

Arab League Arab Organization for Agricultural Development





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Executive Summary

- 1. Keeping the need of supporting, activating and framing the joint Arab action in the field of sustainable agricultural development to achieve the Arab food security, the Arab leadership took the decision (No. 314) in Algeria summit in March 2005. According to the the decision, the general assembly of Arab organization for agricultural development (agriculture ministers) were made responsible to prepare an Arab strategy for the sustainable agricultural development in the two decades (2005-2025).
- 2. The strategy was presented in the Riyadh summit held in March 2007, in which the Strategy was passed and approved (decision no.393), and this strategy strategy for Arab agricultural development- was considered as part of the joint strategy for the Arab social and economic action. (a separate document (393-19, 29/3/2007).
- 3. Eight years after the implementation of the strategy, the world summit for the sustainabledevelopment as part of U N General Assembly tasks- passed a resolution namely 'transforming our world'; agenda 2030 for the sustainable development consisting of 17 goals and 169 objectives. On the summit level Arab league council took the decision- No.631/26 on 29/3/2015 regarding Arab priorities of the world sustainable development agenda for the period after 2015. As per the third para of the dossier, the concerned Arab ministerial councils were called on to coordinate with the niche Arab organizations and in cooperation with U N concerned agencies to lay down the Arab action plan for the sustainable development agenda for the period after 2015.
- 4. Since the goals and programs of the Strategy sustainable Arab agricultural development-for the two decades 2005-2-25 are very much aligned with the goals and objectives of Sustainable Development 2030, the organization suggested its general assembly in its 35th meeting held in April 2018 to adapt and align the Strategy (2005-2025), its action plans and annual programs and to corelate them with the goals and objectives of the Sustainable Development 2030, so as its implementation would lead to help the member countries to achieve those goals and objectives.
- 5. The organization prepared the modified strategy and presented it to the executive counciland general body of the organization, hence, the decision-36/4-2020 in this regard was made, in which, its third paragraph stipulated the approval of the modified strategy making the organization responsible to complete the procedures of its attestation and approval from social and economic council of the Arab league and the Arab summit. Theorganization hopes that the modified strategy would work as the main pillar to activate and develop the common Arab agricultural work and that would contribute in achieving the sustainable Arab agricultural development and the goals of the sustainable development 2030.
- 6. During the period of the implementation of the Strategy (2005-2025), the organization, in cooperation

with its member countries and the development partners, achieved estimated goals that covered all fields of agriculture and fisheries.

- 7. Under the preparation of the modified strategy, a comprehensive evaluation was done for the safe progress in implementing the Strategy for the two decades 2005-2025, in the period of ten years from when it started in 2008 and to deal with challenges and restrictions faced by it and its success story as well. Also, a detailed quarterly SWOT analysis was made for the seven main programs of the Strategy.
- 8. A comprehensive analysis of the situations of agriculture, natural resources in the Arab region, obstacles and problems in the Arab agricultural development was also made. All urgent related issues and the estimated impact in achieving the sustainable Arab agricultural development were reviewed; like food waste and loss, trade integration, technical and health problems of environmental Arab agricultural trade, social justice, empowerment of women and youth, adaptation and compatibility, environmental issues, and water, energy and food interconnection, in addition to the study of changes related to the agricultural sectors that happened on world level i.e. economic reorientation, changes in the development thought process, world economic changes, technological progress and moving from the developing goals of the millennium to the sustainable development 2030. And it is just to get a solid ground and help in laying down the goals, programs and the components of the Strategy keeping its time line aligned with the remaining time frame of the Sustainable Development Goals 2030, and achieving thegoals as well, for which the organization was stablished after a deep and careful study of the current situation of the Arab region.
- 9. The main motives of the Strategy, suitable to bring about a paradigm shift in Arab agricultural sector, are to contribute in achieving a sustainable Arab agricultural development and high productivity ensuring a considerable level of the betterment for the people of the Arab countries, especially the rural societies. It is also to enable the organization to fulfill its obligations towards growth and prosperity of its member countries through the continuous development in the Arab agricultural sectors, particularly in promoting the Arab agricultural integration.
- 10. The change process focused on the Organization's initiatives that aim to help in transforming the Arab agricultural sectors to a competitive and important sector nationally and internationally, and ready to achieve the sustainable development goals (SDGs) by developing the capacities to support the Arab countries with each other by increasing the cooperation possibilities, common projects and the environmental integration to achieve the social and economic benefits of the Arab region, driven by a safe and healthy environment in which the agricultural research would help in exchanging the knowledge that would promote and increase food security, nutrition andwell-being.
- 11. The strategy change method is very much relied upon transforming the agricultural sectors from a sector unable to provide food security to a sector capable to achieve the sustainable food security in such a way

that it would achieve the sustainable development goals 2030 by achieving sustainable outputs in the short term, moderate and long term basis.

