

Tiny fish boosting fortunes of women, their children's health

- ▶ Women in the villages along the coastline depend on dagaa trade for their livelihoods.
- ▶ The fish is affordable and rich in nutrients and the highly recommended omega-3.

LEVIS MUSUMBA, MOMBASA

Along the sun-drenched coastline of the Indian Ocean in the quiet, fishing village of Kibuyuni, Kwale, Elizabeth Luvuno rises before dawn, her routine guided by the flow of the tides.

A mother of two and a seasoned dagaa trader, she has spent the past five years building her livelihood around these tiny, nutrient-rich fish.

"Dagaa is more than just a fish; it is a lifeline for many families in this village, both as a source of food and income," she says.

For thousands of households in Kibuyuni, dagaa is not just a staple; it is a shield against poverty and malnutrition, sustaining both livelihoods and nutrition.

At day break, boats laden with the night's catch drift toward the shore, decks overflowing with the silvery pelagic small fish, sardines, and anchovies.

Luvuno steps across the damp sand, her kanga tightly wrapped around her waist. Her sharp eyes scan the boats as she sorts the shimmering fish, filling her woven basket with dagaa.

"This is my daily routine," she murmurs. "I have to be at the shore by 6am to get the freshest dagaa. From here, I'll soak them in salty water and boil them for a few minutes."

Within moments, the shoreline bursts into motion. Porters wade into the shallows, hoisting heavy baskets of fish onto their shoulders and moving swiftly toward the processing site.

Nearby, fires flicker to life, sending thick plumes of smoke curling into the sky as women prepare steaming troughs for boiling.

Luvuno joins them, rolling up her sleeves, her hands seasoned by years of labour. "I started with a capital of Sh5,000, and now my business is worth Sh50,000," she says with smile. "I've expanded and employed 11 more women."

Luvuno fills a large aluminium basin with freshly caught dagaa, submerging them in boiling water before carefully spreading the glistening fish to begin the drying process. "I can now process close to 150 kilograms a day, which gives me an average profit of Sh15,000 after sales," she said.

Japheth Munyoki, a business consultant, highlights the economic opportunities in the dagaa value chain.



Elizabeth Luvuno and her colleague sort dagaa at Kibuyuni village in Kwale County. [Levis Musumba, Standard]

"From fishermen to processors, traders, and transporters, dagaa employs thousands of people. The market is expanding to regional countries like Uganda and Rwanda."

Though small in size, dagaa holds immense value. They are the most affordable and nutritionally rich food available to coastal communities.

"These species are packed with essential nutrients, including high-quality protein, omega-3 fatty acids, and vital micronutrients like calcium, iron, and zinc," says Dr Johnstone Omukoto, a senior researcher at the Kenya Marine and Fisheries Research Institute.

"They play a crucial role in combating malnutrition, particularly among children as well as pregnant and lactating women."

According to Robert Kemboi, a nutritionist, dagaa provides affordable and accessible nutrition to low-income households in remote villages of the six counties at the Coast.

In Kibuyuni, the dagaa fishery is a crucial lifeline for over 1,000 households, driving a thriving economy.

"The high protein content supports child growth and development, while the micronutrients help combat anaemia and stunting," he says.

Back to Luvuno, the drying of her 100 kilograms allows the fish to be stored and consumed for weeks.

She also adds coconut milk to the fish to make it more sumptuous for her kids. "Dagaa is a big part of my diet," she says, stirring the coconut milk into the dish, adding, "It's affordable and accessible for most families."

For lunch, Luvuno serves the boiled dagaa mixed with rich coconut milk, a recipe passed down

through generations. Dagaa is also ground into flour and mixed with grains to make porridge for children.

"Many people still see dagaa as food for the poor, but I tell them, even the rich eat it; they just call it something else," Luvuno says, shaking her head.

According to the Kenya Fisheries Service Fishery Status Report for 2022, demersal species dominated the artisanal marine fisheries catch, accounting for 45 per cent or 16,129 metric tons of the total artisanal landings.

