



وزارة الزراعة  
MINISTRY OF AGRICULTURE



# **SYRIAN AGRICULTURE STRATEGY 2026-2030**





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# Introduction

The 2030-2026 strategy of the Ministry of Agriculture (MoA) of the Syrian Arab Republic was developed Within a framework that takes into account the current circumstances the country is going through, following the national liberation on 8 December 2024 as a stage of reconstruction, in which the country faces a wave of exceptional climate change and unstable economic conditions that require substantial mobilization and provision of various resources to promote reconstruction, taking into account their applicability.

Therefore, MoA sees that the development of long-term strategies or those that exceed this period may entail significant uncertainty due to potential changes during the transitional period because the country is still in the construction stage, which may impose a change in government policies or directions, whether macro or sectoral, including the ministry itself. Therefore, implementation will be carried out through rolling five-year interim plans. The strategy itself will be flexible and adjustable according to the changes that may occur, while pursuing the final strategic objectives of the agricultural sector, foremost of which is contributing to achieving food security while maintaining the sustainability of natural resources, foremost among which are water resources.

The development of a strategy with a clear and operational vision and measurable goals will pave the way for the post-liberation stage in reaching a sustainable agricultural sector that adopts modern technology and contributes to achieving food and water security, as well as economic, social, and environmental development, and improving the livelihoods of the rural population. Components of the strategy should reflect the stage of recovery of the sector and the return of production to achieve a real rather than nominal increase that is reflected in the increase in prices. The strategy also should contribute to the transition of the trade balance from the state of deficit through reorienting production toward export-oriented goods, that is, towards goods that have a competitive advantage in external markets. In this context, the private sector should assume an active role in exploring non-traditional markets given the significant shifts in the political climate in countries in which Syrian exports were restricted.

In strategy programs, the private sector should play a significant role, serve as an effective development partner, contribute to reconstruction efforts, and be a key component of the production cycles by securing production inputs and/or in processing and marketing. The private sector should also alleviate the burden on the public sector in managing and organizing the production process at all stages.

# First: Restructuring MoA

## 1.1 Evolution of the structure and functions of Ministry of Agriculture and Agrarian Reform (formerly) in Syria:

The historical development of the Ministry of Agriculture and Agrarian Reform in Syria clearly reflected shifts in economic policies and dominant ideology at each stage. The timeline can be broken down into four basic stages:

**The first stage (1920-1958):** the foundational and transitional phase. Key milestones included:

- Establishing the first government structure for agriculture in 1920 within the «Ministry of Beneficial Affairs.»
- Scope of work: Agriculture did not function as an independent ministry, and its performance was characterized by organizational and political instability.

**The second stage (1958-1973):** the stage of establishment and socialist orientation. Key milestones included:

- Establishing the Agrarian Reform Corporation (1958) to implement the Agrarian Reform and Land Redistribution Law.
- Merging the MAAR with the Corporation. (1967)
- Establishing the Ministry of Agriculture and Agrarian Reform formally by Decree 2590 of 1968.
- Scope of work: political and ideological considerations predominated decision-making, as the work focused on the implementation of agrarian reform policies and the socialist development of the countryside.

**The third stage (1973-2000):** the phase of direct state intervention in production. Key milestones included:

- Establishing a large number of direct government production institutions (such as state farms; establishment of cattle, poultry, fodder; and agricultural mechanization).
- Scope of work: The ministry became a direct producer in competition with the private sector, in a clear embodiment of the socialist mode of agricultural production.

**The fourth stage (2000 – present):** The phase of gradual withdrawal from direct production and the shift towards services and management. Key milestones included:

- Abolition of productive institutions (such as state farms and agricultural mechanization between 2004 - 2005)
- Establishing institutions of a service and research nature (such as General Commission for Scientific Agricultural Research (GCSAR) 2001, the Al-Ghab Development 2005, the Fisheries Resources 2008, and Al-Badia Management, 2011).
- The issuance of Decree 11 of 2007, which focused the responsibilities of the Ministry in management, organization and support.
- Scope of work: The State gradually withdrew from direct production and shifted toward a regulatory role and being a supporter of the agricultural sector.

This new role focused on providing services, conducting research, and managing natural resources.

Currently, the restructuring of the Ministry of Agriculture is vital to ensure that its internal structure is compatible with the shifting responsibilities and strategic objectives that serve the agricultural sector and national development in light of the accelerating challenges such as climate change, population growth, the need for food security, and technological development. Thus, an effective institutional structure is essential to keep pace with these requirements and activate the role of the ministry in achieving sustainable agricultural production and enhancing the capabilities of the sector.

Rationale for Continuous Institutional Development:

- Improving the efficiency of government performance and the ability of the Ministry to plan and implement accurately and flexibly.
- Promoting integration between different agricultural, technical and environmental sectors to provide integrated solutions.
- Rapid responsiveness to internal and external variables through an organizational structure that encourages innovation and transparency.
- Enhancing the quality of services provided to farmers and stakeholders and improving resource management.

As for principles and criteria for the creation or development of the structure, they include:

- Clear and transparent roles and responsibilities to avoid duplication or organizational gaps.
- Flexibility and adaptability to future changes in agricultural policies and new technologies.
- A result-oriented approach through clear performance indicators linked to strategic objectives.
- Delegation of authority and competencies to subordinate entities to enhance decision-making.
- Interdependence and integration between departments and sectors to achieve the greatest integral development impact.

Therefore, restructuring MoA is an ongoing strategic process that requires periodic evaluation of the organizational structure and updating it in line with internal and external variables. This process ensures that the Ministry's vision and development objectives are achieved efficiently and sustainably. An overall vision for the development of the structure and mission can be defined as follows:

- Establishing a clear regulatory framework that defines the scope of work for the Ministry as a planning, organizing, facilitating and enabling authority in the agricultural sector. This authority is dedicated to creating an environment conducive to innovation, productivity enhancement and the application of international standards.
- A clear separation between organizational and operational functions, with senior management focusing on planning, policies and coordination, while the ministry's administrative units achieve the ministry's policy objectives through well-defined service units.
- Promotion of good governance, transparency and accountability through an institutional performance framework based on key performance indicators, periodic reviews, and evaluation of the impact of agricultural policies on food security and sustainability.

## 1.2 The regulatory and supervisory role of the Ministry

- Planning and policies: Developing strategic agricultural policies based on global frameworks in food security, environmental sustainability, and livestock and plant development.
- Regulation and legislation: Issuing laws and regulations that regulate institutional work; determining the powers of affiliated entities and entities subject to regulation and supervision; and determining licensing and accreditation mechanisms, in coordination with relevant authorities.
- Coordination and integration: Linking work between ministries, local authorities and the private sector with the aim of reducing waste and improving the efficiency of the agricultural supply chain.
- Technical support and services: provision of technical services, conducting research, development, transfer of knowledge and provision of support to farmers and producers. - Monitoring and evaluation: ensuring agricultural inputs and outputs and compliance with environmental, health, livestock standards and international systems, with mechanisms for evaluating the impact of policies and amending them when necessary.
- Developing infrastructure and capacity-building of human resources to enhance technical control over production inputs (pesticides, fertilizers, veterinary drugs) ... and monitoring the quality of plant and livestock products and their conformity with sanitary standards (TBT-SPS).
- Full technical supervision of service facilities (slaughterhouses, fertilizer and pesticide plants, quarantine centers, etc.)
- Sustainability and resilience: ensuring the sustainability of water resources, soil and the environment, developing plans for climate resilience and securing the national food source.

## 1.3 The Ministry's vision regarding economic institutions

The MoA oversees several affiliated economic production institutions such as the General Establishment for Cattle and the General Establishment for Poultry. These have played a vital role through their market share and the operation of government factories. With the rise of the private sector's role in the national economy, which constitutes a dynamic and market-responsive segment of the economy characterized by flexibility and adaptability to the requirements of the markets, the private sector has demonstrated greater effectiveness in improving pricing mechanisms and the speed of providing services more efficiently, compared to the public sector, in addition to the ability of the private sector to employ capital and use modern technologies and specialized expertise in the production of food and agricultural products.

It is imperative to adopt a new vision to enhance the role of these institutions and increase investment in partnership with the private sector, with the need to maintain ownership of the assets of the two institutions of the state, according to an economic feasibility study that determines the most useful and efficient model for a strategic partnership that clearly defines responsibilities so that the private sector assumes responsibility over the operations, investment and development of production, with an independent operational management with government oversight and setting performance targets.

## Second: Situational Analysis

### 2.1 The value of Agriculture Production

Table (1) indicates that the Syrian economy during the period 2005-2011 experienced uneven growth patterns between nominal and real values, as nominal growth significantly outpaced real growth due to food price inflation during the 2009–2007 global crisis. Unlike other sectors, the agricultural sector witnessed a rise in its nominal value, primarily due to price inflation, while production quantities decreased as a result of droughts, which led to a decline in its share in GDP.

While the economy during the period 2005-2011 recorded a high nominal annual growth rate of %34.3, it witnessed a real contraction of %2.3 per year, reflecting the erosion of actual economic value. In contrast, the agricultural sector outperformed with a nominal growth rate of %46.4 per year, while it actually declined with a negative annual growth rate of only about %0.8, indicating a relative flexibility in performance that contributed to alleviating food insecurity.

**Table 1: Evolution of the contribution of agriculture to the local production at current and constant prices for the years 2005, 2010, 2015, 2020, 2022 (billion SP, %)**

Item	2005	2010	2015	2020	2022	GR -2005 -2010	GR - 2011 2022	
At current prices	Total Local Production	2654.58	5043.89	8854.36	38883.11	174342.49	%13.7	%34.3
	Local agricultural production	456.64	773.72	2582.25	12149.30	74830.38	%11.1	46.4 %
At constant prices of 2000	Agriculture Share %	%17	%15	%29	%31	%43	2.3- %	0.9 %
	Total Local Production	2010.39	2529.72	1369.35	1537.60	3319.70	4.7 %	2.3 %
	Local agricultural production	401.92	365.43	317.53	354.30	330.43	%1.9-	%0.8-
	Agriculture Share %	%20	%14	%23	%23	%10	%6.3-	%3.1-

**Source: - Planning and Statistics Commission, Annual Statistical Abstract– Multiple years**  
**GR: Average Annual Growth Rate**

### 2.2 Contribution of agriculture to GDP

The nominal contribution of the agricultural sector to GDP has increased significantly, jumping from %20 in 2005 to %43 in 2022. However, this nominal growth hides a sharp decline in real performance; in constant prices (for the base year 2000), as the real agricultural production decreased from 265.5 billion SP in 2005 to 89.23 billion SP in 2022, as its contribution in the economy declined from %23 to %13 for the same period, with negative annual growth rates of %7.9- during the conflict.

This discrepancy shows that the rise in nominal value was mainly caused by inflation and subsidy policies, not by real growth. It also confirms that the Syrian economy has retreated from the process of structural transformation, and has become more dependent on the agricultural sector in a non-developmental manner, due to significant contraction in other productive sectors.

**Table 2: Evolution of the contribution of agriculture to GDP at current and constant prices, 2022-2005 (Billion SP%)**

Item		2005	2010	2015	2020	2022	GR -2005 2010	GR - 2011 2022
At current prices	GDP	%13.5	88590.46	18,646.82	4732.70	2834.52	1506.44	%33.2
	Agricultural Domestic Production	%12.5	38147.04	6318.04	1584.85	551.00	305.70	%42.4
At constant prices of 2000	Agriculture Share %	%0.6-	%43	%34	%34	%19.4	%20	%6.8
	GDP	%5.3	696.82	679.15	724.61	1494.60	1156.71	%6.2-
	Agricultural Domestic Production Agricultural Domestic Production	%0.2-	89.23	106.33	111.90	240.35	265.41	%7.9-
	Agriculture Share %	%6.8-	%13	%16	%15.4	%16	%23	%1.9-

**Source: - Planning and Statistics Commission, Annual Statistical Abstract– Multiple years  
GR: Average Annual Growth Rate**

### 2.3 Evolution of Land Use Balance

The area of the Syrian Arab Republic is about 18.5 million hectares, including arable and non-arable lands, meadows, pastures and forestlands. The balance of land use witnessed a change during the period 2024-2005. Table (3) shows that the total arable land has changed during this period at the expense of non-arable land, and this has been achieved through land reclamation and rehabilitation projects.

The area invested has declined over the past decade. The area of fallow land has increased at the expense of irrigated and rainfed lands because of the reluctance of farmers to cultivate their entire areas due to several factors, like droughts, lack of irrigation water and high cost of input, and areas served by public irrigation projects became uncultivated due to the great damage to public irrigation networks and pumps.

As for the area of meadows and pastures, it has continued to decline during the study period. Urban expansion, especially non-official, has contributed to a significant encroachment on agricultural lands. A slight expansion in the area of forested lands is seen during the period 2024-2010, as the growth rate reached about %0.1, but it decreased from 597,000 hectares in 2005 to 587,000 hectares in 2024, due to encroachments on forest lands

**Table 3: Evolution of the land use balance in 2005-2024 Unit: (Area: thousand hectares, GR: %)**

	Year				GR	GR
	2005	2010	2015	2024	-2005 2010	-2010 2024
Total Arable Land	5,935	6,045	6,081	6,100	0.37%	0.06%
Total non-arable land	3,719	3,678	3,665	3,667	%0.22-	%0.02-
Total invested land	5,563	5,697	5,730	5,550	%0.48	%0.19-
Invested - Irrigated	1,426	1,341	1,114	1,024	%1.22-	%1.91-
Invested – unirrigated	3,446	3,453	2,794	3,147	%0.04	%0.66-
Invested - Fallow	691	903	1,822	1,379	%5.52	%3.07
Uninvested	372	348	351	550	%1.33-	%3.32
Meadows and pastures	8,266	8,212	8,185	8,164	%0.13-	%0.04-
Forest (area of land classified as forest land)	597	582	585	587	%0.51-	%0.06

**Source: National Agriculture Policy Center (NAPC) database, Multiple years. GR: Average Annual Growth Rate**

## 2.4 The status of crop production

### 2.4.1 Evolution of the area 2005-2024

Table (4) shows that the cultivated areas witnessed remarkable shifts during the past two decades, as the vast majority of crops were characterized by a regressive trend, at varying rates. The most prominent of these transformations are:

- Traditional strategic crops: the area of wheat has registered a continuous decline, albeit at a less severe rate of decline in 2024-2010 compared to the previous stage (2010-2005). The barley area followed a similar pattern, with positive growth recorded until 2010, then turned into a slight contraction thereafter.
- Industrial and cash crops: these were the most affected, as the sharp decline in cotton area continued at accelerated negative rates. The decline peaked in sugar beet, which witnessed a sharp collapse in its cultivated area, due to the damage of plants of cotton ginning and sugar processing, and the dramatic shortage of irrigation water during previous years.
- Positive-performing crops: medicinal and aromatic crops have emerged as a successful growth model, maintaining a steady, positive growth pace throughout the study period, nearly doubling their total cultivated area. The oil crops have undergone a radical shift from a declining path to clear upward growth.
- Direct consumption crops: Vegetable areas (summer and winter) have maintained their stability or slight growth, which reflects the continued demand in the local market.
- Volatile crops: legumes and fodder crops suffered a sharp fluctuation, recording an overall decline over a long term, with the recovery of fodder areas to their initial level by 2024.

This indicates a gradual restructuring of cultivated areas, with the share of traditional crops such as cotton and cereals declining against the rise of crops of high yield or medical and industrial importance, reflecting a shift in farmers' priorities and agricultural policies

**Table 4: Evolution of Crop Area 2005-2024 (Area: Thousand Hectares. Annual Growth Rate: %)**

Item	2005	2010	2015	2020	2024	GR 2010-2005	GR 2024-2010
Wheat	904.1	1,599	1,197	1,351	1,276	%3.4-	%1.6-
Barley	1,327	1,527	1,120	1,503	1,359	%2.8	%0.8-
Potatoes	29	34	23	27	28	%3.3	%1.4-
Cotton	238	172	45	33	33	%6.2-	%11.1-
Sugar beet	26	28	1	-	0.10	%1.1	%33.0-
Legumes	249	220	183	205	177	%2.4-	%1.5-
Medicinal Crops	61	76	94	87	107	%4.2	%2.5
Oil Crops	26	21	12	31	33	%4.1-	%3.1
Fodder crops	144	113	101	116	144	%4.6-	%1.71
Winter Vegetables	27	27	22	30	30	%0.4	%0.68
Summer Vegetables	104	101	77	103	112	%0.1	%0.76

**Source: Annual Statistical Abstract 2024. GR: Average Annual Growth Rate**

As for fruit trees, most of the cultivated areas increased during the period (2010–2005), except for grapes and pistachios. The area of citrus, olives and pome trees has decreased during the period (2024–2011) as shown in Table (5), where fruit tree orchards witnessed significant damage during the previous years due to logging or fires. High production costs and low revenues forced citrus farmers to replace citrus trees with tropical crops, which steadily spread recently.

**Table 5: Evolution of the area of fruit trees 2005-2024 (Area: thousand hectares. Annual growth rate: %)**

Item	2005	2010	2015	2020	2024	GR 2010-2005	GR 2024-2010
Citrus	31.8	39.5	43.8	43.3	40.8	%4.5	%0.2
Olives	544.7	647.5	694.9	696.4	672.5	%3.5	%0.3
Walnuts	3.28	3.40	3.09	3.27	3.06	%0.7	%0.7-
Stone Fruits	108.9	119.7	125.4	125.9	127.3	%1.9	%0.4
Pome fruits	49.2	54.8	55.6	55.5	51.8	%2.2	%0.4-
Grapes	54.0	52.2	47.3	44.4	43.7	%0.7-	%1.3-
Pistachios	56.9	56.2	59.9	60.4	60.5	%0.3-	%0.5

**Source: Annual Agricultural Statistical Abstract 2024. GR: Average Annual Growth Rate**

### 2.4.2 Evolution of agricultural production 2005-2024

The analysis of long-term trends (2024-2005) reveals a profound structural transformation in the agricultural sector that is clear in the general decline in production levels for most crops, while some other crops have emerged as growth leaders, reflecting changing market and economic priorities. Specific crops have shown resilience and exceptional ability to grow, as barley showed remarkable and steady growth, especially in the period from 2010 to 2024, recording a high annual growth rate of %6.2+.

In parallel, medicinal and aromatic crops maintained their steady upward trend across the two periods, with growth rates of %4.3+ between 2010-2005, and then %4.8+ between 2024-2010, in a clear indication of the growing demand or trend towards high-added-value crops, which respond flexibly to the availability of natural, financial, and human resources.

Table (6) also shows the change in the trend in oil crops, which successfully reversed their previous decline. After a phase of sharp decline at a rate of %8.6 during the period -2005 2010, the sector turned towards positive growth at a rate of %2.7+ during the period 2024-2010. This indicates changes in consumption patterns, and the growth of sectors such as agricultural processing during that period.

On the other hand, basic crops witnessed a sharp decline, the most prominent of which was the wheat crop, which witnessed a dramatic decline in production, especially in the period 2010-2005, where it recorded sharp annual declines of %8- followed by %1.7- during the past decade. Industrial crops suffered a sharp decline in the past decade by %19.2- for the same abovementioned reasons.

From the above, it is clear that these figures not only reflect seasonal fluctuations, but also clearly indicate a fundamental shift in the strategic direction of the agricultural sector. The data confirm a shift in focus from resource-intensive crops, which have become less economically viable, to more resilient and profitable crops, which respond to global market signals and reflect increased maturity in agricultural resource management. This structural transformation lays the foundations for a new phase based on added value and economic efficiency, and this is what was taken into account in the orientation of the current strategy and its implementation plans. This analysis serves as a strategic guide for the agricultural sector in the future, as it gives a vision of promising crops with high added value (such as medicinal and aromatic crops) that deserve investment expansion. less economically viable crops (such as sugar beet and cotton) that require restructuring. The findings highlight the urgent need to redistribute resources (water, land, and input) from dense crops to more flexible and profitable crops, which maximizes economic return and enhances food security in light of climate change and trends in local and global markets.

