

FEDERAL REPUBLIC OF SOMALIA
MINISTRY OF AGRICULTURE AND IRRIGATION

STRATEGIC PRIORITIES (2025 – 2030)



Table of Contents

1. BACKGROUND.....	4
1.1. Mandate and Core Function of the Ministry	4
1.2. Vision.....	7
1.3. Mission	7
1.4. Objectives	7
2. STRATEGIC SCOPE.....	7
3. SWOT Analysis.....	7
4. MOAI ORGANISATIONAL STRUCTURE	9
5. SOMALIA'S AGRICULTURAL POTENTIAL	11
6. SECTOR DEVELOPMENT PLAN	12
7. MINISTRY POLICIES, STRATEGIES AND LAWS.....	13
7.1. Policies.....	13
7.2. Strategies.....	13
7.3. Bills and Laws	13
8. STRATEGIC PRIORITIES.....	14
5.1 Enhancing Agricultural Production, Productivity, productivity targeting 7 value chains.	15
5.2 Development and Rehabilitation of Irrigation Infrastructure and Rural Development	15
5.3 Agro-metrology, Early Warning, and Drought and Flood Management.....	16
5.4 Agricultural Research and Extension Services	16
5.5 Pests and Diseases Control, Soil Health Management	17
5.6 Post-harvest, Agro-business, Agricultural finance, and Processing	17
5.7 Development of National food systems, Food security and nutrition	18

5.8 Agriculture Mechanization and Digitalization.....	19
5.9 Climate Change on Agriculture and Resilience	20
5.10 Strengthening Institutional Capacity and Governance.....	20
5 CHALLENGES IN AGRICULTURAL DEVELOPMENT.....	21
6 COLLABORATIVE PARTNERSHIPS.....	21
7 HIGH IMPACT ONGOING PROJECTS LED BY MOAI.....	25
8 TRANSFORMATIVE BANKABLE PROJECTS FOR AGRICULTURAL DEVELOPMENT.....	26
ANNEX 2: AGRICULTURAL PRIORITY AREAS AT FEDERAL MEMBER STATES	33
PRIORITY AREAS OF GALMUDUG STATE	33
PRIORITY AREAS OF HIRSHABELLE STATE	34
PRIORITY AREAS OF JUBALAND STATE.....	37
PRIORITY AREAS OF SOUTHWEST STATE.....	39

1. BACKGROUND OVERVIEW OF THE AGRICULTURAL SECTOR IN SOMALIA

The Ministry of Agriculture and Irrigation (MoAI) of the Federal Government of Somalia is the lead institution mandated to formulate policies, legal and regulatory frameworks, standards, strategies, and plans for the transformation of agriculture. MoAI plays a central role in enhancing Somalia's food systems, improving food security, livelihoods, and irrigation infrastructure, and spearheading the development of the productive sector. The Ministry also leads national efforts to prevent and manage seasonal outbreaks of pests and diseases and responds to climate-induced shocks such as droughts, floods, and transboundary pests like desert locusts, quelea birds, and armyworms. It has launched a range of interventions promoting climate-smart agriculture, uptake of innovative technologies, and the expansion of agricultural and irrigation programs.

Somalia is endowed with significant natural and human resource potential for agricultural development. It possesses approximately 8.9 million hectares of arable fertile land, vast underground water reserves estimated at 10 quadrillion liters, with an annual recharge of 12 trillion liters, and three rivers (Shabelle, Juba, and Dawa) spanning 2,500 km. The country has an average annual rainfall of 400 mm and a long coastline, supporting opportunities for irrigated, rainfed, and marine-based agriculture. It also has a dynamic youthful population and is recognized globally as the 7th largest sesame producer. Agriculture including crops, livestock, and fisheries accounts for 72% of the GDP and provides over 80% of national employment. Major crops include sesame, banana, lime, legumes, fruits, vegetables, and dates.

Despite these endowments, the sector remains underutilized. Only about 3 million hectares of the 8.9 million arable hectares are currently cultivable, primarily due to inadequate irrigation and mechanization. Of this, approximately 2.3 million hectares are under rainfed cultivation, while 700,000 hectares are suitable for pump or flood recession irrigation. Only a fraction of the irrigable land (less than 20% of its potential) is currently being cultivated roughly half the pre-war levels. Two-thirds of the cultivable land lies in the fertile southern regions between and along the Shabelle and Juba rivers, where small-scale subsistence farmers dominate production with holdings averaging 0.2 to 3.0 hectares.

Somalia's agricultural landscape is composed of two distinct farming systems:

Irrigated Farming Systems

Primarily found in southern and central Somalia along the Juba and Shabelle rivers—which have catchments of 220,872 and 296,972 sq. km respectively—irrigated agriculture is based on small and medium-scale gravity and pump irrigation. Key crops include maize, sesame, bananas, lemons, guava, mangoes, papaya, watermelon, and vegetables, with sesame and dry lemon being the primary export crops. Irrigated farming is also practiced in oasis areas of Somaliland and Puntland, using surface water from springs and shallow wells and one-piston or solar pumps. Cropping is often integrated with semi-nomadic pastoralism, with common intercropping of fruit trees (date palm, citrus, mango) and vegetables (onion, tomato, cabbage, lettuce).

Rainfed Farming Systems

Rainfed farming dominates regions without feasible irrigation and is practiced across much of the country, excluding sandy coastal plains and high limestone zones. It is largely low-input and subsistence-based, with no mechanization and production highly dependent on rainfall. Major crops include sorghum, cowpea, and maize, cultivated across four main systems:

- **Sorghum Basket Zone (Bay Region):** Covers areas like Qansahdhere, Baidoa, and Dinsoor with vertisols and calcisols, receiving 500–600 mm of rain. It is the leading sorghum-producing area and also supports maize, cowpea, and sesame under agro-pastoralism.
- **Bay-Bakool Zone:** Mixed farming in flood-recession areas with highly cyclical rainfall and susceptibility to crop failure.
- **Juba and Shabelle River Valleys:** Combine rainfed sorghum and sesame with irrigated crops such as maize and horticulture.
- **Coastal Cowpea Belt Zone:** Features shifting cultivation and livestock (mainly camels and goats), with cowpea as the dominant crop in both Gu and Deyr seasons.
- **Northwestern Sorghum Belt:** Includes Borama, Baki, Gabiley, and Hargeisa, with over 500 mm of rainfall. Sorghum, millet, and khat are common.

Historically, agriculture particularly crop production was second only to livestock in terms of GDP and export contributions. Before the civil war, Somalia was almost self-sufficient in food production, with minimal food imports. However, the collapse of the central government in 1991, the subsequent insurgency, and recurrent climate shocks (droughts, floods) have devastated the sector. These events have caused widespread displacement, loss of rural labor, and degradation of natural resources due to weakened governance.

As a result, Somalia has suffered a steep decline in agricultural output. The country now faces a chronic cereal deficit, with domestic production meeting only 22% of per capita cereal needs rising to 40–50% in the best seasons. This gap has driven up food imports significantly, with import value rising from USD 82 million in the late 1980s to USD 1.17 billion in 2020 a 14-fold increase.

1.1. Mandate and Core Function of the Ministry

The overarching mandate of the ministry of Agriculture and Irrigating is to address food insecurity, food systems transformative agenda, and end malnutrition and hunger in Somalia. To achieve these objectives, the ministry undertakes the following responsibilities:

- Designated Lead Institution for National Food Security & Food Systems
- Develop and Implement Agricultural Policies, Laws, Strategies, and Regulations
- Increase Land Under Cultivation
- Development and Governance of Irrigation & Flood Prevention Infrastructure
- Establish Agricultural Research and Extension Services
- Adopt Environmentally Friendly and Climate-Smart Agriculture Technologies
- Manage and Control Crop Pests and Diseases.
- Regulate and Control Quality of Inputs, Produce, and Products
- Create an Enabling Environment for Agricultural Investment
- Develop Agricultural Value Chains and Market Systems
- Collect, Maintain, and Manage and Present Agricultural Data through Agricultural Information Management Systems (AIMS)
- Integrated Farming and Fodder Production
- Introduce & Promote Mechanization, New Technologies, & Innovation
- Improve Seed Systems & Access to High-Yielding Varieties
- Coordinate Nationwide Agricultural Programs & Projects
- Develop Meteorology and Early Warning Systems
- Strengthen Post-Harvest Management & Food Storage Infrastructure
- Enhance Nutrition & Food Safety Standards

1.2. Vision

Promote modern Agriculture transformation capable of providing sufficient locally grown and nutritious food and contribute to the economic prosperity of the nation.

1.3. Mission

Transform Somalia's agricultural sector by increasing land under cultivation and rehabilitation Somalia's irrigation infrastructure, will enable smallholder farmers to become more productive, profitable, and environmentally responsible.

1.4. Objectives

The Ministry of Agriculture and Irrigation Strategic Priorities aims to facilitate and provide a roadmap for sustainable agricultural development, enhance agricultural production, control diseases, promote agricultural investment and value chain development, and monitor and evaluate policy & program implementation. It also focuses on ensuring food security, economic progress, strengthening agricultural service institutions, and human resource development.

MoAI is separately developing a comprehensive five-year Agricultural Development strategic plan based on deep detailed studies. The MoAI is also developing a Food Security Strategy and Action Plan, Agricultural Infrastructure Strategy and Master Plan as well as other agricultural policies including the National Seed Policy, Agricultural Extension Policy, and Agricultural Cooperatives Policy.

2. STRATEGIC SCOPE

The Ministry of Agriculture and Irrigation has set priorities to strengthen institutional capacity, improve policies and legal frameworks, and create a conducive environment for increased agricultural production and productivity, enhanced food security, and environmental safeguards, as well as promote entrepreneurship, climate-smart agriculture and boost farming investment.

3. SWOT ANALYSIS

To establish strategic goals and interventions for the next five years, a comprehensive SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was conducted based on the literature review and consultations at the federal and FMS levels. Internal (strengths and weaknesses) and external (opportunities and threats) factors were considered to help evaluate what variables can be changed in the future for strengthened strategic planning of agriculture in Somalia. This analysis is conducted at the federal and state levels and consolidated in Table 1 below.