Pelagic species contributed 35 per cent (12,489mt), while crustaceans made up 6 per cent (2,193mt) of the total catch. During the reporting period, Kwale led with the highest quantity of marine artisanal landings, totalling 14,794mt, which represents 42 per cent of the overall landings.

The question arises: can the fisheries sector and dagaa, in particular, address nutrition in families below the food poverty line?

Nutritionists highlights the significance of sardines and anchovies. "Omega-3s found in these fish may promote brain health and help reduce the risk of conditions like depression, ADHD, and even Parkinson's disease," says Kemboi.

Additionally, omega-3s support heart health by lowering triglycerides and increasing HDL (good) cholesterol levels, which help prevent blood clots and reduce inflammation.

Dr Omukoto underscores the sustainability of sardines and anchovies when managed correctly.

"These species are fast-growing and reproduce quickly, which means they are less vulnerable to overfishing compared to other fish species. However, overfishing remains a risk if not managed properly," he says.

Luvuno and her fellow women still face challenges. "Our processing of dagaa is not up to standard, from boiling to sun drying, and this has affects the quality and price," she says.

Omukoto says boiling leads to the leaching of nutrients.

But Dr Patrick Kimani, director of Coastal and Marine Resource Development, has a solution. "We are setting up a new processing plant that will optimise boiling to reduce nutrient loss. This plant will also include the installation of energy-saving jikos and drying racks to improve the hygiene conditions during dagaa drying. Additionally, a new smoking kiln will allow for the smoking of dagaa, providing an entirely new product that adds value to the fish," he says.

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Briefing

NAIROBI. TWO FOUND DEAD IN THEIR HOUSES

Two men are said to have taken their own lives on Monday. Arthur Nderitu Bwire, 21, was found dead in his room at the family's Buruburu Phase 5 home. The mother, Ann Wanjiku, they broke in after he failed to show up for a whole day. In Suntaon area of Kasarani, the body of Samuel Njuguna Kibandi was found in his single-room mabati house. The 32-year-old was last seen on Saturday evening in high spirits. Brenda Wanjiru, a cousin, was shocked when she went to check why he had kept away from family members. Wanjiru discovered the door was locked from inside prompting a forced entry. [Hudson Gumbihi]

NAKURU. PUSH TO DISSOLVE COUNTY

A section of residents are collecting signatures in a bid to have President William Ruto suspend the county government. Led by Evans Kimori, the residents claim that the Executive has failed to serve. They also accuse MCAs of failure to oversight and instead colluding with the Executive. "It is time to hold Nakuru county leadership to account because the residents deserve responsive, transparent, and accountable leadership," said Kimori. The residents protest the continued closure of the War Memorial Hospital and stalled projects. He pointed out that despite Deputy Governor David Kones coming out and stating that there is no vacuum, there were concerns that he cannot make certain decisions. Kimori has written to the IEBC requesting guidance on signature collections. [Daniel Chege]

SIAYA. ASSEMBLY PLOTS TO KICK OUT TOP OFFICIAL

MCAs' plan to impeach Trade CEC Grace Agola over alleged incompetence and violation of the Constitution has put them on a collision course with a section of the residents. The Motion, led by Fredrick Omoro of East Ugenya, has already garnered support from 32 out of 42 members. However, some MCAs and residents have termed the move as witch-hunt, and called on Governor James Orengo to break his silence on the matter. "Former CEC for Water Julie Onyango and Deputy Governor William Oduol were impeached in the last two years under the Governor's watch," said Auscar Wambiya. He claimed Orengo's silence as his allies from Alego-Usonga are targeted reeks of complicity. "To the MCAs, your days of reckoning are near. Come 2027, the wrath of the people will descend upon you," he said. However, others warned against politicising the matter, saying the accused CEC should carry her own cross. [Isaiah Gwengi]

The numbers

150KG

AMOUNT of dagaa one woman says she can process per day, earning her Sh15,000.

14,794

METRIC tonnes of maritime artisanal landings recorded in Kwale County.