

MoAI Monthly Report



A Country Report on Agriculture in Somalia

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On October 2nd, H.E Excellency Abdi Hayir Maareeye, Minister of Agriculture and Irrigation of the Somali Federal Government, launched 20 tractors at the ministry headquarters.

This initiative, made possible through a donation from the World Bank, aims to support service delivery for farmers and cooperatives.

During the launch, the Minister was accompanied by departmental directors and the Director General, expressing his appreciation for their dedicated work as part of the team.

The Minister also stated that the Ministry of Agriculture is committed to working closely with farmers to help Somalia achieve self-sufficiency through increased agricultural production.



Figure 1



Figure 2



MINISTRY OF AGRICULTURE AND IRRIGATION BIDS FAREWELL TO SCHOLARSHIP RECIPIENTS

The Minister of Agriculture and Irrigation of the Federal Republic of Somalia, Hon. Mohamed Abdi Hayir Maareeye, hosted a farewell ceremony today for four students awarded postgraduate scholarships.

These students will pursue studies in “Plant Biotechnology” at the University of Zimbabwe.

The recipients, selected through a competitive examination, represent the Federal Ministry of Agriculture along with the state ministries of agriculture from Hirshabelle, Jubaland, and South West State.

This initiative marks the first time since the country's collapse that the Ministry of Agriculture and Irrigation has facilitated international scholarships for students to study abroad.

This milestone was achieved in collaboration with the Ministry of Finance and the World Bank-funded SCRIP project, underscoring the government's commitment to investing in agricultural education and capacity building.

During the ceremony, the students were congratulated and encouraged to excel in their studies.

They were also urged to apply their knowledge for the benefit of Somalia by contributing to improved agricultural productivity and food security.

Their efforts are expected to play a vital role in advancing the agricultural sector and fostering national development.



The Somali Farmers Appreciated to the Minister of Agriculture after the Somalia Council of Ministers Lift Out the Ban of Chemical Fertilizers in Somalia

Mogadishu, 21 November 2024,

The Council of Ministers lifted the ban on importing chemical fertilizers to Somalia after great endeavor paid by H.E Mohamed Abdi Hayir (Maareeye), Minister of Agriculture and Irrigation.

H.E Minister Maareeye proposed several solutions which facilitated for the Federal Council of Ministers to unanimously lift out this long-persisted challenges to the Somali Farmers. The Minister mentioned how he is thrilled to announce this great news to Somali farmers, saying, ‘Today is a very good day for Somali Farmers and local food consumers as the council of ministers approved our appeal to lift out the ban on the chemical fertilizers without the combination of any substances posing threats or catalyzing combustions’.



Figure 1

Mogadishu, 24 November 2024— H.E Mohamed Abdi Hayir (Maareeye), Minister of Agriculture and Irrigation, had a fruitful meeting with Somali farmers, cooperatives and agribusiness companies at the theater room of the Ministry of Agriculture and Irrigation where they appreciated for the Minister and the Council of Ministers.



Figure 2

The Minister has spoken to the farmers and cooperatives, and he highlighted:

” the Ministry has been preparing for the last 10 months to improve our service delivery for the Somali Farmers as we established four new laws, currently lifted the ban of fertilizers, and aimed to increase awareness and skills of farmers through various channels.

We will establish an agricultural development committee those who will advocate and stand for the rights of the Somali farmers”.

On behalf of the participants, various members expressed their gratitude to the Minister and his team, and they also indicated that they are optimistic that the Ministry will resolve the outnumbered challenges affected to Somali farmers.



TRAINING OF TRAINERS ON AFRICAN ARMYWORM BIOLOGY, ECOLOGY, COMMUNITY BASED MONITORING, FORECASTING AND EARLY WARNING

28th -30th October 2024, Mogadishu, Somalia

Executive Summary

The African Armyworm (AAW; *Spodoptera exempta*) remains a big threat to food security in Eastern Africa Region affecting the livelihoods of thousands of farming communities, especially those in cereals production.

This report is an account of the workshop that took place in Mogadishu, Somalia as part of the community-based AAW surveillance, early warning and control technical cooperation project (TCP) in Eastern Africa Region.

