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YELF CLIMATE TRUST FOUNDATION NEWLETTER: "RESILIENT THINKING SERIES"

Nigerian Farmers' Irrigation Stories: In much of Nigeria's Northern plains, the lifeline for dry-season agriculture has always been irrigation. Canals and pumping machines lift water from rivers and shallow aquifers to grow rice, wheat, maize, and vegetables when the rains stop. But this lifeline is fraying. Farmers interviewed across Kano, Jigawa, Taraba, and Niger told **Daily Trust** that the 2024/25 dry-season is off to a slow start because last season's wet-season harvest turned into a financial disaster.

They poured savings into seeds and fertilizer only to watch farm-gate prices crash when the government relaxed grain import restrictions, leaving "many farmers uncertain whether to return to their fields". A rice farmer in Taraba invested over ₦5 million but harvested only 50 bags of paddy, which sold for just ₦18,000-₦20,000 per bag. Another farmer sold 80 bags of maize at ₦25,000 per 100 kg to raise money for irrigation; the low prices have left him and his neighbors wondering how to repay their debts.

Climate change and insecurity compound these economic woes. The United Nations and academic studies have documented how more erratic rainfall, heat stress, and longer dry spells shrink yields and strain irrigation sources, forcing farmers to invest more in pumps and fuel. The **International Trade Administration** notes that agriculture employs half of Nigeria's workforce, yet chronic problems—rising input costs, climate change, post-harvest loss, insecurity, and inadequate irrigation infrastructure—undermine this potential.

In some central belt States, farmers have suspended dry-season operations after a surge in abductions along irrigation corridors; entire cooperatives are abandoning fields that once supplied rice, maize, and vegetables.

Many now fear that if current trends persist, food security will deteriorate in 2026, echoing the warning by the All-Farmers Association of Nigeria (AFAN) that tens of millions of Nigerians could face acute food shortages.

Rising Input Costs

Daily Trust reporters met farmers who described the 2024 wet-season harvest as a "huge loss" and a reason to skip the dry-season. Grain prices plummeted because imported rice, maize and wheat flooded the market, while fertilizer, pesticides, and fuel costs remained "extremely high".

In Kano and Jigawa, the price of fertilizer (urea) climbed to ₦45,000–₦50,000 per bag, yet a bag of paddy rice sold for only ₦23,000 – ₦25,000.

In an interview with a farmer using solar-powered pumps in Niger that he could not afford to buy enough fertilizer even though his pump eliminated fuel costs.

Also, onion farmers in Kano said fuel, fertilizer, and seed prices "have risen steeply," leaving them "farming at a loss".

These stories mirror national statistics: research notes that smallholders account for 90 % of Nigeria's agricultural production, yet they are squeezed between high input costs and low farm-gate prices. Policymakers recognize this squeeze.
The Nigerian Senate debated the issue in December 2025 and warned that the sharp drop in produce prices, paired with persistently high costs of fertilizer, pesticides, and labor, "gravely threatens the livelihood of millions of smallholder farmers". Senator

Mohammed Danjuma Goje told colleagues that while cheaper food brings relief to consumers, it also places "enormous pressure on farmers' earnings and sustainability".

His motion urged the government to introduce input subsidies and a guaranteed off-take programs in which government agencies would buy produce directly from farmers at benchmark prices.

During the debate, Senator Aliyu Wamakko stressed that any policy to make food affordable must also ensure farmers earn sustainable incomes and that high input costs are "urgently addressed."

The Senate's recommendations included investment in storage facilities, rural roads, processing centers and irrigation systems to reduce post-harvest losses and boost profitability.

Away from Abuja, farmers themselves are organizing. AFAN's President, Dr Farouk Rabiu-Mudi, announced a National General Assembly of Farmers for January 2026 to tackle the crisis.

He explained that the meeting is convened against "escalating input costs, declining farm-gate prices, and growing concerns over food security," noting that "input prices are rising, yet the prices of produce are falling". The assembly will develop practical solutions to keep farmers in business while ensuring food remains affordable. Independent newspaper writers who travelled across northern Nigeria found similar concerns: farmers said high input costs and the government's directive to slash food prices place the entire burden of price cuts on private farmers. They warned that without support or buffer stocks; many will be unable to return to the fields next year.

Climate Change

Alongside economic pressures, climate change is reshaping irrigation. In Ogun and Oyo states, farmers told **Vantage Nigeria** that unpredictable rains, longer dry spells, floods, and extreme heat are undermining yields. Rivers dry up before the end of the dry-season, forcing farmers to abandon fields or drill deeper wells.

The article recommends practical adaptation steps—improving soil health with compost, adjusting planting calendars, harvesting rainwater, using drip irrigation and drought-tolerant seeds, planting trees for shade, and keeping farm records to learn what works.

Agricultural scientists estimate that each hectare of rice requires about six bags of fertilizer, which now cost between ₦ 55,000 and ₦60,000 per bag making fertilizer more expensive than the crop itself.

To remain profitable, experts argue the government should purchase rice at higher prices (around ₦ 60,000 – ₦ 70,000 per bag) and subsidies inputs to encourage farmers to keep planting.

Water availability is another constraint. Nigeria has about **3.1 million hectares** of irrigable land, yet less than half is used. The country's 12 river-basin authorities manage roughly **154 000 hectares**, but many of these schemes will see little activity this season without support.

At the local level, farmers in Lavun Local Government Area reported that water bodies are drying up; some rely on solar pumps, but high fertilizer costs still discourage planting.

In Taraba, early cessation of rainfall left fields parched and yields poor; a farmer with 20 years of dry-season experience said high

input and labor costs make irrigation "wasteful".

Abandoned Fields

Beyond economics and climate, insecurity looms large. Farmers in Kwara told **Daily Trust** they face armed bandits along irrigation corridors; some pay "taxes" to criminals just to harvest their crops.

AFAN vice-president Ajibola Tajudeen argued that insecurity is a bigger deterrent than low prices—farmers accept price fluctuations but cannot farm when their lives are at stake.

In December 2025, *AllAfrica* reported a surge in kidnappings targeting farmers in Kwara, Plateau, Taraba, Niger and the Central Belt, causing many cooperatives to suspend dry-season operations.

AFAN's national president, Muhammad Magaji, warned that entire cooperatives are abandoning fields that supply household consumption, and small-scale producers are scaling down acreage.

YELF's RECOMMENDATIONS

1. *Scale up renewable-powered irrigation and mechanization:* Transition irrigation pumps and farm equipment from diesel to solar or other renewable sources. This cuts greenhouse-gas emissions, stabilizes energy costs, and allows farmers to operate more sustainably during increasingly long dry spells.
2. *Invest in climate information services and early warning systems:* Build robust local weather stations, develop tailored forecast apps or SMS alerts in local languages, and train extension agents to interpret climate data. Timely information on rainfall patterns, heatwaves, and extreme weather helps farmers adjust planting dates, irrigation schedules, and protect crops.
3. *Adopt climate-resilient cropping systems:* Encourage cultivation of drought-tolerant and flood-resilient crop varieties, promote intercropping and agroforestry, and diversify into legumes and tree crops. These practices spread risk, improve soil structure, and increase on-farm biodiversity, enhancing resilience to climate shocks.
4. *Improve soil health and carbon sequestration:* Promote conservation agriculture techniques such as minimal tillage, cover cropping, mulching, and composting. Healthy soils retain water, reduce erosion, store more carbon, and support higher yields under erratic rainfall conditions.

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