In all states' MOAI of the FMS consulted, the institutional support and capacity-building needs have been reflected as a challenge and a priority. This is stated both as a strength in an existing institution and as a weakness in terms of gaps within the structures of the existing institutions. These inherent characteristics has been reflected in the respective priority interventions in relation to the specific comparative advantages of each FMS institutions. Going forward, the MOAIs can build on the existing institutional strengths to achieve its desired strategic objectives, while using the weaknesses and threats as entry points for putting in place corrective strategic measures as summarized in the SWOT Matrix:

Table 1: Strength, Weakness, Opportunities, Threat (SWOT) Analysis

Strength	Weaknesses
<ol style="list-style-type: none"> 1. Availability of the agriculture ministers and department and basic human resources 2. Enabling policy and legal framework 3. Effective MOAI leadership that can influence strategic direction and bring professionals, NGOs, the UN, and others together. 4. Large arable land available for production expansion 5. Country proximity to major markets 6. Large farmers have access to capital for investment 7. Collaborative mechanisms between MOAI and agricultural cooperatives and stakeholders. 8. Presence of young entrepreneurs 	<ol style="list-style-type: none"> 1. Limited government funding capacity to invest key sectoral programmes 2. Lack of effective enforcement capacity to implement agricultural policies and regulations 3. Low labour supply for agricultural production due to the large rural displacement 4. Absence of national strategies for promoting agricultural economic recovery 5. Inadequate capacity to disseminate agricultural technology innovations 6. Low adoption of modern agricultural technologies in farming and use of farm input 7. Weak monitoring and evaluation system in externally funded programs 8. Limited access to credit among farmers 9. Weak information and data management systems 10. Poor road infrastructure to facilitate markets
Opportunities	Threats
<ol style="list-style-type: none"> 1. Supportive policies and a favourable political climate as agricultural development and food security are top priorities for both federal and member states 2. Growing focus on value-addition activities as most externally funded programs place emphasis on this a path to development and poverty reduction in Somalia. 3. Accreditation and membership to regional and international bodies such as IFAD, FAO, and DLCO-EA which can facilitate access to technical and financial assistance. 4. Establishing collaboration among the relevant institutions such as universities, research organizations, the UN, and other international bodies. 5. Growing availability of affordable new technologies for farmers 6. Supportive development partners willing to invest in building a more resilient and sustainable agriculture in Somalia 7. Rapid urbanisation driving demand for food in Somalia 8. Availability of national, regional, and global markets 9. Old government-owned facilities and land available for rehabilitation and re-use across the regions. 10. Availability of significant river water resources in regions with the large unused fertile arable land to expand agricultural production. 	<ol style="list-style-type: none"> 1. Ongoing widespread insecurity in Southern and Central regions of Somalia. 2. Recurrent floods/drought that frequent cause crop failure in the context limited disaster risk management capacity and worsening climate change impact 3. Limited budgetary capacity which affects the implementation of agricultural programmes. 4. Land disputes in the absence of enforceable land tenure laws and up-to-date land registration system 5. High cost of marketing agricultural products due to multiple roadblocks by militia and/or criminal gangs collecting illicit taxes in Southern and Central regions. where bulk of agricultural production takes place. 6. Emerging pests and diseases in the context of emerging yet not operational phytosanitary services 7. Weak agricultural standards for food safety and quality in the context of changing market requirements and consumer preferences 8. High poverty levels among rural population which embedment to human capital development 9. Weak governance, and high levels of corruption.

4. Governance for Agricultural Sector

The Ministry of Agriculture and Irrigation of Federal Government of Somalia (MOAI) has overall policy remit on formulating policies, legal and regulatory frameworks, standards, strategies, and plans for agricultural transformation. It is the lead government institution designated to improve food systems, food security, agricultural and agropastoral livelihoods, irrigation infrastructure, with overall responsibility on the development of crop sector. The Federal Ministry of Agriculture and Irrigation is responsible for all agricultural and irrigation development strategies in Somalia. The Ministry has currently 10 departments and 47 Sections including:

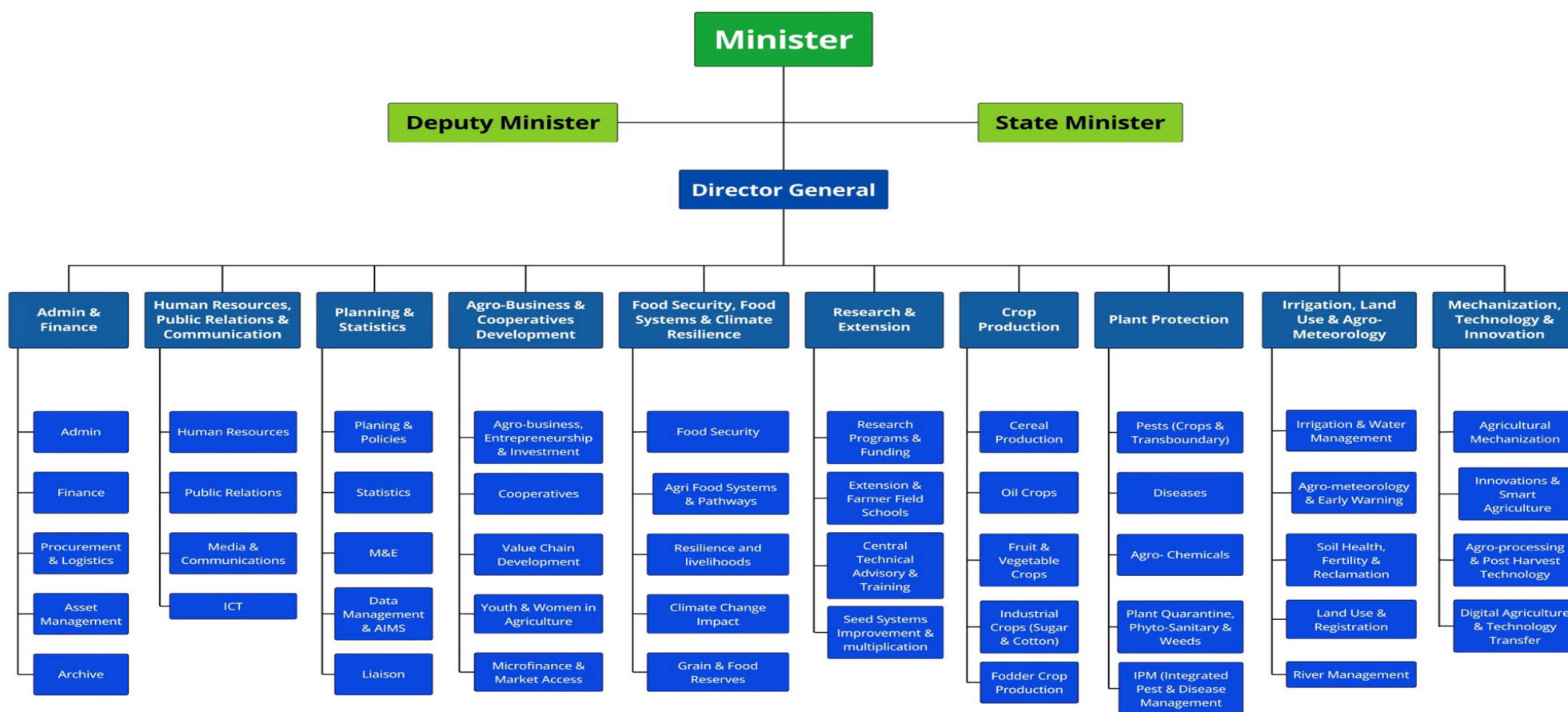
1. Department of Planning and Statistics
2. Department of Agri-business and Cooperative Development
3. Department of Food Security, Food Systems and Climate Resilience
4. Department of Research and Extension
5. Department of Crop Production
6. Department of Plant Protection
7. Department of Irrigation, Land Use and Meteorology.
8. Department of Mechanisation, Technology and Innovation
9. Department of Administration and Finance
10. Department of Human Resources, Public Relations and Communications.

Alongside its core departmental structure, the Ministry of Agriculture and Irrigation oversees several key institutions that enhance its regulatory, research, and service delivery functions. The Somalia Agricultural Regulatory and Inspections Services (SARIS) is a semi-autonomous agency responsible for plant protection and the enforcement of regulatory control measures. This includes quarantine operations, seed inspection and certification, fertilizer quality control, and oversight of pest control products alongside the development of related regulatory instruments. In parallel, the Ministry is reestablishing the National Agricultural Research Institute (NARI) as its research and innovation arm. NARI is tasked with conducting applied agricultural research, developing climate-resilient technologies, improving crop and livestock varieties, and supporting farmer-led innovation providing critical evidence to guide policy, extension services, and private sector growth. Additionally, the Ministry is reviving ONAT, the historical Farm Machinery and Agricultural Supply Service, as a state enterprise to promote mechanized agriculture through the provision of tractors, equipment rental, maintenance services, and access to spare parts aimed at improving productivity and resilience in farming systems across Somalia.

