressures. Recognizing and respecting this connection is essential to promoting justice, equity and sustainable development.

Indigenous peoples see their traditional lands as more than just physical spaces. Their land holds immense spiritual and cultural significance. Their identity is closely tied to the land. The Miskitu people in Nicaragua's northeast and east explain that the mermaid Liwa Mairin has a spiritual importance. That she cares for the waters and their beings, as well as other spirits that reside in the forests and in sacred sites.

Through generations of intimate knowledge and stewardship, indigenous

communities have developed a deep understanding of their waters and the intricate ecosystems of their land. They use their resources sustainably, supporting their communities and preserving their cultural heritage.

Their traditional knowledge includes practices such as rotational agriculture, sustainable hunting and respectful resource extraction. These

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ensure that waters and lands remain healthy and productive for future generations. In remote communities, hunting and fishing are carried out for the consumption of the family and community. Where the market is accessible, these resources are extracted in greater quantities.

The struggle, the recognition

Indigenous peoples have been actively fighting for the recognition of their collective rights to own, manage and develop their traditional waters, lands and resources. They advocate for their rights, both nationally and internationally. The UN Declaration on the Rights of Indigenous Peoples emphasizes their control over lands, territories and resources. This control allows them to maintain their institutions, cultures and traditions while promoting development aligned with their aspirations and needs.

Organizations such as the International Fund for Agricultural Development (IFAD) recognize that ensuring Indigenous Peoples' access to resources is essential for long-

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term inclusive and sustainable development.

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Indigenous lands often contain valuable resources such as timber, minerals and biodiversity. When indigenous communities have control over these resources, they can engage in economic activities that benefit their livelihoods. Examples include ecotourism, craft and sustainable forestry. Secure livelihoods are intertwined with cultural identity. When Indigenous Peoples are able to continue their traditional practices on their ancestral lands, this has a positive impact on their mental and emotional well-being.

Indigenous lands are repositories of cultural heritage. They contain sacred places, cemeteries and historical monuments. By maintaining their connection to these places, indigenous communities ensure the continuity of their cultural practices and stories. The land provides the context for transmitting oral traditions, languages and rituals. Elders share wisdom with younger generations, reinforcing cultural identity. Indigenous art, music and craft are often inspired by the natural environment. The earth serves as muse *and* canvas, allowing creativity to flourish.

Nicaragua lies between the Caribbean Sea and the Pacific Ocean. Its enormous water basins feed two large freshwater lakes that cover 8,264 sq km (Lake Cocibolca) and 1,049 sq km (Lake Xolotlan). The autonomous regions of the Caribbean are inhabited by the Miskitus, Mayangnas, Uluas, Garifunas, Creoles and Ramas and Mestizos peoples. There is a series of coastal lagoons of great richness in marine and coastal biodiversity, such as Bluefields Bay, Pearl Lagoon, Karata, Pahra, Dakura, Krukira, and Bismuna, to name just a few.

INPESCA's strategy is based on the following guidelines:

- Promotion of fishing and aquaculture production on both coasts (Pacific Ocean and Caribbean Sea) and in continental waters, for the

diversification of fishing and aquaculture activity for local, national consumption and for export.

- Raising awareness among the participants of the fishing and aquaculture sector of good practices for productive activity, in order to achieve the sustainability of resources, and promote clean, responsible fisheries that contribute to the economy of families on the coasts and inland waters.
- Strengthening the value chains of the fishing and aquaculture sector, with greater transformation and aggregation of value, both of resources that are currently produced, as well as others considered to have high potential.
- Promoting the capitalization of artisanal fishers and aquaculturists through tax benefits, to help increase the yield of resources under use and those with potential.
- Promoting marketing mechanisms, through fairs, to promote the consumption of fishing and aquaculture products, in order to increase the supply of quality products at fair prices.

In compliance with this strategy, Nicaragua proposes the following actions for 2024:

- Promote good practices in fishing and aquaculture. Efficient processing and marketing of fishing and aquaculture products with the adoption of new technologies and innovative transformations to improve productivity and competitiveness.
- Promote the diversification of production and ensure good positioning in the national and international markets.
- Effectively manage the use of hydrobiological resources, counteracting illegal, unreported and unregulated (IUU) fishing, applying management plans that guarantee the sustainability of resources and adopting mitigation and adaptation measures to tackle climate change.

Institutional goals

- Contribute to the production of fishing and aquaculture products for food and nutritional security.
- Support 40,000 small, medium and large fishing and aquaculture producers to produce 174 million pounds (about 79,000 tonnes) and



The vast majority fish in small canoes (wooden cayucos) and fiberglass pangas of under 12 metres in length, which puts them at high risk and vulnerability to the elements during rough sea conditions

export 111 million pounds (about 50,000 tonnes) of fishing and aquaculture products, equivalent to US \$284 million.