- 12. Under the long term program, the outcomes of the modified Strategy were seen in: the sustainability of prosperity, income and the growth of the rural areas of the Arab countries, increase in the local gross output, govt revenues, increase in rural workforce particularly the youth and women, product and productivity, market competition, agricultural research and spreading the knowledge, better management and the sustainable agricultural resources.
- 13. Under the moderate term, the outcomes of the modified Strategy are as follow: providing a sustainable human and institutional capabilities, usage of sustainable and compatible smart technologies, diverse agricultural products, different natural resources in the Arabcountries, safe veterinary and health services, lessening the food and fodder waste and loss, providing more developed industrial and agricultural work environment, using moreadvanced agricultural tools & technologies and alternative source of energy to increase product and productivity, and being ready for the climate changes.
- 14. As for the short-term strategy, the outputs are: getting more awareness about the value chains and its importance, finding suitable environment for local and national agricultural policies, better management of the advanced and developed agricultural infrastructures, more knowledge and capabilities of workers in agriculture and fisheries and increasing the agricultural works among youth and women.
- 15. The vision, mission, goals and objectives of the strategy 2030 came up after a long discussion with the concerned authorities, that agrees with the transformation issues, competitiveness, sustainability, productivity, compatibility to the climate change and regional and international development. As it also promotes the capability of the Arab countries to adhere with its related obligations and to achieve the sustainable development goals 2030, increases agricultural incomes, providing work opportunities and achieving social stability, agricultural integration and the food security.
- 16. Vision: A sustainable, competitive, adaptable, productive Arab agricultural sector promoting the economy, social development, rural prosperity and stability and the Arab food security.
- 17. Mission: finding a sustainable, competitive and innovative Arab agricultural sectors promoting nutrition and food security, and contributing in eliminating poverty, and enabling to compete in the regional and international markets. That all would happen though smart technologies and innovative ways to generate and exchange knowledge, providing innovation platforms and special networks and building active partnerships thatwould help in creating a paradigm shift in the Arab agricultural sector.
- 18. General goals of the Strategy: Contribution in the improvement of agricultural products and productivity, food and nutrition safety and security, improving the ways of livelihood, protection of environment and resources to achieve social & economic growth and just development and rural wellness as well.



19. The implementation of the strategy will rely upon some core values and instructional principles i.e. principles of solidarity and integrity based on the roles and responsibility and the ratio of the Arab countries, transparency & mutual responsibility about the outputs procedures and the exchange of knowledge, building mutual benefit partnerships and the coordination and cooperation among concerned people in Arab countries, the international standards to promote the information exchange at the appropriate time that would help in the improvement of mechanism to take decisions regionally and nationally, due regards to the biodiversity, awareness about scarcity of resources, immediate response to the urgencies and emergencies as per the regional and international agreements, respecting and abiding by the principles of U N food and agriculture organization especially the responsible principles of agricultural investments (RPAIs), voluntary guidelines on the Responsible Governance of Tenure of Land (VGGT)

from all member countries, flexibility and dynamism to the issues arising socially, politically and environmentally.

20. The Strategy 2020-2030 aims at providing a framework to manage and cope with the challenges related to the agricultural sector in the Arab countries by achieving the five long-term strategic goals:



 Goal 1: supporting transformation and adaptation in the food and agriculture systems toovercome hunger and poverty





 Goal 2: safeguarding the better management of agricultural resources and ecological systems in the Arab region





 Goal 3: promoting agricultural integration and framing mechanism, procedures and policies of the trade and Arab agricultural investment.





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 Goal 4: developing and flourishing the Arab outskirts, enabling and supporting the adaptation with environmental, economic and social changes related to the agricultural sector.





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 Goal 5: improving management, partnership and providing agricultural knowledge technically and institutionally to support the decision makers.