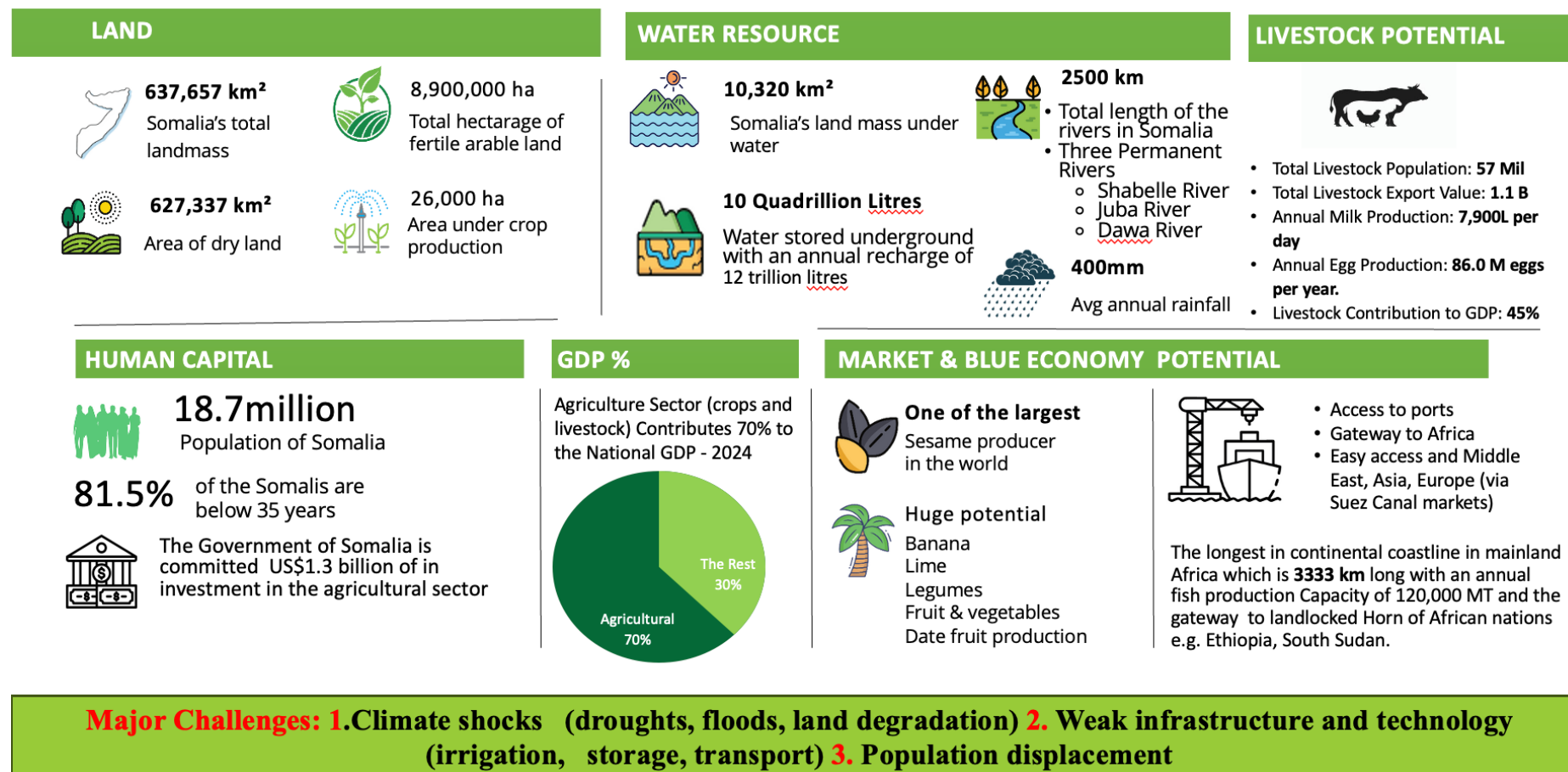
It is worth pointing that MOAI works closely with its Federal Member States (FMS) counterpart Ministries of Agriculture in developing this strategy through extensive consultations. The implementation of this envisages a full participation of the planning and execution of the resulting action plans.

5. MOAI ORGANISATIONAL STRUCTURE

The Ministry is led by a Minister, supported by a Deputy Minister and State Minister. A Director General oversees day-to-day operations of different departments each led by a Department Director. Across the 10 departments, there are 47 divisions led by Divisional Heads.



6. SOMALIA'S AGRICULTURAL POTENTIAL



7. SECTOR DEVELOPMENT PLAN

SECTORAL DEVELOPMENT PLAN FOR 2025 - 2030

Production Capacity and Value Addition

1 Cereal Production and Processing

- To enhance production
- Provide support services
 - Expand cultivation land
 - Increase access to agri-input

2 Auxiliary Farm Services

- Enhance the accessibility
- Fertilizer Production
 - Farm Machinery
 - Technology Adoption

3 Seed Production and

- Accessibility to high-quality hybrid seeds that offer higher yields and climate resilience in Somalia

4 Fodder Production & Processing

- To maintain healthy livestock, increase productivity for income generation.
- Fodder Cultivation, harvesting
 - Processing
 - Distribution
 - Marketing

5 Fruits & Vegetables Production

- Diversifying fruit and vegetable production
- Increase export & income generation

6 High Value Oil Crop Processing

- Increase Cultivation of high value oil based crops: Sesame, Sunflower, and Groundnut

Integrated Irrigation & Land Management

7 Dryland/Rain fed Irrigation

- Rainwater harvest
- Sub/surface dams
- Modern smart irrigation
- Watershed management
- Boreholes & Shallow Wells

8 Land Use Management

- Soil health management
- Soil labs and portable soil test kits to farmers.
- Agricultural land use policy and digital registry

9 Riverine Irrigation

- Dry up river Desilting
- River breakage embankment
- Rehabilitation of river barrage & Primary flood relief canals

10 Spate Irrigation

- Captures seasonal Floodwaters
- Supports arid agriculture
- Channels water to fields
- Supplements sparse rainfall

11 Integrated Marketplaces (Afgoye & Balad)

- Trade Avenues and Markets
- Aggregation Centers
- Cold Storages

- Processing and Value Addition Units
- Agro-Industrial Units
- Silos & Grain Storage

- Cooling & Ripening Chambers
- Traceability & Monitoring System
- Waste Recycling & By-product Utilization Unit

12 Integrated Research, Extension and Pest Management

- Construction of SARIS HQ
- Plant health & Fertilizer Labs
- Inspection Facilities at entry Points
- Construction of 3 new pest early warning centres

- National Agriculture Research Institute (NARI) establishment
- Agricultural Extension HQ & Facilities Establishment
- e-Extension and mobile advisory platforms

- Central Agricultural Research Station- CARS
- Bonkay Agricultural Research Station- BARS
- Abureyn Dryland Research Station

8. MINISTRY POLICIES, STRATEGIES AND LAWS

8.1. Policies

- National Irrigation Policy
- National Fertilizer Policy
- National Pesticide Policy
- National Food Security Policy - Draft
- National Agricultural Cooperatives Policy - Draft
- National Extension Policy
- National Agricultural Land Use Policy – Draft

8.2. Strategies

- National Agricultural Transformational Strategic Plan and Action Plan – on-going
- Strategy for climate change in agriculture- on-going
- National Food Security Strategy – on-going
- National Irrigation Development Master Plan and Action Plan – on-going
- Somali Agricultural Regulatory and Inspection Services (SARIS) strategy – Draft

8.3. Laws

- Plant Protection and Quarantine Law Number:34, December, 2024
- Seed and Plant Varieties Release Law Number:35, December, 2024
- Agricultural Chemicals Control Law, Law Number:33, December, 2024
- Somali Agricultural Regulatory and Inspection Services (SARIS) Law Number:32, December, 2024

9. STRATEGIC PRIORITIES

Somalia's agricultural sector, the backbone of the national economy, faces significant challenges due to socio-economic instability, climate change (recurrent droughts and floods, diseases and pests infestation and raising temperature). To address these hurdles and ensure sustainable development, the Ministry of Agriculture and Irrigation has identified the following strategies and initiatives that will guide its efforts:

These strategic priorities aim to enhance food security, improve rural livelihoods, and promote economic growth. The MoAI will revitalize the agricultural sector and build a resilient and prosperous nation by focusing on these key areas.

MoAI Strategies

- **National Agricultural Transformation Strategy**
- Climate Change Adaptation & Mitigation Strategy (Ongoing)
- National Food Security & Nutrition Strategy (Ongoing)
- National Irrigation strategy & Master Plan (Ongoing)

BEERO OO BARWAAQEE SOOMAALIYA (BBS)



- Transforming small-scale subsistence farming into integrated farming
- Scale-up the adoption of integrated farming and transfer of knowledge
- Acceleration of integrated farming and its practices

CENTER FOR INNOVATION AND AGRIPRENEURSHIP DEVELOPMENT (CIAD)



CIAD

- Address skill gaps, MSME market challenges, and need for innovative and adoptive solutions
- Create enabling environment for agripreneurs, SMEs and farmers to thrive

EMPOWERING WOMEN AND YOUTH FARMERS



- Strengthening Women's Capacity on CSA
- Enhancing the productivity of women farmers
- Market access and trade predictability

STRATEGIC PRIORITIES

4 Strategies
3 Initiatives
10 Priorities
121 Activities

1. Increasing agricultural production and productivity (targeting 7 value chains).
2. Development and Rehabilitation of Irrigation Infrastructure and Rural Development.
3. Agro-metrology, Early Warning, Drought and Flood Management.
4. Agricultural Research and Extension Services.
5. Pests and Diseases Control and Soil Health Management.
6. Post-harvest, Agro-business, Agricultural finance and Processing.
7. Development of National food systems, Food security and nutrition.
8. Agriculture Mechanization, Digitalization and innovation.
9. Agricultural Climate Change adaptation, mitigation and Resilience.
10. Strengthening Institutional Capacity Development and Governance.

7 Target Crops

Maize, Sorghum, Rice & Cowpea. . (For Food Security)
Sesame, Lime & Banana. (Cash Crops)

5.1 Enhancing Agricultural Production, Productivity, productivity targeting 7 value chains.

The decline in agricultural growth since 1991 is due to factors such as insecurity, limited innovation, inadequate research and extension services, unpredictable weather, pests, diseases, declining soil fertility, and high production costs. Farmers' limited access to modern technologies like certified seeds, fertilizers, and mechanization has further hindered productivity. To address these challenges, the Ministry of Agriculture and Irrigation plans to invest in research, improve extension services, and promote climate-resilient agricultural practices. Training programs on Good Agricultural Practices (GAP) will target smallholder farmers, cooperatives, and commercial enterprises, with special focus on empowering women, youth, and internally displaced persons (IDPs). The ministry aims to increase crop production capacity by 60% over the next five years while promoting sustainable and environmentally friendly farming techniques.