A Training of Trainers (TOT) on the Biology, Ecology, Survey, Early Warning, Control, and Reporting of the AAW in Mogadishu, Somalia was held from 28th -30th October 2024, funded by the Food and Agriculture Organization of the United Nations (FAO).

The workshop was organized by the Ministry of Agriculture and Irrigation (MoAI) of the Republic of Somalia particularly Plant Protection Department in conjunction with the Desert Locust Control Organization for Eastern Africa (DLCO-EA).

A total of 19 participants from Jubaland, Hirshabelle, Southwest, Galmudug and Puntland attended the training course.

The workshop was facilitated by Mr. Abdi Mohamed Hussein (Director Plant Protection Department), Mr. Abdifatah Mukhtar Mohamed (Head Section Pest and Disease Control) and Mr. Zakariya Mohamed Haji (Head Section of Agrichemicals).

The training was officially opened by Prof. Mohamud Mohamed Mohamud, Director General of MoAI.

The DG welcomed the participants to the workshop and emphasized the importance of controlling migratory pests in ensuring that there is food security in the communities.

Mr. Evarist` Magara, that represented the DLCO-EA Director (Mr. Moses Mwesigwa Rwaheru) expressed the need for collaborations during migratory and transboundary pests early warning, surveillance and controls.

By the end of the workshop, quick evaluations showed that participants had clearly understand and appreciated their roles in the implementations of the training objectives, deliverables on Community based AAW monitoring, forecasting and early warning (CBAMFEW), then controls, in case of outbreaks.

Finally, the participants received certificates of attendance, AAW surveillance kits (traps, baits, pesticides, etc.)

to use in training the community forecasters as well deploying in the farms.



FIGURE 1 : GROUP PHOTO AT CLOSING CEREMONY WITH PARTICIPANTS WHO RECEIVED AAW PHEROMONE TRAPS.



**Somalia Upper House of Parliament
Approval of Somali Agricultural
Regulatory and Inspection Services
(SARIS) and Agrochemical Control Laws**

Mogadishu, 19 November 2024

Today, the Upper House of Parliament of the FGS passed Somali Agricultural Regulatory and Inspection Services (SARIS) and Agrochemical Control Laws.

H.E Mohamed Abdi Hayir (Maareeye), Minister of Agriculture and Irrigation at the Federal Government of Somalia, greatly appreciates both the Upper House of Parliament and the People’s House of Parliament for approving these two crucial acts for developing the agriculture sector in Somalia.

The Minister has explained the SARIS law, highlighting:

” The SARIS law intends to establish the Somali Agricultural Services Regulatory and Inspection Agency to carry out agricultural regulations and inspection services throughout Somalia.

The SARIS agency will have the overall responsibilities of regulating and controlling

Agricultural activities as means of the safety of plants, development and implementation of policies, laws and guidelines, testing and certification of seeds, testing the quality of Fertilizers and their certification, testing and certification of controlled substances”

The Minister has summarized the other law, “the second law, the Agricultural Chemicals Control Act, aimed at controlling the import, export, sales, manufacturing, and safety of Agricultural Chemicals in Somalia.

This law contributes to public health, community safety, environmental protection and the control measures of parasites and pesticides”

The Minister urged all concerned stakeholders to adhere to these laws to protect Somalia’s agricultural resources and improve its food security through functioning and an effective regulatory framework throughout Somalia.

For more inquiries, please contact the Ministry of Agriculture and Irrigation.

AGRICULTURE MECHANIZATION IN SOMALIA:

EFFORTS AND OBSTACLES



Figure 1

Context

Agriculture mechanization involves economic application of engineering technology to increase labor efficiency, for higher productivity and commercialization of agriculture products and services (Daum et al, 2020). It covers all levels of farming and processing technologies, from simple and basic hand tools to more sophisticated

and motorized equipment, applied in activities such as ploughing, harvesting, processing, and marketing of agriculture products. Mechanization is a central focus of Somalia's agricultural strategic priorities for the period 2025–2029.