- 21. To achieve these proposed goals of the Strategy 2020-2030, 6 pilot programs and 19 sub- programs were launched that specified the fields and priorities of the organization work and the common Arab agricultural work in the Strategy period that would serve to achieve the five strategic goals.
- 22. While drafting the elements and the components of pilot programs of the Strategy, the greater consistency among the strategic goals of the Strategy aligned with the goals of the sustainable development 2030 was kept in mind, and to achieve the interconnection in between the programs and the strategic goals, a greater coordination and integration among the programs, considering development priorities and regional agricultural development plans, logical follow up of implementation, promoting countries' capacities to improve the wellness, income and social stability for the rural folk, achieving greater amount of coordination and integration in utilizing the resources and the current capacities with due consideration of active and effective utilization available strength and opportunities and lessening the threats and weaknesses.
- 23. The strategy 2030 included 6 main programs and 19 sub-programs covering most of the agricultural development fields as it also covers all sustainable development goals 2030 related to agricultural sector and that are:
 - Main program for transporting technologies, increasing and sustaining the productsand productivity and the agricultural yield as well.
 - Main program for governing management systems and the utilization of agriculturalresources and its sustainability.
 - Main program for promoting competitive capacities for the agricultural products and improving the investment and Arab agricultural trade.
 - Main program for plant and animal health and the food safety.
 - Main program for developing and flourishing rural areas, innovation and entrepreneurship to empower women and youth and to lessen the gaps and differences between the two gender.
 - Main program to build up human and institutional capabilities and to prove agricultural knowledge (knowledge tank)
- 24. The Strategy includes the procedures of implementation, monitoring, evaluation and the report preparation mechanism. The support for implementation of the strategy will be done through the managerial and organizational infrastructure of the Arab organization for agricultural development represented by the general assembly, executive council and the general management.
- 25. The Strategy also includes the implementation planning procedures comprising budget, finance resources and the implementation partners on the regional, national and international level.
- 26. The annual expenses necessary for the strategy implementation would be met through the annual contributions of the countries in the of Arab agricultural organization budget, and the self-financing achieved by the organization. The organization will put some measures to fulfill the resources and fill the financial gaps by establishing strategic partnerships with financing authorities from private and public sectors. The media & communication will be improved to reach out to the largest number of people.

Foreword

Keeping the need of supporting, activating and framing the joint Arab action in the field of sustainable agricultural development to achieve the Arab food security, the Arab leadership took the decision (No. 314) in Algeria summit in March 2005. According to the decision, the general assembly of Arab organization for agricultural development (agriculture ministers) were made responsible to prepare an Arab strategy for the sustainable agricultural development in the two decades (2005-2025).

According to the guidelines of the general assembly, the Arab organization for agricultural development prepared the Strategy that consisted of 7 main programs and 34 sub-programs. Under each program, there is a group of developmental components which reaches to 114 components. The program and its components are characterized with the coordination, integration and complete interconnection with the vision and goals of the Strategy focusing onthe developmental priorities. The main programs were as follow:

- 1. Developing fisheries and agricultural technologies
- 2. Encouraging agricultural investments and manufacturing in the suitable agriculturalenvironment.
- Promoting competitive capacity for the agricultural outputs.
- 4. Creating agricultural laws and policies structure.
- 5. Building human and institutional capabilities.
- 6. Contributing in the countryside boom.
- 7. Developing agricultural and environmental resources management systems.

The Strategy was presented in Riyadh summit held in March 2007 and the following decisionwas issued:

1. Approval of the Strategy (document no.393) considering it as part of joint strategy for Arab social and economic work.

2. The Arab organization's for agricultural development call to initiate the implementation of the sustainable Arab agricultural development strategy in coordination and cooperation with all concerned sections and to present periodic progress reports to the social and economic council.

Eight years after the implementation of the strategy specifically in Sep 2015, the world summit for the sustainable development – as part of U N General Assembly tasks- passed a resolution namely 'transforming our world agenda 2030' for the sustainable development consisting of 17 goals and 169 objectives. On the summit level Arab league council took the decision- No.631/26

– on 29/3/2015 regarding Arab priorities of the world sustainable development agenda for the period after 2015. As per the third para of the dossier, the concerned Arab ministerial councils were called on to coordinate with the niche Arab organizations and in cooperation with U N concerned agencies to lay down the Arab action plan for the sustainable development agenda for the period after 2015 and that is after its approval from the general assembly of U N in Sep 2015.

Since the goals and programs of the Strategy – sustainable Arab agricultural development- for the two decades 2005-2-25 are very much aligned with the goals and objectives of Sustainable Development 2030, the organization suggested its general assembly in its 35th meeting held in April 2018 to adapt and align the Strategy (2005-2025), its action plans and annual programs and to corelate them with the goals and objectives of the Sustainable Development 2030, so as its implementation would lead to help the member countries to achieve those goals and objectives. The general assembly approved the proposal and issued the act (5/35-2018). The third para of the decision states the approval to the general management of the organization to make the 2005-2025 Strategy document aligned with the goals and objectives of the development plans 2030 and its necessary procedures.

Based on that the organization prepared the modified strategy and presented it to the executive council and the general assembly of the organization in which the following decisionwas made:

- 1. Appreciating the efforts of the general management in preparing the new strategy andmaking it aligned with the Sustainable Development Goals 2030.
- 2. Approving the modified strategy with the attached statement and enforcing the organization to complete its approval procedures from social and economic council of the Arab league and the Arab summit.

The organization hopes the Modified Strategy would be the main pillar to activate and develop the joint Arab agricultural work and that would help in achieving the sustainable Arab agricultural development and the Sustainable Development Goals 2030.