In parallel, the ministry has identified strategic crop value chains to meet local demand, reduce import dependency, and boost export earnings. Key crops for national food security include maize, sorghum, rice, and cowpea, while sesame, citrus, and bananas are prioritized for export. These selections align with the National Agricultural Development Strategy and the National Transformation Plan (NTP), focusing on crops with high potential for food security, income generation, job creation, and economic growth. The selection criteria also consider factors such as climate resilience, ease of production, potential for value addition, and opportunities for engaging women and youth in agriculture.

The ministry's strategy aims to scale up production of these strategic crops to surplus levels, thereby enhancing household food security, generating income for farmers, creating employment opportunities, and contributing to national GDP and export revenues. By integrating advanced research, fostering innovation, and optimizing resource use, the ministry seeks to transform agriculture into a resilient and sustainable sector that drives economic growth and ensures long-term food security at both regional and national levels

5.2 Development and Rehabilitation of Irrigation Infrastructure and Rural Development

Farmers in Somalia rely on two major rivers for irrigation, with potential for up to 265,000 hectares¹. Somali farmers also use dryland farming techniques to cultivate crops that depend on nature's rainfall and the soil's capacity to retain moisture. However, agricultural production has declined significantly after the central government's fall, largely due to the country's poor irrigation system. The Ministry of Agriculture reported irrigable land of 2230 km², with 1100 km² under flood and gravity irrigation.

¹ SWALIM: Hydraulic of Rivers Juba and Shabelle in Somalia

Groundwater, primary and secondary canals, river embarkment and desilting, hydraulic water gate and operating system to control the flow of upstream and downstream water, feeder roads, rural bridges, and other agricultural infrastructure help manage water resources (dryland and riverine), flood management and crop production more effectively.

The ministry's priority targets include the development of dryland irrigation systems and spit irrigation, boreholes, earth dams, and subsurface dams; the desalination of brackish water, watershed management; and rainwater harvesting. Similarly, the ministry will initiate a system of holistic governance that encapsulates the establishment of national river authority and irrigation committees and subcommittees.

5.3 Agro-metrology, Early Warning, and Drought and Flood Management

Somalia's agricultural sector can be significantly bolstered by a multi-pronged approach: reviving the agro-meteorological network to collect real-time weather data, establishing robust early warning systems to anticipate droughts, floods, cyclones, pest outbreaks, and weather forecasting, and implementing sustainable farming system in drylands and strategic flood control measures like river embankment reinforcement and canal systems. Extreme flood events were experienced for the last few years as the Shebelle and Jubba Rivers flooded during wet seasons (Gu' and Deyr Seasons) and subsequently caused loss of human life and destruction of property and crops as well. This comprehensive strategy will empower farmers with crucial climate information, enable proactive responses to weather extremes, and safeguard agricultural land from flood damage, ultimately fostering a more resilient and productive agricultural sector.

5.4 Agricultural Research and Extension Services

Revitalizing Somalia's agricultural research is key to re-establishing research institutions, equipping them with modern technology including developing drought-tolerant crops, improved irrigation techniques, and sustainable land management practices. This will strengthen existing research centers and the establishment of research stations and substations for testing seeds and crop improvement. Sharing these advancements through a revamped extension service is crucial. The establishment of knowledge transfer platforms, training, and equipping extension workers will allow them to effectively disseminate knowledge to farmers across the country. This direct link between research and extension bridges the gap between scientific innovation and practical application, empowering farmers with the tools they need to thrive. In this regard, the Ministry will form scientific partnerships with research institutions, universities, and agencies in agricultural research for sustainable crop production and promoting local innovation.

5.5 Pests and Diseases Control, Soil Health Management

Pest infestations, diseases, and soil degradation are critical challenges that pose significant economic losses to crop production in Somalia. The Ministry of Agriculture and Irrigation faces limitations in diagnostic capacity (both human and infrastructural) and control programs for widespread pests. Simultaneously, issues like desertification, overgrazing, and deforestation contribute to soil nutrient depletion, erosion, and the loss of organic matter, further threatening agricultural productivity.

To address these interconnected issues, the Ministry of Agriculture and Irrigation will adopt a comprehensive approach that integrates pest and soil health management. This includes strengthening its capacity for sustainable pest management by implementing Integrated Pest Management (IPM) strategies, establishing monitoring and early warning systems for pests, and providing technical advice to farmers and agro-dealers. Additionally, the ministry will focus on soil health initiatives such as soil mapping, testing, and promoting sustainable agricultural practices like crop rotation, intercropping, cover cropping, organic farming, and agroforestry.

Despite these challenges, there are fertile pockets of land, particularly along river valleys and coastal areas. These regions support agricultural activities but often face limitations due to inconsistent rainfall, pest infestations, and inadequate soil management practices. By integrating pest control and soil health management, the ministry aims to enhance soil fertility, reduce the environmental and social impacts of pesticides, increase agricultural productivity, and build resilience to climate change. These coordinated efforts will ensure sustainable agricultural development and food security in Somalia.

5.6 Post-harvest, Agro-business, Agricultural finance, and Processing

Post-harvest technologies can prevent yield losses, add value to agricultural products, and generate jobs. However, in Somalia, agricultural value addition is limited due to high post-harvest losses, and lack of affordable technology, energy, and financing. Improving agro-processing, aggregation centers, storage including silos, and marketing can increase agricultural export value and income-earning potential. Food losses and post-harvest losses account for 30-40% of total production globally. MOAI aims to maintain quality, protect food safety, reduce losses, and promote agripreneurship. The ministry has prioritized policy formation and strategies for MSMEs and cooperative development as well as continued training for commercial and small farmers and value chain development. The ministry targets the economic empowerment of women, youth, and marginalized groups in agricultural market systems and the implementation of the Market System Development (MSD) approach.

Furthermore, the ministry will empower Somali women and girls through climate-smart agriculture, income generation and livelihood, and entrepreneurial and management skills of women farmers and their cooperatives, village savings and loans associations (VSLAs), and investment promotion of their local crop production. The ministry will work with local banks to facilitate investment for access to financial services, enhance local production, and link to the international markets.

5.7 Development of National food systems, Food security and nutrition

The government of Somalia has undertaken significant initiatives to transform its national food systems, recognizing the critical need to address persistent food security and nutrition challenges. Through a series of National Food Systems Dialogues held at both Federal and Member State levels, a country-led process was facilitated to define national pathways towards sustainable, resilient, and equitable food systems. These dialogues, aligned with Somalia's Vision 2030 Agenda for Sustainable Development and the upcoming National Transformation Plan (NTP), brought together various government ministries, UN agencies, private sector actors, civic society organizations, and non-governmental organizations. The collaborative effort identified key challenges, gaps, and opportunities within Somalia's food system landscape, ultimately culminating in seven clearly defined national pathways to guide the transformation process.

The national pathways focus on the following areas:

- Economics, Trade, and Investments in Food Systems
- Mitigating Impacts of Migration, Displacements, and Durable Solutions on Food Systems
- Climate Change, Disaster Risk Reduction, and Food Systems
- Shocks and Social Protection Impacts on Food Systems
- Gender in Food Systems
- Youth Engagement in Food Systems
- Digital Revolution and Innovations

These pathways aim to create a resilient, inclusive, and sustainable framework to enhance food security, improve nutrition, and foster economic growth. However, Somalia continues to grapple with severe food security challenges. A significant portion of the population faces chronic hunger and malnutrition, exacerbated by the country's reliance on rain-fed agriculture and livestock, which are highly susceptible to recurring droughts, floods, and other climate-induced shocks. Ongoing conflict, displacement, and limited access to markets further disrupt food production and distribution systems, leading to acute food shortages and a growing dependence on humanitarian assistance.

The root causes of food insecurity in Somalia are multifaceted, including widespread poverty, conflict-induced instability, recurrent climatic shocks, displacement, low agricultural productivity across crops, livestock, and fisheries, inadequate access to markets and clean water, and the absence of a cohesive Food Security policy and institutional framework. Addressing these challenges requires a comprehensive approach that integrates the national food systems pathways with targeted interventions to strengthen agricultural systems, improve productivity, and promote sustainable practices.

Investments in infrastructure, diversification of food production, and enhanced market access are critical components of this strategy. Additionally, building resilience against climate risks and ensuring the inclusion of vulnerable groups such as women and youth are essential to achieving long-term food security. By aligning these efforts with the national pathways, Somalia can reduce its reliance on external support and move towards a more self-sufficient, sustainable, and equitable food system

5.8 Agriculture Mechanization and Digitalization.

Digitalizing Somalia's agriculture sector is essential for improving productivity, efficiency, and resilience against challenges like climate variability, resource limitations, and market access issues. The Ministry of Agriculture will develop platforms like the **Agricultural Information Management System (AIMS)** to streamline registration, certification, data collection, and program management and service delivery. These digital systems will enable real-time crop monitoring, improve decision-making, and facilitate access to financial services. Mobile-based advisory services and digital payment systems will further enhance productivity and market linkages, while the **Center for Innovation and Agropreneurship Development (CIAD)** will drive smart agriculture, value-chain development, and youth engagement through initiatives like high-tech greenhouses and a national farmer registry.

In addition to digital solutions, promoting **agricultural mechanization** is crucial to addressing low productivity among smallholder farmers. Traditional manual farming methods are time-consuming and limit the amount of land that can be cultivated, while small-scale farmers often lack access to essential resources like fertilizers, improved seeds, and modern tools. Introducing affordable machinery such as small tractors, motorized hand tools, threshers, and driers will significantly boost farm efficiency, reduce labor demands, and minimize post-harvest losses. Mechanization will enable smallholder farmers to cultivate larger areas, improve crop yields, and increase incomes. Coupled with improved access to agricultural inputs through credit programs and subsidies, these efforts will create a more productive and resilient agricultural sector, enhancing food security and driving sustainable economic growth in Somalia.