**Table 6: Evolution of crop and vegetable production 2005-2024 (Production: thousand tons. GR: %)**

Item	2005	2010	2015	2020	2024	GR 2010-2005	GR 2024-2010
Wheat	4,669	3083	2,862	2,848	2,431	%8.0-	%1.7-
Barley	767	680	1.615	2,246	1,572	%2.4-	%6.2
Potatoes	608	673	505	647	672	%0.2	%0.0
Cotton	1,022	472	130	98	93	%14.3-	%11.0-
Sugar beet	1,096	1493	29	-	6	%6.4	%32.5-
Industrial crops	2118	1966	160	98	99	%1.6-	%19.2-
Legumes	258	161	184	210	180	%9.0-	%0.8
Medicinal and aromatic crops	40	49	147	80	95	%4.3	%4.8
Oil Crops	53	34	24	46	49	%8.6-	%2.7
Fodder crops	1,064	918	659	632	848	%2.9-	%0.6-
Winter Vegetables	398	371	293	404	379	%1.4-	%0.1
Summer Vegetables	1,978	1933	1,324	2,081	1,944	%0.5-	%0.04

**Source: Annual Agricultural Statistical Abstract 2024**

## 2.5 The reality of livestock

### 2.5.1 Evolution of livestock numbers

The analysis of the timeline of the livestock sector reveals dynamic shifts and divergent trends, reflecting shifts in market priorities, economic efficiency, and economic and climatic conditions during the past two decades. The cattle sector recorded a decline at a steady pace with a low growth rate of %1.4- annually, as it decreased from 1.1 million heads in 2005 to 826 thousand heads in 2024. This decrease indicates pressures on breeding conditions, most significantly, high production costs and difficulties in securing feed, and a decline in demand for animal products due to the deterioration of the purchasing power of people. Sheep breeding was the same, as their numbers decreased sharply at a rate of %4.6- annually during the period 2010-2005, decreasing from 19.7 million heads to 15.5 million heads. This was followed by a phase of stability and gradual recovery, reaching 17.93 million heads in 2024 with a near-stable growth rate (1%), which puts sheep breeding on the path of recovery compared to cows. The number of goat heads witnessed an exceptional growth of %9.7+ (annually) in the first period, during which the number increased from 1.3 million heads to 2.06 million heads. It then entered a stability phase in the following decade, recording a slight growth rate of %0.1 (annually) to settle at 2.08 million heads in 2024.

As for the poultry sector, it took a different path between the layers and broiler sectors, where layers witnessed a sharp collapse, which shifted from positive growth (%1.3+) during the period 2010-2005, to a decline of %1.9- annually, as the number decreased from 25.4 million birds to approximately 19.5 million birds during the period 2024-2010 due to the great damage to this sector, especially with regard to securing feed from international markets. On the other hand, broilers achieved growth in the first period at an annual growth rate of %3.1+, and then decreased, albeit slightly, at a growth rate of %0.2- annually during the subsequent period (2024-2010). More importantly, the sector managed to recover strongly from 2015 lows of 76.4 million birds to record 117.7 million birds in 2024, indicating its resilience and ability to meet rising demand.

These fluctuations reflect a shift in demand and relative economic efficiency from the traditional high-cost sectors (such as cattle and laying hens) to the more flexible and sectors characterized by rapid capital turnover (broilers), with positive signs of recovery of the sheep sector. This is necessary to redirect support and investment towards promising strategic priority sectors.

**Table 7: Evolution of livestock numbers, 2005-2024 (thousand heads, thousand birds)**

Item	2005	2010	2015	2020	2024	GR 2010-2005	GR 2024-2010
Cattle	1,083	1,010	902	885	826	%1.4-	%1.4-
Sheep	19,651	15,511	13,701	16,073	17,929	%4.6-	%1.0
Goat	1,296	2,057	1,847	1,996	2,080	%9.7	%0.1
Layers	23,795	25,401	16,160	18,741	19,501	%1.3	%1.9-
Broiler	104,001	121,255	76,400	88,184	117,652	%3.1	%0.2-

**Source: Annual Statistical Abstract 2024. GR: Average Annual Growth Rate**

### 2.5.2 Evolution of livestock production

Analysis of the performance of livestock production chain reveals deep strategic shifts. these shifts highlight the transition of the center of focus from traditional proteins to others that may be more responsive to the consumption pattern. Total meat production recorded a state of stagnation and slight decline, as it shifted from a marginal growth of (%0.4+) to a regressive path of (0.04+), with a decline in the middle of the second decade, reflecting the fragility of the production system and its vulnerability to variables. As for red meat, it witnessed a decline during the first period with a decreasing growth rate of %1.2-, as production decreased from 242.4 thousand tons to 228.3 thousand tonnes during the years 2005-2010, and continued to decline until it touched the lowest level in 202.5) 2015 thousand tonnes). It then rebounded to 248.5 thousand tonnes in 2024, recording a growth rate of %0.6 during the period 2024-2010. This path indicates the instability of investment in traditional breeding of cattle and sheep.

White meat has also witnessed a volatile path, after a strong growth wave (%2.5+) that turned into a declining path (%0.7-), driven by the decline in meat poultry production (%0.9-), which collapsed to 106.8 thousand tonnes in 2015 before partially recovering to reach a production volume of 186.1 thousand tonnes in 2024. This reveals the instability of this sector despite its strategic importance. The fish sector was the most dynamic growth model, as it completely reversed its path from a sharp decline (%5.5-) to an exceptional growth acceleration (%2+), to return and achieve 17.0 thousand tons in 2024, regaining its initial level in a success story that shows the resilience of the sector and its ability to recover and grow.

Milk production also continued its accelerated decline path (%1.0-) and then (%0.7-), falling from 2,357.6 thousand tonnes to 2,045.9 thousand tonnes, in a direct reflection of the repercussions of the decline of cattle, which is a major source of milk. Egg production showed a shift in growth from (%1.0+) to a decline of (%1.3-), down from 196.0 thousand tonnes to 162.6 thousand tonnes during the years 2010-2024, due to a large number of laying hens projects going out of production due to the combination of cost pressures and the crises.

**Table 8: Evolution of livestock production, 2005-2024 (Meat, milk and eggs: thousand tonnes.)**

Item	2005	2010	2015	2020	2024	GR 2010-2005	GR 2024-2010
Overall meat	422.8	432.2	309.3	356.8	434.6	%0.4	%0.04
Red meat	242.4	228.3	202.5	225.4	248.5	%1.2-	%0.6
White meat	180.4	203.9	106.8	131.4	186.1	%2.5	%0.7-
Poultry meat	163.4	191.1	103.9	125.7	169.1	%3.2	%0.9-
Fish	17.0	12.8	2.9	5.7	17.0	%5.5-	%2.0
Milk	2357.6	2241.7	1978.0	2153.7	2045.9	%1.0-	%0.7-
Eggs	186.2	196.0	122.2	145.8	162.6	%1.0	%1.3-

**Source: Annual Statistical Abstract 2024. GR: Average Annual Growth Rate**

### 2.5.3 Feed Balance

Based on the current herd numbers, the needs of livestock for the total feedstock necessary for body maintenance and production were estimated at 18,237 thousand tonnes of dry matter, including approximately 194,744 million MJ of metabolic energy, and about 2,095 thousand tonnes of digested protein (Table 9). Studies show that agricultural crop residues constitute the largest main source among the fodder resources used, as they contribute to covering a significant part of fodder needs. This indicates the importance of these residues and the need to pay attention to them and use appropriate technologies to raise their nutritional value and process them in ways that help in their handling and marketing.

**Table 9: Estimated feed balance by herd numbers for 2024**

Item	Unit	Animal species				Total	
		Sheep & goats	Cattle	Buffalo & Camel	Poultry		
Maintenance	Dry matter	(Thousand Tonnes)	4,543	1,089	80		5,712
	Metabolic energy	(Million MJs)	45,434	10,891	795		57,120
	Digested protein	(Thousand Tonnes)	215	57	4		276
Production	Dry matter	(Thousand Tonnes)	1,778	870	31	9,846	12,525
	Metabolic energy	(Million MJs)	17,775	869	313	118,665	137,623
	Digested protein	(Thousand Tonnes)	170	68	2	1,577	1,818
Total	Dry matter	(Thousand Tonnes)	6,321	1,959	111	9,846	18,237
	Metabolic energy	(Million MJs)	63,210	11,761	1,108	118,665	194,744
		(Thousand Tonnes)	385	126	7	1,577	2,095

## 2.6 Agricultural Trade

The share of agricultural exports between 2022-2010 ranged from %23-60 of total exports, while the share of agricultural imports ranged from %28-20 of total imports. This means that the contribution of agricultural imports did not exceed %28 of total imports, indicating a decrease in relative dependence on imports in securing agricultural goods, with the continued role of domestic production in covering an important part of food demand.

**Table 10: Total and agricultural foreign trade data and indicators (In million SP**

Item	2005	2010	2015	2020	2021	2022
Value of total exports	424,300	569,064	556,587	2,308,106	3,822,093	2,437,036
Value of agricultural exports	56,651	133,182	336,533	1,170,825	1,858,157	1,293,994
% agricultural of total	%13	%23	%60	%51	%49	%53
Total import value	502,369	812,209	1,497,340	4,622,918	13,153,168	19,820,090
Value of agricultural imports	84,372	192,358	413,716	1,154,843	2,670,449	4,346,421
% agricultural of total	%17	%24	%28	%25	%20	%22

**Source: - Planning and Statistics Commission, Annual Statistical Abstract,  
- National Agriculture Policy Center NAPC, Annual Database**

## 2.7 Environmental Conditions

### 2.7.1 Precipitation System:

Rainfall rates in Syria recorded positive growth between 2024-2005 and an annual growth rate of %1.26, while the annual growth rate was negative between 2010-2005 and amounted to %0.54- as rainfall rates decreased significantly and repeated droughts hit Syria between 2010-2007, which had tangible negative effects on the agricultural sector, threatened the livelihoods of many rural households, and led to an increase in economic and social challenges. Then precipitation rates returned to improve and achieve a positive growth rate of %1.60 between 2024-2011, but despite the improvement in the annual growth rate for the aforementioned period, the recurrent drought waves in different intensities between 2022-2019 have not stopped, and the current drought wave of 2025 is the harshest in decades.



### 2.7.2 Climate change:

The Syrian Arab Republic suffers climatic changes in terms of rainfall and drought. The shifting of rainfall patterns, the irregular distribution of precipitation across the season and the frequency of droughts are important factors that must be taken into account when preparing the agricultural plan. The successive effects of drought on an increasing number of sectors are of great concern. Drought is no longer primarily related to the loss of agricultural production or the decrease in the volume of that production. Today, it is also linked to significant effects in all sectors. No less significant is the direct impact of water shortages on water security, energy security and food security. With the current and expected increases in the occurrence, recurrence, intensity and duration of drought as a result of climate change, it is now time to move forward with a paradigm shift from crisis management to risk management.

Key indicators monitored about climate change in Syria: It is expected that the effects of climate change will be exacerbated, causing more severe weather conditions such as droughts, floods, heat waves and unpredictable rainfall distribution, all of which pose a threat to food security. The situation may be exacerbated by the accelerated release of greenhouse gases from the soil, which leads to global warming, and ecosystems that are already fragile will be affected, causing severe degradation of land and exposing food security to further danger.

The report developed by the Ministry of Local Administration and Environment (MOLAE) showed several climate changes at the national level:

-Precipitation system: a decrease in precipitation was observed in winter in the northwestern areas and an increase in rainfall in autumn in the north-central ones, which leads to a decrease in the amount of runoff water and in the water balance necessary to meet the needs, as well as the deterioration of water quality due to high salinity.

-Surface air temperature trends: surface air temperature showed a general and noticeable increase in summer temperature. It is expected that the rate of warming in Syria for 2041 will be higher than the global average, and that warming will occur between 2-2.1 C in the northwestern and south-eastern areas, while the lowest warming of 1-1.2 C will prevail in the rest of the areas. It is also expected that an increase in precipitation quantities will be recorded during the autumn and summer seasons in all regions.

-The expected climate changes, like higher temperatures and less precipitation, will have an impact on increasing water consumption of plants, decreasing the period of crop growth and decreasing the amount of water available due to the change in the form of rainfall and the timing of precipitation.

-Climate change will increase rangeland problems such as desertification, water shortages and reduced fodder productivity. Climate change will also bring new threats to the livelihoods of pastoralists and livestock breeders, and to the services of the pastoral ecosystem and the national economy as a whole.

### 2.7.3 Natural Disasters:

**-Drought:** low precipitation and high temperatures may cause spatial displacement of some plant species within the forest cover belts in mountainous areas. Artificial forests, which constitute more than %53 of the country's forests, will be affected by climate change, as most of these forests are planted in inland areas with low precipitation.

**-Waterspouts** (locally referred to as «Sea Dragon» along the Syrian coast): When this moves to land, it is called Nakba or Tornado, which are very violent disturbances that occur in the atmosphere resulting from severe instability in the atmosphere, and a severe thermal decrease in the surrounding environment, and therefore have a tremendous destructive ability for everything that coincides with its anti-clockwise rotational path. Every stormy winter, the coastal region is subjected to several material damages, most of which are in agricultural lands and greenhouses, as a result of the waterspout.

**-Fires:** there is an increase in the prevalence of fires and their correlation with climatic changes and human factors. These fires occurred in the summer of 2020; they spread in forest areas in particular; and they extended to subsequent years. The fires of 2025 caused extensive environmental and economic damage, as they led to the loss of a large percentage of vegetation cover, especially forests.

**-Dust storms:** The severity of dust storms varies based on the degree of physical soil degradation and the wind speed. Frequent drought waves and the increase of dry and hot days per year, especially in fragile areas that do not receive a sufficient amount of rainfall, make these areas more vulnerable to dust storms. This is very clear in Al-Badia and in the eastern areas of Syria.

**-Heavy rainfall:** water erosion is less harmful compared to wind erosion and salinization due to the lack of rainfall in most inland areas. Coastal areas, especially mountainous ones, are the most exposed to water erosion due to their prevailing natural conditions such as high rainfall rates, frequent rainstorms, long and severe slopes, and dispersed vegetation.

**-Epidemics and crop diseases:** the occurrences of insect infestation and disease infections are expected to increase due to climatic conditions permissive to pathogens. Outbreaks of pests and diseases increase under scenarios in which droughts and heatwaves are expected to become more frequent.

**-Salinization of arable land:** the phenomenon of salinization has spread in the eastern region due to high solar brightness values and evaporation rates. The Euphrates Valley, which is one of the largest irrigated agriculture areas in the country, is a clear example of the spread of salinization.

## 2.8 Damage to the agricultural sector

The agricultural sector incurred substantial losses during the conflict, which affected rural families engaged in both crop and livestock production, forcing many households to migrate or seek alternative livelihoods, extensive areas of cultivated land were damaged or destroyed, in addition to processing and storage facilities, agricultural machinery, buildings, irrigation facilities and agricultural sector buildings, in addition to the high prices of agricultural supplies and the difficulty of access (seeds, fertilizers, fuel, etc.) One of the major consequences of the conflict was the decline in the level of government support for agriculture as a result of the siege, sanctions and economic conditions of the country due to the attitudes of the ousted regime, while the sector suffered from the negative effects and required enhanced institutional and financial support.

-The total financial cost of damage and production losses to the agricultural sector during the period 2016-2011 was estimated at approximately USD 16 billion (FAO, 2017), equivalent to more than one-third of Syria's GDP in 2016.

-At the subsector level, the value of damage and loss of revenue was the largest in livestock (USD 5.5 billion), field crops (USD 4.8 billion), followed by irrigation infrastructure and related facilities, estimated at (USD 3.2 billion), followed by fruit trees (USD 2.4 billion), and finally fisheries (about USD 80 million).

-At the governorate level, the most affected governorates were: Al-Hasakah (USD 2.03 billion) - Deir ez-Zor (USD 1.88 billion) - Idlib (USD 1.71 billion) - Raqqa (USD 1.66 billion) -Aleppo (USD 1.63 billion) - Rif-Dimashq (USD 1.49 billion) – Hama (USD 1.39 billion) - Daraa (USD 1.35 billion).

-The forest areas and nearby fruit tree orchards have been severely affected by recurrent wildfires, as the number of fires during the period 2024-2021 reached approximately 1,047 recorded incidents (sites), and the affected area is about 4972 hectares distributed over 12 governorates, The relevant directorates within the Ministry are currently assessing the sites and areas affected by fires during this year (2025). The fires also resulted in livestock losses, the destruction of animal shelters, the displacement of many villagers, and the loss of their livelihoods and sources of income, according to official estimates.

**Table 11: Number of fires and area of burned land (hectares)**

Year	Forest fires	
	Number	Area
2021	439	910
2022	197	186
2023	302	3694
2024	109	182
<b>Total</b>	<b>1047</b>	<b>4972</b>

## Third: Strengths and Weaknesses Matrix in the Agricultural Sector (SWOT Analysis)

Crop Production	
STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Diversity of agricultural systems and production (field crops - vegetables -fruit trees.)</li> <li>• Strong potential to achieve food self-sufficiency and food security in a large number of food commodities.</li> <li>• Supply the needs of the manufacturing and food industries for agricultural products..</li> <li>• The agricultural sector continued to provide the food needs of the population during the years of the conflict, and it provided a source of income for farmers and producers, and for all segments of society working within the value chains (production, marketing and consumption.)</li> <li>• The sector benefits from significant comparative and competitive advantages (diversity of resources and agricultural systems, favorable climate, diversity of production, extensive experience among producers and farmers and good reputation of agricultural products.)</li> <li>• Technical efficiency in providing improved seeds (especially wheat and barley) and fruit saplings.</li> <li>• Increasing irrigated areas through government irrigation projects, land reclamation, new areas entering in investment after reclamation, introducing new rainfed areas in investment, and modifying agricultural intensification rates in irrigated and rainfed areas to suit the availability of water resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited adoption of modern agricultural technologies and reliance on traditional and rain-fed farming systems.</li> <li>• Inadequate alignment with strategic agricultural planning processes (crop compositions), depending on the change in the productive capacity of the land, and the change in rain pattern.</li> <li>• Lack of access to agricultural practices that ensure the improvement of the quality of agricultural products and conform to standard specifications, where the immediate objective was to cover the demand of the local market.</li> <li>• The sector's reliance on seasonal labor after the decline of summer crops.</li> <li>• High dependence on public sector support.</li> <li>• Fragmentation of agricultural holdings</li> <li>• Dependence of large areas on rain-fed agriculture (about %70 of the total cultivated areas)</li> <li>• Limited mechanization and modernization of agricultural production and advanced production methods and technologies.</li> <li>• Continued reliance on traditional irrigation practices in irrigating crops and the difficulty of applying modern irrigation methods to some water sources.</li> <li>• Increasing exposure of agricultural land to degradation and pollution</li> <li>• Weakness of value chains, especially with regard to marketing.</li> <li>• High percentage of waste and loss in agricultural production, and not benefiting from agricultural residues (crop residues - pruning residues...)</li> <li>• Gaps in information management resulting from the challenges of statistics and methods and techniques of building and addressing databases in support of decision-making.</li> <li>• Insufficient investment in the agricultural sector, as a result of the trend towards investment in other economic sectors, due to the high rates of risk in agricultural investment and the often-slow turnover of capital.</li> </ul>

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>•Providing an enabling environment for sustainable agricultural investment</li> <li>•Diversification of economic activities in rural areas, rural development and the promotion of decentralization.</li> <li>•The ability to shift towards a developmental and competitive agricultural economy that contributes to development, food security and enhances the competitive advantage of the agricultural sector.</li> <li>•Developing agricultural management to achieve sustainable development programs.</li> <li>•Enhancing the principle of self-reliance to meet external challenges and economic siege by increasing local agricultural production.</li> <li>•Reducing production costs by benefiting from the government's orientation towards alternative energy sources to invest in agricultural facilities and pumping water from collective wells (exclusively).</li> <li>•Creating an enabling environment by developing the regulatory, legislative and legal environment, to provide sufficient flexibility for the sector.</li> <li>•Benefiting from the research results in increasing the productivity and yield of the total agricultural production factors.</li> <li>•Effective use of agricultural financing and lending policies</li> <li>•Enhancing the efficiency of agricultural support and its delivery mechanisms, which helps to implement agricultural policies.</li> <li>•Participation with the community in planning and implementation.</li> <li>•Transitioning to agriculture that utilizes modern technologies and adopts methods that are drought and climate change resistant.</li> <li>•Raising production efficiency in line with the efficient use of resources and achieving the highest return on factors of production.</li> <li>•Converting the entire irrigated areas to modern irrigation methods and developing irrigation techniques at the field level.</li> </ul>	<ul style="list-style-type: none"> <li>•Climate change and increasing frequency of drought with their direct impact on agricultural production, and the challenge of developing the technologies needed to address them.</li> <li>•Significant pressures on natural resources and continuous encroachments on them (agricultural land, water depletion, decline in forest areas, degradation of Badia and desertification, decline in the status of biodiversity and various ecosystems).</li> <li>•The significant impact of rainfall and its distribution during the agricultural season on production.</li> <li>•Wildfires and climate-related disasters, and encroachment on agricultural land due to urban, industrial, and other encroachments.</li> <li>•Decline of purchasing power turns the surplus during peak production into lower prices and loss for agricultural producers.</li> <li>•Macroeconomic instability, exchange-rate volatility, high costs of agricultural production, and poor return on investment in light of those fluctuations.</li> <li>•Institutional and governance constraints and the difficulties of increasing the efficiency and effectiveness of the institutions concerned with the implementation of agricultural development plans and programs, and the weakness of coordination and integration between them.</li> <li>•The continuous decline in the real value of income, and its impact on food security and on the volume of demand in the local market for agricultural products, which does not benefit agricultural producers, especially if accompanied by export prohibitions.</li> </ul>