- 1 Important achievements under the Strategy (2005-2025) during the period (2008-2020)
- 2 SWOT Analysis

1 Important achievements under the Strategy (2005-2025) during the period (2008-2020)

The Arab organization of agricultural development held a number of agreements and partnerships with most of the regional and international organizations during the period 2008- 2020. And that is to implement the initiatives and programs of the Strategy and the annual actionplans of the organization. The organization, in cooperation with its member countries and partners, achieved the estimated achievements under this strategy, that covered all fisheries andagricultural fields particularly the in the fields of training, building capacities, research and periodicals, sectorial strategies, laws, rules and regulations in addition to the conferences' documents, workshops, technical and expert meeting, database and specific networks, technicalconsultancies and national & regional leading projects. Some of these achievements are as follow:

- 1.1 Implementing some regional and international projects in different agricultural fields like; protection of aquatic resources, development and protection of agricultural resources, transporting modern technologies to increase agricultural products and productivities, improving animal breeds and fisheries, finding the ways to earn livelihood in the countryside, increasing women's and small farmers' income. Some example of these projects: building some earthen dams, mountainous ponds, rain water collection wells. And the projects for providing production outputs in rural areas like; water pumps, agriculture tools and equipment to lessen human efforts, increasing agricultural land and gross production, providing agricultural animals, fertilizer, good seeds and pesticides in addition to the projectsfor goats, cows, buffalos poultry and honey bee forms, distributing the nursery for fruits, olives and organic plants, fisheries and fish culture. This is in addition to the project for providing vaccines to combat animal diseases, providing crops and seeds to some countries to lessen the cultivation loss. This is also in addition to providing sterilized males to fight against screwworms fly.
- 1.2 Implementing a number of regional and national level research studies covering all sectors and fields of agriculture, animals, fish, pastures and forests, in addition to the research studies about the utilization of water, its development and conservation, food and water security, trading and marketing of agricultural products. A number of studies were carried out by the organization and guidelines were issued, conferences, workshops and technical meetings were held about the possibilities of the marketing

and trading of agricultural and fish products. Some regional strategies were also prepared like; aquaculture and sustainable management of pastoral resources. Moreover, a number of periodic reports and statistical books were prepared and published.

- 1.3 The organization made a number of agriculture ministry consultancies, Arab agricultural research institutions, technology transport centres and publishing modern techniques in agriculture and fish culture to the best utilization of resources. It also provided technical support services to protect and utilize natural resources in different fields and the countrysidewomen activities and empowerment in different fields.
- 1.4 As for the trainings, the organization held qualitative trainings that benefited around 16460 participants from all Arab countries during 2008-2018 in 776 local, regional and national level training sessions that covered all areas of agriculture and fisheries. About 200 diploma holders in the fields of pastures, forests and environment passed out from the Organization's technical Arab institute for agriculture, wealth and fisheries.
- 1.5 The organization established a number of database information and specific networks during the aforesaid period. Some of them are:
 - Agriculture, food and animal genetic resources
 - Plants genetic resources
 - Agricultural marketing information
 - Coastal, nomadic and countryside women
 - Aquaculture
 - Integrated management for sustainable pastoral resources
 - Honey bee breeding
 - Agriculture statistic database
 - Expert system for transboundary animal diseases
 - Arab farmers expert database

2) SWOT Analysis

A detailed analysis of SWOT was carried out to implement the strategy 2008-2018. It was briefedin the annexure no.1. Its general features are as follow:

Strength:

- Strong foundations in in different fields in Arab countries comprising a goodinfrastructure, trained and expert officials and support from the Arab organization for agricultural development and from a number of regional and international organizations.
- Providing rules and regulations for the sustainable agricultural development to the Arab countries including policies instructions.
- Favourable geographic location of the Arab region that helps to reach out to the marketsat a greater length.
- Promising institutions of private sectors
- Natural resources and the rich biodiversity in some countries
- Institutions for building capabilities with extended Arab agricultural experiences that strengthen the training activities.
- Increased awareness among the Arab countries to participate in the world development agenda that includes protection of natural resources and sustainable development.

Weaknesses:

- Unstable natural conditions of the region, particularly the scarcity of water, deterioratingland and the climate change
- Regional differences and lack of economic, social and political stability.
- Limitation and or ineffective infrastructure and agricultural services
- Weak initiative spirit and innovative skills
- Uncertainty about the land acquisition in some countries
- Weak internal markets and the absence of active economic cooperation in between the countries

- Lack of human resource and insufficient foreign relations with specific institutions and limited partnership of private sector.
- Substandard and weak management of food safety,
- Limitation of agricultural activities and lack of value chain method.
- Insufficient regulations and supporting agricultural policies
- Lack and or weak agricultural information system.