- Carry out 19,920 fishing and aquaculture inspections throughout the national territory to guarantee production.
- Facilitate the issuance of 3,550 certificates for the export of fishing and aquaculture products.
- Facilitate the processing of 650 permits, licences and concessions for the development of fishing and aquaculture.
- Train 460 key families on safety, quality, handling and maintenance of the cold chain and added value of fishing and aquaculture products.
- Accompany 940 artisanal fishing practitioners to obtain exemption from IECC and VAT to promote production.
- Promote the consumption of fishing and aquaculture products by holding 40 fairs and 20 tasting days for fishing and aquaculture products.

For the sustainable use of marine and inland resources:

- Accompany 10,000 leading families of the Caribbean coast in the production

and marketing of spiny lobster, pink snail, sea cucumber, crab and a variety of fish, among others.

- Raise awareness among 680 artisanal fishermen about the development of responsible and resilient fishing on the Caribbean coast of Nicaragua.
- Assist in the holding of at least 20 sports and recreational fishing tournaments in co-ordination with municipal authorities, tourism officials and other entities, with 2,000 participants.
- Train 600 artisanal fishermen on the requirements and procedures for obtaining VAT and IECC exemptions, and on the Code of Conduct for Responsible Fisheries, and marine safety.
- Carry out 17 resource evaluation and monitoring studies in the Nicaraguan Caribbean Sea on spiny lobster, coastal shrimp, queen conch, sea cucumber, and the impact of sargassum.
- Carry out 11 resource evaluation and monitoring studies on the Nicaraguan Pacific coast on coastal shrimp, lobster, snapper, sharks and rays.
- Promote investment initiatives and technical-scientific agreements



Source: https://maps.lib.utexas.edu/maps/americas/nicaragua_pol_97.jpg

- Deliver 450 technological vouchers for fish production to leading families on the Pacific and Caribbean coasts.
- Inaugurate 1,027 ponds and 450 tanks for the cultivation of freshwater fish.
- Deliver 70,000 tilapia fingerlings for fish production in 50 tanks and 1,027 ponds.
- Continue developing research for the cultivation of marine and freshwater species in the ‘Caribbean Pearl’ laboratories of Laguna de Perlas, RACCs and ‘Panchito Batata’ in San Carlos, Rio San Juan for freshwater shrimp, mangrove oyster, and Pacific and Caribbean rock oyster.
- Generate and transfer technologies applied to production that increase yields and productive diversification.
- Deliver 1,000 production bonuses to families involved in the artisanal fishing sector of the Caribbean coast for the economic revitalization of their productive activities.
- Train 1,000 practitioners of the artisanal fishing sector of the Caribbean coast on the use of technologies applied to production.
- Continue monitoring the project ‘Fattening of Caribbean Spiny Lobster (*Panulirus argus*)’ in Cayos Miskitos in the RACCN, which is carried out by the BICU and URACCAN universities.
- Establish a computer tool for online technical assistance for the small-scale aquaculture at the national level.
- Prepare primers, educational videos and tutorials for fish farming (on, for example, construction of ponds and cages, and food preparation).

Current situation

According to an INPESCA report, Nicaragua experienced growth in the fishing and aquaculture sector from 2006 to 2023, reflecting progress in production, export and valuation of the sector. Since 2006, fishing and aquaculture production has grown 282 per cent, rising from 44 million pounds (about 19,960 tonnes) to 168 million pounds (about 76,200 tonnes) in 2023.

As for exports, these increased by 224 per cent, from 33 million pounds (about 14,968 tonnes) in 2006 to 107 million (about 48,535 tonnes) in 2023. Furthermore, the value of these exports increased by 141 per cent, from US \$112 million to \$270 million.

The National Strategy for the Promotion of Small-Scale Aquaculture,

within the framework of the Free Trade Agreement (FTA) with China.

- Facilitate paperwork (permits, concessions and licences) through online automation so that the players in the fishing and aquaculture sector enjoy quick and quality access to procedural formalities.
- Facilitate an online platform for the artisanal fishing sector to identify VAT and IECC exemption procedures, among others.
- Promote aquaculture at the national level for large-, medium- and small-scale production.
- Carry out studies to identify potential areas for the development of large-scale aquaculture.
- Update and promote the National Strategy for the Promotion of Small-Scale Aquaculture 2024-2027.
- Promote the production of 70,000 pounds (about 32 tonnes) of tilapia and Lunarejo snapper through small-scale aquaculture.
- Strengthen the capacities of 1,080 families in matters related to aquaculture; pond construction; nutrition; cultivation of robalo, snapper and tilapia; and water quality, among others.

implemented since 2020, achieved the construction of approximately 1,000 ponds per year, training 19,000 practitioners and delivering 60,000 fingerlings.