<b>Livestock Production</b>	
<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>• Syria has a comparative and competitive advantage with breeds of livestock, especially Awassi sheep, that are characterized by very high export opportunities.</li> <li>• Large areas of Al-Badia are natural pastures that cover the need of a large part of the demand for feed.</li> <li>• Achieving self-sufficiency of livestock products.</li> <li>• The existence of a structure of institutions and authorities that are able to support and develop the sector, provide the requirements of production and transfer modern technologies (research- extension -rehabilitation - health and veterinary care, etc.)</li> <li>• The existence of vaccination programs against communicable and transboundary diseases for the livestock sector Veterinary services and great expertise in this field are provided by technicians and veterinarians.</li> <li>• The advancement of the veterinary pharmaceutical</li> </ul>	<ul style="list-style-type: none"> <li>• Low productivity of the head compared to global rates, especially with regard to improved and imported foreign cattle.</li> <li>• Marketing, export and processing activities do not keep pace with the development of livestock production</li> <li>• Lack of integration between animal and Crop Production in livestock projects.</li> <li>• Relying on importing some vaccines from the foreign market.</li> <li>• Relying on imports to secure a large part of poultry feed.</li> <li>• Unstable prices of production inputs, especially imported feed.</li> <li>• A large part of livestock facilities, especially poultry houses, were damaged and vandalized.</li> <li>• Absence of early warning systems to investigate diseases and epidemics and monitor transboundary diseases.</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>• Adoption and trend towards modern breeding methods based on modern technologies and reverting to high-yield and disease-resistant breeds</li> <li>• Raising production efficiency in line with the efficient use of resources and achieving the highest return on factors of production.</li> <li>• Improving scientific research programs and utilizing them in the production of high-yielding strains.</li> </ul>	<ul style="list-style-type: none"> <li>• The global rise in the prices of agricultural production inputs, which reflected negatively on livestock production.</li> <li>• Climate change and the drought situation and their direct impact on the production of fodder crops, in addition to the challenge of developing the technologies necessary to confront heat waves that kill a number of herds.</li> <li>• Many livestock breeders are leaving the breeding work because of the high prices of fodder and the difficulty of securing it, and the high prices of fuel.</li> <li>• Smuggling of Awassi sheep herds to neighboring countries, and the slaughter of females, which caused a drastic deterioration in production</li> </ul>

## Natural Resources

WEAKNESSES	STRENGTHS
<ul style="list-style-type: none"> <li>• Weak integrated management of terrestrial resources.</li> <li>• The balance of land uses needs to be updated.</li> <li>• Shifting agricultural stability zones. Remnants of war that threaten the security and safety of agricultural lands.</li> <li>• Low management of available water resources.</li> <li>• Significant destruction of infrastructure and irrigation canals.</li> <li>• Waste in irrigation water at the field level.</li> <li>• Decreased area and density of vegetation.</li> <li>• Poor management of woodland and forest resources</li> </ul>	<ul style="list-style-type: none"> <li>• The large areas of arable land.</li> <li>• Diversity of soil and climate, which helps in diversifying cultivated crops.</li> <li>• The multiplicity and diversity of water sources in Syria, including international and local rivers, springs and water basins, lakes and dams.</li> <li>• Using modern irrigation.</li> <li>• Rehabilitation and use of several irrigation canals in a number of areas.</li> <li>• The presence of nature reserves.</li> <li>• Diversity of natural forest trees.</li> <li>• The distribution of forests across several governorates, which contributes to the diversity of forest cover and biodiversity.</li> </ul>

THREATS	OPPORTUNITIES
<ul style="list-style-type: none"> <li>• Depletion of land resources due to the random use of production inputs, especially fertilizers and pesticides, which caused soil pollution.</li> <li>• Soil salinization due to poor agricultural drainage techniques.</li> <li>• Climatic changes and their effects, like rain storms and dust storms, causing soil erosion.</li> <li>• Urban sprawl and construction on agricultural land.</li> <li>• Fragmentation of agricultural holdings</li> <li>• Destruction of infrastructure such as agricultural roads and irrigation water sources.</li> <li>• Climate change and shifts in rainfall patterns.</li> <li>• Droughts, in terms of severity and frequency.</li> <li>• Depletion of groundwater resources.</li> <li>• Scarcity of water, shortage in water supply, and risks related to water quality.</li> <li>• Regional disputes over water shares and the deprivation of Syria from its share of international water. Frequent spread of fires due to climatic, environmental and human factors</li> <li>• Excessive cutting and logging caused the depletion of forest and forestry resources</li> <li>• War remnants causing fires</li> </ul>	<ul style="list-style-type: none"> <li>• Updating the soil productivity map.</li> <li>• Updating the land use balance.</li> <li>• Increasing the areas of invested arable land and developing agricultural projects.</li> <li>• Benefiting from the support of international and local organizations in integrated management of land resources.</li> <li>• Moving towards climate-smart agriculture and the use of modern technologies in land management and supervision of agriculture.</li> <li>• Activation of laws and legislations</li> <li>• Integrated Water Resources Management</li> <li>• Activating the role of water extension workers at the field level.</li> <li>• Benefiting from international and local organizations in the field of water management by activating agreements and projects in the field of water harvesting and benefiting from greywater treatment plants by using this water in agriculture.</li> <li>• Benefiting from water user associations, moving towards collective irrigation, establishing irrigation projects using renewable energy.</li> <li>• Potential for afforestation and revitalization of forest resources.</li> <li>• Correct and scientific treatment of fire sites.</li> <li>• Collaborate with the local community to manage and utilize forest resources.</li> <li>• Collaborate with international organizations to sustainably manage forest resources.</li> <li>• Activating the Forestry Law to protect forest resources from depletion.</li> </ul>

## Fourth: Theory of Change for the Development of the Agricultural Sector in Syria

The theory of change in the 2030-2026 agricultural strategy takes into account several challenges (drivers of change) facing the agricultural sector, including the increasing demand for agricultural commodities, especially food, in light of rising population growth rates, as well as high rates of malnutrition, declining food security indicators, poverty and inequality, and climate and environmental challenges such as biodiversity loss, soil and land degradation, and the spread of transboundary livestock diseases.

The theory of change focuses on addressing these challenges through intersectoral integration by creating an enabling environment that contributes to the development of sustainable value chains, the adoption of innovative technologies, and the provision of agricultural services in both the plant and animal sectors to encourage private sector investment in agricultural projects.

The strategy aims to empower small-scale agricultural producers to achieve economic returns, improve their agricultural income, and help them transition from subsistence to rent-seeking production, thereby creating added value. This «theory of change» represents a logical and comprehensive roadmap that links the necessary interventions on the ground with overarching strategic objectives (such as food security and rural development). It is directly based on the analysis of the internal environment (strengths and weaknesses) and the external environment (opportunities and threats) of the Syrian agricultural sector, as previously mentioned. Achieving the desired impact requires the consistent and balanced implementation of all components of this model, with sufficient flexibility to address emerging risks and challenges.

### Drivers of Change (Pulsating Factors)

- Expected shifts in economic identity and openness towards an open economy
- Population growth and increasing demand for agricultural commodities
- Declining food security
- Deterioration of natural resources (water, land, rangelands, forests)
- Exceptional climate changes

### Challenges

- Economic sanctions
- Damage to agricultural and water infrastructure
- Fragmentation of agricultural holdings
- Decline in agricultural support
- Inadequate financing
- Migration of labor and youth from agricultural work to other economic sectors

### Addressing the Challenges

- Enhancing the efficiency of value chains
- Transforming food and agriculture systems into more sustainable systems
- Improving agricultural services
- Developing early warning systems
- Encouraging investment

# The Overall Vision

An agricultural sector characterized by sustainable, climate-resilient and productive agricultural and food systems based mainly on achieving food security, contributing effectively to the GDP, and achieving inclusive, balanced and sustainable rural development, while improving the living standards of farmers and producers and ensuring stability for them.

## Mission

• The mission of the Ministry of Agriculture (MoA) is to promote sustainable growth of the agricultural sector, both plant and animal, including production, processing, and marketing, through the adoption of modern technologies and innovative approaches, enhancing the technical level of the entire agricultural sector, and sustainable and efficient management of natural and human resources, by rationalizing use, and capacity building for persons and institutions.

### ***Strategic Objectives (Long-Term Impact)***

- Achieving food security and meeting sustainable domestic demand for basic food commodities.
- Increasing the agricultural sector's contribution to national GDP
- Promoting sustainable rural development and reducing rural–urban migration.
- Improving the volume, effectiveness and efficiency of agricultural investment and agricultural foreign trade.
- Strengthening national strategic food reserves.

## Interim Objectives

- Self-reliance in securing basic plant and animal agricultural and food commodities.
- Optimizing the use of natural agricultural resources and improving their productivity.
- Securing sufficient raw materials according to the availability of natural resources for the need of local industry, provided that it has a comparative and competitive advantage.
- Ensuring adequate levels of food consumption and improving access to healthy and safe food.
- Achieving equity in income distribution and reducing rural poverty.
- Encouraging private investments as a tool for economic development.
- Maintaining ecological balance and rehabilitating ecosystems.
- Modernization of agriculture and expansion of the application of smart agriculture.

## 4.1 Pathway of Change: From Input to Impact

Stage	Main components	Key indicators
1: Activities and inputs phase	<p>Legal and institutional empowerment</p> <ul style="list-style-type: none"> <li>• Developing a supportive legislative and legal environment.</li> <li>• Strengthening governance and coordination between entities.</li> <li>• Improving the organizational structure of the Ministry.</li> <li>• Securing a building for the ministry to include all administrative units within one headquarters.</li> </ul>	<ul style="list-style-type: none"> <li>• Laws and regulations updated.</li> <li>• Ministry structure decision</li> <li>• Establishing a unified headquarters for the Ministry</li> </ul>
	<p>Enhancement of resources and production:</p> <ul style="list-style-type: none"> <li>• Timely provision of production inputs (seeds, fertilizers, and fuel.)</li> <li>• Developing and rehabilitating irrigation infrastructure.</li> <li>• Improving and expanding the use of modern technologies (modern irrigation, mechanization, fertilizers...)</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of basic production requirements available. Areas rehabilitated</li> <li>• Areas converted for modern irrigation. Level of satisfaction of agricultural producers</li> </ul>
	<p>Funding and investment:</p> <ul style="list-style-type: none"> <li>• Improving the efficiency and mechanisms of agricultural support.</li> <li>• Directing agricultural financing and lending towards priority sectors.</li> <li>• Encouraging private investment and small enterprises.</li> </ul>	<ul style="list-style-type: none"> <li>• Amount of lending</li> <li>• The volume of new investments in the sector.</li> <li>• Projects licensed</li> </ul>
	<p>Scientific research and capacity building:</p> <ul style="list-style-type: none"> <li>• Activating the role of scientific research to adopt drought and disease resistant varieties.</li> <li>• Training and capacity building for cadres and producers.</li> <li>• Developing a reliable agricultural statistical system.</li> </ul>	<ul style="list-style-type: none"> <li>• Species approved</li> <li>• Number of training programs implemented and number of beneficiaries</li> <li>• Updated statistical system</li> </ul>

Stage	Main components	Key indicators
2: direct Outputs	<ul style="list-style-type: none"> <li>• A more flexible and transparent enabling environment.</li> <li>• Increasing the efficiency of natural resources use.</li> <li>• High level of reliance on technology and good agricultural practices.</li> <li>• Availability of accurate data and statistics to support decision-making.</li> <li>• Increasing access to finance for farmers and small producers.</li> <li>• Improving the quality and safety of agricultural products.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced water losses</li> <li>• Improvement in soil health indicators.</li> <li>• Increased reliance on improved seeds.</li> <li>• Improvement in product quality indicators.</li> <li>• Increase in the number of farmers benefiting from lending programs.</li> </ul>
3: Intermediate outcomes	<p>Increased productivity and efficiency:</p> <ul style="list-style-type: none"> <li>• Increasing the productivity of the unit of land and water.</li> <li>• Reducing production costs.</li> <li>• Reducing wastage and losses in production.</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of change achieved</li> </ul>
	<p>Enhancing value chains and supply chains:</p> <ul style="list-style-type: none"> <li>• Optimizing marketing and trading processes.</li> <li>• Developing agricultural processing based on local production.</li> <li>• Improving profitability and return for producers</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced crop waste.</li> <li>• Increased added value</li> <li>• Self-sufficiency level</li> <li>• Improvement in rural household income.</li> </ul>
	<ul style="list-style-type: none"> <li>• Improving the ability to cope with risks: Increasing the resilience of the sector in the face of climate change and economic challenges.</li> <li>• Improving food security at household and national level</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing the diversity of drought-resistant crops.</li> </ul>
4. Long-term impact	<p>Sustainable food security:</p> <ul style="list-style-type: none"> <li>• Achieving self-sufficiency and production stability of commodities</li> </ul>	<ul style="list-style-type: none"> <li>• Percentage of self-sufficiency in wheat and commodities.</li> </ul>
	<p>Inclusive Economic Development:</p> <ul style="list-style-type: none"> <li>• Greater contribution of the agricultural sector to GDP.</li> <li>• Creating decent and sustainable jobs.</li> <li>• Balanced development between the countryside and the city</li> </ul>	<ul style="list-style-type: none"> <li>• Contribution of the agricultural sector to the GDP</li> </ul>
	<p>Stable and prosperous rural community:</p> <ul style="list-style-type: none"> <li>• Improving rural living standards and incomes.</li> <li>• Reducing rural migration.</li> <li>• Empowering youth and women in agricultural economic activity</li> </ul>	<ul style="list-style-type: none"> <li>• Indicators of human development in rural areas</li> <li>• The rate of migration from the countryside to the city.</li> </ul>
	<p>Sustainable natural resources:</p> <ul style="list-style-type: none"> <li>• Conservation of biodiversity.</li> <li>• Reversing land degradation and ensuring the sustainability of water resources</li> </ul>	<ul style="list-style-type: none"> <li>• Land quality and groundwater reserves</li> <li>• Change in the number of endangered species</li> </ul>

## 4.2 Assumptions and conditions for success

For this theory to work, the following conditions must be met:

- Political and security stability in all agricultural areas.
- Real political will to implement reforms and adopt a participatory approach.
- Effective international cooperation with friendly nations and organizations to provide technical and financial support.
- Relative economic stability, especially in exchange rates and input costs.
- Cultural and societal change that accepts the adoption of modern agricultural technologies and practices.

Risk of change

External risks: economic sanctions, the exacerbation of the effects of climate change (drought, fires), and global instability of supplies prices.

Internal risks: Weak ability to implement policies and reforms due to bureaucratic obstacles, resistance to change by some groups, and continued bleeding of competencies and expertise.

## 4.3 Strategy Principles

It is important to take into account some basic considerations that are basic principles or strategic orientation on which agricultural development, which is an essential part of comprehensive rural development, should be based in the short and medium term. These considerations are mainly:

- Agricultural development should rely on the intensification of current production structures and methods in line with the comparative advantage associated with more efficient production methods and protection of natural resources, and the intensification of agricultural labor.
- Any planning process for the production or use of resources must be accompanied by appropriate incentives to avoid the application of coercion mechanisms.
- Part of the production must be within the framework of the open and export-oriented agricultural sector.
- Agricultural development should be a cornerstone of rural development and an employment strategy for rural labor.
- The private sector should play a vital role in organizing agricultural production, marketing and processing at various stages of the commodity and food chain.
- Redefining the role of the public sector to include correcting market failures, regulating markets, and redistributing, while firmly maintaining the direct supervisory role.

The need to move quickly and cautiously in the processes of modification and transition in the agricultural sector towards a free market economy.

In light of the rapid technological development, it is necessary not to stay behind, to move towards embracing digital and technological development, and the modernization of agriculture.

## Fifth: Implementing Partners

The full coordination and integration of the roles between actors and the implementing partners concerned with achieving the goals and objectives of the strategy is the basis for realizing the vision that the agriculture strategy aspires to. This vision is that the agricultural sector should be an economic sector that contributes to the growth of the national economy and provides sound and sufficient food that meets the demand, and preserves the sustainability of natural resources for future generations. Therefore, the implementing partners should take into account securing the needs of the agricultural sector during the next stage in their annual and medium plans, in addition to estimating their needs from the sector to be observed in the annual plans.

### Implementing Partners

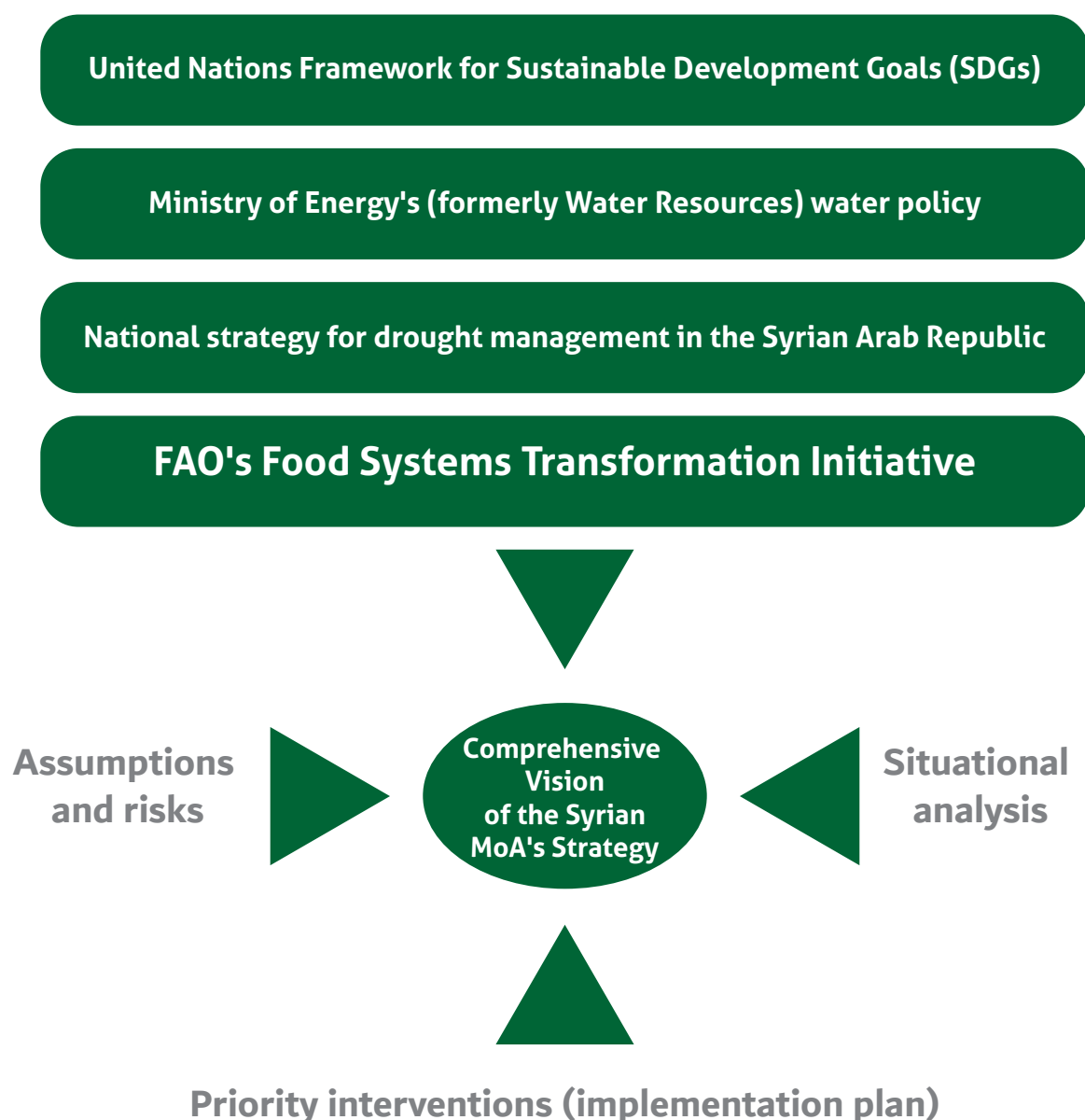
Actor	MISSIONS
Ministry of Finance - Central Bank of Syria	Securing the necessary credits -Securing foreign exchange
Ministry of Emergency and Disaster Management	Contributing to firefighting and demining in cooperation with the National Mine Action Center
Ministry of Economy and Industry	Facilitating Imports - Promoting Exports Promoting agro-industry Providing production inputs (fertilizers - packages - modern irrigation equipment) – commitment to apply the agricultural calendar
MOLAE	Establishing wholesale markets - establishing industrial parks and zones
Ministry of Energy	Providing fuel to implement production plans Providing irrigation water
Ministry of Defense	Contributing to establishing an air unit equipped with aircraft to combat pandemics
General commision for Land and Sea Ports	Managing and organizing work at the border crossings and monitoring goods in cooperation with the MoA and the competent authorities
International Research Centers -Universities	Cooperation with the GCSAR for the restoration of complexes and gene banks and the implementation of scientific agricultural research
International organizations	Aligning programs with national priorities, building capacity and transferring technology, mobilizing resources and supporting governance systems

## Sixth: The Pillars of the strategy - the implementation plan

### 6.1 Strategy Reference Framework

The Syrian agriculture strategy is based on several benchmarks focusing on the dimensions of sustainable development. The directions of the strategy are also inspired by expectations of local and global demand, and a review of previous policies and systems to identify strengths and address gaps.