Opportunities:

- better possibilities for more cooperation with international community indevelopmental interests
- availability of wide area to adapt high level of technology, world agricultural markets and investment with quality standards
- easily getting knowledge and directives for economic policies and the promotion of reliable agricultural investments
- available frame work supporting the sustainable development goals policy, that consist of
 valuable opportunities to achieve strong economic development to provide political space
 to support long-term sustainability and to overcome the poverty and to achieve sustainable
 development.
- The sustainable development agenda includes rich opportunities for training and building capacities and helping in sustainable agriculture.
- Preparing many organizations to help in countryside development and to provide different support to the rural areas and farmers lacking resources

Threats:

- Climate change and desertification and overlapping them with pollution risks, utilizing inappropriate lands by investor and the refugee flow that becomes the threat to the natural resources.
- Complexities of intellectual property rights that hinders to get valuable techniques.

- Capital and financial stagnation on the agricultural lands in some countries and non-compliance of the investors with responsible investment principles
- Safety and quality requirements in importing countries
- Arab trading restriction, world agricultural prices fluctuation and changes in worlddemand
- Contradiction in some local policies with terms and conditions of donors and foreign assistances that nullify it.
- Availability of sound opportunities for work in foreign that causes the migration of capable Arab experience.



Analysis of agricultural conditions and natural resources during the strategyimplementation period (2008-2018)

3. Analysis of agricultural conditions and natural resources during the strategyimplementation period (2008-2018)

3.1 Agricultural products and natural resources:

Following is a brief of the conditions of agriculture and natural resources in Arab region in addition to the hinderances and problems that the Arab agricultural development is facing in policies, regulations and procedures.

3.1.1 Plant Production:

The statistics of the Organization (Arab organization for agricultural development) indicates the increase in the average production of grains during 2006-2008 from 33.7 million tons to around 51.5 tons with ratio reached to 52.6 % during 2016-2018, cereals; from 11.2mt to 15mt, pulses; 1.3mt to 1.4mt, oil seeds; 6.6 to 11.6mt, vegetable; 51 to 53mt, fruits; 30 to 35mt in the same period mentioned above. The main problem is hesitation in production and inconsistency due to the dependency of a large production sector on rain water and the traditional practices.

3.1.2 Animal Wealth:

The number of animal wealth reached to around 350m and most of them are in Sudan with 31%. The statistics indicate that the gross production of meat in the Arab nation reached to around 9.3mt as annual average during 2016-2018 with the increase of 27.8% from what was during 2006-2008, in which 4.4 mt red meat and 4.9 mt white meat.

The annual average of dairy products reached to around 28 mt during 2016-2018 with 12% increase in the period 2016-2018. The egg production reached around 1.4 mt and 1.5 mt in boththe duration mentioned above with the increase of 7% only.

The animal farming is mostly done according to the open pastoral production, and the system is facing many problems related to high pressure on fodder that leads to low production of animal wealth. Moreover, the revenue of this wealth, is affected badly due to poor infrastructure and difficulty in reaching out to the markets.

3.1.3 Fish and Aquatic Life:

Fish and aquatic lives are considered as an important source that could be relied upon to fill thegap in the Arab region in the field of animal protein.

The statistic says that there are around 27.1 thousand km of coastal areas in the Arab region, 550sq km

of continental reefs and 3 million hectors of river beds and internal surface lakes, in addition to 2.4 m hectors of dam stocks and wide area of still water.

Despite this estimated resource possibilities, the organization is producing only 3.5 mt as the average for the period 2006-2016, adding around 7.5 mt as an average during 2016-2018 and that is equal to 3% of world production of fish, meeting the needs of the people, without benefiting from the unused huge stocks due to insufficient investment and poor technologies for the development. Particularly the sectors are still facing the hegemony of traditional fishing practices and unguided over fishing from foreign agencies without putting any framework for mutual interest of the concerned countries, in addition to the poor instructions, rules and regulations necessary to the purposeful coordination between the Arab countries.

3.1.4 Forests:

In general, the Arab region is facing scarcity of forest land, it covers 42 million hectors, forming 3% and 1% geographic area of the Arab nation and the world respectively. Despite its importanteconomic and environmental benefits, the forests' area is decreasing in the Arab region. Most ofthe forest resources are found in Sudan by 44%. Other 45% of these resources are shared between Somalia, Algeria, Morocco and Saudi Arabia. As it is known that forests have economicimpacts that reflect in its wooden and non-wooden products like; acacia, other forest fruits and fodder, in addition to environmental surrounding that helps in honey bee farming, creating workopportunities and environmental tourism.

On the other side, the forests are exposed to dryness and desertification due to unguided use of forest and the neighboring area. It is necessary to put efforts to achieve sustainable management, replanting trees and spreading those concepts and practices regarding country side development. It is also important to stop shrinking of forest resources as one of the main natural resource in connection with the climate change and other environmental changes, keeping in mind It's economic, social and environmental value of this important resource.