5.9 Climate Change on Agriculture and Resilience

Climate change is having a profound impact on agriculture in Somalia, exacerbating challenges like food insecurity, water scarcity, and land degradation. Rising temperatures, increased frequency of droughts, erratic rainfall, and extreme weather events are making traditional farming and pastoralism more difficult. These climate changes are reducing crop yields and affecting the availability of pasture and water for livestock, which are the main livelihoods for much of the Somali population. With agriculture being predominantly rain-fed, the sector is highly vulnerable to shifts in weather patterns, leading to more frequent crop failures and loss of livestock, threatening the food security of millions.

Furthermore, the increasing unpredictability of weather patterns has disrupted planting and harvesting cycles, making it difficult for farmers to plan and adapt. Prolonged droughts have led to desertification and the loss of arable land, while sudden floods can devastate crops and infrastructure. These combined effects are not only reducing agricultural productivity but also increasing the cost of production, as farmers and pastoralists must invest in additional resources to cope with these climate challenges. Somalia's agriculture and livelihood resilience remains one of the key strategic priorities of the sector. In response to these growing pressures, Somalia's agricultural sector must adopt climate-smart practices, such as drought-resistant crops, efficient water management techniques, and sustainable land use systems. Building resilience to climate change is crucial to safeguarding the livelihoods of farmers and pastoralists and ensuring long-term food security in the country. Adaptation and mitigation strategies will require investment in infrastructure, research, and capacity building to enable the agricultural sector to withstand the increasing impacts of climate change.

5.10 Strengthening Institutional Capacity and Governance.

The Ministry of Agriculture and Irrigation (MOAI) aims to enhance its human, institutional, and infrastructural capacities at both federal and state levels to effectively execute its mandates. This involves improving physical infrastructure, developing internal systems, and fostering a knowledge management culture. Key strategies include engaging development partners for staff training, securing technical assistance for knowledge transfer, and collaborating with federal institutions, member states, and the private sector to finance agricultural development and entrepreneurship.

The MOAI will conduct functional reviews and capacity assessments in collaboration with federal member states to develop a comprehensive institutional development plan. This plan will aim to strengthen the federal system, harmonize regulations, and bridge gaps within and between federal and state institutions. Infrastructure development will focus on enhancing agricultural production and irrigation systems, supported by technical experts in areas such as legal frameworks, organizational management, and value chain analysis.

As the lead institution for agricultural development, food security, and food systems, the MOAI will coordinate programs and foster partnerships with stakeholders, including sector ministries, development partners, and the private sector. The establishment of the Food Security Coordination Forum and a robust monitoring and evaluation system will align strategic goals for national food security and governance. This system will feature performance indicators, data collection, and regular evaluations to ensure accountability and continuous improvement.

5 CHALLENGES IN AGRICULTURAL DEVELOPMENT

Somalia's agricultural sector, though endowed with fertile land, abundant labor, and significant water resources, has experienced a significant decline in productivity and growth over the past three decades. A combination of structural and institutional challenges exacerbated by prolonged conflict, climate change, and weak governance has undermined the Ministry of Agriculture and Irrigation's (MoAI) ability to build a resilient and sustainable agriculture system. This section outlines the key challenges affecting irrigated and rainfed systems, as well as broader institutional and socio-economic barriers.

i. Structural Constraints

A. Irrigated Farming Systems

- Degraded Irrigation Infrastructure**

The dilapidated state of prewar irrigation and flood control infrastructure along the Shabelle and Juba rivers built mainly in the 1970s and 1990s has severely reduced water availability and distribution at the farm level. This deterioration, combined with upstream developments in Ethiopia, has contributed to lower downstream flows and increased flooding risks.

- **Inefficient Water Management**

Weak regulatory oversight and planning capacity have led to poor on-farm water use, increasing salinization, waterlogging, and large-scale flooding due to unregulated abstractions.

- **Low Fertility and Soil Mismanagement**

Inadequate use of inputs such as fertilizers, manure, and pesticides mainly due to high costs and lack of availability—has led to poor soil fertility and declining yields.

- **Low-Quality Seeds and Lack of Varietal Diversity**

Farmers rely on outdated or unsuitable seeds, making crops vulnerable to pests, diseases, and climate shocks due to the absence of research and extension services.

- **Minimal Mechanization**

Most farmers use manual tools due to the high cost and poor availability of machinery. Existing machinery is outdated and inefficient, further hindering productivity.

B. Rainfed Farming Systems

- **Erratic and Declining Rainfall**

Increasing frequency and intensity of droughts and floods, coupled with the lack of drought-tolerant or early-maturing crop varieties, have undermined productivity.

- **Poor Soil Conditions**

Rainfed areas often suffer from low moisture retention and internal drainage, making them ill-suited for crop production.

- **Low-Input Farming Techniques**

Traditional farming practices, while risk-averse, restrict the potential for productivity improvements.

ii. Institutional and Policy Constraints

- **Outdated Land Records and Weak Tenure Security**

Despite the survival of pre-1990 farm records, most displaced farmers are unable to reclaim their land due to ongoing insecurity, weak arbitration systems, and lack of judicial capacity. Over 55% of farmers lack formal ownership titles.

- **Collapsed Research and Extension Systems**

Since 1991, government-run research stations and extension services have been non-functional, leading to widespread use of outdated farming techniques.

- **Severe Skills Gaps**
Somalia faces an acute shortage of skilled agricultural professionals. Although some universities now offer agriculture-related programs, practical training is often minimal or absent due to poor standards and security issues.
- **Weak Phytosanitary Services**
While a legal framework exists for the Somalia Agricultural Regulatory and Inspection Services (SARIS), its operationalization remains pending. The country lacks effective pest and disease control systems, risking further agricultural losses.
- **Poor Market Access and Infrastructure**
Dilapidated rural roads, multiple illicit checkpoints, and high post-harvest losses (20–30%) reduce marketability of crops and erode farmer incomes. Traditional storage practices, such as underground pits, are prone to contamination, particularly from mycotoxins.
- **Lack of Agricultural Data and Planning Tools**
The last agricultural census was conducted in 1986, and data on land use, production, and farm holdings is largely anecdotal or qualitative. This severely impedes evidence-based policymaking.
- **Coordination Deficits**
The absence of a nationally adopted administrative law for agriculture undermines the ability to coordinate national strategies and deliver services effectively, particularly across federal and state structures.

iii. Broader Sectoral Challenges

- **Climate Change and Environmental Vulnerability**
Somalia's reliance on rainfed and river-based agriculture is increasingly threatened by extreme weather events, rising temperatures, and pest outbreaks.
- **Socio-Economic Instability**
Civil conflict and the collapse of central governance structures have led to a breakdown of support systems for agriculture, including research, market access, and input supply.
- **Poor Input Access and Use**
Limited availability and high cost of quality inputs (seeds, fertilizers, pesticides) have led to low productivity. Misuse of fertilizers and agrochemicals has also caused environmental damage and health risks.
- **Post-Harvest Losses and Technological Deficits**
A lack of modern production and storage technologies contributes to significant losses and low competitiveness.

- **Land Constraints**
Inadequate land use planning, land degradation, and underutilization of arable land hinder food security and energy production. Reclamation and rehabilitation efforts are insufficient.
- **Weak Research and Innovation Systems**
A near-complete absence of agricultural R&D infrastructure has limited innovation and resilience in the face of climate and market challenges.


iv. **Cross-Cutting Issues**

- **Digital Agriculture Gaps**
Although Somalia is beginning to adopt digital agriculture tools, systems like real-time data monitoring, e-extension, and traceability remain underdeveloped.
- **Gender and Youth Exclusion**
Women despite making up half the agricultural labor force face limited access to training, finance, and decision-making. Youth struggle to enter the sector due to lack of vocational training, job experience, and the informal nature of employment.

6 **COLLABORATIVE PARTNERSHIPS**

The ministry is actively engaged in fostering partnership agreements with UN Agencies such as FAO, IFAD, WFP, UNDP, development partners in multilateral and bilateral engagements such as WB, EU, AfDB, GCF, FCDO GIZ, SIDA, USAID, IGAD, EAC, AU, local/international NGOs Consortia and foundations.

7 HIGH IMPACT ONGOING PROJECTS LED BY MOAI

Project / Initiative	Details	Impact / Goals	Progress/Status
Somali Food System And Resilience Project (S-FSRP)	<ul style="list-style-type: none"> Stakeholder : MoAI/MoLFR the lead Ministry is MoAI including state level Ministries FMS : <u>Jubaland and Southwest States</u> Budget : US \$180+ mil Fund Source : World Bank Group 	<ul style="list-style-type: none"> Building food system and resilience of pastoral communities in the country and improve the capacity of the government for enhancing food system in Somalia Target beneficiaries : 500,000 person 	Ongoing
Rural Livelihood Resilience Program (RLRP)	<ul style="list-style-type: none"> Stakeholder : MoAI the lead Ministry FMS : <u>South-West and Jubaland</u> Budget : US \$ 31.2+ mil Funding source : IFAD 	<ul style="list-style-type: none"> Support to community resilience, whose outcomes are strengthened and inclusive communities with enhanced social cohesion Support to Smallholder Livelihoods Enhancement Target beneficiaries : 30,000HHs 	Ongoing
Climate Resilient Agriculture in Somalia (UGBAAD) project	<ul style="list-style-type: none"> Stakeholder : MoAI/MoECC/FAO FMS : All states Budget : US \$ 95 mil Fund Source : GCF 	<ul style="list-style-type: none"> Enhance resilience through climate-smart agriculture by improving water infrastructure, enhancing land restoration, and capacity building. Target beneficiaries : ~2.1 million agro-pastoralists (of which 450,000 are women) 	Ongoing
Jowhar Off-stream Storage Programme (JOSP)	<ul style="list-style-type: none"> Stakeholder : MoAI, FAO & other multi partners Involves Jowhar FMS : Hirshabelle Budget : US \$ 165+ mil Fund Source : FCDO, USAID & SJF 	<ul style="list-style-type: none"> Improve irrigation access for 300,000+ people in five districts and reduce flood risks for 1.5 million. Strengthen resilience and enhance community well-being along the Shabelle River. Boost food production and save up to \$36 million annually in humanitarian aid. 	Ongoing
Somali Agriculture Riverine (SARP) Program	<ul style="list-style-type: none"> Stakeholder : MoAI, MoLFR, FAO, BRCIS & SOMREP FMS : All states Budget : US \$ 32 mil Fund Source : EU 	<ul style="list-style-type: none"> Improve irrigation, climate-smart farming, and land use for higher yields and incomes. Support farmers with better inputs, training, and market access. Develop sustainable water management and flood control to mitigate climate risks. Target beneficiaries : 30,824HHs 	Ongoing
 & other impactful programs with IPs			