This strategy is in line with national contexts in relevant sectors (Environmental Strategy, Water Policy, etc.) while striving to apply the best practices and modern global technologies as much as possible, to ensure sustainable and inclusive agricultural development



## 6.2 General Framework

The general framework within which the strategy will be implemented, which the MoA deems necessary, is determined by two basic rules, namely:

- 1 Working and investing on the basis of sustainable agriculture.
- 2 Working and investing on the basis of rationalizing and maintaining water resources.

**The strategy of MoA is based on six main Pillars that represent various aspects of the agricultural sector, namely:**

1. The Pillar of Rural Development
2. The Pillar of Development of plant Production and Improvement of Seeds.
3. The Pillar of Development of Livestock and Animal Health.
4. The Pillar of Sustainable Use of Natural Resources.
5. The Pillar of supporting Services (agricultural extension - agricultural mechanization - agricultural information and statistics system.)
6. The pillar of Climate Change Adaptation

Based on the Theory of Change, the strategy of the MoA has been built on firm foundations and a scientific methodology that addresses each of the previous six main Pillars (noting that the Pillars of supporting Services and Climate Change Adaptation have been taken into account in the first four Pillars and the attached specific programs and projects), so that they include addressing the following points:

1. Objectives: include setting objectives that realize the vision and mission of the MoA.
2. Actions necessary for execution: include projects necessary to realize the objectives.
3. Implementation plan: includes the implementation program of the procedures that includes the required activities, the implementing entities, the required resources, the implementation period, and the KPIs.
4. Monitoring and evaluation plan: includes a central technical group from the MoA that monitors the implementation and evaluation mechanism, through KPIs, and developing periodic reports, at the level of the overall strategy, and at the level of the activities for each Pillar.
5. Risk management: includes a central technical group from the MoA that studies the risks the implementation mechanisms may face, develop the necessary proposals to confront them, and propose alternatives in light of the size and impact of the risk. The risks include sudden climate change, lack of funding, change in the relevant general government policies, security risks, changes in the market of products and prices, poor coordination between the concerned authorities, and other risks that may affect performance and rates of implementation.

### 6.3 Quantitative objectives of the agriculture strategy

While designing an integrated strategy for the development of the agricultural sector that includes the executive plan, we highlight the significance of transferring the directions of the strategy with its specific objectives and translating them into quantitative objectives, as setting quantitative objectives is a cornerstone to ensure the effectiveness of implementation and performance accounting. Transforming general strategic objectives into measurable numerical indicators - increasing productivity by a specific percentage or reducing operating costs by a certain amount - clears the target path, and converts ambition into a concrete action plan. These objectives are also a vital tracking and evaluation system, providing objective benchmarks to periodically measure progress and timely detect deficiencies and success. This enables decision-makers to accurately assess the impact of policies and programs, identify deviations early, and redirect resources efficiently to ensure the achievement of the ambitious vision of the sector, transforming the strategy from a static document into a developmental dynamic capable of adaptation and continuous improvement.

**Table 12: Quantitative Objectives of the Agriculture Strategy**

Objective	Baseline		Target year 2030	Annual growth rate (%)
	Year	Value		
Agriculture contribution to GDP (%)	2022	12.80	%16	2.83
Wheat self-sufficiency ratio (%)	2022	64.9	75.50	1.91
Contribution of agricultural trade to the total foreign trade (%)	2022	44.80	50.0	1.38
Increase the area irrigated by modern irrigation (thousand hectares)	2024	174	196	2
Soil Health Index (Total Organic Carbon) tons per hectare per year	2023	5	20	300
Evolution of forest area (thousand hectares)	2024	586	660	2
Area of pastoral reserves (thousand hectares)	2024	797	898	2
Increase the herd of cattle (thousand heads)	2024	863	1000	2.48
Increase the number of sheep (thousand heads)	2024	17,928	20,000	1.8
Fisheries production volume (thousand tons)	2024	17	150	44

**Note: The baseline has been adopted according to the official data available.**



**Pillar of Plant Production  
and Improved Seeds**

## 6.4 Pillar of Plant Production

The Pillar of Plant Production seeks to respond to future demand driven by several factors, like population increase and increased demand for food commodities. It also aims at transforming food and agricultural systems in line with climate changes and water scarcity, with expectations of a change in the dietary pattern in conjunction with improving income levels and increasing demand for animal products, which necessitates the need to secure fodder products. In light of the limited factors of production, especially water, high population growth rates, and urban expansion, these driving factors necessitate moving towards the priority of producing goods that contribute mainly to achieving food security, especially wheat and legumes, and barley to secure fodder, in addition to directing production to goods with a comparative and competitive advantage to meet the demand of foreign markets.

*Priorities and directions will be achieved through the results according to the following hierarchy:*

# Pillar of Plant Production

**The interim (specific) objective is**

to increase production, improve the productivity and quality of agricultural crops, and enhance their sustainability, thereby boosting supply and competitiveness.



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### Outcomes

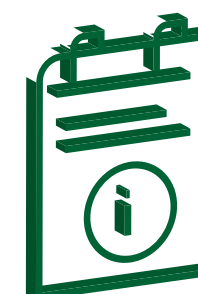
- Cultivation of improved, high-yielding, drought- and disease-resistant varieties, and adoption of climate-smart farming practices.
- Improved water and land resource management efficiency in sustainable agricultural systems and structures.
- Farmers acquiring skills through extension and training programs, equipped with agricultural information systems.
- improved performance of value chains and marketing.
- Development of supporting infrastructure (laboratories, nurseries, cold storage facilities, etc.).



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### Interventions:

- implementing research programs to develop and produce improved varieties resistant to drought, salinity, and diseases.
- Expanding the cultivation of crops with high content of essential nutrients.
- Establishing crop combinations that are compatible with soil productivity, rainfall levels, and irrigation water availability.
- Increasing the efficiency of production factors (land and water) through the application of modern irrigation and good agricultural practices.
- Launching training and extension programs that utilize modern technologies.
- Establishing agricultural information monitoring networks on production, prices, diseases, and climate.
- Launching agricultural development zones based on the cluster project model, in partnership with the private sector, including producers, manufacturers, and exporters.



**Table 13: Action Plan for the Pillar of Plant Production Development**

**The interim goal (target:) increasing production, raising the productivity and quality of agricultural crops, and enhancing their sustainability, in a way that enhances supply and enhances competitiveness.**

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period	
Cultivation of improved high-yielding varieties that are resistant to drought and diseases, and adopting climate-smart agriculture	Implementing research programs to develop and produce improved crop varieties that are resistant to drought, salinity, and diseases.	Development and introduction of high-yielding varieties of the main agricultural and food crops.	GCSAR	International Organizations (ACSAD - ICARDA)	Ongoing	
		Re-study the varietal map of wheat and barley crops		Agricultural Affairs and plant Protection - Agricultural Economics and Planning	1 Year	
	Expanding the cultivation of crops and varieties with high content of essential nutrients.	Carrying out studies to identify crops with high nutritional content, their requirements, and alternative crops.		Agricultural Affairs and Plant Protection	1 Year	
		Introducing selected crops within the annual agricultural plan.		Agricultural Economics and Planning	6 months	
	Developing crop patterns adapted to soil productivity, rainfall levels, and the availability of irrigation water.	Carrying out a study to estimate the productivity of agricultural soils.		GCSAR	International Organizations – Directorate of Lands	2 years
		Identifying the optimal crops in terms of production capacity, and matching them to optimal water needs.			Agricultural Affairs and Plant Protection–Agricultural	6 months

	and the availability of irrigation water.			Agricultural Affairs and Plant Protection– Agricultural Economics and Planning	
		Developing a detailed agricultural plan based on the results of the previous stage.	Agricultural Economics and Planning	Directorates of Agriculture	6 months
	Increasing supply of improved seeds from staple food crops.	Implementation of a work program for the genetic propagation of breeder seeds and nuclei of some varieties of approved and local crops.	General Organization for Seed Multiplication	GCSAR	5 years
		Set up a model station for the production of breeder seeds.	General Organization for Seed Multiplication GOSM	International Organizations	3 years
		Establishing a model station in the GCSAR to produce the foundation seeds for the cotton crop	GCSAR		3 years
		Rehabilitation and establishment of modern sieving centers	General Organization for Seed Multiplication GOSM	International Organizations	2 years
		Developing support programs connected to productivity, adoption of good agricultural practices	Agricultural Production Support	National Agriculture Policy Center	1 Year
		Expansion of the national program for the production of potato seeds.	General Organization for Seed Multiplication	Farmers	2 years
		Providing incentives to encourage the private sector to produce potato seeds in partnership	MOA	Private sector	1 Year
		Adopting applied agricultural research programs	Developing drought- and disease- resistant and high-yielding varieties.	GCSAR	International Organizations - Agricultural Affairs and Plant Protection
	Non-conventional water uses in irrigation and fodder production.				
	Studying water requirements.				

		Expansion of alternative energy.			
		Continuing to explore alternatives to fodder to fill the fodder gap.			
		Finding alternatives to chemical fertilizers to reduce their use and preserve the environment.			
		Expanding research into biological and integrated pest and disease control to reduce the use of pesticides and environmental pollution.			
		Developing the work of research centers, stations and labs (Follow-up with the rehabilitation of damaged stations and the development of existing laboratories and the conversion of some research stations to specialized centers.)			
		Restoration of gene pools and banks - rehabilitation of local varieties of grains and vegetables.			
Increasing the invested area	Reducing the productivity gap between research centers and farmers' fields	Carrying out field studies to identify the gap (causes, methods of addressing, developing implementation plan)	GCSAR	Extension and Rural Development /Directorates of Agriculture	1 Year
		Increasing reliance on information technology in guiding the extension activity and technology transfer.	Agricultural Extension and Education and Rural Development		2 years
Development of supporting infrastructure (labs, nurseries, cooling centers, etc.)		Rehabilitation of damaged irrigation networks and government pumping stations.	Ministry of Energy	International Organizations	5 years
		Rehabilitation of land polluted by explosive ordinance	Ministry of Emergency and Disaster Management	MoA/Relevant International Organizations	2 years

	Expansion of land reclamation projects	Identifying lands that need to be reclaimed.	Land reclamation	Directorates of Agriculture	1 Year
		Developing an annual plan for land reclamation.			6 months
		Provision of reclamation requirements (Heavy engineering machinery - chemical and organic fertilizers, etc.)			5 years
	Establishing monitoring networks for agricultural information on production, prices, diseases, and climate.	Identify the requirements (stakeholders - type of data - geographical coverage and available communication services.)	Communication and implementation support/ informatics	All relevant directorates	2 years
		Choosing the suitable technology - communication infrastructure.			
		Data management & Analysis			
		User interfaces			
	Developing the work of plant nurseries	Rehabilitation of the nurseries affiliated to the MoA.	Agricultural Affairs and Plant Protection	Directorates of Agriculture	3 years
		Stricter control over the work of private-sector nurseries.		Legal Affairs	1 Year
	Establishing a specialized laboratory for residual impact tests and pesticide analysis (construction works + pesticide analysis equipment)	Conducting a feasibility and impact study.	Agricultural Affairs and Plant Protection	International Organizations - Ministry of Emergency and Disaster Management- Agricultural Economics and Planning	6 months
		Establishing the laboratory			2 years
	Developing an early warning system for agricultural pests.	Conducting a feasibility and impact study.			6 months
Establishing an early warning station to detect diseases of all kinds.		2 years			

Improvement in value chain and marketing performance	Improving service infrastructure	Establishing collection centers for production, processing, and warehousing, etc.	Private Sector	Chambers of Agriculture	5 years
	Prioritizing commodities	Analysis and diagnosis of existing chains (wheat, olives, etc.)	National Agriculture Policy Center	Relevant directorates	Ongoing
		Developing implementation steps across value chain loops (input, production, processing, and marketing).			
	Improving and developing post-harvest operations	Developing a guide on pre-processing, sorting and grading on the farm (Sorting and initial grading.)	Rural Development and Extension	Agricultural Economics and Planning/ Stakeholders	1 Year
		Establishing controls for the work of sorting and packaging centers, and quality standards.			
		Deployment and dissemination of prevention and pest control protocols in warehouses (storage and IPM)			
	Developing the marketing process	Establishing marketing associations for producers and developing the internal marketing mechanism in all fields.	Private Sector	Chambers of Agriculture / Ministry of Internal Trade and Consumer Protection	5 years
		External Marketing Optimization (identifying external market requirements, setting a calendar for the times of import/export of agricultural products in quantity and quality.)	Agricultural Economics and Planning	National Agriculture Policy Center/ Chambers of Commerce	Ongoing
	Launching agricultural development zones based on the principle of cluster projects, in partnership with the private sector, including producers, processors, and exporters.	Conducting a study to identify priority areas for intervention.	National Agriculture Policy Center	Directorates of Agriculture	1 Year
		Developing an intervention plan that includes investment areas	Agricultural Economics and Planning	Stakeholders/ Private Sector	6 months

Equip technicians and farmers with skills through extension and training programs, with agricultural information	Launching training and capacity-building programs for technicians and producers.	Training technicians and extension workers on modern agricultural technologies, and the use of technology and artificial intelligence in agriculture.	Rural Development and Extension	Stakeholders	Ongoing
		Training agricultural producers on good agricultural practices, and farm management.			
		Training agricultural producers, especially smallholders, to increase the value added to their agricultural products (processing, marketing, etc.)			

# Pillar of Livestock Production



## 6.5 Pillar of Livestock Production

The diverse environment of the country has enabled the spread of many species and animal breeds, some of which have a competitive comparative advantage, such as Awassi sheep and Shami goats. The livestock sector has suffered significant damage, which has led to a decrease in the number of herds in about %40, and the decline in veterinary services due to the damage to the infrastructure of veterinary and research services centers, in addition to the impact of climate change on the production of fodder crops. Through this Pillar, the implementation plan seeks to improve the reality of livestock by restoring the herd, improving its health status, securing fodder, and building the capacity of technical staff. **These priorities and directions will be achieved according to the following hierarchy:**

# The Pillar of Livestock Production

### The interim (specified) objective:

To provide animal products such as meat, eggs, milk, and dairy products to meet local demand.



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### Outcomes

- Increase in livestock herd size.
- Improved herd health.
- Availability and improved quality of feed.
- Increased fish production.
- Qualified technical staf..



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### Interventions:

- Restoring cattle herds and improving the productivity of local breeds.
- Upgrading insemination centers and veterinary services.
- Developing the quarantine and veterinary monitoring system, and adopting quality control and monitoring systems.
- Expanding fish production projects.
- Providing feed and improving its quality and nutritional value.
- raining technical staff



**Table 14: Implementation plan for the development of livestock production**  
 Interim objective (target): Providing livestock products of meat, eggs, milk and dairy products to meet the needs of the population and food industries.

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period
Increased number of cattle, improved cattle productivity	Restoration of the cattle	Developing a plan in partnership with the concerned authorities to import high-productivity heifers and distributing them to small breeders according to a targeted support program, not a general support scheme.	MoA (Directorates and Stakeholders)	Federation of Chambers of Agriculture - General Union of Farmers	3 years
	Rehabilitation of artificial insemination centers and equipping them with modern and appropriate infrastructure	Establishing a center for the production of semen, semen tanks and providing mobile units for the production of liquid nitrogen.	Directorate of Livestock Health and Production	International Organizations	2 years
	Establishing a center for the production of improved local breeds for distribution to breeders.	Providing improved rams from livestock research stations to produce semen.	GCSAR	Farmers' Union - Rural Development and Extension	5 years
		Distribution of the resulting improved rams to the breeders' networks.	Relevant Directorates		
	Providing the centers with animal studs of high genetic quality.	Importing high quality animal studs.	Directorate of Livestock Health and Production	Directorates of Agriculture	5 years
		Picking herds from the local market.			
	Increasing the number of poultry farming facilities and their production capacities.	Scaling up breeding, especially in poultry farms (licensed or not).	Directorate of Livestock Health and Production	Poultry Breeders' Committees	5 years

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period	
Improving the health status of the herd and improving veterinary services	Increasing the number of poultry farming facilities and their production capacities.		Directorate of Livestock Health and Production		2 years	
	Applying international legislation and standards in examinations and detection of diseases.	Development of labs		International Organizations		3 years
		Securing fund and incentives.				
		Training of staff	Ministry of Finance			
	Establishing a specialized selection laboratory	Visits to a number of internationally accredited laboratories to transfer successful experiences	MoA	International Organizations	Ongoing	
		Addressing donors to provide the support available.		Ministry of Finance		
	Developing the veterinary quarantine system	Updating of existing quarantine facilities and construction of new ones			Legal Affairs	1 Year
		Updating the legislation governing quarantine.			International organizations	
	Rehabilitation of laboratories infrastructure and equipping them with the latest devices	Constructing an integrated building.			Organizations	Ongoing
	Adopting an internal and external quality control system for laboratories.	International organizations to adopt laboratories related to quality systems.		Directorate of Livestock Health and Production	International Organizations	1 Year
	Importing vaccines not produced locally in accordance with the	Building a database				Ongoing
		Ongoing epidemiological surveillance.			International Organizations	5 years
Providing vaccines from countries specialized in this field.				Ongoing		

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period	
	national epidemiological map					
	Production of basic vaccines for cows, sheep, goats and poultry	Developing vaccine industry laboratories and centers through the public or private sector.				
		Rehabilitation of the National Vaccine Production Center and enhancing its efficiency.		6 months		
	Regeneration of existing strains and introducing new ones to the production of a broad spectrum of vaccines	Securing new strains and renewing the available ones.			International Organizations	12 months
	Establishing a laboratory for the production of foot-and-mouth disease vaccine and increasing the production capacity of other vaccine production lines	Conducting a feasibility study, and searching for an implementing partner to establish the laboratory.			International Organizations, Private Sector	3 years
		Mobilizing financial resources and developing implementation contracts.				
	Strengthening partnerships with international research centers and organizations in the field of veterinary vaccine production and development	Internal and external training courses.		MoA	Specialized agencies, international organizations	5 years
		Establish a specialized liaison office.				

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period
Enhancing the availability and quality of fodder	Upgrading the infrastructure of feed mills and establishing dryers for feed materials equipped with modern technologies	Activating oversight in feed mills.	MoA	Private sector	Ongoing
		Providing infrastructure on the ground			
	Exploring safe and locally renewable feed alternatives after conducting the necessary basic laboratory analyses	Conducting extensive research in this field.			
		Technical and logistical support.			
	Expanding the cultivation of alternative fodder crops that are suitable for climate and environmental conditions	Cultivation of land and available areas.	Agricultural Economics and Planning	Directorates of Agriculture	2 years
	Regulating feed imports to ensure their continuous availability in the local market.	Conducting studies on the need and estimating the gap between supply and demand.	MoA	General Authority for Land and Sea Ports	6 months
		Organizing import licenses.		Private Sector (Importers)	
	Supporting research related to the use of agricultural and industrial residues as feed inputs	Scientific and practical research for feed uses.	GCSAR	Faculties of Agriculture	1 Year
Upgrading feed laboratories and equipping them with the required technical and logistical requirements.	Rehabilitation of infrastructure and provision of quality equipment.	Directorate of Livestock Health and Production			

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period
	laboratories and equipping them with the required technical and logistical requirements	Rehabilitation of infrastructure and provision of quality equipment.	Livestock Health and Production	Relevant directorates	1 Year
		Organizing and implementing training courses.			
	Ensuring that feed laboratories have international quality certificates, especially that are related to the performance of laboratories ISO 9001 - ISO 17025	Activating an international liaison committee for laboratories.	MoA	Atomic Energy Commission of Syria -Directorate of International Cooperation	5 years
		Equipping the freshwater fish hatcheries with the tools needed.			
Increasing fish production	Expanding production of freshwater fingerlings (Carp and Tilapia) and support providing the requirements	Equipping the freshwater fish hatcheries with the tools needed.	General Commission for Fisheries and Aquatic Life (GCFAL)		5 years
	Exploring the intensive fish farming in floating cages in appropriate surface dams	Permitting the private sector to establish such farms in coordination with the Ministry of Energy (water resources.)	Private Sector	GCFAL	5 years
		Establishing floating cages in dams by the Commission.	GCFAL		5 years
	Providing the facilities needed for the establishment of earthen fish farms (Licensing, aquafeed, water, etc.)	Facilitate and simplify procedures, with support from the Commission (Such as conducting feasibility studies for free.)	GCFAL	Private sector	1 Year
	Encouraging and supporting the establishment of private aquafeed mills.	Providing subsidies and financial incentives (tax exemptions for a specified period) or and non-financial (licensing facilities)	Ministry of Finance	GCFAL	1 Year