It is designed to transform the country's agricultural sector by leveraging modern technologies to improve productivity, reduce post-harvest losses, and strengthen food security. The emphasis on mechanization aims to address key challenges while unlocking opportunities for sustainable growth and development in agriculture.

However, there is a significant lack of research on agricultural mechanization in Somalia, particularly concerning mechanization trends within the smallholder farming sector.



Figure 2

Despite this gap, existing empirical evidence highlights the low utilization of engine-powered machinery for essential agricultural activities like land preparation—the most fundamental step in agricultural production. This trend is consistent across Sub-Saharan African region, compared to other regions in the world, as the below table shows.

Table 1: Percentage distribution of sources of power for land preparation in selected regions of the world Source: FAO (2016)

Region	Human Muscle Power	Draught animal power	Engine Power
Sub Saharan Africe	65	25	10
East Asia	40	40	20
South Asia	30	30	40
Latin Americ & the Caribbean	25	25	50

In Somalia, one of the key challenges facing the agricultural sector is the low level of agricultural mechanization. According to the FAO (2019), the level of mechanization in Somalia is one of the lowest in the world, with only 0.1 tractors per 1,000 hectares of arable land, compared to the average of 13.6 tractors per 1,000 hectares in sub-Saharan Africa and 200 tractors per 1,000 hectares in the world.

Most of the agricultural operations in Somalia are still done manually or with the use of animal traction, which are labour-intensive, time-consuming, costly and inefficient.

The use of animal traction is also constrained by the availability, health and cost of draft animals, as well as the suitability of the soil and terrain for animal ploughing. The limited use of agricultural machinery and equipment in Somalia has implications for the timeliness, quality and scale of agricultural operations, as well as the drudgery and health of the farmers, especially women and youth, who bear the brunt of the manual labour.

The low adoption of agricultural mechanization in Somalia can be attributed to various factors, such as the high cost and scarcity of machinery and equipment, the lack of spare parts and maintenance services, the inadequate skills and knowledge of the farmers and service providers, the poor road and transport networks, the weak policy and institutional support, and the socio-cultural and environmental factors that influence the farmers' preferences and decisions (FAO, 2019; IFAD, 2020).

Moreover, the civil war and political instability that have plagued Somalia for decades have disrupted the agricultural sector and hindered the development and dissemination of agricultural mechanization.

Efforts Toward Agriculture Mechanization in Somalia

The Ministry of Agriculture and Irrigation of the Federal Government of Somalia recently received support from the World Bank, which includes 20 tractors, 20 disc ploughs, 20 hydraulic disc harrows, 20 forage harvesters, and 20 single-axle trailers. This support is a significant step toward modernizing Somalia's agricultural sector and enhancing productivity across the country.



Figure 3

Recommendations

• Improve Access to Financing

Establish financial mechanisms that provide affordable and accessible credit for farmers to purchase agricultural machinery. This includes offering low-interest loans and grants, particularly for smallholder farmers, to overcome the barrier of high upfront costs. Special financial products can be developed for women and elderly farmers to ensure inclusivity.

• Encourage Investment in Mechanization

Foster both domestic and foreign investments in the agricultural mechanization sector by creating an attractive investment climate through favorable policies, tax incentives, and long-term support for mechanization projects. Highlight the potential for mechanization to improve agricultural productivity and contribute to economic growth.

• Foster Public-Private Partnerships (PPP) in Mechanization Enhancement

Strengthen public-private partnerships to enhance the development and adoption of mechanization. Collaboration between the government, private companies, and international organizations can help facilitate technology transfer, provide mechanization services to farmers, and increase the availability of affordable machinery.

• Empowering Mechanization for Women and Youth Farmers:

Empowering women and youth farmers with the machinery, knowledge, and resources to utilize agricultural mechanization is essential for enhancing agricultural productivity, reducing labor intensity, and ensuring long-term sustainability.

• Establish TVET Centers for Agricultural Machinery Technicians:

The creation of TVET centers dedicated to agricultural machinery is a crucial step towards addressing the skills gap in Somalia's agricultural mechanization sector. These centers will be vital in developing a skilled workforce capable of operating, maintaining, and repairing modern machinery, ensuring that mechanization efforts are both sustainable and effective.