8 TRANSFORMATIVE BANKABLE PROJECTS FOR AGRICULTURAL DEVELOPMENT

#	Priority Project	Pillar	Proposed activities	Target areas	Beneficiaries HH	Expected Outcomes
1.	Integrated Irrigation and Climate Resilient Water Systems Project	Irrigation Infrastructure & Climate Adaptation	Expand and rehabilitate canals, spate irrigation, solar wells, and water harvesting systems; establish water user associations and early warning systems.	Nationwide	1,000,000	Year-round water access, reduced flood/drought risks, and increased irrigated acreage.
2.	National Seed and Input Access Program	Production & Productivity	Establish seed banks, input hubs, and local seed enterprises; provide extension support and farmer training on improved inputs.	Nationwide	500,000	Increased use of certified inputs and higher, more resilient crop yields.
3.	Agro-Processing and Integrated Market Linkages Project	Value Chain & Agribusiness Development	Establish 10 agro-industrial parks, storage hubs, roads, and food safety labs; train MSMEs on value addition and market access.	Nationwide	1,000,000	Boosted rural incomes, reduced post-harvest loss, and export-ready products.
4.	Agro-Met and Digital Early Warning Systems Program	Climate Resilience & Risk Management	Rehabilitate weather stations, develop mobile alerts, and train farmers on risk preparedness and CSA practices.	Nationwide (priority: drought- and flood-prone zones)	1,000,000	Improved disaster response, smarter farm planning, and climate risk reduction.
5.	Youth, Women, and Cooperative Agribusiness Empowerment Initiative	Inclusive Growth & Financial Access	Incubate youth- and women-led agribusinesses, train coops, support VSLAs, and facilitate finance/market entry.	Urban/peri-urban zones across the country	2,000,000	Job creation, financial access, and inclusive value chain participation.
6.	Mechanization and Innovation Access Initiative	Mechanization & Technology	Deploy 200 machinery rings, mobile extension services, and digital farmer registries; train operators and maintainers.	Nationwide	500,000	Enhanced efficiency, reduced labor burden, and higher production volumes.
7.	National Agricultural Data and M&E Enhancement Project	Institutional Strengthening & Knowledge Systems	Conduct agricultural census, develop dashboards, train staff in data systems and analytics, and support ERP rollout.	Nationwide and MoAI HQ	4.2 million households (data reach); 100 MoAI staff	Evidence-based planning, improved program tracking, and transparent governance.
8.	Plant Health and Biosecurity Laboratory Development Project	Plant Health & Quality Assurance	Construct labs at sea/airports, procure diagnostic equipment, SOPs, and surveillance systems; train lab experts and agro-dealers.	MoAI HQ, Mogadishu ports	Farmers, importers, extension system	Safe input use, reduced crop losses, and export market compliance.
9.	Urban Food Security and Nutrition Improvement Program	Food Security & Urban Resilience	Promote kitchen gardens, school nutrition supply chains, and nutrition education targeting IDPs and poor urban households.	IDP settlements, peri-urban zones	100,000 (including 30,000 women directly)	Improved dietary diversity and urban household resilience.
10.	Extension and Digital Advisory Services Program	Digital Extension & Innovation	Develop mobile apps, train extension staff, and deliver farmer-friendly information on agronomy and markets.	All FMS	1 million	Timely farmer decision-making and increased technology adoption.

ANNEX 1: PRIORITY ACTIVITIES

#	PRIORITY AREA	KEY ACTIVITIES
1	Increasing Agricultural Production and Productivity (targeting 7 value chains)	<ul style="list-style-type: none"> Increasing farmland under cultivation Promotion of innovative farming systems Increasing safe use and environmentally friendly pesticides Prevention of soil erosion, reclaiming saline soils, and improving soil fertility Improving innovative seed systems including multiplication of early-generation seeds Distribution of drought-tolerant and high-yield crop and forage varieties to farmers Promotion of organic and inorganic fertilizers for soil fertility enhancement Encouraging sustainable farming practices to maintain ecosystem health Promotion of fodder production
2	Development and Rehabilitation of Irrigation Infrastructure and Rural Development	<ul style="list-style-type: none"> Conducting canal and dryland irrigation feasibility study and developing an irrigation master plan Rehabilitation of barrages, reservoirs, water gates, and canals River de-silting and embankment Developing land use policy Construction and rehabilitation of feeder roads, rural roads, and bridges/culverts for agricultural market access Encouraging drip and sprinkler irrigation systems to maximize water use efficiency Increasing farmland under cultivation Drilling of boreholes and installation of solar systems for dryland irrigation Rainfall water catchments for dryland irrigation

3	Agro-meteorology, Early Warning, Drought, and Flood Management	<ul style="list-style-type: none">• Develop flood-prone & drought risk maps to identify vulnerable areas for interventions
		<ul style="list-style-type: none">• Conduct a pilot study on floods and drought impact assessment of flood-prone areas
		<ul style="list-style-type: none">• Collect and compile different methods of flood and drought prevention and mitigation
		<ul style="list-style-type: none">• Establishment of river level and rain-gauge ground-based sensors
		<ul style="list-style-type: none">• A centralized, comprehensive flood management system
		<ul style="list-style-type: none">• Development of irrigation management committees
4	Agricultural Research and Extension Services	<ul style="list-style-type: none">• Rehabilitation/construction of National Research Centers
		<ul style="list-style-type: none">• Formulation of a Comprehensive National Agricultural Research Policy
		<ul style="list-style-type: none">• Collection of local germplasm
		<ul style="list-style-type: none">• Establishment of a Seed Gene Bank
		<ul style="list-style-type: none">• Establishment of a soil laboratory
		<ul style="list-style-type: none">• Establishment of research and extension sub-stations in all Federal Member States
		<ul style="list-style-type: none">• Creating effective linkages between research, extension, and farmers
		<ul style="list-style-type: none">• Expanding the network of agricultural extension officers
		<ul style="list-style-type: none">• Creating platforms for farmers to learn through practical experiences
		<ul style="list-style-type: none">• Investing in research institutions for new agricultural technologies
		<ul style="list-style-type: none">• Promoting climate resilience practices (agroforestry, conservation agriculture, and crop diversification)

5	Pests and Diseases Control and Soil Health Management	<ul style="list-style-type: none"> • Establish and operationalize Somalia Agriculture and Regulatory Inspection Service (SARIS)
		• Construction of SARIS HQ to host the Director, laboratories, and staff
		• Finalization of SARIS 5-year strategic plan
		• Preparation and formulation of Seed Policy
		• Establishment of inspection facilities at designated entry points (seaports, borders & airports)
		• Establishment of quarantine stations
		• Establishment of a herbarium for agricultural weeds and noxious plants
		• Preparation of a list of regulated and unregulated pests
		• Establishment of a National Fertilizer Quality Analysis Laboratory
		• Establishment of a National Plant Health Diagnostic Laboratory
		• Establishment of seed testing laboratories in all Federal Member States
		• Formation of a Variety Release Committee
		• Formation of Agrochemicals Boards
		• Establishment of efficacy trial centers for Seeds, Pesticides, and Fertilizer
		• Digitalizing import and export inspections and certification
		• Development of seed labeling technology
		• Online registration and licensing for seed companies, fertilizer, and pesticide importers/traders
		• Training of inspectors (seeds, phytosanitary, pesticides, and fertilizers)
		• Training of laboratory staff
		• Establishment of Pest Risk Analysis (PRA) team
		• Comprehensive impact assessment of major pests on crops
		• Operationalizing early warning and monitoring centers for Desert Locust
		• Construction of stations and substations for early-warning and control of transboundary pests (Quelea birds, Fall Armyworm, African Armyworm)
		• Construction of pesticide storage facilities in all Federal Member States
		• Development of standards for pesticide storage facilities
		• Development of pesticide management software
		• Conduct digital soil mapping, sampling, and testing
		• Creating a soil health database

		<ul style="list-style-type: none"> Developing and implementing soil conservation practices (terracing, contour plowing, cover cropping, and organic farming)
		<ul style="list-style-type: none"> Promoting sustainable land management practices to reduce erosion and enhance soil fertility
6	Post-harvest, Agro-business, Agricultural Finance, and Processing	<ul style="list-style-type: none"> Analysis of agro-value chains and market systems
		<ul style="list-style-type: none"> Implement target programs to empower youth, women, and marginalized groups in agribusiness
		<ul style="list-style-type: none"> Promotion of investment in agribusiness through partnerships with finance institutions
		<ul style="list-style-type: none"> Promoting technology to reduce post-harvest losses
		<ul style="list-style-type: none"> Reviewing agro-business policies, guidelines, and strategies
		<ul style="list-style-type: none"> Building storage, aggregation, and processing centers for smallholder farmers
		<ul style="list-style-type: none"> Establishing cold storage facilities for perishable agricultural produce
		<ul style="list-style-type: none"> Develop and strengthen agribusiness services
		<ul style="list-style-type: none"> Establishing silos for grain storage
		<ul style="list-style-type: none"> Facilitate contract farming systems and develop sustainable value chains
		<ul style="list-style-type: none"> Strengthening R&D in innovative agricultural practices
		<ul style="list-style-type: none"> Enhancing capacity building for Agropreneurship
7	Development of National Food Systems, Food Security, and Nutrition	<ul style="list-style-type: none"> Enhancing economic, trade, and investment in food systems
		<ul style="list-style-type: none"> Mitigating impacts of migration and displacement on food systems
		<ul style="list-style-type: none"> Integrating climate change adaptation and disaster risk reduction into food systems
		<ul style="list-style-type: none"> Establishing shock-responsive social protection systems
		<ul style="list-style-type: none"> Youth and gender inclusion in food systems
		<ul style="list-style-type: none"> Strengthening digital innovation in food systems