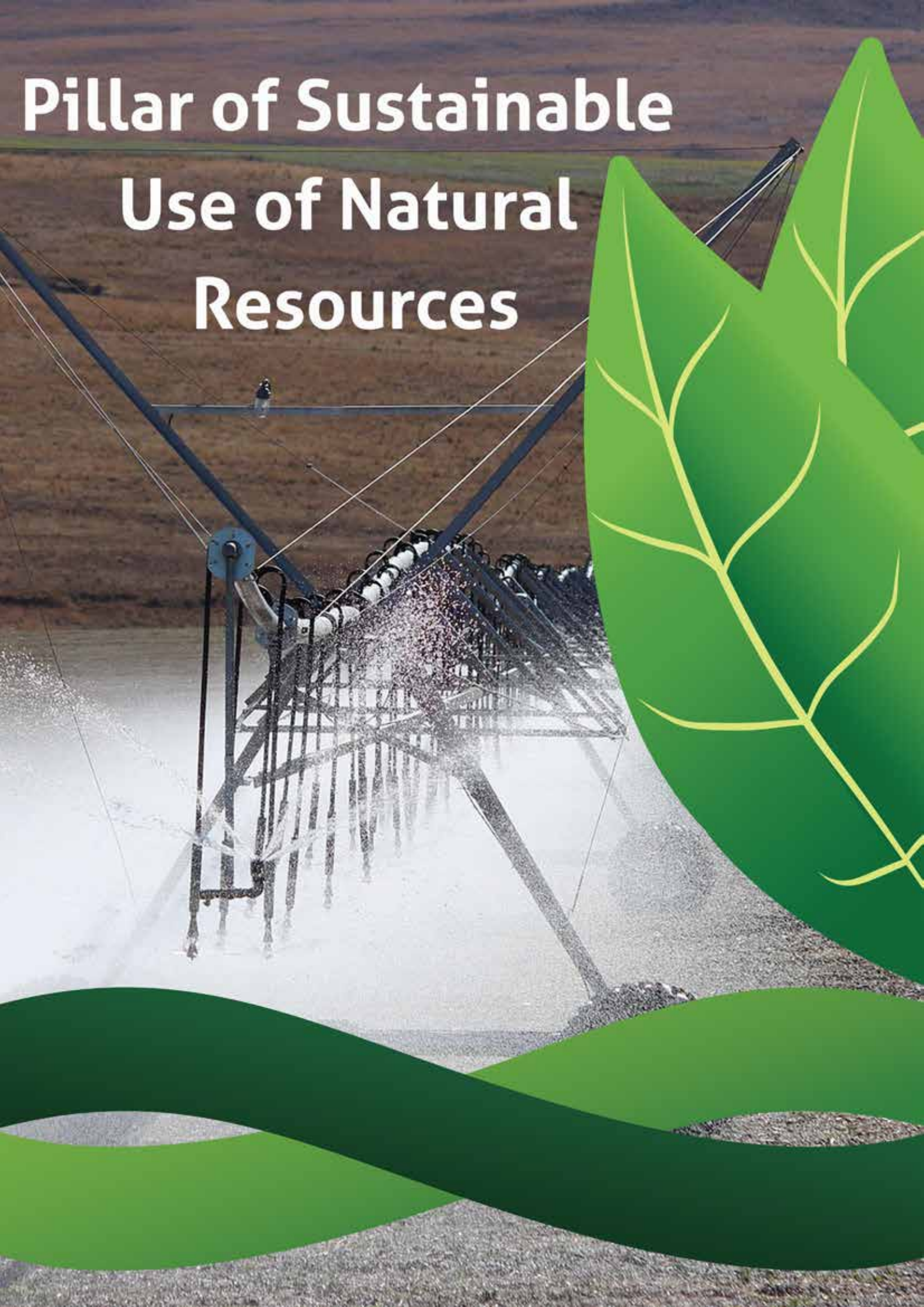
Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period	
	Construction of freshwater fish hatcheries	Conducting studies on the identification of areas eligible for the establishment of these hatcheries depending on the availability of water resources.	GCFAL	Ministry of Energy (Water Resources)	1 Year	
		Mobilizing resources and establishing hatcheries.		Ministry of Finance/ International Organizations	5 years	
	Encouraging the private sector to fish farming in water dams and lakes	Coordinating with the Ministry of Energy (Water Resources) to identify dams and lakes eligible	GCFAL	Ministry of Energy (Water Resources)	1 Year	
		Offering dams and lakes selected for investment.		Private sector	5 years	
	Expansion of family projects of raising fingerlings	Evaluation of the project for the previous phase.	GCFAL	Directorates concerned with agriculture in governorates	6 months	
		Scaling up the project if the experiment is successful.		Rural Development and Extension	Ongoing	
Qualified technical staff	Training technical staff on the latest methods of breeding and genetic management.	Training Courses	MoA	International Organizations	Ongoing	
	Building the capacity of technical staff through continuous training and capacity building	Training Courses	MoA		Accredited international laboratories	Ongoing
		Linking the Ministry's accredited laboratories with international ones.				
	Training technical staff on the latest methods and techniques in	Development of labs	MoA		2 years	
		Securing fund and incentives.				
		Training of staff				

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period
	veterinary vaccine production.				
	Equipping the centers with advanced equipment and motivating staff through monthly incentives and bonuses.	Purchase of equipment.	MoA (Directorate of Administrative Development)		1 Year
		Adopting laws on incentives and bonuses.			
Promotion and Advertising	Holding national exhibitions and participating in international ones to introduce the Syrian product	Participating in local and international exhibitions	MoA	International Cooperation, Agricultural Economics and Planning, Rural Development and Extension	5 years
	Adopting national quality standards that align with regional and international markets.	Forming a quality-control authority.	MoA	Stakeholders	2 years
		Adopting a law regulating quality.			
	Enhancing the trust of local and international consumers in Syrian livestock products.	Holding orientation seminars.	MoA	Relevant directorates	Ongoing
		Participating in international conferences.			
Applying a one-health approach to	Building a joint national database of zoonotic diseases.	MoA	Ministry of Telecommunications	1 year	

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period
	epidemiological risk management in the livestock sector at the national and local levels				
		Developing and qualifying veterinary laboratories and building the capacity of staff.	MoA	International Organizations	3 years
		Implementing joint immunization and animal disease control programs.	MoA	Ministry of Health	Ongoing
		Developing and implementing awareness plans for breeders and those working in the health and environmental fields.	MoA	Ministry of Information - MOLAE	Ongoing
		Developing legislations and policies for data sharing and coordination among sectors	MoA	Ministries and stakeholders	1 year
		Supporting scientific research on the relationship between humans, animals and the environment.	MoA	Ministry of Higher Education	Ongoing
	Implementing the National Program for Statistics and Numbering of Livestock and linking it to a central database at the Ministry	Developing the administrative and technical system and manual.	MoA	Ministry of Administrative Development	1 year
		Establishing a national database that includes all types of livestock.	MoA	Ministry of Communications and Technology	2 years
		Training technical and administrative staff.	MoA	International Organizations	1 year
		Equipping teams with the tools and devices needed.	MoA	International Organizations	6 months
		Implementing census and numbering campaigns in the governorates.	MoA	MOLAE	2 years
		Building the database and linking it centrally.	MoA	Ministry of Telecommunications	1 year

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period
		Updating data and following up on achievement annually.	MoA	Directorates of Agriculture	Ongoing
Development of the pharmaceutical industry and enhancing quality	Developing the institutional and technical framework for the veterinary pharmaceutical industry by modernizing the infrastructure, building the capacity of cadres, and stimulating investment and scientific research	Developing legislations and regulations.	MoA	Ministry of Administrative Development	1 year
		Rehabilitating and updating local laboratories.	Pharmaceutical sector	International Organizations	1 year
		Establishing a national center for veterinary pharmaceutical research and development.	MoA	International Organizations – and Concerned Ministries	6 months
		Building human and technical capacity.	MoA	Ministry of Administrative Development - International Organizations	2 years
		Strengthening partnership with the private sector and foreign investment.	MoA	Private sector companies and laboratories - Ministry of Industry and Trade - Exporters Union	1 year
		Strengthening the national drug control system.	MoA	Standards and Metrology Organization - Ministry of Higher Education and Scientific Research	Ongoing

# Pillar of Sustainable Use of Natural Resources



## 6.6 Pillar of Natural Resources

The development of the agricultural sector is based on a solid foundation of natural resources, which represents a national wealth and a cornerstone in the construction of any strategy.

Comprehensive development, and the importance of these resources, namely water, agricultural lands, forests, and natural pastures, lies in their vital and integrated role in supporting the productive process in all its dimensions, and these resources have, over the past decades, played a pivotal role in achieving self-sufficiency in many food products, supporting Syria's agricultural exports, and providing employment opportunities for large numbers of people in both rural and urban areas. However, the accumulation of pressures and challenges, including the depletion of water resources, soil fertility degradation, urban encroachment on agricultural lands, overgrazing, and illegal deforestation, alongside the impacts of climate change, are all factors that threaten the sustainability of these resources and undermine the agricultural sector's capacity to fulfill its developmental role. Therefore, the Syrian agricultural strategy placed at the heart of its priorities the conservation and sustainable management of these natural resources. Agricultural development is not merely an increase in production; rather, it is a process of prudent resource management that ensures their preservation and renewal for future generations. Achieving this balance between the pressing demands of agricultural development and the necessity of environmental preservation is the greatest challenge. At the same time, it is the sole foundation for ensuring stable food security, a resilient agricultural economy, and a thriving rural sector that contributes to the reconstruction of Syria and the building of its future.

### Natural Resources Pillar

The Specific Interim Objective	Optimal utilization of natural agricultural resources, enhancement of their productivity, preservation of ecological balance, and rehabilitation of ecosystems
Outputs	<ul style="list-style-type: none"> <li>• Sustainability of water resources</li> <li>• Efficiency in water use</li> <li>• Efficiency in rainwater use</li> <li>• Efficiency in the use of land resources</li> <li>• Sustainability of forest resources</li> <li>• Integrated management of rangeland resources</li> </ul>
Interventions	<ul style="list-style-type: none"> <li>• Enhancing the efficiency of government irrigation networks, rationalizing water use, and reducing water pollution.</li> <li>• Expanding modern irrigation projects and rainwater harvesting.</li> <li>• Improving the fertility of agricultural soils and treating saline soils.</li> <li>• Improving forest management and rehabilitating degraded forests.</li> <li>• Rehabilitating vegetation cover in the Syrian rangelands and combating desertification</li> </ul>

## 6.7 The Implementation Plan for Natural Resources

Table 15: The Implementation Plan for Water Resources

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion		
Sustainability of water resources	Improving the efficiency of government irrigation networks	Rehabilitation of irrigation networks.	Water Resources commission	Directorates of Agriculture; Organizations	5 years		
	Rationalization of water uses	Forming water user associations.		GCSAR, Organizations	3 years		
		Water Extension.		GCSAR	2 Year		
		Amendment of the Water Legislation Act.		Stakeholders	1 Year		
	Reducing pollution of water sources	Rehabilitation of Wastewater Treatment Plants.		Local administration; organizations	5 years		
		Enhancing treatment efficiency and improving the quality of these waters.		Local administration; organizations	3 years		
		Starting the implementation of the national plan for spatial stations.		Local administration; organizations	5 years		
		Expanding scientific research and building capacities.		GCSAR	Water Resources Authority	3 years	
	Improving water use efficiency	Expanding the modern irrigation project		Restructuring the project for the transition to modern irrigation systems.	Agricultural Production Support	Agricultural Production Support	6 months
		Expansion of improved surface irrigation		Expansion of laser leveling projects.		Agricultural Production Support	Agricultural Production Support
Expanding the implementation of terrace farming techniques.							
Development of aquatic scientific research		Irrigation Modeling.	GCSAR	Water Resources commission, Directorates of Agriculture.	1 Year		
		Implementing the water requirements of crops.			3 months		
		Supporting aquatic scientific research programs.			2 Years		
		Capacity Building			Concerned Directorates	2 Years	

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
Improving the efficiency of rainwater use.	Expanding rainwater harvesting	Water harvesting projects at the level of water dams.	Water Resources Authority	MoA - International Organizations	5 years
		Field-level water harvesting projects.	GCSAR	Water Resources Authority, Organizations	2 Years
		Rooftop water harvesting projects.	GCSAR	Water Resources Authority, Organizations	1 Year
		Scientific Research	GCSAR	Water Resources Authority	3 years
		Capacity building.	GCSAR	International Organizations	2 Year
Improving the efficiency of land resource use.	Completing Soil Classification Map	Developing soil classification maps and thematic maps.	GCSAR	Directorate of Lands	5 years
		Productive capacity.	GCSAR	Directorate of Lands	3 years
	Completing the land use map	Developing a land use map for all Syrian governorates.	Directorate of Lands	GCSAR.	2 Years
		Correcting the balance of land use.	GCSAR	GCSAR.	1 Year
		Establishing a Soil Information Center.	GCSAR	organizations	6 months
	Treatment of soil affected by salinity in Deir ez-Zor	Rehabilitation of vertical and horizontal agricultural banks.	Water Resources Authority	Directorates of Agriculture; Organizations	2 Years
		Cultivation of salt-tolerant crops.	GCSAR	Directorate of Lands	1 Year
	Conservation agriculture	Update soil sequestered carbon map.	GCSAR	Directorate of Lands	6 months

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
Sustainability of forest resources	Forest Management	Issuing new legislation for the protection and management of forests and their associated risks.	Forestry	Stakeholders	1 Year
		Rehabilitating forest nurseries and increasing the production of environmentally adapted forest seedlings.	Forestry	Directorates of Agriculture; Organizations	Ongoing
		Early warning.	Directorate of Agricultural Production Support.	Ministry of Emergency and Disaster Management	1 Year
		Establishing a national gene bank to preserve genetic material.	GCSAR	Forestry	6 months
		Establishing nurseries for endangered species	GCSAR	Forestry	6 months
		Building an integrated forestry database.	GCSAR	Forestry	6 months
		Development and rehabilitation of forest reserves.	Forestry	Local administration and environment, organizations	2 Years
	Rehabilitation of degraded, burned and abused forests	Determining the intensity of the fire to study the impact on the soil and seeds.	Forestry	GCSAR	6 months
		Monitoring natural regeneration.	GCSAR.	Forestry	2 Years
		Determining the areas to be cultivated and their places.	Forestry	Directorates of agriculture	6 months
		Participatory management with the local community.	Forestry	Directorates of agriculture	2 Years
	Forestry scientific research	Expanding scientific research related to forests and forest sciences.	GCSAR	Forestry	3 years
		Building the capacity of technicians.	GCSAR	Forestry	2 Years

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion	
Grazing Load Optimization	Rehabilitating the vegetation cover in the Syrian Badia.	Preparing a map of vegetation degradation and grazing load in AL- Badia to formulate appropriate strategic plans for intervention	General Authority for Management, Protection and Development of Badia	GCSAR, Directorate of Lands, Directorates of Agriculture, Directorate of Agricultural Economics and Planning	1 Year	
		Introducing new and limited areas in the safest regions for reforestation and rehabilitation in a manner that ensures the actual protection of it.			2 Years	
		Establishing and cultivating private pastoral reserves for breeders in the fourth settlement/agro-ecological zone in the lands in coordination with agricultural scientific research and the Directorate of State Property.			2 Years	
		Establishing pastoral fields with limited areas around wells, especially in areas where breeders are present and forming green outposts and oases in different areas of the desert.			2 Years	
		Establishing palm, forest, and fruit tree oases with suitable species around the wells.			Years	
		Reactivating the area allocated to each association to regulate grazing loads according to the designated area. The association and the number of sheep , and reactivating the fodder trading fund.			1 Year	
		Rehabilitation of ecological reserves and oases with the aim of stimulating ecotourism.			2 Years	
	Expanding grazing nurseries.	Establishing Grazing temporary emergency nurseries near intervention and work areas to produce the seedlings needed for reforestation of cultivation of reserves in order to save effort and transportation expenses.		Concerned Directorates	1Year	
		Maintaining the current productive capacity of the nurseries and their output (one million seedlings) while ensuring readiness and preparedness to increase the nurseries' productivity if necessary and with the expansion of cultivated areas			6 months	
		Converting nursery wells to operate on alternative energy.			International Organizations	1Year
		Providing grazing nurseries with trained and qualified technical staff to ensure smooth operations, accompanied by continuous monitoring. of the production process.			Management development	1Year
	Establishing mother fields	Allocating the necessary space and cultivating or rehabilitating it as a grove of seed mothers		GCSAR	1Year	
		Securing a nearby water source.				

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
Improvement of vegetation cover, halting desertification encroachment, and enhancing health, service, and economic conditions.	Reducing Desertification and Degradation of Vegetation	Providing necessary alternatives for heating and cooking.	General Authority for Management, Protection and Development of Badia	Extension and Rural Development	6 months
		Raising awareness and enhancing the cultural level of the local community to achieve proper management of pastures.			1 Year
		Stabilizing sand dunes using mechanical and biological means to prevent land of degradation, dune formation, and associated risks desertification		GCSAR. ACSAD	1 Year
		Preventing cultivation in the desert.		Stakeholders	2 Year
		Improvement of vegetation condition.			1 Year
		Reducing random roads.			1 Year
	Improving the level of education and health	Activating boarding schools and establishing other schools to educate the children of the Badia		Ministry of Education	5 years
		Establishing mobile schools.		Extension and Rural Development International Organizations	1 Year
		Developing an intensive educational program for the children of the Badia due to the suspension of regular schooling.			1 Year
		Literacy courses for adult education.			Ongoing
		Holding field and extension days.			Ongoing
		Establishing comprehensive awareness centers.			2 Years
		Establishing centers for training in traditional and food industries, as well as health and environmental awareness.			2 Years

Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion		
		Developing an investment map at the branch level.		Agricultural Economics and Planning	3 months		
		Attracting the private sector and donors for investment.			6 months		
	Directing investments in Badia and manufacturing in accordance with the conditions of each area	Accurate counting of livestock in the desert.		Organizations, animal health, livestock production, Extension and Rural Development	6 months		
		Providing veterinary services through technical cadres.			Ongoing		
		Livestock conservation.			1Year		
		Establishing veterinary centers and mobile veterinary units.			6 months		
		Providing guidance and awareness.			6 months		
	Establishing mobile veterinary units equipped with all veterinary equipment to provide veterinary services for livestock in Badia	Identifying projects (resources, plant-based, animal-based, energy production, crafts).		Rural Extension and Development, Organizations	5 months		
		Qualification and training.			6 months		
		Making grants.			3 months		
	Improvement in infrastructure and qualified cadres	Supporting projects and developing the capacities of women in the Badia		Maintenance of roads within reserves.	General Authority for Management, Protection and Development of Badia	Stakeholders	1Year
				Improving water, electricity and telecommunications networks.			6 months
				Using water harvesting techniques.			2 Year
Providing service centers.			1Year				
Infrastructure development in reserves		Preparing vocational training programs.	Organizations, Rural Development and Extension	4month			
		Organizing workshops		5 months			
		Skills assessment before and after training.		3 months			
Building training and qualification programs for human cadres		Preparing a map of population settlements in the Badia.	Concerned Directorate	6 months			
		Determining the population of each cluster.		1Year			
		Identifying the main sources of income in the community.		6 months			
		Identifying the services available in each settlement.		6 months			
		Providing the use of tools powered by alternative energy sources for household use.		6 months			

A glass jar filled with a dark red liquid and small red particles, possibly a natural product or extract. The jar is sealed with a piece of brown paper. A large green leaf graphic is overlaid on the right side of the image. At the bottom, there are two overlapping green wavy shapes. The text "Pillar of Rural Development" is written in white, bold font across the middle of the jar.

**Pillar of Rural  
Development**

## 6.8 Pillar of Rural Development:

Balanced and sustainable rural development represents a fundamental pillar in the formulation of an integrated agricultural strategy in Syria, given the vital role that rural areas play in enhancing food security and improving the living standards of the population. This development contributes to diversifying sources of income, preserving natural environmental resources, and reducing economic and social disparities between rural and urban areas. Sustainable rural development also supports the continuity of agricultural activity by implementing farming practices that preserve soil fertility and reduce resource depletion, which positively impacts long-term agricultural productivity and efficiency. As an agricultural country like Syria, agricultural development constitutes a fundamental pillar of rural development, which is cross-sectoral and achieved through the contribution of multiple sectors through developing infrastructure and stimulating economic aspects to combat rural poverty, as it aims not only to increase production but also to build rural communities capable of resilience, based on the principles of efficiency, equity, and sustainability.