3.1.5 Natural Resources (Land, Water and Pastures):

The area of cultivating land in the Arab nation was estimated in 2018 around 217 million hector, in which only 72 million hector is used. During 2016-2018 the area of cultivated land reached to 54.1 million hectors, while it was 48.5 million in 2006-2008. Cereals are the main production that makes 54.5 % from the total cultivating land in 2018. In general, wheat revenue holds the first place followed by oil seeds, fruits, vegetables, fodder, pulses, cereals, sugar and fibers respectively. Most of the Arab countries are barren, they are dry by their nature. There is water problem in most of the region, desert or semi desert climatic conditions are prevailing as it forms 80% desertification. The scarcity of water is the main factor that hinders the Arab agricultural development.

Statistics says: the Arab region has only 06% of the total surface water of the world and gets 2.1% of the total rain water. The total water resources are estimated around 275.5 billion cubic metresmostly from traditional sources like; rains and surface gusting water. According to the stats, only62% of these waters are used, in which 95% are used in agriculture sector. The individual share of this water resource is 800 cubic meter as compare to 7000 cubic meter on world level. There are some non-traditional water sources like; desalinated and treated water that does not exceed 1.3% of the total available resources. About 50% is found in the middle region of the Arab countries, 25% in the eastern part and 18.2% and 6.1 % in Morocco and the Arabian Peninsula respectively.

Most of the Arab cultivation is rain-fed, relying upon rain water whose area was estimated as 50.2 million hectors in 2018. These areas are facing problems in heavy rains and drought risks.

The pastoral resources cover around 371 million hectors, in which, 28% is the area of Arab nationthat provides about 25% of fodder. Arabian Peninsula is considered as the main region for theseresources; its area is estimated as 179 million hectors and that is around 48% of the total area of Arab nation. The remaining area are basically shared by the west Arab and middle region.

The pastoral resources are facing big challenges like; overgrazing pressures and increasing differences due to instability in traditional grazing groups, in addition to climate changes, inconsistency in rain cycles, that finally leads to end up vegetation and low pastoral production.

3.1.6 Consumption and self-sufficiency ratio:

In last twenty years the Arab population increased by 61%. The percentage of food production increased more than the population percentage in the same period like; cereals, white meat, fish, egg and sugar. The vegetable production is closer to the population percentage. If it is the positive side of the food production, the negative side indicates lots of worries, particularly the Basic commodities of food groups.

So the production of cereals increased only by 10.5%, pulses 5%, red meat 46.1%. For cereals, the situation is worse specially the wheat and Syrian corn as the consumption of the two increased more than the percentage of population increase; wheat, around 73.9% and Syrian corn about 108.7%.

As for self-sufficiency ratio, the Organization statistics indicate that the Arab nation achieved high percentage for cereals, vegetable, fruits and fish between 95% to 108% as an average during 2016 -2018, where the self-sufficiency ratio for all reached to 95%, 99.8%,101% and 108% respectively. The dairy and its products, eggs, read meat and white meat achieved moderate ratio in the same period between 67.5 -89.6%. the group of cereals, sugar, fats and pulses; its ratio is low between 39.6 to 54.5%.

By analyzing the situation from the self-sufficiency ratio point of view, it appears that this ratio is improving in some food groups that includes vegetable, fruits, fish, dairy and its products. But this ratio seems to be deteriorating in some other groups of food like; grains, cereals, pulses, oilsand fats, red meat, white meat and eggs, while it seems relatively consistent or low improvement in sugar.

3.2 Institutional, economic and technical procedural challenges in the implementation of the Strategy (2005-2025)

During the implementation of the Strategy, a number of institutional, economic and technical procedural challenges came up that could be summarized as follow:

- 3.2.1 Inactiveness or not following the principles of responsible agricultural investment (PRAI) as the Arab countries are supposed to abide by those principles and the rules and regulations related to environmental and social governance, that includes appropriate utilization of natural resources, particularly the land and water to insure the protection and safety of environment inaddition to reduce the impacts of climate changes and to respect the local social properties to contribute in its growth and prosperity. These components also include the application and spreading of technologies in which the social and environmental compatibility is kept in mind considering economic and financial responsibilities as well. It must ensure that the agricultural investment in the Arab countries are still facing with weak innovative capabilities in the entrepreneurship in addition to the limited financial investment and mostly incompatible rules and regulations related to the utilization of land specially in the Arab countries having natural resources but lacking its financial possibilities.
- 3.2.2 Not following the guidelines regarding good management of acquiring land fisheries and forests in context of achieving food security.
- 3.2.3 The leading governance guidelines aim to promote the efforts to overcome hunger and poverty and to contribute in finding ways for sustainable earning, social stability and other Economic, social and developmental goals. Achieving these goals are very much dependent on the individual's interaction and dealing with natural resources in better management system to reduce the differences and provide investment opportunities.