Conclusion

Agricultural mechanization is essential for the development of the sector, as it significantly boosts productivity.

For farmers to improve efficiency and productivity, adopting mechanization is crucial to overcoming inefficiencies along the agricultural value chains.

However, there are various challenges affecting the adoption and use of agricultural mechanization in Somalia.

Leveraging opportunities through public-private partnerships, encouraging local production and innovation, ensuring access to financing for mechanization, and most importantly, revitalizing policies and programs focused on mechanization are key to making Somalia's agriculture more productive.



Figure 4



Abstract

The study investigates the impact of access to farm inputs on sesame production among smallholder farmers in Somalia.

The research, using quantitative and qualitative methods, suggests that extension support services providers should ensure access to inputs for sesame production.

Sesame, a vital cash crop in Somalia, ranks third in production after sorghum and maize. The government has taken steps to improve agricultural extension services, including granting permission to extension providers and fostering a conducive environment for private and NGOs to offer support services.

Quantity of sesame production in Somalia

Sesame production primarily occurs in the Lower and Middle Shabelle and Middle Juba regions, with smaller localized production in the northwestern part of Somaliland (Sidow, 2010). Sesame production reached peak in 1982 and 1985, reaching 57,000 tons.

Post-civil war, it declined to 45,000-50,000 tons. Production declined to 38,133 tons in 2013, 35,584 tons in 2014, and 28,640 tons in 2015.

However, production surged to 60,000 metric tons in 2014, with 15,000 metric tons exported (SATG 2015).

The World Bank and FAO estimate that Somalia's sesame seed production is worth \$300 million.

In 2019, the country exported 28,672 tons, with a 107.528 percent increase in demand and a 311.89% growth in exports, generating \$43.03 million in revenue (Salina Wamucii, 2020). Somali sesame's exceptional quality and favorable international prices solidify its position as a significant cash crop for export (Jaspars et al., 2019).

Smallholder farmers in the sesame value chain face challenges in accessing high-quality agricultural inputs, highlighting the need for quality control and certified seeds, fertilizers, and pesticides. Lack of training is a key factor contributing to low production (UNIDO, 2016).

Farm inputs accessed by the respondents

The study reveals that sesame farmers access various farm inputs for improved production, including tractors, chemicals, seeds, irrigation, and labor, according to Table 1.

Table 1: Farm inputs accessed by the respondents

Farm input	Frequency	Percent	SD	Mean
Improved seeds	48	33%	14.67	29
Chemicals	40	28%		
Tractors	32	22%		
Irrigation equipment	17	12%		
Labour	8	5%		
Total	145	100		

Source: (Mohamed et al., 2024)

**Figure 1: farmers access inputs**

Farm inputs required in sesame production by the respondents

The study identifies the necessary inputs for sesame production, revealing that 48% require inorganic fertilizers, 33% organic fertilizers, 7% herbicides, 6% labour, and 5% pesticides.

Table 2 Farm inputs required in sesame production

Farm input	Frequency	Percent	SD	Mean
Organic fertilizers	49	34%	14.67	29
Pesticides	70	48%		
Herbicides	7	5%		
Irrigation equipment	10	7%		
Labour	9	6%		
Total	145	100		

Source: (Mohamed et al., 2024)

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**Figure 2: farmers access seeds****Figure 3: farmers access pesticides**

For the result of this study, the ministry has provided the following recommendations to extension services provision

1. Farmers should focus on optimizing the use of essential farm inputs such as tractors, chemicals, improved seeds, irrigation systems, and labor to enhance productivity and efficiency in sesame cultivation.
2. Farmers should implement Integrated Pest Management practices that combine methods like herbicides and pesticides with organic pest control strategies to effectively manage pests while minimizing environmental impact.
3. The service providers should disseminate information on the latest agricultural technologies, pest and disease management strategies, and sustainable farming practices through workshops, field days, and extension materials.
4. The service providers should monitor the adoption rates of recommended practices and seed varieties among farmers and evaluate their impact on production outcomes.