### Pillar of Rural Development

<b>Overall Goal / Vision</b>	Promoting integrated economic and social development in rural areas to ensure an improved quality of life, eradicate poverty, and enhance the sustainability of natural resources, achieving sustainable and balanced agricultural development that contributes to increasing agricultural sector productivity and ensuring food security.
<b>Interim Objectives</b>	<ul style="list-style-type: none"><li>• Improving the living standards and knowledge of rural communities.</li><li>• Creating employment opportunities through the utilization of local resources.</li><li>• Stimulating manufacturing and developing agricultural marketing methods.</li></ul>
<b>Interventions</b>	<ul style="list-style-type: none"><li>• Directing investments toward agriculture and agro-industrial activities in accordance with the conditions of each region.</li><li>• Supporting small projects based on a circular economy model, with a focus on developing the capacities of rural women and enhancing their contribution to the production process.</li><li>• Adopting specialized agricultural cooperatives for production and marketing.</li><li>• Developing programs to train and qualify human resources working in rural areas in collaboration with the Ministry of Social Affairs and Labor, the Ministry of Education (Vocational Training), and international organizations.</li><li>• Developing rural infrastructure in collaboration with the Ministry of Public Works, the Ministry of Energy, the Ministry of Communications, and the Local Administration and Environment.</li></ul>

Interim Objective	Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
Revitalizing and improving the livelihoods of rural populations, increasing the productive capacity of producers, and enhancing the efficiency and competitiveness of agricultural and food production chains.	Providing employment opportunities by expanding the scope of investment according to available resources and the nature of and the conditions of each area	Directing investments toward agriculture and agro-industrial processing in accordance with the conditions of each area, with the aim of creating added value for agricultural products	Developing an investment map at the governorate level.	Agricultural Economics and Planning	All directorates	6 months
			Attracting the private sector and financiers of investment by adjusting The Investment Law and the provision of material incentives in relation to the agricultural sector.		Investment Authority	1Year
		Moving towards small projects based on circular economy	Developing the necessary studies for projects based on the principle of circular economy according to the pillar: agriculture and natural resources, livestock, food industries, energy and environment, and crafts and handicrafts		Stakeholders	1Year
	Promoting agro-industrial processing and developing agricultural marketing methods.	Adopting a system of specialized agricultural production and marketing cooperatives	Village Selection, Beneficiary Selection, Venue Preparation, Equipment Preparation, Training, Licensing	Rural Development and Extension	To all stakeholders	5 years
			Launching a mentorship program.			
			Establishing cooperatives.			
			Management and marketing training.			
			Linking cooperatives to markets.			
			Creating marketing outlets for rural products at the regional and governorate levels, establishing export villages in selected areas, and directly connecting farmers to them.			
			Choosing a region or province.			
Preparing the place and providing it with the necessary equipment.						

Interim Objective	Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
			Organizing and launching training programs.			
		Improving the quality of rural food products, thereby contributing to increasing their market opportunities.	Studying the current situation of the products and determining the need.			
			Defining the standard specifications for rural products.			
			Development of Good Manufacturing Practices Manual for Rural Products.			
			Developing a unified manufacturing manual for rural products.			
			Developing the necessary programs and activities.			
The rural community, especially vulnerable groups, is capable, qualified, and actively participating in the productive and developmental process with high effectiveness.	Activating the role of vulnerable groups from the rural community.	Building programs to train and qualify human cadres working in the countryside in cooperation with the Ministry of Social Affairs and Labor, the Ministry of Education (Vocational Training), and international organizations, with a focus on developing the capacities of rural women and their contribution to the production process	Preparing vocational training programs.			
			Workshops			
			Skills assessment before and after training.			
		Targeting developmental villages by adopting the principle of integrated local development based on participation and local initiatives, in cooperation with all relevant stakeholders, according to the development plan for each village	Formation and training of the Local Development Committee.			
			Studying the social and economic reality of the village.			
			Studying the reality of families in the village.			
			Identifying needs and programs.			
			Developing a development plan.			

## 6.9 Supporting Services Pillar:

Interim Objective	Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
Improving farmer behavior so that they can easily access information and independently implement the best agricultural practices and operations	Empowering the agricultural extension system to effectively transfer knowledge and modern farming practices to farmers through qualified personnel and Institutional infrastructure. and training program	Capacity Building and Staff Development	Training a national technical and guidance team to train the employees of extension units.	Extension and Rural Development	GCSAR Specialized Directorates; Organizations	1Year
			Training of workers in the extension units by the national team according to an action plan that corresponds to the technical needs and the prevailing agricultural activity	Extension and Rural Development	GCSAR Specialized Directorates; Organizations	Ongoing
		Activating the operation of the Training Center for Agricultural Extension and Sciences	Accurately describing the profession of the agricultural guide - developing the structure legal for the work of the training center.	Extension and Rural Development	Legal	3 months
			Developing a program to qualify agricultural extension officers technically and in advisory skills, providing training for new staff before they undertake extension work, and establishing a specialized training program for experienced personnel.	Extension and Rural Development	GCSAR Specialized Directorates; Organizations	Ongoing
	Qualified farmers who are able to use modern technologies	Infrastructure and Institutional Development	Rehabilitating damaged extension units and reconstructing destroyed units according to a building model approved by the Directorate of Extension, following a priority-based plan distributed over time	MAAR	Organizations	5 years
		Establishing platforms for knowledge exchange between producing farmers	Continuously training farmers on the use of modern communication tools and leveraging their advantages to address problems in a timely manner, while conveying agricultural research results to farmers in ways that meet their needs	Extension and Rural Development - Technology and Connectivity	GCSAR Specialized Directorates; Organizations	Ongoing
		and research and extension centers, and farmer building capacities	Conducting courses on the use of modern means of communication, - Farmers' field schools and other appropriate extension methods as the case may be.	Extension and Rural Development - Technology and Connectivity	GCSAR Specialized Directorates; Organizations	Ongoing

Interim Objective	Expected Outcome	Main activity	Sub-activity	Implemented by	Implementing Partners	Period of Completion
Supporting agricultural and veterinary companies, food industries and public sector entities with quality labor according to the skills required for their work	Developing the work of the vocational training centers affiliated with the MAAR to provide specialized, high-quality training according to the needs of the agricultural labor market.	Defining the professions of agricultural and veterinary inspectors and agricultural machinery technicians, and issuing legal legislation that accurately describes them	Forming a legal, financial, and administrative committee tasked with issuing legal legislation and a financial system to regulate the operation of the centers and allow their use for conducting graduate-level research and providing training for students of educational institutions according to needs and specializations	Rural Development and Extension	Legal Affairs	1Year
		Determining jobs to be filled by observers	Studying the agricultural labor market needs and holding meetings and workshops to discuss the demand for specialized agricultural labor and the skills required for these positions.	Rural Development and Extension	Ministry of Social Affairs and Labor - Organizations	6 months
			Training specialized labor for private and public sector entities - Preparing specialized training programs and qualifying trained cadres to secure the needs of implementing the goal - Linking obtaining a loan or financing to a small or medium project by following a specialized training course on the subject of the project within one of the approved technical centers	Rural Development and Extension	GCSAR Specialized Directorates; Organizations	Ongoing

# Seventh: Monitoring and Evaluation System

## 7.1 Monitoring System Mechanism:

An effective monitoring and evaluation system is not merely a supervisory tool; rather, it is a system of continuous learning and adaptation that transforms the strategy from a rigid plan into a dynamic, flexible process and capable of addressing challenges and seizing opportunities, ultimately ensuring the achievement of the resilient and sustainable agricultural development envisioned by the strategy. To measure progress and ensure accountability, the monitoring system focuses on tracking outcomes rather than just activities, thereby guaranteeing continuous learning, adaptation, and periodic review of the strategy's programs, projects, and activities.

In pursuit of the objectives of the monitoring and evaluation system, its design was based on the theory of change adopted by the strategy (vision–mission–goals–programs and the implementation plan) and the development of SMART key performance indicators (KPIs) defined at all levels of the hierarchical structure of the theory of change components (indicators: activities, outcomes, outputs). Through monitoring reports and feedback, the implementation path of the strategy's execution plan is followed, and necessary adjustments are made if required.

The follow-up system will be designed according to the following steps:

- Building the indicator matrix (according to the following tables.)
- Building a database that includes the components of the implementation plan (main and sub-activities, and the timeline).
- Defining the timeline for the implementation of each activity, with achievement rates distributed quarterly (every three months).
- Follow up the implementation of activities using MS project, and submit periodic reports.
- Appointing liaison officers in the concerned authorities to submit monthly reports on progress and implementation rates.
- Appointing a head of the members of the liaison to prepare a quarterly report and submit it to the assistants, and then submit it duly to the Minister.

The Directorate of Agricultural Economy and Planning will be responsible for monitoring the monthly reports submitted by the relevant directorates, according to the following monitoring and evaluation templates, and preparing a quarterly report of cumulative achievements and activity implementation, meaning the monitoring (tracking) of data collection on pre-defined indicators to assess the execution of the strategy's implementation plans (or specific programs and projects) according to the activity schedule and expenditures distributed by budget, as well as tracking work progress and the level of activity completion. Meanwhile, the National Agriculture Policy Center will evaluate outcomes and outputs through a mid-term review of the agricultural strategy's implementation (Mid-Term Evaluation, 2028), determining progress toward achieving the strategy's objectives and assessing the level of efficiency and effectiveness.

## 7.2 Measurement and Monitoring Indicators:

### 7.2.1 Plant Production Pillar:

Main activity	Implemented by	Performance Indicators
Implementing research programs to develop and produce improved crop varieties that are resistant to drought, salinity, and diseases	GCSAR	Number of cultivars
		Completed types Map
		Report (Study)
Expanding the cultivation of crops and varieties with high content of essential nutrients	Agricultural Economics and Planning	Seasonal plan
Developing crop patterns adapted to soil productivity, rainfall levels, and the availability of irrigation water.	GCSAR	Report (Study)
	Agricultural Economics and Planning	Report (Study)
		Seasonal plan
Increasing supply of improved seeds from major food crops	General Organization for Seed Multiplication	Number of genetically developed varieties
	General Organization for Seed Multiplication	Established Station
	GCSAR	Established Station
	General Organization for Seed Multiplication	Number of Eligible Positions
	Supporting agricultural production.	Report (Program)
	General organization for Seed multiplication	Quantity of seeds produced
	MoA	Number of projects / quantity of production
Adoption of applied agricultural research programs	GCSAR	Number of cultivars
		Number of Qualified Centers and Stations
		Number of restored genetics banks/eligible local varieties
Reducing the productivity gap between research centers and farmers' fields	GCSAR	Report
	Extension and Rural Development	Number of Established programs
Rehabilitation of irrigated lands and increasing its area	Ministry of Energy	Percentage increase in area/ number of irrigated hectares
	Ministry of Emergency and Disaster Management (Demining)	Eligible Area (Hectares)

Main activity	Implemented by	Performance Indicators
Expansion of land reclamation projects	Directorate of Land Reclamation	Report (Plan)
		Reclaimed area
Establishing monitoring networks of agricultural information on (production, prices, diseases, climate.)	Communication and Executive Support/ Informatics	established Platform
Developing the work of plant nurseries	Agricultural Affairs	Number of qualified nurseries
Establishment of a specialized laboratory for residual impact tests and pesticide analysis (construction works, analysis equipment, pesticides)	Agricultural Affairs	report (Feasibility study)
		established Informant
Developing an early warning system for agricultural pests.		report (Feasibility study)
		established Station
Improving service infrastructure	Private Sector	Number of established centers
Identifying Priority Commodities	National Agricultural Policy Center NAPC	Number of studies
Improving and develop post-harvest operations	Extension and Rural Development	Handbook
		A guide for the operation of packing centers and quality standards
		Circulars
Developing the marketing process	Private Sector	Number of established associations Reports
Launching agricultural development zones that adopt the principle of cluster projects, as partnerships with the private sector of producers, manufacturers and exporters	National Agricultural Policy Center NAPC	Report
	Agricultural Economics and Planning	Intervention Plan
Launching training programs to qualify technicians and producers	Extension and Rural Development	Training program/ number of trainees

## 7.2.2 Animal Production Pillar:

Main activity	Implemented by	Key Performance Indicators (KPIs):
Restoration of the herd of cows	MoA (Directorates and Stakeholders)	Completed Plan
Rehabilitation and equipping of artificial insemination centers with modern and appropriate infrastructure	Directorate of Health and Animal Production	Established modules:
Establishment of a center for the production of improved local breeds in order to distribute them to breeders	GCSAR and the competent directorates	Number of Rams distributed annually
Providing centers with animal fluent of high genetic quality	Directorate of Health and Animal Production	Imported quantity, head count
Increasing the number of poultry breeding facilities and their production capacities	Health and animal production and its branches in the governorates	Number of licensed poultry houses
Applying international legislation and standards in examinations and detection of diseases	MoA	Number of upgraded laboratories, percentage of refurbishment, Number of trained staff
Establishing a specialized selective laboratory	MoA	Upgraded Labs/Annual Completion Percentage
Developing the veterinary quarantine system	Directorate of Health and Animal Production	Number of Qualified Quarries
Rehabilitation of laboratory infrastructure and equipping it with the latest devices		Updated decisions and instructions
Adopting an internal and external quality control system for laboratories.		Lack of qualified staff
Importation of vaccines not produced locally in accordance with the national epidemiological map		Degrees Awarded
Production of basic vaccines for cows, sheep, goats and poultry		Number of imported vaccines
Regeneration of strains and introduction of new strains to produce a broad spectrum of vaccines		Number of epidemics treated
Establishing a laboratory for the production of foot-and-mouth disease vaccine		Number of vaccines manufactured
		Number of vaccines produced
		Number of strains processed
Strengthening partnerships with research centers and international bodies in the field of veterinary vaccine production and development		MoA
	Quality Appraisal	
Modernization of feed plant infrastructure and establishment of feed dryers equipped with modern technologies	MoA, Specialized Agencies	Obtaining dependency
	Private sector	High Feed Quality Indicators Number of dryers available

Main activity	Implemented by	Key Performance Indicators (KPIs):
Searching for safe and locally renewable feed alternatives after conducting basic laboratory analyses.	MoA	Acquire new feed substitutes
Expanding the cultivation of alternative fodder crops suitable for climatic and environmental conditions	MoA	Evolution of fodder areas/ or percentage increase in quantities
Regulating the import of fodder to ensure its continued availability in the local market	MoA	Number of studies, number of import licenses, quantity of imported fodder
Supporting research on the use of agricultural and industrial residues as feed inputs	General Authority for Land and Maritime Ports, Private Sector (Importers)	Number of Researches
Developing fodder laboratories and providing them with technical and logistical requirements	Health and Animal Production	Sophisticated and equipped laboratory
Ensuring that fodder laboratories obtain international quality certificates, especially related to the performance of laboratory work ISO,9001 ,ISO 17025	MoA /International Cooperation/ Atomic Energy Commission	Number of certifications
Expanding the production of freshwater fish fingerlings (carp and comb) in a major way and supporting and securing the requirements	General Authority for Fisheries and Aquaculture	Number of fingerlings produced
Orientation towards intensive fish farming in floating cages in suitable surface dams and the sea	Private Sector	Number of cage projects implemented
	General Authority for Fisheries and Aquaculture	Number of cages erected
Providing the necessary facilities for the establishment of dirt fish farms (licensing, fodder, and water)	General Authority for Fisheries and Aquaculture	Legislation and facilities issued
Encouraging and supporting the establishment of special fish feed laboratories	Ministry of Finance	Legislation and facilities issued
Construction of freshwater fish hatcheries	General Authority for Fisheries and Aquaculture	Number of hatcheries established
Encouraging the private sector to fish farming in water dams and lakes	General Authority for Fisheries and Aquaculture	Number of implemented Projects
Expansion of family projects for fingerlings breeding	General Authority for Fisheries and Aquaculture	Number of Projects Completed
Training technical staff on the latest methods of vaccination and genetic management	MoA	Number of trainees
Building the capacity of technical staff through continuous training and qualification	MoA	Number of Analysts
	Accredited international laboratories	Number of technicians
Training technical staff on the latest methods and techniques in the field of veterinary vaccine manufacturing	MoA	Number of trainees
Providing centers with advanced equipment and motivating employees with the principle of monthly incentives and bonuses	MoA (Investment Plans, Administrative Development)	Number or value of equipment, incentive system

Main activity	Implemented by	Key Performance Indicators (KPIs):
Holding national exhibitions and participating in international exhibitions in order to introduce the Syrian product	MoA	Participation in Annual Exhibitions.
Adopting national quality standards that are compatible with regional and international markets	MoA	Regulating Quality Decision
Enhancing local and international consumer confidence in the Syrian animal product	MoA	Number of seminars
Applying a One Health Approach to Epidemiological Risk Management in the Livestock Sector at the National and Local Levels		MoA
	MoA	Existence of a database Number of upgraded laboratories - number of trained cadres, percentage of vaccinated animals, number of implemented awareness plans
	MoA	Existence of legally legislated inter-sectoral coordination
	MoA	Number of completed researches
Implementation of the National Program for Statistics and Numbering of Livestock and linking it to a central database at the Ministry	MoA	The existence of system and work guide
	MoA	Courses conducted
	MoA	Personnel Readiness Reporting
	MoA	Number of numbered animals in each governorate
	MoA	Database Presence
	MoA	Annual achievement report in each governorate
	MoA	Annual achievement report in each governorate
Developing the institutional and technical framework for the veterinary pharmaceutical industry by modernizing the infrastructure, raising the efficiency of cadres, and stimulating investment and scientific research	MoA	The existence of the governing legislation, the number of qualified laboratories, the number of qualified cadres, Number of agreements and partnerships signed and implemented, and the existence of a sophisticated control system

### 7.2.3 Natural Resources Pillar

Main activity	Implemented by	Performance Indicators
Improving the efficiency of government irrigation networks	Water Resources Authority	Percentage improvement in efficiency
Rationalization of water uses		Percentage of saving in the amount of water
Reducing pollution of water sources		Percentage of reduction of heavy metals and pollutants
Expanding the modern irrigation project.	Water Resources Authority	Percentage of increase in the area irrigated by modern irrigation methods
Upgraded Surface Irrigation Expansion	GCSAR	Number of researches carried out
Development of aquatic scientific research	GCSAR	Number of water dams
Rainwater Harvesting	Water Resources Authority	Number of maps completed
Complete Soil Classification Map	GCSAR, Lands Directorate	Reclaimed land area (hectares)
Treatment of soil affected by salinity in Deir ez-Zor	Water Resources Authority, GCSAR	Land area in conservation agriculture
Conservation agriculture	GCSAR.	Improvement in forest area, percentage of fire reduction, Percentage increase in biodiversity
Improved forest management	Forestry directorate, GCSAR	Eligible Forest Area
Rehabilitation of degraded, burned and abused forests	Agricultural Research Authority.	Number of applied researches carried out
Forestry scientific research	Badia	Increase in vegetation area (hectares)
Rehabilitating the vegetation cover in the Syrian Badia.	Badia	Number of qualified and upgraded nurseries
Pastoral nurseries	Badia	Number of Mother Fields Upgraded
Establishing mother fields		

Main activity	Implemented by	Performance Indicators
Reducing Desertification and degradation of vegetation	Badia	Percentage of decrease in desertification rate
Improving the level of education and health	Badia	Percentage of decrease in illiteracy rate, percentage of improvement in the indicator of Children <5 years of age
Directing investments in the Badia and industrialization to suit the conditions of each region	Badia	Number of projects
	Badia	
Mobile veterinary units equipped with all veterinary equipment to provide veterinary services for livestock in Badia	Badia	Number of updated veterinary units
Providing veterinary, therapeutic, preventive and health care services	Badia	Percentage increase in preventive and therapeutic treatments
Supporting projects and developing the capacities of women in Badia	Badia	Number of projects/ number of women enrolled in training courses
Building training and qualification programs for human cadres	Badia	Number of qualified service personnel.
Infrastructure development in reserves	Badia	Length of roads implemented (km), number of updated service centers
Establishing a database of communities	Badia	Completed database

## Eighth: Risk Management

The process of identifying potential risks during the formulation of the strategy is important to ensure the implementation of the strategy's programs and plans, as well as to ensure the realism of implementation because knowing the challenges in advance helps to set achievable goals, improve the efficiency of the use of resources by anticipating obstacles and allocating resources to overcome them, and enhance institutional flexibility: institutions become able to adapt quickly to sudden changes, and maintain the confidence of partners and financiers :when the implementer shows awareness of risks and clear alternative plans.

This table reviews the most prominent risks that may hinder the implementation of the agricultural strategy, identifying the level of impact and likelihood, mitigation and response plans appropriate for each hazard.

**Table 19: Risk Matrix for Strategy Implementation**

Risk type	Risk Description	Impact Level	Mitigations (Preventive)	Alternative Plans/Response
Institutional and administrative	Poor coordination among Implementing entities and slow government procedures	Impact: High Probability: Medium	Activating a central unit to manage Strategy (PMO), promotion and communication between entities	Urgent coordination meetings, follow-up plan Weekly, intervention to the upper circle to resolve conflicts
Financial and Economic	Lack of funding necessary for the implementation of agricultural programs	Impact: High Probability: High	Diversification of funding sources (Partnership Organizations – Funds – Green Finance	Using the financial reserve, adjusting the schedule of projects, re-prioritizing
Legislative and Regulatory	Delay of issuing supportive laws or conflicting legislation between entities	Impact: Medium Probability: High	Prepare a legislative roadmap and follow up on it within the executive schedule	Activating joint legal committees and providing temporary incentives to compensate for legislative delay
Vocational and technical	Failure or delay in applying modern agricultural techniques	Impact Medium– Medium probability, Medium	Applying Experiences on scale A pilot and building partnerships with Research Centers	Return to Tentatively Improved Traditional Methods, Additional Support for research and development
Social and political	Resistance to change Farmers or changing government priorities	Impact: High Probability: Possible	Implementing awareness programs and involving farmers in the stages of implementation	Modifying the implementation mechanism to suit reality societal and political, and enhance field motivation

At the level of one theme or program, a central technical team will be formed from the MoA to study the risks that the implementation mechanisms may face, develop the necessary proposals to address them, and propose alternatives in light of the nature, size and impact of the risk according to the type and nature of the project, including sudden climate changes, lack of funding, change in the relevant general government policies, security risks, changes in the product market and prices, poor coordination between the concerned authorities, and other risks that may affect the level of performance and implementation rates.