		<ul style="list-style-type: none"> • Establish food distribution systems for vulnerable groups
		<ul style="list-style-type: none"> • Develop safety nets for food-insecure populations
		<ul style="list-style-type: none"> • Develop comprehensive food security policies
		<ul style="list-style-type: none"> • Create a food security and nutrition assessment framework
		<ul style="list-style-type: none"> • Establish standardized indicators for food security
		<ul style="list-style-type: none"> • Conduct regular national surveys and vulnerability assessments
		<ul style="list-style-type: none"> • Establish a multi-stakeholder coordination platform
		<ul style="list-style-type: none"> • Develop a dashboard for real-time data visualization
		<ul style="list-style-type: none"> • Foster collaboration between government, research institutions, and NGOs
8	Agriculture Mechanization and Digitalization and Innovation	<ul style="list-style-type: none"> • Develop a national digital agriculture strategy
		<ul style="list-style-type: none"> • Promote precision agriculture technologies (drones, sensors, satellite imagery)
		<ul style="list-style-type: none"> • Develop a national agricultural data management system
		<ul style="list-style-type: none"> • Develop mobile-based extension services
		<ul style="list-style-type: none"> • Train extension workers on digital tools
		<ul style="list-style-type: none"> • Create digital marketplaces for farmers
		<ul style="list-style-type: none"> • Financial assistance for small-scale farmers to purchase machinery
		<ul style="list-style-type: none"> • Establish leasing programs for farm equipment
		<ul style="list-style-type: none"> • Set up farmer training centers on machinery use
		<ul style="list-style-type: none"> • Reduce import duties on agricultural machinery
		<ul style="list-style-type: none"> • Increase access to essential farm inputs
		<ul style="list-style-type: none"> • Support farmer cooperatives for bulk input purchases
		<ul style="list-style-type: none"> • Partner with financial institutions for microloans
		<ul style="list-style-type: none"> • Establish rural farm input distribution networks

9	Agricultural Climate Change Adaptation, Mitigation, and Resilience	<ul style="list-style-type: none">Promoting drought-tolerant and pest-resistant crops
		<ul style="list-style-type: none">Developing early warning systems for droughts and floods
		<ul style="list-style-type: none">Establish social protection programs for climate resilience
		<ul style="list-style-type: none">Training farmers on water harvesting techniques
		<ul style="list-style-type: none">Promoting agroforestry and reforestation
		<ul style="list-style-type: none">Adopting conservation agriculture techniques
		<ul style="list-style-type: none">Promoting renewable energy sources in agriculture
10	Strengthening Institutional Capacity Development and Governance	<ul style="list-style-type: none">Finalization of Agricultural Development Strategic Plan
		<ul style="list-style-type: none">Investment in IT infrastructure for MoAI
		<ul style="list-style-type: none">Development of Agricultural Management Information Systems
		<ul style="list-style-type: none">Training MoAI staff in project management, M&E, and data analysis
		<ul style="list-style-type: none">Establishment of food security coordination facilities
		<ul style="list-style-type: none">Development of Somalia's Food Systems Pathways
		<ul style="list-style-type: none">Integration into regional food security initiatives
		<ul style="list-style-type: none">Bilateral collaboration agreements with international partners

ANNEX 2: AGRICULTURAL PRIORITY AREAS AT FEDERAL MEMBER STATES

PRIORITY AREAS OF GALMUDUG STATE

#	Priority Need	Pillar	Proposed activities	Unit	Target areas	Budget	Beneficiaries HH	Expected Outcomes
1	Water Resource Management	Dryland Irrigation	Borehole and installation of solar system	10	Cadado,Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	1,000,000.00	700,000	Increase land under cultivation, increase production, Water for irrigation,
			Water catchments	30		3,000,000.00		
			Spate Irrigation					
2	Crop pests and diseases	Assessment	Comprehensive impact assessment of major pests	1	Cadado, Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	100,000.00	1100,000	Properly managed pests and diseases
		Monitoring system	Developing monitoring systems for three major pests	3		70,000.00		
3	Farm Input	Seeds	Certified cereals seeds (four value chains developed)	4	Cadado, Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	800,000.00	100,000	Increase production
		Fertilizers	Organic fertilizers – 3 products	4		3,500,000.00		
		Pesticides	Ecofriendly- products	3		1,00,000.00		
4	Mechanization	Tractors	Tractors with implements	100	Cadado,Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	5,500,000.00	300,000	Increase farms under cultivation
		Handheld Tractors	Motorized hand tractors	100		300,000.00	300,000	
5	Agricultural Infrastructure	Feeder Roads	Farm to Main roads (Km)	50	Cadado,Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	1,000,000.00	200,000	Access to markets, Value chain development
		Rural Bridges	Rural bridges	200		5,500,000.00	500,000	
6	Cooperatives Development and, Commercial farms	Cooperative Formation and Management	Strategy	1	Cadado,Galkacyo, Dhusamareeb, Abduwaq,	100,000.00	100,000	Build formidable cooperates,
			Good Agricultural Practices	10		200,000.00		

	and small farm capacity building	Cooperatives, commercial and smallholder farmer training	(GAP)		Xarardheere, Guriceel			aggregation, act as entry points.
7	Research and Extension Development	Research Stations	One main research station and substation	2	Cadado, Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	3,700,000.00	100,000	Develop seed varieties that are drought tolerant, early maturity, high yield
		Seed and varieties development	Trails and testing	15		1,900,000.00		
		Extension centres	Construction of extension /training centers	5		500,000.00		
8	Value chain Development	Post-harvest technology	Threshers, metallic silos, driers,	100	Cadado, Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	3,000,000.00	200,000	Value addition, SME's, PHL, market-oriented, employment
		Market and distribution	aggregation centers	10		4,000,000.00		
		Agro-processing and light industries	2 value chains/value addition	2		6,800,000.00		
9	Fodder Production	Dryland Fodder Production	100 HA of land under fodder production	100	Cadado, Galkacyo, Dhusamareeb, Abduwaq, Xarardheere, Guriceel	1,800,00.00	50,000	Tackle climate change, animal fattening,
		Irrigated Fodder Production	200 HA of land under fodder production	200		900,000.00		
10	Soil fertility management	Mapping	Digital soil mapping and sampling	1	Galmudug	200,000.00	Galmudug	Soil knowledge improved
		Database	Creating database	1				
11	Capacity Building	Human Capacity Development	Ass. On Human Capacity Development/implement	400	Cadado, Galkacyo, Dhusamareeb,	400,000.00	5,000	Human capital, systems, policy and regulations, knowledge transfer.
		Infrastructure	Rehabilitation/construction of MoAI district offices	5	Abduwaq, Xarardheere, Guriceel	500,000.00	5 districts	

PRIORITY AREAS OF HIRSHABELLE STATE

S/N	Priority Need	Pillar	Proposed activities	Unit	Target areas	Budget	Beneficiaries HH	Expected Outcomes
-----	---------------	--------	---------------------	------	--------------	--------	------------------	-------------------

1	Water Resource Management	Dryland Irrigation	Borehole and installation of solar system	20	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte Balcad	2000,000.00	700,000	Water agriculture irrigation,
			Water catchment	30		2,000,000.00		
		Riverine	Canal (primary and secondary)	100		5,000,000.00		
			River embankment (km)	200		4,500,000.00		
			River desilting (km)	150		12,000,000.00		
2	Crop pests and diseases	Assessment	Comprehensive impact assessment of major pests	1	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte Balcad	100,000.00	200,000	Properly managed pests and diseases
		Monitoring system	Developing monitoring systems for five major pests	5	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte Balcad	100,000.00		
3	Farm Input	Seeds	Certified cereals seeds (four value chains developed)	4	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte	200,000.00	500,000	Increase production
		Fertilizers	Organic fertilizers (varieties introduced)	3		700,000.00		
		Pesticides	Ecofriendly-3 products	3		250,000.00		
4	Mechanization	Tractors	Tractors with implements	10	Beletweyne Jowhar Jalalaqsi Bula-Burte	600,000.00	300,000	Increase farms under cultivation
		Handheld Tractors	Motorized Hand tractors	100		300,000.00		
		Other farm equipment & machinery	Threshers, metallic silos, driers, aggregation centers	50		700,000.00		
5	Agricultural Infrastructure	Feeder Roads	Farm to main roads (Km)	200	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte	2,000,000.00	500,000	Access to markets, Value chain development
		Rural Bridges	Rural bridges	20		5500,000.00		
6	Cooperatives Development and, Commercial farms and small farm capacity building	Cooperative Formation and Management	Strategy	1	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte	100,000.00	100,000	Build formidable cooperates, aggregation, act as entry points,
		Cooperatives, ccommercial and smallholder farmer training	Training	10		200,000.00		