DECEMBER 2024

FORECAST FOR

AGRICULTURE AND IRRIGATION IN SOMALIA

Introduction

The Department of Irrigation and Early Warning provides the seasonal forecast for December 2024 through February 2025 to help farmers, agricultural planners, and irrigation managers prepare for the challenges posed by changing climate conditions. This report is crucial for maintaining agricultural productivity, managing irrigation systems, and responding to early warning alerts.

Rainfall and Temperature Forecast (Dec 2024)

The forecast for December 2024 shows drier-than-usual conditions in Somalia, especially in the southern regions, which may disrupt rain-fed agriculture and affect crop yields.

Areas relying on irrigation will need to monitor water levels closely and adjust irrigation schedules accordingly. Additionally, warmer-than-usual temperatures across much of the country, particularly in central and northeastern regions, may lead to higher evaporation rates and increased stress on crops.



Figure 1

Seasonal Forecast (Dec 2024 to Feb 2025)

From December 2024 to February 2025, Somalia is expected to experience continued dry conditions, with lower-than-usual rainfall and extended dry spells. The warmer temperatures will further increase water stress on crops.

Farmers will need to implement efficient irrigation strategies and ensure that water resources are well-managed to maintain agricultural output.

Key Recommendations for Farmers and Stakeholders.

To prepare for the upcoming dry and warmer months, the Department of Irrigation and Early Warning recommends the following actions:

Optimize Irrigation Systems: Use efficient irrigation methods, such as drip and sprinkler systems, to conserve water and improve crop yields.

Monitor Water Sources: Regularly check water levels in reservoirs, rivers, and wells. Early intervention may be necessary if water sources are low.

Plant Climate-Resilient Crops: Choose drought-resistant and heat-tolerant crops that can better withstand the dry and warm conditions forecasted.

Adopt Water Conservation Measures: Encourage rainwater harvesting and other water-saving techniques, particularly in areas with limited irrigation infrastructure.

Gaps for Agricultural Mechanization in Somalia

The following gaps have been noted in Somalia's efforts to mechanize the agriculture sector.

- **Barriers to the Development of a Market for and the Effective Utilization of Mechanization Equipment and Services**

Agricultural machinery is a private good that can be produced and sold by private companies. Various market actors, including international firms, local entrepreneurs, and mechanization service providers, encounter significant challenges, particularly in the context of smallholder farmers. Unlike inputs like seeds and fertilizers, agricultural machinery benefits from economies of scale, meaning its operational costs are minimized only when used at high rates. Without this level of utilization, the economic viability of the machinery becomes hard to justify. While institutional solutions such as rental markets could help address this issue, they are challenging to implement, especially when the operational window for machinery use is limited.

- **Government Agencies are not Providing Adequate Support for Mechanization**

The mechanization landscape in Somalia does not have a qualified pool of technicians to anchor the production and servicing of machinery. This is largely because TEVET Policy focuses on production of technicians in regular trades such as electrician, other than machinery, further limiting skills and technical base on agriculture machinery in the country.

- **Lack of Farmer-driven Financing for Agricultural Mechanization:** Given the high costs and extended periods of machinery depreciation, access to finance is crucial to ensure that such equipment is available at the farm level. However, to achieve this, farmers must overcome challenges related to collateral, moral hazard, and the risks associated with environmental and market uncertainties.
- **Lack of Extension Services Related to Agricultural Mechanization:** For the past 33 years, there is no extension services related to mechanization, with no dedicated department focused on providing mechanization training for farmers. However, with the establishment of the new Department of Mechanization, Technology, and Innovation, there is now a concerted effort to deliver capacity-building programs on mechanization and modern agricultural technologies to farmers across the country.
- **Efforts to Match the Production and importation of Machinery with the Specific Needs of Farmers have been Lacking:** While numerous machines are available for agricultural activities, there is a need to develop more relevant and portable machinery specifically tailored to the needs of smallholder farmers, focusing on adaptable technologies. There is limited research and development in this area, which is crucial for creating the right machinery to meet the needs of smallholders. Mechanization has not been approached from a comprehensive value chain perspective, with insufficient involvement of all key stakeholders from the outset.