# Ninth: Specialized Programs

## 9.1 Specialized Agricultural Cooperatives Program for the Development of the Syrian countryside

Project Title	Specialized Agricultural Cooperatives Program for the Development of the Syrian countryside	Timeframe	Implemented b
Project Aim	Establish a network of sustainable agricultural production cooperatives to gather small farmers and improve their production and income through teamwork, the use of agricultural technology, and joint marketing to achieve food security and sustainable rural development		
Project justification	<ul style="list-style-type: none"> <li>• The dispersion of small agricultural holdings and the decline in individual productivity.</li> <li>• Poor marketing capacity of individual farmers and absence of collective brands.</li> <li>• Lack of financing and modern agricultural equipment among small farmers.</li> <li>• The need to rebuild the agricultural sector after the recovery period and strengthen national food security.</li> <li>• Successful international experiences (Morocco, India, Spain) proved that cooperatives are an effective way to raise income and improve quality and sustainability.</li> <li>• Alignment with the Sustainable Development Goals (SDGs) especially Goals 1 and 2 (Eradicate Poverty and Hunger) and Goal 12 (Consumption and Production)</li> </ul>		
Expected results	<ul style="list-style-type: none"> <li>• Establishing 10 model agricultural cooperatives during the first phase (3) years.</li> <li>• Raising farmers' income by %40-70 through local manufacturing and mass marketing.</li> <li>• Reducing production costs by %20-30 via mass purchase of agricultural inputs.</li> <li>• Improving the quality of agricultural products according to national and international standards.</li> <li>• The inclusion of women and youth by less than %30 of the members.</li> <li>• Achieving environmental sustainability through the use of renewable energy, organic agriculture, and modern irrigation.</li> </ul>		
Implementation mechanism	Preparatory Phase (3 months) <ul style="list-style-type: none"> <li>• Conducting a field survey to identify areas with agricultural comparative advantage (olives, grains, aromatic plants).</li> <li>• Identifying 100-50 potential farmers in each area to establish the cooperative.</li> <li>• Coordination with the MAAR, the General Union of Farmers, and the Agricultural Bank to secure legal and financial support.</li> </ul>	6 months	National Agricultural Policy Center NAPC
	Establishing phase: <ul style="list-style-type: none"> <li>• Formulating and formally register the bylaws of each cooperative.</li> <li>• Preparing a feasibility study and business plan that includes production, marketing, and financing.</li> <li>• Establishment of a constituent committee elected by the members.</li> </ul>	6 months	Legal Economics and Agricultural Planning

	<p>Entire construction and operation phase</p> <ul style="list-style-type: none"> <li>• Implementation of production infrastructure: (olive presses, filling units, refrigeration, dairy plants, organic fertilizer)</li> <li>• Member training on sustainable agriculture, collaborative governance, and marketing</li> <li>• Signing funding partnerships with FAO, IFAD, UNDP and other local organizations</li> </ul>		
	<p>Logistic support phase</p> <ul style="list-style-type: none"> <li>• Launching a national digital platform for Syrian agricultural cooperatives to exchange experiences and direct selling.</li> <li>• Establishing a national quality mark for cooperative products.</li> <li>• Linking cooperatives to local schools, restaurants and factories to secure stable markets</li> <li>• Stimulating agricultural tourism in rich areas (such as the coastal region)</li> </ul>		
	<p>Monitoring and evaluation phase (ongoing)</p> <ul style="list-style-type: none"> <li>• Evaluating performance across indicators (members' income, production volume, number of jobs.)</li> <li>• Preparing semi-annual reports for the supporting bodies.</li> <li>• Developing a «smart cooperative» model that adopts digital marketing and management systems.</li> </ul>		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Small farmers and their families (%70 of beneficiaries.)</li> <li>• Rural women through women's productive cooperatives.</li> <li>• Agricultural youth through rural entrepreneurship programs.</li> <li>• communities by creating jobs and improving value chains.</li> <li>• State by enhancing food security and reducing importation</li> </ul>		
<b>Proposed sources of funding</b>	<ul style="list-style-type: none"> <li>• Self-financing: Member contributions (%20-30 of capital).</li> <li>• Government funding: soft loans from the Agricultural Bank, supported by the MoA.</li> <li>• International Funding from Grants: ESCWA, UNDP, IFAD, FAO</li> <li>• Community Funding: The contribution of local community organizations and the private sector.</li> </ul>		
<b>Indicators for success</b>	<p>Number of cooperatives established and operational.  Percentage of increase in farmers' income.  Volume of production, local and export marketing.  Participation of women and youth.  The amount of funded and sustainable support after the end of the project</p>		

## 9.2 Project of the Export Production Villages Program to strengthen rural development and the national economy

Project Name	Export Production Villages Program to Promote Rural Development Consumers and National economy	Timeframe	Implemented by
Project Aim	<ul style="list-style-type: none"> <li>• Establishing a network of productive villages specialized in agricultural, food and traditional industries, oriented for export with a view to:</li> <li>• Diversification of the rural economy.</li> <li>• Increasing Syrian agricultural and food exports.</li> <li>• Providing sustainable employment opportunities for rural youth and women.</li> <li>• Linking local production to global markets through integrated value chains</li> </ul>		
Project justification	<ul style="list-style-type: none"> <li>• Low value added of agricultural products due to poor manufacturing and external marketing.</li> <li>• The migration of young people from the countryside due to the absence of local job opportunities.</li> <li>• The great success of the Malaysian and Asian experiences in transforming villages into production and export centers.</li> <li>• Availability of rich agricultural and population resources in the Syrian countryside that can be directed towards qualitative production.</li> <li>• The need to diversify sources of national income and support the balance of non-oil exports.</li> <li>• The project is in line with national plans for food security and sustainable development.</li> </ul>		
Expected outcome	<ul style="list-style-type: none"> <li>• Establishing 5 model export production villages during the first phase (3 years).</li> <li>• Increasing agricultural and food exports by %25-40.</li> <li>• Creating about 5,000 direct and indirect jobs.</li> <li>• Raising average rural household income by up to %60.</li> <li>• Improving the reputation of Syrian products by obtaining modern quality and packaging certificates.</li> <li>• Achieving balanced spatial development and reducing disparities between the countryside and the city</li> </ul>		
Implementation mechanism	Preparation and Planning Phase <ul style="list-style-type: none"> <li>• Selection of village sites based on agricultural comparative advantages (citrus - olives- vegetables - aromatic plants - traditional fabric....etc.)</li> <li>• Preparing economic and marketing feasibility studies.</li> <li>• Coordination between the ministries of agriculture, economy, local administration and the Small and Medium Enterprises Development Authority).</li> </ul>	6 months	NAPC Agricultural Economics and Planning
	Foundation Phase: Infrastructure <ul style="list-style-type: none"> <li>• Processing of manufacturing, packing, cooling and packaging facilities</li> </ul>	12 months	Legal

	<ul style="list-style-type: none"> <li>• Establishing international training and marketing centers within the villages.</li> <li>• Connecting villages with high-speed transport, communication and Internet networks (Smart Village Mode.)</li> </ul>		
	<p>Operations and marketing Phase</p> <ul style="list-style-type: none"> <li>• Establishing production and marketing cooperatives within each village.</li> <li>• Training producers on quality and export standards (ISO Global GAP)</li> <li>• Conclude export agreements with companies and distributors International</li> </ul>	18 months	Private Sector, Farmers' Union, Rural Development and extension
	<p>Monitoring, evaluation and expansion phase</p> <ul style="list-style-type: none"> <li>• Measuring economic, social and environmental performance.</li> <li>• Expanding the experiment to 10 new villages in the second phase (5 years to come.)</li> </ul>	Ongoing	The MoA
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Farmers and artisans in rural areas.</li> <li>• Women working in the household and food industries.</li> <li>• Rural youth through training and employment.</li> <li>• The government by increasing exports and improving the trade balance.</li> <li>• The private sector through investment partnerships in productive villages.</li> </ul>		
<b>Proposed funding sources</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA, the Investment Authority and the Small Business Development Authority.</li> <li>• International Partnerships with: (FAO-IFAD-UNIDO) Organizations.</li> <li>• Private investments: from food export and processing companies.</li> <li>• Community financing: through local cooperatives and rural development funds</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Number of productive villages: established and operational.</li> <li>• The volume of annual exports of village products.</li> <li>• Increase of the average local income.</li> <li>• Percentage of women and youth participation.</li> <li>• Number of products with international quality certificates.</li> <li>• The percentage of self-sufficiency in the targeted villages.</li> </ul>		
<b>Logistic support And empowerment</b>	<ul style="list-style-type: none"> <li>• Establishing the "National Rural Export Platform" to market village products electronically.</li> <li>• Implementing the "Smart Village:" model of integrating production with technology and innovation.</li> <li>• Launching a "national brand" for Syrian rural products.</li> <li>• Establishing a national center for rural export training</li> </ul>		

### 9.3 Digital transformation in the agricultural sector in Syria:

Project Title	Syrian Smart Agriculture – Digital Transformation Towards Sustainable Agricultural Development	Timeframe	Implemented by
Project Aim	Establishing an integrated national digital structure for the agricultural sector in Syria based on modern technologies (artificial intelligence, Internet of Things, Geographic Information Systems, and Big Data) to raise the efficiency of agricultural production, improve resource management, and facilitate government services for farmers by switching to smart electronic services.		
Project justification	<ul style="list-style-type: none"> <li>• Absence of an integrated digital database for the agricultural sector and difficulty in accessing accurate information about production and farmers.</li> <li>• The multiplicity of stakeholders and the lack of interdependence of their systems, which leads to weakness in agricultural planning and statistics.</li> <li>• Farmers rely on traditional methods and do not benefit from modern technology in irrigation, management and production.</li> <li>• The increasing impacts of climate change and water scarcity necessitate the introduction of precision farming and remote monitoring techniques.</li> <li>• The need for comprehensive administrative reform in agricultural services through automation and electronic licenses.</li> <li>• Successful international experiences (India, Malaysia, Morocco, China) in switching to smart agriculture and achieving tangible economic and environmental results.</li> </ul>		
Expected outcomes	<ul style="list-style-type: none"> <li>• Establishing a National Integrated Agricultural Information System (NAIs) covering %80 of agricultural land within 5 years.</li> <li>• Automating the agricultural register in full and linking it electronically with the MoA, the Agricultural Bank and local authorities.</li> <li>• Issuing agricultural licenses electronically, which reduces administrative time by %70.</li> <li>• Increasing crop productivity by %20-30 through the use of microdata and remote sensing.</li> <li>• Improved management of water resources and fertilizers by %25.</li> <li>• Training of 10-5 thousand farmers and 300 -200 government employees on digital transformation and the use of smart systems.</li> <li>• Launching the National Smart Agriculture Platform and linking it to local and international markets.</li> <li>• Upgrading Syria's classification in the indicators of e-government and agricultural sustainable development.</li> </ul>		
Implementation mechanism	<p>Phase 1: Preparation and Planning</p> <ul style="list-style-type: none"> <li>• Formation of the National Committee for Digital Agricultural Transformation with the participation of the Ministries of Agriculture, Telecommunications,</li> <li>• Local administration, higher education, and agricultural bank.</li> <li>• Carrying out a national survey of digital readiness in agricultural institutions.</li> <li>• Preparation of the National Framework for Agricultural Digital Transformation 2030-2026</li> <li>• Developing an agricultural cybersecurity technical plan to ensure data protection</li> </ul>	6 months	

	<p>Phase2: Establishment and construction of digital infrastructure</p> <ul style="list-style-type: none"> <li>• Establishing the National Center for Smart Agriculture and Digital Analysis to be the national technical reference.</li> <li>• Development of a national agricultural data platform (AI – Cloud – (GIS includes data Crops, water, livestock, and farmers).</li> </ul>	24 Months	
	<ul style="list-style-type: none"> <li>• Automating the National Agricultural Registry and linking it to licensing and statistics systems and agricultural lending.</li> <li>• Launching the system of issuing agricultural licenses electronically through the government digital portal.</li> <li>• Equipping the directorates of agriculture and extension centers with digital equipment (tablets, GPS systems, cloud connections).</li> </ul>		
	<p>Phase3: Operation and Marketing</p> <ul style="list-style-type: none"> <li>• Launching the Farmer Smart application to provide extension services, marketing, and agricultural financing via mobile phones.</li> <li>• Introducing precision farming techniques via drones and sensors in typical fields.</li> <li>• Applying a digital early warning system to monitor agricultural diseases and climatic changes.</li> <li>• Establishing digital agricultural business incubators to support rural innovation and local applications.</li> <li>• Developing the Agricultural e-learning platform to train farmers and youth on modern technologies.</li> </ul>	24 Months	
	<p>Phase 4: Monitoring, Evaluation and Expansion</p> <ul style="list-style-type: none"> <li>• Measuring the impact on productivity, water consumption, and farmer satisfaction.</li> <li>• Expanding the platform to include smart financing services for farmers.</li> <li>• Creating digital KPIs to track the progress of digital transformation in the Agricultural sector.</li> <li>• Developing the integration between the digital agricultural platform and the e-government system.</li> </ul>	Ongoing	MoA
Beneficiaries	<ul style="list-style-type: none"> <li>• Farmers in all Syrian governorates.</li> <li>• Cooperative societies and peasant federations.</li> <li>• Directorates of Agriculture and Agricultural Extension.</li> <li>• Domestic and international agricultural investors.</li> <li>• Government agencies through accurate data for decision-making.</li> <li>• Youth and women through training and employment opportunities in the agricultural digital economy.</li> </ul>		

<p><b>Proposed sources of funding</b></p>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA, the Ministry of Communications and Technology, and the Ministry of Finance.</li> <li>• International Funding via: (FAO-IFAD-UNDP-ESCWA) Programs.</li> <li>• Private Sector Partnerships (PPP): with agricultural technology companies and local banks.</li> <li>• Innovative financing: through digital funds, grants dedicated to digital transformation and sustainable development</li> </ul>
<p><b>Indicators for success</b></p>	<ul style="list-style-type: none"> <li>• percentage of coverage of the digital agricultural registry of the total farmers (%).</li> <li>• Number of agricultural licenses issued electronically annually.</li> <li>• Percentage of decrease in water consumption and agricultural inputs.</li> <li>• Number of active users in the smart farmer application and the national platform.</li> <li>• Percentage of government projects based on digital agricultural data.</li> <li>• Increase of the income of farmers participating in the digital system.</li> </ul>

## 9.4 Plant Production Programme

Project Title	Syrian Smart Agriculture – Digital Transformation Towards Sustainable Agricultural Development		Timeframe	Implemented by
<b>Project Aim</b>	<ul style="list-style-type: none"> <li>• Working to achieve self-sufficiency of the wheat crop.</li> <li>• Continued development of varieties adapted to climate change and drought tolerant.</li> <li>• Increasing the amount of production of local varieties desired for export, especially durum wheat varieties.</li> <li>• Fixing peasants in their lands and preserving local wheat varieties.</li> </ul>			
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• The need to increase wheat production and achieve self-sufficiency.</li> <li>• Import wheat optimal.</li> <li>• Investment of agricultural resources.</li> </ul>			
<b>Expected outcome</b>	<ul style="list-style-type: none"> <li>• Increasing wheat production and improve productivity.</li> <li>• Improving the self-sufficiency level of wheat.</li> <li>• Surplus insurance for export.</li> </ul>			
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Providing local wheat seeds to farmers according to the varietal map approved by General Assembly for Agricultural Scientific Research</li> <li>• Increasing the areas allocated to the General Organization for Seed Multiplication for the cultivation of many fields Especially export items.</li> <li>• Activating the role of agricultural extension in spreading awareness about the rational use of fertilizers and pesticides</li> <li>• The use of climate-smart agriculture methods, especially conservation agriculture and the use of Laser Leveling and Measurement devices</li> <li>• Cooperating with the Ministry of Economy and Trade to facilitate the marketing of the resulting crop at subsidized prices.</li> <li>• Activating the role of agricultural quarantine and preventing the import of exotic varieties of wheat for other purposes Milling and in proportion to the agricultural calendar.</li> </ul>	5 years	GCASR, General Organization for Seed	
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Farmers in all Syrian governorates that grow wheat</li> </ul>			
<b>Sources of funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA</li> <li>• International Funding via: (FAO-IFAD-UNDP-ESCWA) Programs</li> </ul>			
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Developing wheat production and productivity in farmers' fields.</li> <li>• Increase of the actual cultivated areas.</li> <li>• Imports decline and exports increase.</li> <li>• Rise of the index Self-sufficiency</li> </ul>			

Project Name	Vegetation Development and Improvement of Pistachio Production Project		Timeframe	Implemented by
<b>Project Aim</b>	<ul style="list-style-type: none"> <li>• Increasing green spaces by planting drought-tolerant trees such as Atlantic ducks.</li> <li>• Improving the pollination rate in pistachio orchards and increasing productivity.</li> <li>• Preserving and documenting the genetic origins of pistachio trees.</li> <li>• Providing a good economic return to agricultural associations from the cultivation of pistachios.</li> <li>• Supporting the adoption of modern mechanization in the cultivation of pistachios and increasing production efficiency.</li> <li>• Keeping pace with the global market for pistachios.</li> </ul>			
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• Suitability of climate, soil and environment in Syria to grow pistachios.</li> <li>• Syria's production of pistachios has decreased</li> <li>• A high added value of pistachios can be achieved through: drying, roasting, packing, and packaging.</li> <li>• The high nutritional value of pistachios. The volume of pistachio consumption globally and its prices are constantly rising.</li> </ul>			
<b>Expected outcome</b>	<ul style="list-style-type: none"> <li>• Supporting the national economy in hard currency as a result of export</li> <li>• Creating new opportunities.</li> <li>• Creating new investment opportunities that are concerned with the various stages of production, manufacturing, packaging and export.</li> <li>• 5000 farmers capable of producing pistachios</li> </ul>			
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Selection of lands, hills and heights suitable for afforestation with Atlantic duck trees.</li> <li>• Implementation of grafting programs for trees planted with masculine baskets and various feminine varieties of pistachios.</li> <li>• Allocation of areas of land in agricultural associations and land in state property for the cultivation of pistachios.</li> <li>• Establishing a specialized nursery for the production of hybrid plants. UCB1</li> <li>• Supporting /5000/small farmers with fertilizers, pesticides and fuel for irrigation in all site areas.</li> <li>• Providing agricultural associations and farmers with pheromone and color traps.</li> <li>• Rehabilitation of the pistachio market in the city of Morek</li> </ul>	5 years	Pistachio bureau, Agricultural Affairs, GCASR	
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• 5000 farmers in the areas covered by the project</li> <li>• Dealers in the pistachio value chain</li> </ul>			
<b>Sources of proposed funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MAAR.</li> <li>• International Funding via: (FAO-ICARDA-ACSAD-IFAD-UNDP-ESCWA.) Programs</li> <li>• Private sector partnerships: through investment companies in the field of pistachios from production to export.</li> </ul>			
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Increase of the production of pistachios to at least 100 thousand tons</li> <li>• Increase of the areas planted with pistachios to about 100,000 hectares</li> <li>• Increase of exported quantities of pistachios to 15-20 thousand tons per year</li> </ul>			

Project Title	Deployment of sustainable and regenerative agriculture systems applications project	Timeframe	Implemented by
<b>Project Aim</b>	<p>Overall objective: Enhancing food security and sustainability of agricultural production and improve the livelihoods of smallholder farmers.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> <li>Reducing the cost of agricultural production by about %30for each agricultural season.</li> <li>Increasing the yield of summer and winter vegetables by %20 within a year.</li> <li>Training /600/ farmers on sustainable agricultural practices.</li> <li>Production of safe agricultural materials (wood vinegar – compost – plant extracts – liquid organic fertilizers) from farm waste.</li> </ul>		
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• The application of sustainable and regenerative farming systems helps to increase the productivity of agricultural land in a sustainable manner.</li> <li>• Addressing environmental degradation in Syria (desertification, soil erosion, drought.)</li> <li>• Restoration of ecosystems through farming techniques that conserve biodiversity.</li> </ul>		
<b>Expected outcomes</b>	<ul style="list-style-type: none"> <li>• 600 farmers trained in and able to implement sustainable agricultural practices</li> <li>• Increasing Syrian exports of organic agricultural products</li> <li>• Granting organic clean agriculture certificates to farmers benefiting from the project</li> </ul>		
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Hiring national or international experts and trainers only when needed.</li> <li>• Specialized training for technicians.</li> <li>• Field theoretical and practical training for farmers.</li> <li>• Local manufacture of models of production tools.</li> <li>• Distribution of /600/ grants to the targeted farmers (miscellaneous agricultural tools and equipment.)</li> <li>• Periodic independent monitoring and evaluation</li> </ul>		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• 600 farmers capable of applying sustainable and regenerative agriculture.</li> <li>• Manufacturers.</li> <li>• Exporters</li> </ul>		
<b>Sources of proposed funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA.</li> <li>• nternational Funding via (FAO-ICARDA-ACSAD-IFAD-UNDP-ESCWA) Programs</li> <li>• Private sector partnerships: through investment companies concerned with the use of renewable energies.</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Increasing the volume of agricultural production in the targeted areas using sustainable technologies compared to traditional methods.</li> <li>• mproving the physical and chemical properties of the soil and increase the content of organic matter.</li> <li>• ncreasing the capacity of farmers to meet the challenges of water shortages.</li> <li>• Reducing the use of chemical inputs such as fertilizers and pesticides.</li> <li>• Raising awareness among farmers and local communities about sustainable agriculture and its importance.</li> </ul>		