7	Research and Development, and Extension	Research Stations	One main research station and substation	2	Beletweyne, Jowhar, Jalalaqsi, Bula-Burte	1,000,000.00	Hirshabelle	Develop seed varieties that are drought tolerant, early maturity, high yield
		Seed and varieties development	Trails and testing	7		180,000.00		
		Extension centres	Construction of extension /training centers	5	Beletweyne Jowhar Jalalaqsi Bula-Burte Balcad	500,000.00	5 Districts	Available extension services
8	Value chain Development	Post-harvest technology	Threshers, metallic silos, driers,	100	Beletweyne Jowhar Jalalaqsi Bula-Burte	500,000.00	200,000	Value addition, SME's, PHL, market-oriented, employment
		Market and distribution	Aggregation centers	10		1000,000.00		
		Agro-processing and light industries	2 value chains/value addition	2		300,000.00		
9	Fodder Production	Dryland Fodder Production	100 HA of land under fodder production	100	Beletweyne Jowhar Jalalaqsi Bula-Burte	100,000.00	50,000	Tackle climate change, animal fattening,
		Irrigated/Riverine Fodder Production	200 HA of land under fodder production	200		200,000.00		
10	Soil fertility, Land reclamation and Soil Conservation	Mapping	Digital soil mapping and sampling	1	Beletweyne Jowhar Jalalaqsi Bula-Burte	200,000.00	Hirshabelle	Soil knowledge improved
		Database	Creating database	1				
11	Capacity Building	Human Capacity Development	Ass. On Human Capacity Development/implement the recommendations	1	Beletweyne Jowhar Jalalaqsi Bula-Burte	400,000.00	50,000	Human capital, systems, policy and regulations, knowledge transfer.
		Institutional Capacity	Institutional Capacity/continuous	1		200,000.00		
		Expertise and consultancies support	Expertise and consultancies support Buildings			200,000.00		

		Buildings	Rehabilitation/construction of MoAI district offices	5		500,000.00	5Districts	Capacity of MoAI improved
--	--	-----------	--	---	--	------------	------------	---------------------------

PRIORITY AREAS OF JUBALAND STATE

	Priority Need	Pillar	Proposed activities	Unit	Target areas	Budget	Beneficiaries HH	Expected Outcomes
1	Water Resource Management	Dryland Irrigation	Borehole and installation of solar system	10	Rain fed districts	1000,000.00	400,000	Increase land under cultivation, increase production, Water for irrigation,
			Water catchment	30		1,200,000.00		
		Riverine irrigation	Canal (primary and secondary)	100	Kismayo, Luk, Dolow, Bardhere	10,000,000.00	500,000	
			River embarkment (km)	200		5,000,000.00		
			River desilting (km)	150		12,000,000.00		
2	Crop pests and diseases	Assessment	Comprehensive impact assessment of major pests	1	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo, Garbaharey	100,000.00	500,000	Properly managed pests and diseases
		Monitoring system	Developing monitoring systems for major pests	5		100,000.00		
3	Farm Input	Seeds	Certified cereals seeds (four value chains developed)	3	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo, Garbaharey			Increase production
		Fertilizers	Organic fertilizers – products	4		3,500,000.00	500,000	
		Pesticides	Ecofriendly- products	3		4,000,000.00	500,000	
4	Mechanization	Tractors	Tractors with implements	30	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo,	1,800,000.00	300,000	Increase farms under cultivation
		Handheld Tractors	Motorized Hand tractors	200		6,00,000.00	300,000	
5		Feeder Roads	Farm to Main roads (Km)	200		4,000,000.00	200,000	

	Agricultural Infrastructure	Rural Bridges	Rural bridges	20	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo,	5500,000.00	500,000	Access to markets, Value chain development
6	Cooperatives Development and, Commercial farms and small farm capacity building	Cooperative Formation and management	Strategy Training	1	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo,	100,000.00	100,000	Build formidable cooperates, aggregation, act as entry points,
		Cooperatives, commercial and smallholder farmer training	Good Agricultural Practices (GAP)	20		400,000.00		

7	Research and Development and Extension	Research Stations	One main research station and substation	2	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo,	3,700,000.00	100,000	Develop seed varieties that are drought tolerant, early maturity, high yield
		Seed and varieties development	Trails and testing	8		1,900,000.00		
		Extension centres	Construction of extension /training centers	5	Kismayo, Luk, Dolow, Afmadow, Bardhere	500,000.00	5 districts	Available extension services
8	Value chain Development	Post-harvest technology	Threshers, metallic silos, driers,	100	Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo, Garbaharey	3,000,000.00	200,000	Value addition, SME's, PHL, market-oriented, employment
		Market and distribution	Aggregation centers	10		4,000,000.00		
		Agro-processing and light industries	2 value chains/value addition	2		6,800,000.00		
9	Fodder Production	Dryland Fodder Production	100 HA of land under fodder production	100	J Kismayo, Luk, Dolow, Afmadow, Jamame, Bardhere, Beled hawo, Garbaharey	1,800,00.00	50,000	Tackle climate change, animal fattening,
		Irrigated Fodder Production	200 HA of land under fodder production	200		900,000.00		

10	Soil fertility management	Mapping	Digital soil mapping and sampling	1	Jubaland	1200,000.00.	Jubaland	Knowledge on Soil improved
		Database	Creating database	1				
11	Capacity Building	Human Capacity Development	Ass. On Human Capacity Development/implement the recommendations	400	Jubaland state	400,000.00	5,000	Human capital, systems, policy and regulations, knowledge transfer.
		Institutional Capacity	Institutional Capacity/continuous	1		600,000.00	5,000	
		Expertise and consultancies support	Expertise and consultancies support Buildings	20		2,000,000.00	5000	
		Buildings	Construction of offices and Furniture	30		4,000,000.00	12,000	

PRIORITY AREAS OF SOUTHWEST STATE

S/ N	Priority Need	Pillar	Proposed activities	Unit	Target areas	Budget	Beneficiaries HH	Expected Outcomes
1.	Water Resource Management	Dryland Irrigation	Boreholes and installation of Solar System	50	Rain fed districts	5,000,000.00	1,200,000.00	Increase land under cultivation, production, Water for irrigation and drinking
			Water catchments	60		6,000,000.00		
			Installation of drip irrigation system	100	Rain fed districts	1,000,000 .00		
		Riverine irrigation	Canal (primary and secondary)	100	Lower Shabelle	10,000,000.00	800,000	
			River embarkment (km)	200		5,000,000.00		
			River desilting (km)	150		12,000,000.00		
			Installation of a complete Solar Water Pump System for irrigation	60		1,000,000.00		
2.	Crop pests and diseases	Assessme nt	Comprehensive impact assessment of major pests	1	Southwest	100,000.00	500,000	Properly managed pests and diseases
		Monitorin g system	Developing monitoring systems for five major pests	5	Southwest	100,000.00		

3.	Farm Input	Seeds	Certified cereals seeds (four value chains developed)	4	Southwest	800,000.00	500,000	Quality seeds, fertilizers and pesticides for increased production.
		Fertilizers	Organic fertilizers- products	3		700,000.00		
		Pesticides	Ecofriendly – products	3		250,000.00		
4.	Mechanization	Tractors	Tractors with implements	25	Southwest	1,500,000.00	300,000	Increased land under-cultivation
		Handheld Tractors	Motorized Hand tractors	300		900,000.00		
5.	Agricultural Infrastructure	Feeder Roads	Farm to main roads (Km)	200	Both riverine and rain-fed districts	4,000,000.00	500,000	Access to markets improved.
		Rural Bridges	Rural bridges	20	L/Shabelle	5500,000.00		

6	Cooperatives Development and, Commercial farms and small farm capacity building	Cooperative Formation and Management	Strategy	1	Southwest	100,000.00	100,000	Structure Farmer produce organization
		Cooperatives, commercial and smallholder farmer training	Good Agricultural Practices (GAP)	20		400,000.00		
7	Research and Development, and Extension	Research Stations	Main research stations and substation	3	Baidoa, Afgoi and Huddur	2000,000.00	3 Districts	Functional research centres
		Seed and varieties development	Trails and testing	15	Baidoa, Afgoi and Huddur	200,000.00	3 Districts	
		Extension centres	Construction of extension /training centres	7	3 Riverine districts & 4 rainfed districts	700,000.00	7 Districts	Available extension services
8	Market, Storage and Value Chain Development	Market	Construction of Market Facilities (Vegetables, Fruits & Grains)	8	Afgoi & Baidoa	1,200,000.00	400 individuals	Improved livelihoods
		Storage facilities	Construction of storage facilities	2	Afgoi & Baidoa	400.000.00	10 cooperatives	Post-harvest Losses reduced

		Post-harvest technology	Threshers, metallic silos, driers,	100	Baidoa, Hudur, Burhakabo, Afgoi	500,000.00	200,000	
		Market and distribution	Aggregation centres	10		1000,000.00		
		Agro-processing and light industries	2 value chains/value addition	2		6800,000.00		
9	Fodder Production	Dryland Fodder Production	100 HA of land under fodder production	100	Baidoa, Hudur, Burhakabo, Afgoi	1800,000.00	50,000	Improved availability of fodders
		Irrigated/Riverine Fodder Production	200 HA of land under fodder production	200		900,000.00		

10	Soil fertility management	Mapping	Digital soil mapping and sampling	1	Southwest	1200,000.00	Southwest	Improved knowledge on Soil
		Database	Creating database	1				
11	Capacity Building	Human Capacity Development	HR capacity needs assessment	1	Southwest	50,000.00	MoAI staff	Comprehensive report
			Short-term training for MoAI staff on Breeding, Climate Smart Agriculture, Irrigation, IPM, Financial Management etc.	5	Southwest MoAI	100,000.00	100 MoAI staff	Overall capacity of MoAI staff improved
			Long-term capacity building (MSc and PhD) on Soil, breeding, plant pathology, Irrigation, extension and Entomology	10	MoAI staff	500,000 .00	10 MoAI staff	
			Expertise and consultancies support Buildings	15	MoAI	1,500,000.00	MoAI	
		Infrastructure	Need assessment of MoAI office facilities at the district level	1	Southwest	60,000.00	All MoAI facilities at respective districts	Comprehensive report
			Rehabilitation/construction of MoAI district offices	7	Southwest	700.000,00	7 Districts	Capacity of MoAI improved



FEDERAL REPUBLIC OF SOMALIA

MINISTRY OF AGRICULTURE AND IRRIGATION

KM4, MoAI HQ, Hodan District
Mogadishu Somalia

www.moa.gov.so | info@moa.gov.so