

Seeds of Progress: Eritrea's Efforts to Transform Agriculture and Livelihoods



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A few weeks ago, Ambassador Mahmud Ali Hirui, Governor of the Gash Barka Region, toured the sub-zones of Barentu, Teseney, Tokombia, Akordet, and Shambuko to meet with over 450 administrators, agricultural experts, and community leaders. The discussions focused on one of Eritrea's most pressing priorities: expanding agricultural land and boosting production in both quantity and quality. Ambassador Mahmud underscored the urgent need for expert-led, measurable, and sustainable agricultural practices, while highlighting ongoing challenges such as weak soil and water conservation and limited land-use planning. Importantly, he announced that in 2025 Eritrea is making concerted efforts to cultivate 290,000 hectares of rain-fed land and more than 10,000 hectares of irrigated land – an ambitious undertaking that reflects the country's broader drive to secure food self-sufficiency.

As impressive as it is, this regional initiative is only one part of a larger national story: Eritrea's steady but determined progress in agriculture and food security over the past three decades. Despite arid conditions, erratic rainfall, and the growing pressures of climate change, the country has invested in modernizing agriculture, improving yields, and diversifying production. Eritrea is predominantly arid and semi-arid, with highly variable rainfall. About 60 percent of the population lives in rural areas, depending on farming, herding, or fishing for their livelihoods. Population density remains relatively low – about 35 people per square kilometre, below both global and Sub-Saharan Africa averages – but pressure on land and resources is intensifying with urbanization and climate change.

Rain-fed agriculture and pastoralism remain the backbone of the national economy, supporting around two-thirds of the population. The country has an estimated 2.1 million hectares of potential rain-fed land and about 600,000 hectares suitable for irrigation. Currently, slightly over 500,000 hectares are cultivated, with over 93 percent relying on modified rain-fed systems that integrate soil and water conservation, while the remainder is irrigated. Despite harsh conditions and structural challenges, Eritrea has achieved meaningful advances in food and agricultural production since independence in 1993. Poverty and food insecurity rates have declined significantly, while cereal yields and overall agricultural productivity have grown. A central player in this transformation is the National Agricultural Research Institute (NARI), established soon after independence under the Ministry of Agriculture (MoA). NARI has developed 45 improved crop varieties – ranging from wheat and sorghum to millet, maize, legumes, and oilseeds – many of which are drought-resistant, disease-resilient, and high-yielding. Combined with better farming practices and access to inputs, these varieties have helped farmers more than double their productivity. Beyond cereals, Eritrea has made remarkable strides in horticulture. The number of farmers engaged in fruits and vegetables has grown from eightfold from about 1,500 a generation ago.



The total area under horticulture has significantly expanded, while both fruit and vegetable production have grown substantially. Potatoes, once limited in availability, are now grown widely, including in the lowlands, thanks to adaptability trials of over 70 imported varieties. Sweet potatoes, too, are being expanded as a reliable food source. Livestock and animal products in Eritrea are also seeing rapid growth. P o u l t r y farming, once rare, has become increasingly common in households nationwide. Beekeeping has expanded across regions,

raising honey output and household incomes. Date palm cultivation, supported by favourable coastal climates, is emerging as a promising new frontier: more than 21,000 trees have already been planted, with the MoA aiming for 200,000 by next year. These initiatives not only enhance food security but also diversify income sources and contribute to climate resilience. Agricultural progress in Eritrea cannot be separated from the struggle against land degradation, deforestation, and climate variability. To adapt, the government has prioritized reducing reliance on rainfed agriculture, scaling up soil and water conservation, and expanding afforestation. At independence, Eritrea had just 138 dams and ponds. Today, more than 800 are scattered across the country, greatly increasing access to irrigation and drinking water.



Modern irrigation systems are also replacing traditional furrow irrigation with more efficient pressurized methods. In the energy sector, the Ministry of Energy and Mines introduced the Adhanet – an improved traditional stove that reduces fuelwood consumption and health risks. Since 1998, more than 170,000 of these stoves have been distributed, mainly in rural communities. This innovation illustrates Eritrea’s integrated approach: conserving natural resources, protecting health, and supporting households. The government and its partners have launched a range of initiatives to boost productivity and improve rural livelihoods. A flagship program is the Minimum Integrated Household Agricultural Package (MIHAP), which provides households with a mix of livestock, poultry, beehives, fruit and firewood trees, crop land, and vegetable plots, along with training and modern inputs. Thousands of families – many poor or female-headed – have benefited, gaining greater food security, income, and dignity. Other initiatives include voluntary resettlement of vulnerable households to fertile areas near newly built dams in Kerkebet, Gerset, and Logo, transforming life for once-isolated communities. The nationwide Savings and MicroCredit Programme, with 538 village banks, has further expanded access to credit,

enabling farmers and small-scale entrepreneurs to invest in productivity and diversify their livelihoods. Eritrea's agricultural journey is one of resilience, innovation, and commitment.



From introducing improved seed varieties and expanding horticulture to scaling up poultry, beekeeping, and date palm cultivation, the country is gradually reshaping its food systems. Government-led initiatives such as the construction of hundreds of dams, the introduction of fuel-efficient stoves, and the MIHAP reflect a holistic approach that ties together food production, environmental conservation, and rural livelihoods. While challenges remain – climate variability, land degradation, and resource constraints – Eritrea's progress demonstrates that with clear vision, community participation, and expert guidance, even the most difficult environments can become more productive and sustainable. The recent meetings in Gash Barka are not just local consultations; they represent a reaffirmation of Eritrea's determination to strengthen its agricultural foundation, improve nutrition, and secure a dignified future for its people.

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