Project Name	Genetic Assets Health Certificate Project		Timeframe	Implemented by
<b>Project Aim</b>	<p>Main goal: Producing high quality and reliable healthy olive products. Livelihood support for olive-dependent households. Ensuring the marketing and movement of certified olive plants with international standards.</p> <p>Specific Objectives: Establishing a genetic bank for Syrian olive varieties. Obtaining and maintaining documented plant material within greenhouses and lattices. Establishing a field for documented olive mothers. Establishment of a certified olive plantation production nursery.</p>			
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• Maintaining the genetic diversity of local varieties that face significant threats, especially climate change.</li> <li>• Improved resistance to diseases and pests.</li> <li>• Raising the quality of olives and their oil.</li> <li>• International markets require rigorous standards in terms of health and genetic certifications for agricultural products.</li> </ul>			
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Improving economic productivity while preserving the genetic asset</li> </ul>			
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Training: Training workshops for agricultural engineers on selecting varieties regarding productivity, accurate item identification, pest control and laboratory analysis methods.</li> <li>• Infrastructure development: Building or improving mesh and green houses.</li> <li>• Pathology laboratory support.</li> </ul>	2 Years	MoA	
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Farmers in olive growing areas</li> </ul>			
<b>Sources proposed funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA.</li> <li>• International Funding via (FAO-ICARDA-ACSAD-IFAD-UNDP-ESCWA.) Programs</li> <li>• Private sector partnerships: through investment companies concerned with the use of renewable energies.</li> </ul>			
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• High quality of olives and oil produced from the items covered by the health certificate.</li> <li>• Maintaining the genetic diversity of the local varieties of olives.</li> <li>• Improving the productivity of olives in areas that apply the health certificate.</li> </ul>			

## 9.5 Animal Production Program: Animal Production Program

Project Title	Project of rehabilitating health and production laboratories	Timeframe	Implemented by
<b>Project Aim</b>	<p>General Objective: To equip specialized laboratories with a high degree of sophistication and technology to ensure the quality of service delivery.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> <li>• Equipping an integrated building that includes specialized laboratories with all types of analysis necessary for all agricultural inputs (vegetable, animal, water) capable of accommodating the necessary cadres to carry out the tasks assigned to them.</li> <li>• Considering these laboratories as a reference for all parties related to their work.</li> </ul>		
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• Many local products need careful checks to ensure they meet health and environmental standards and international standards, thus raising the level of quality of products, whether agricultural or food.</li> <li>• Open new export markets that apply international standards/HACCP ISO</li> </ul>		
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Fully equipped laboratories to conduct all necessary analyses of agricultural inputs and products.</li> <li>• Technical teams trained and qualified to use the devices and conduct the necessary tests and analyses.</li> </ul>		
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Rehabilitation of buildings necessary for laboratories.</li> <li>• Hiring local and international experts and trainers and providing technical support.</li> <li>• Implementing technical courses for trainers and trainees in the ministry on the necessary devices, tests and analyses.</li> <li>• Developing the infrastructure by securing and updating computers. and equipment used in the training process</li> </ul>	3 years	
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• All relevant authorities to conduct analyses and tests.</li> </ul>		
<b>Sources proposed funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the Ministry of Finance</li> <li>• International Funding via:.(FAO-ICARDA-ACSAD-IFAD-UNDP-ESCWA.) Programs</li> <li>• Private sector partnerships: through investment companies.</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Improving the accuracy and quality of laboratory tests in various fields (food -medicines -environment.)</li> <li>• Increasing the number of tested samples.</li> <li>• Improving food safety and product health.</li> <li>• Obtaining international certificates confirming the conformity of laboratories to international standards.</li> </ul>		

Project Name	Rehabilitation and development project of artificial insemination center in Al-Ghazlaniyah	Timeframe	Implemented by
<b>Project Aim</b>	<p>General Objective: Rehabilitation of the artificial insemination center to be a leader in this field and ensure the provision of animal products with international specifications and standards.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> <li>• Securing the need of the livestock sector for semen.</li> <li>• Securing the needs of the livestock sector of artificially pollinated oxen with the same high specifications.</li> <li>• Producing nitrogenous liquid and securing the need of the local market.</li> </ul>		
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• Poor livestock productivity</li> <li>• The development of the artificial pollination center will contribute to raising local production of milk and meat, which enhances the sustainability of food security</li> </ul>		
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Improving animal breeds and increasing productivity (milk and meat)</li> <li>• Obtaining animal breeds with better genetic characteristics.</li> <li>• Improving the ability of animals to adapt to climate and environmental changes.</li> <li>• Increasing economic returns for farmers and breeders</li> </ul>		
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Rehabilitation of buildings necessary for laboratories and barns.</li> <li>• Securing artificial insemination oxen. Securing nitrogenous liquid production lines. Hiring local and international experts and trainers and providing technical support.</li> <li>• Implementing technical courses for trainers and trainees in the ministry on the necessary devices, tests and analyses.</li> <li>• Developing the infrastructure by securing and updating the computers and equipment used in the training process.</li> </ul>		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• All relevant authorities to conduct analyses and tests</li> </ul>		
<b>Sources proposed funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA.</li> <li>• International Funding: Through ESCWA Programs – UNDP – IFAD – (FAO Qatar Red Crescent, Red Cross.</li> <li>• Private sector partnerships: through investment companies.</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>-1 Increasing the rate of production of meat or milk per animal head and comparing productivity after applying artificial pollination with productivity before the project.</li> <li>-2 Number of vaccinations that led to a successful pregnancy compared to the total number of operations performed.</li> <li>-3 Reduced rate of genetic diseases among the herd after the application of artificial insemination.</li> <li>-4 Increasing the number of farmers and professionals trained in artificial insemination techniques and health management.</li> <li>-5 Increase of the income of local breeders and farmers</li> </ul>		

Project Name	Rehabilitation project of the Vaccine Production Department building and production methods	Timeframe	Implemented by
<b>Project Aim</b>	<p>General Objective: Modernization and development of all vaccines produced.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> <li>• Producing safe and effective vaccines that meet the needs of the livestock sector of all kinds.</li> <li>• Qualifying the technical staff and familiarizing them with the latest technologies in the field of vaccine production.</li> <li>• Manufacturing vaccines that cover the pathological strains spread in the field to ensure full protection according to biological standards, isolation and laboratory classification.</li> </ul>		
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• The current infrastructure of the vaccine production building is weak and does not meet modern standards for safe bioproduction.</li> <li>• The urgent need to update veterinary vaccine production techniques in line with global developments.</li> <li>• The spread of multiple animal diseases in the fields requires effective and locally manufactured vaccines according to local disease strains.</li> <li>• Ensuring livestock health security as a key pillar of food security and rural economic stability.</li> <li>• Striving to achieve self-sufficiency of veterinary vaccines and reducing dependence on imports.</li> </ul>		
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Producing safe and effective veterinary vaccines covering national needs for all types of livestock.</li> <li>• Qualifying a national technical staff capable of using the latest technologies for vaccine production and quality control.</li> <li>• Manufacturing vaccines specifically designed for locally prevalent disease isolates, which increases the effectiveness of preventive protection.</li> <li>• Improving the quality of health services provided to livestock and reducing mortality and diseases.</li> <li>• Enhancing the Department's ability to respond quickly to animal epidemics through the production of emergency vaccine</li> </ul>		
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Rehabilitation of the building for the production of vaccines.</li> <li>• Hiring local and international experts and trainers and providing technical support. Implementing technical courses for trainers and trainees in the department on modern methods of production and monitoring.</li> <li>• Developing the infrastructure by securing and updating computers and equipment to keep pace with the production and development process.</li> </ul>		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Livestock breeders in all Syrian governorates.</li> <li>• Technical and veterinary staff working in the MoA and animal health directorates.</li> <li>• Government agencies concerned with animal health, food security, and rural development.</li> <li>• National economy by reducing the import bill and protecting livestock.</li> <li>• Rural environment by improving herd health and increasing livestock productivity</li> </ul>		
<b>Proposed sources of funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA and the Ministry of Finance.</li> <li>• International cooperation: via organizations such as FAO, the International Fund for Agricultural Development (IFAD) or the European Union.</li> <li>• Private sector partnerships: with veterinary pharmaceutical companies or animal health investors.</li> <li>• Arab or regional development funds concerned with food security and animal health.</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Percentage of completion of building rehabilitation and equipment according to modern standards for vaccine production (such as GMP standards or equivalent)</li> <li>• The number of vaccines that have been updated or newly produced to cover locally prevalent disease strains.</li> <li>• Percentage of coverage of the needs of livestock herds of safe and effective local vaccines (For example: %90 of the national need.)</li> <li>• Number of technical cadres that have been qualified on modern vaccine production and quality control techniques.</li> <li>• Percentage of reduction in cases of diseases covered by vaccines in the fields within a year from the start of distribution (compared to the previous period.)</li> </ul>		

Project Name	Veterinary quarantine Sector Rehabilitation Project	Timeframe	Implemented by
<b>Project Aim</b>	<p>General Objective: Rehabilitation of veterinary quarantine centers and their staff.            Specific objectives:</p> <ul style="list-style-type: none"> <li>• Rehabilitation of veterinary quarantine centers to carry out the tasks entrusted to them in a way that contributes to protecting the livestock herd and ensuring the arrival of safe and proper food to the consumer.</li> <li>• Providing the centers with the necessary equipment that enables them to carry out the tasks assigned to them.</li> <li>• Establishing a technical staff capable of keeping abreast of recent developments to verify the safety of vital products entering the country as well as the safety of animals</li> </ul>		
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• Weak current infrastructure of veterinary quarantine centers, lack of necessary technical equipment, and urgent need to protect livestock from the entry of pandemic diseases across borders.</li> <li>• Ensuring the safety of imported animal products and protect consumer health.</li> <li>• Weakness of the efficiency of technical staff in the face of modern challenges related to vital control.</li> <li>• The country's compliance with the requirements of international organizations such as the World Organization for Animal Health (OIE) related to import and export controls.</li> </ul>		
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Rehabilitation of veterinary quarantine centers at border and internal ports according to modern technical standards.</li> <li>• Equipping the centers with the necessary diagnostic and logistical equipment to examine animals and animal products.</li> <li>• Building a qualified national technical staff on the latest biometric and control technologies.</li> <li>• Reducing the risk of animal diseases entering the country.</li> <li>• Improving the quality of control over imported animal products and ensuring their safety for the consumer.</li> </ul>		
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Rehabilitation of the necessary buildings for the centers.</li> <li>• Securing a means of transport to secure the movement of workers between the centers.</li> <li>• Hiring local and international experts and trainers and providing technical support.</li> <li>• Implementation of technical courses for trainers and trainees in veterinary quarantine centers and departments in the governorates and the central administration.</li> <li>• Developing the infrastructure by securing and updating the computers and equipment used in the training process.</li> </ul>		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Government agencies (MoA, Ministry of Health, Customs.)</li> <li>• Livestock breeders in all Syrian governorates.</li> <li>• Technical staff working in veterinary quarantine centers.</li> <li>• Consumers by ensuring the safety of food of animal origin.</li> <li>• National economy through the protection of livestock and the promotion of livestock exports in the future.</li> </ul>		
<b>Proposed sources of funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA and the Ministry of Finance.</li> <li>• International cooperation: via organizations such as FAO, WOAH (World Organization for Animal Health), or the World Federation of Union.</li> <li>• Private sector partnerships: with veterinary pharmaceutical companies or import and export companies concerned with the safety of animal shipments.</li> <li>• Arab or regional development funds concerned with food security and animal health.</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Percentage of qualified veterinary quarantine centers (in terms of infrastructure and equipment) compared to the total number of targeted centers</li> <li>• Number of technical staff trained and qualified in modern veterinary inspection and control procedures.</li> <li>• Percentage of compliance with veterinary quarantine procedures when animals and animal products enter through border crossings.</li> <li>• The number of cases of epidemic animal diseases entering the country decreased compared to the previous period of the project.</li> <li>• Percentage of satisfaction of the concerned authorities (such as importers, breeders, and supervisory authorities) with the efficiency and speed of veterinary quarantine procedures.</li> </ul>		

## 9.6 Smart Agriculture Program:

Project Title	Weather and Climate Early Warning System Project in Syria		Timeframe	Implemented by
<b>Project Aim</b>	<p>Main objective:</p> <ul style="list-style-type: none"> <li>• Developing the early warning system to protect lives and property, reduce internal migration, and reduce economic losses resulting from climate changes</li> </ul> <p>Specific objectives:</p> <ul style="list-style-type: none"> <li>• Mitigating crop losses caused by frost, hail, or drought.</li> <li>• Long-term environmental monitoring and surveillance of baseline indicators of the state of the environment and climate change.</li> <li>• Predicting environmental disasters and develop a contingency plan.</li> <li>• Classification and modeling of lands and preparation of maps (comprehensive survey.)</li> </ul>			
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• In recent years, Syria has been exposed to a large number of climate disasters that have increased in intensity and frequency, resulting in significant losses and damage to agricultural production and infrastructure.</li> <li>• Weakness of the mechanism of the early warning system in Syria in terms of monitoring and reporting on environmental disasters before they occur.</li> </ul>			
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Developing a national early warning system in accordance with international standards, equipped with the latest digital equipment and technologies.</li> <li>• Early reporting of environmental and natural disasters, and reducing the damage caused by them.</li> </ul>			
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Equipping climate stations.</li> <li>• Preparing agricultural stations</li> <li>• Preparation of rain stations.</li> <li>• Preparing a satellite reception and subscription station.</li> </ul>	3 years	The relevant departments within the Ministry, in cooperation with the General Directorate of Meteorology and the Water Resources commission	
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• MoA and other concerned ministries (Energy - Local Administration and Environment - Ministry of Emergency and Disaster Management.)</li> <li>• The local population in all regions and governorates in the Syrian country.</li> </ul>			
<b>Sources proposed funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA, the Ministry of Communications and Technology, the Ministry of Finance, the Ministry of Emergency and Disaster Management</li> <li>• Disaster. International funding: via international organizations.</li> <li>• Private Sector Partnerships (PPP): with agricultural technology companies and local banks. Innovative financing: through green funds, grants for early warning and sustainable development.</li> </ul>			
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Percentage of completion of the early warning system and equipping it with modern technologies.</li> <li>• Number of early reports of disasters before they occur and in a timely manner.</li> <li>• The percentage of light damage caused by disasters.</li> <li>• Number of maps classified, modelled and fully surveyed.</li> </ul>			

Project Title	Implementation of Climate-Smart Agriculture Project in Ghouta, Damascus		Timeframe	Implemented by
Project Aim	<ul style="list-style-type: none"> <li>• Adaptation to climate change.</li> <li>• Reducing the degradation of land, water and environmental systems.</li> <li>• Raising the income of the most vulnerable households in the region.</li> <li>• Activating the role of gender in the region</li> </ul>			
Project justification	<ul style="list-style-type: none"> <li>• Increasing impacts of climate change and water scarcity</li> <li>• Farmers rely on traditional methods and do not benefit from modern technology in irrigation, management and production</li> </ul>			
Expected Outcome	<ul style="list-style-type: none"> <li>• Farmers adopt climate-smart agriculture technologies</li> <li>• Increasingly activating the role of women and their contribution to practices that reduce the impact of climate change</li> <li>• Improving the livelihoods of rural households that have applied climate-smart agriculture techniques</li> </ul>			
Implementation mechanism	<ul style="list-style-type: none"> <li>• Conducting a laser leveling process in the target area.</li> <li>• Using of terrace irrigation.</li> <li>• Applying climate-smart irrigation.</li> <li>• Manufacturing organic fertilizers from farm waste.</li> <li>• Use of drought-resistant crop varieties</li> <li>• Use of drought-resistant and saline-resistant fodder crop varieties.</li> <li>• Manufacture and use of biofertilizers.</li> <li>• Application of climate-smart micro fisheries</li> </ul>	3 years	General Commission for Scientific Agricultural Research/ Natural resources directorate	
Beneficiaries	<ul style="list-style-type: none"> <li>• Farmers/ Agri-producers</li> <li>• All dealers in commodity value chains</li> </ul>			
Sources proposed funding	<ul style="list-style-type: none"> <li>• Government funding: through the MoA and the Ministry of Energy.</li> <li>• International funding: via international organizations.</li> <li>• Private Sector Partnerships (PPP): with agricultural technology companies and local banks.</li> <li>• Innovative financing: through digital funds, grants dedicated to the implementation of climate-smart agriculture and development programs development</li> </ul>			
Indicators for success	<ul style="list-style-type: none"> <li>• Number of farmers who applied climate-smart agricultural techniques in Damascus Ghouta.</li> <li>• Number of grants provided to farmers in Damascus Ghouta.</li> <li>• Proportion of prevalence of climate-smart agriculture technologies in Damascus Ghouta based on gender.</li> <li>• Percentage of women's contribution to the adoption of climate-smart agriculture technologies</li> </ul>			

## 9.7 Marketing Projects:

Project Name	Project to promote marketing of agricultural products in selected areas of Syria	Timeframe	Implemented by
<b>Project Aim</b>	<p>Overall objective: To strengthen the capacities of farmers and traders in organizing and marketing agricultural products more efficiently.</p> <p>Specific objectives:</p> <ul style="list-style-type: none"> <li>• Training 300 farmers on marketing strategies and value chain management.</li> <li>• Developing an electronic platform for agricultural marketing (a unified electronic marketplace.)</li> <li>• Building modern collection and storage centers equipped with the latest technologies.</li> <li>• Reducing agricultural losses by %20by the end of the program.</li> <li>• Promoting cooperation between producers, traders and buyers.</li> </ul>		
<b>Project justification</b>	<ul style="list-style-type: none"> <li>• Weak linkages between producers and markets, leading to waste in products and lower farmer incomes.</li> <li>• High agricultural losses (post-harvest) due to lack of storage and collection infrastructure.</li> <li>• Lack of unified digital platforms for marketing agricultural products, limiting access to local and external markets.</li> <li>• The need to empower farmers with modern marketing skills and value chain management to improve their income.</li> <li>• Responding to the priority of the MoA's policies in "improving the contribution of agriculture to achieving self-sufficiency" and reducing agricultural losses.</li> </ul>		
<b>Expected Outcome</b>	<ul style="list-style-type: none"> <li>• Training 300 farmers on marketing strategies and value chain management.</li> <li>• Launching of a unified national e-platform for agricultural marketing (e-market.)</li> <li>• Establishing modern collection and storage centers equipped with cooling, sorting and packaging technologies.</li> <li>• Reducing agricultural losses by %20in the targeted areas.</li> <li>• mproving links between producers, traders, and buyers through structured cooperation mechanisms (such as contracts, associations, cooperatives.</li> <li>• Increasing farmers' income by improving terms of sale and reducing the role of intermediaries in the supply chain</li> </ul>		
<b>Implementation mechanism</b>	<ul style="list-style-type: none"> <li>• Training in digital marketing and supply chain management.</li> <li>• mplementing an electronic platform to display and sell products.</li> <li>• Conducting workshops and awareness lectures on quality and originality.</li> <li>• Construction of modern assembly and storage facilities.</li> <li>• Providing financial and technical support to farmers to adopt the new technology.</li> <li>• Periodically following up and evaluating performance.</li> </ul>		
<b>Beneficiaries</b>	<ul style="list-style-type: none"> <li>• Farmers in all Syrian governorates.</li> <li>• Cooperative societies and peasant federations.</li> <li>• Directorates of Agriculture and Agricultural Extension.</li> <li>• Local Merchants and Marketing Agents</li> <li>• Domestic and international agricultural investors.</li> </ul> <p>Government entities by improving the efficiency of supply chains</p> <ul style="list-style-type: none"> <li>• Consumers (through the availability of better-quality products at stable prices)</li> <li>• The food industrial sector (by providing high-quality and stable raw materials.)</li> </ul>		
<b>Proposed sources of funding</b>	<ul style="list-style-type: none"> <li>• Government funding: through the MoA</li> <li>• International funding: via (JICA–FAO) programs.</li> <li>• Arab Organization For Agricultural Development</li> <li>• Private sector partnerships: (through partnerships in collection centers or electronic platform)</li> </ul>		
<b>Indicators for success</b>	<ul style="list-style-type: none"> <li>• Percentage of completion of training of 300 farmers on marketing and value chain management.</li> <li>• he number of active users on the electronic platform for agricultural marketing.</li> <li>• Number of Gathering and Warehousing Centers actually established and operational.</li> <li>• The actual reduction in agricultural losses with the aim of reaching 20%.</li> <li>• Number of commercial partnerships or agreements concluded between producers, traders and buyers during the project.</li> </ul>		







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