3.2.4. Poor Partnership with private sectors:

The practical experiences showed that the investment from the government sectors is incompetent, while the private sectors' investment that may work with competency, is facing a number of problems related to the complexities of certification procedures of the investment demands and poor infrastructures, in addition to excess duties (taxes) and money exchange problems.

From the futuristic point of view, a model of partnership between public and private sectors could lead to achieve the positive impact in creating value chain requirements with all its economic, environmental and social dimensions, that would help to achieve the sustainable Arab agricultural development.

Viewing the need of this partnership, it requires that all these regulatory, institutional and infrastructural hinderances should be taken as a push to partnership and developing innovative capabilities of entrepreneurship in the private sectors.

3.2.5. ineffectiveness of local and civil society organizations:

In the context of developmental work, the civil society's activities on the national level appears to be very weak even today, as it did not play a leadership role in the partnership framework between public and private partnership. And no doubt that these societies are suffering from its weak institutional and organizational structure in addition to the shortage of financial resources and inability in creating means to attract those resources.

But yes, there are some successful experiences of these organizations particularly in Morocco, Jorden and Lebanon. A network was established on the national level including the Arab non- governmental organizations for development. It is a regional network that holds its activities in 12 Arab countries. It has its members' communication platform. Beirut is heading this network since 2000 AD to achieve its goals and objectives like; strengthening the civil society's role in thesustainable development and calling for social and economic rectifications on the regional level, considering the values of justice and safeguarding the rights of all sections of the society.

3.2.6. Lack of Value Chain of the development (Production and Supply Chain):

The Arab organization for agricultural development, in its developmental activities, stepped-in tostudy the value chain. It stated with the study of dates sector in the Arab nation. This was an important analytical approach to uncover all activities related to the concerned commodity and financial benefits linked with all value chain stages. There is no doubt that creating a value chainmap for a concerned commodity requires a deep and reliable statistics to get a complete analysis reflecting its fore and back ground links in the production and marketing of that commodity.

3.2.7. Food waste and loss:

There is huge amount of fish, animal and agricultural products that are facing waste and loss throughout

the supply chain. Statistics indicate that this waste and loss reached to 84 million tonsthat represent 29% of the whole available food category and it value reached 50.6 million dollars in 2015.

While evaluating the loss before and after the cultivation of different food commodities, the vegetables have high percentage estimated as 36% followed by fruits and grains with 24% an 21%. It is important to indicate that there are reasons behind this high percentage of waste andloss. Some of them are as follow: natural causes related to atmospheric fluctuations like winds, rains and temperature. Others of technological reasons related to the spreading insects and diseases and the suitability of agricultural practices with the technology usage. There are some economic reasons too, related to lacking infrastructures, poor means and practices in marketing channels, high cost of production, and lack of agricultural workforce at the right time. Keeping inmind the increasing demand of food due to the ratio of population and income raise, the waste of food is considered as the basic threat in achieving food security goals that leads to more reliance on food import, hence the pressure on foreign exchange. The causes also include the waste of production resources like; water, agricultural outputs and other natural resources.

3.2.8 Lack of fodder

In general, there is lack of fodder in the Arab region due to the dry conditions, heavy rain fluctuations and relying on natural pasture in animal farming, that mostly provide a low quality fodder. The fodder banks are considered as useful means, where the fodder needs are met and high quality is provided. Some successful experiences for such banks are done in Africa, specially in Ethiopia that faced continuous droughts in the past.

3.2.9. unstable price policies:

Under the world economic reform system, most of the Arab countries adopted policies based on the competitiveness of the prices as per the terms and conditions of supply and demand. But the application of these policies are facing many changes and fluctuations specially in government's interventions to persuade the producers by supporting the production outputs and fixing the attractive prices suitable with the production cost and compatible with the world price, focusing on the importance of notification about the attractive prices at the appropriate time matching with the production time. In general, these prices policies are applied in the Arab countries for basic grains (cereal). As far as the prices of garden outputs and fish and animals' products are concerned, they are left on the power of supply and demand in the local markets. And most of the time it is not matching with the world competitive prices.

3.2.10. Trading and Marketing between the member countries:

Most of the Arab agricultural trade happens outside the Arab region. It is very small portion from the whole trading (import and export). The ratio reached to 24% in 2017. The percentage of food stuff trading reached to 25%. As per the statistic report, agricultural import and export make 46% an 19% respectively. It reflects that the Arab market has half of the exports, while the same market is getting flooded by the agricultural imports from outside the Arab region with high percentage exceeding 80%.