The processing sector registers a 140 per cent increase in fishing and aquaculture plants, going up from 15 in 2006 to 36 in 2023, distributed between the Caribbean and the Pacific coasts. Employment in the sector has grown by 42 per cent, from 30,000 jobs in 2006 to 44,000 in 2023. The fishing sector contributes 1.1 per cent to the gross domestic product, generating approximately 27,746 jobs. These are distributed as follows:

- 6,990 in aquaculture
- 4,127 in processing plants
- 2,363 in industrial fisheries
- 11,595 in artisanal fisheries
- 2,671 in services.

The per capita consumption of fishery and aquaculture products has increased by 150 per cent, from 2.3 kg in 2006 to 6.7 kg in 2023, reflecting greater availability and preference for these products. In addition, 113,000 people have been trained in areas such as value addition, safety and good diving practices.

The vast majority fish in small canoes (wooden *cayucos*) and fiberglass *pingas* of under 12 metres in length, which puts them at high risk and vulnerability to the elements during rough sea conditions. Engine failures, collisions with other vessels, overloading and capsizing of *pingas* and canoes, problems associated with decompression and air supply in diving, entanglements in fishing nets, navigation errors, negligent practices, and crew falling overboard, are the main causes of accidents in Nicaragua's artisanal fishing sector.

In the last decade, the safety of fishermen has been further reduced due to the impact of climate change. Storms and hurricanes appear more frequently and are more severe, as demonstrated by hurricanes Eta and Iota in November 2020.

Challenges

In Nicaragua, the main species caught in fishing and aquaculture are shrimp, tilapia, dolphin (*mahi mahi*), sailfish and barracuda. Most of the fishing production originates in the artisanal fishing sub-sector, which receives tax

exemptions and benefits from the state.

Nicaragua's entry into the European market was achieved after meeting EU requirements on cold chains by the private sector. Currently, Nicaraguan fishery and aquaculture products also have entry into the markets of the US, Canada and China. For shrimp farming, Nicaragua has granted a mangrove area concession for 17,000 ha, of which only 545 are in an intensive system, almost 15,000 are in a semi-intensive system and the rest are in the artisanal sector.

The fishing sector in Nicaragua faces several challenges. The following stand out:

- International prices: The fall in international prices has affected the fishing and aquaculture sector. This is a challenge for local fishers and producers.
- Natural disasters: Nicaragua has experienced natural disasters that have impacted fishing and aquaculture. However, an investment of US \$17.5 million has contributed to recovery, especially in the autonomous regions on the Caribbean coast.
- Sustainability and growth: Despite the challenges, the country has made significant progress in the production, export and valuation of the fishing and aquaculture sector from 2006 to 2023. This demonstrates the commitment to sustainability and economic development.
- Modernization and innovation of fishing methods and gear: It is important to modernize the techniques and tools used in fishing to increase efficiency and reduce environmental impacts.
- Modernization of artisanal boats: Improving the capacity of traditional boats is essential to guarantee the safety of fishers and increase productivity.
- Diversification of fishing and aquaculture production: Encouraging the breeding of different species and the adoption of sustainable practices will contribute to the resilience of the sector.
- In addition, there is the challenge of expanding Nicaragua's territorial waters in the Caribbean Sea to boost the fishing industry. ↴

For more



INPESCA informa los ejes estratégicos y líneas de acción 2024

<https://www.canal4.com.ni/inpesca-informa-los-ejes-estrategicos-y-lineas-de-accion-2024/>

Supporting the recognition of Indigenous Peoples tenure rights

<https://www.fao.org/indigenous-peoples/our-work/tenure-rights/en/>

INPESCA: Avances en la Pesca y Acuicultura de Nicaragua (2006-2023)

<https://nuevaya.com.ni/inpesca-avances-en-la-pesca-y-acuicultura-de-nicaragua-2006-2023/>

Nicaragua: A cuatro meses de los huracanes Eta e Iota, medio millón de personas sigue sin agua

<https://news.un.org/es/story/2021/03/1489452>

The Challenge of 'Territory': Weaving the Social Fabric of Indigenous Communities in Nicaragua's Northern Caribbean Autonomous Region: The Challenge of 'Territory'

https://www.researchgate.net/publication/303834471_The_Challenge_of_'Territory'_Weaving_the_Social_Fabric_of_Indigenous_Communities_in_Nicaragua's_Northern_Caribbean_Autonomous_Region_The_Challenge_of_'Territory'