Utilize Early Warning Systems: Stay connected with the Early Warning Department for updates on weather patterns, enabling farmers to adjust their irrigation schedules and farming practices accordingly.

Community-Based Water Management: Strengthen local community efforts to manage water resources collectively, sharing information and coordinating water use to ensure availability during the dry season.

Enhance Regional Coordination: Foster collaboration between regional authorities, farmers, and stakeholders to ensure equitable and efficient water distribution, especially in drought-prone areas.

Capacity Building and Training: Provide training for local farmers and irrigation specialists on sustainable water management practices and climate-resilient agriculture to improve long-term food security.

Conclusion

The Department of Irrigation and Early Warning emphasizes the importance of proactive planning as Somalia enters the dry and warm months of December 2024 to February 2025. By adopting efficient irrigation strategies, monitoring water sources, and selecting climate-resilient crops, the agricultural community can minimize the impacts of reduced rainfall and higher temperatures.

The Ministry of Agriculture and Irrigation is committed to supporting farmers, irrigation experts, and stakeholders in managing these challenges effectively.

By: Eng. Abdirahim Adan Abdi

DESERT LOCUST SITUATION

The Desert locust situation remained calm during November 2024. Surveys were conducted in the coastal, sub-coastal, and inland areas of the DL breeding area in the northwest regions where were seen solitary adults with scattered behavior.

The light to medium rains that fell in the breeding areas during the last decade of the month which may create favorable ecological conditions.

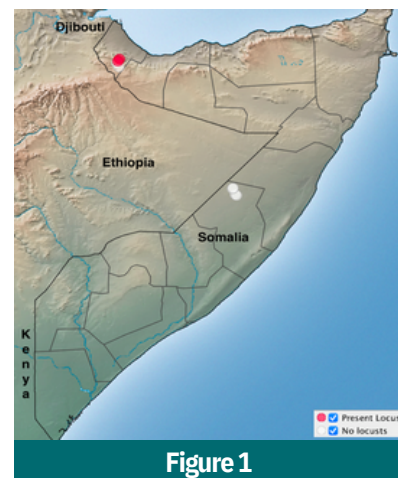


Figure 1

Forecasting

Ecological conditions may become favorable for locust breeding in some areas if abundant rainfall continues, especially in coastal areas like Zaila, Lughaya, and

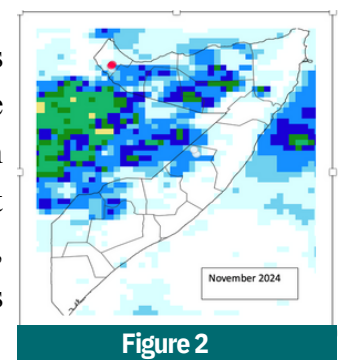


Figure 2

Berbera districts, which are primary Desert Locust breeding areas. This could lead to the creation of favorable conditions for locust breeding.



Somalia's Upper House of Parliament Approved the Plant Protection and Quarantine Law and the Seeds and Varieties Release Law

Mogadishu, 26 November 2024—

Today, Somalia's Upper House of Parliament has approved the Plant Protection and Quarantine Law, and Seeds and Varieties Release Law.

H.E Mohamed Abdi Hayir (Maareeye), Minister of Agriculture and Irrigation at the Federal Government of Somalia, greatly appreciates both the Upper House of Parliament and the People's House of Parliament for approving these two crucial acts for developing the agriculture sector in Somalia.

The Minister has explained the Plant Protection and Quarantine law, highlighting:

“The Plant Protection and Quarantine law aimed to ensure the stabilization and development of agricultural production through the prevention of the introduction and spread of Pests and the facilitation of international trade and market access of Somalia's Plant and plant products”

The Minister has summarized the other law, “The Seeds and Varieties Release Law will regulate the transactions and certifications of seeds with their index of names of plant varieties. It will control the import, export, quality, breeding or plant genetics”.

The Minister urged all concerned stakeholders to adhere to these laws to regulate Somalia's Seed Sector, plant protection and quality of crop varieties.

For more inquiries, please contact the Ministry of Agriculture and Irrigation.



Figure 1