No doubt that these statistics reflect the importance of putting efforts to increase the agricultural trading ratio, matching with the aspirations about the Arab agricultural and economic integration.

3.2.11. Scarcity of Jobs and work opportunities in rural areas specially for women and youth:

Poverty is a reality in the countryside, where the individual's share from the agricultural income is only ¼ of moderate income in production and other service sectors. The report indicates that about 50% of the countryside people get clean and healthy water, 30% of them gets treated water services and 60% gets health services. This condition leads to increasing migration from countryside to cities. And that contributed in raising the wages of the workers, increasing the production cost and deteriorating the investment ratio.

While evaluating the poverty line; 1.9% Dollar per person per day, the poverty ratio in the regionreached to 6.7% in 2015.

The rural poverty level exceeds these figures in many Arab countries. To make a desired change in rural areas and fight with poverty, it is important to focus on agricultural and economic policies to uplift the agricultural sectors. And then, it will help to raise the income and open the doors forwomen employment in rural areas, possibilities of possessing land, providing suitable technologies, finance services and the opportunities of education. And the same could guide theyouth community, strengthening job ratio to prosper the countryside and to eliminate poverty from there.



Sustainable Arab Agricultural Development Challenges:

4. Sustainable Arab Agricultural Development Challenges:

4.1. Sustainable Agricultural Development Challenges:

While reviewing the Strategy, achieving the best performance and forecasting the futuristic challenges of agricultural development were taken into account, matching with the Sustainable Development Goals. It happened through a thematic discussion about the following challenges:

4.1.1. Food and Nutrition Security:

The available food ready for consumption in the Arab countries reached around 322 million tons as an average during 2016-2018 with a slight increase of 5% over its average level - 309 million tons- during 2006-2008. Cereals got the high percentage; around 40%, vegetables 17.5%, fruits 10.5% and the dairy products 9.5%. Despite this increase in the production and the availability of food in the Arab nation, the food scarcity is still there with high percentage between 26% - 28% in some countries exposed to economic and political crisis, while this percentage is low between 3.5% - 6.2% in other countries. It indicates that the hunger ratio in the Arab region is generally low, especially if it is compared with its world level average that reaches 11% approximately. Although this percentage is low in most of the Arab countries, more than 50 million people are suffering from nutritional deficiency and 21 millionare suffering from food insecurity, particularly in Palestine, Somalia, Sudan, Syria and Yemen. Despite this acceptable food security conditions, the highest security pressure on the Arab people is the lack of micronutrient that makes a bigger challenge than the insufficiency of food or lack of calories. It seems that the Arab countries keep on relying upon the food imports, but the fact is that these countries are different in their capacity in providing food to their people, either from imports or from the local products. This condition could be materialized by the rich countries, while the people in many other countries will be prone tomalnutrition unless these countries would have taken necessary steps to tackle the situation seriously. It means that putting more efforts is highly needed including the implementation of effective and sustainable agricultural practices.

4.1.2. Climate Change:

Viewing the prevailing dry conditions, severe shortage of water and great dependency on cultivating dry lands and using traditional systems in agricultural products and food security in the Arab region, it is very much expected that there would be a long-range negative impacts of the climate change on the main economic sectors and the food security in the Arabregion. The severe and continued dryness actually increased the occurrence of famine, foodinsecurity and loss of livelihoods and a decent life. And in the absence of adaptation standards, the crop yields are expected to be reduced by 30% because of the increase in the temperature by 1.5-2.5 degree Celsius. This reduction may reach to 60% if the temperature increases from 3 to 4 degree Celsius. The yields of the rain corn

will be reduced by 15% - 25% in the beginning of 2080 in North Africa because of the increase in the temperature by 3 degree Celsius. It is to be noted that the common impact of the change in the agro-climatic ranges and the high temperature led to shorten the growth seasons, where the growth seasons in the eastern part of the Mediterranean region became shorter by 2 weeks, and it reduced the predicting capacity because of this poor and inappropriate agricultural practices that may lead to food insecurity in the region.

4.1.3. Development of Institutional and Human Capabilities:

The region is facing a significant shortage of capabilities in many areas, particularly intechnical fields, geographic information, online investment, early warning system, production increasing policies and international agricultural trading policies. Also there is a mismatch between the university education and the current and future requirement of the graduates, as the university curricula is very much traditional and it does not include the innovation, creativity and entrepreneurship related issues, necessary to motivate them to think about starting their own business. In addition to the poor coordination, there found a very small number of expertise exchange programs being carried out among the Arab countries and with the foreign qualified institutions in the related fields. There also found acute scarcity in producers' training programs and facilities specially the field-work and business-oriented training. Furthermore, the financial resources, allocated to the training and building capabilities, are insufficient to face the challenges of shortage in qualified academicians andmanagers due to the brain drain, because of the attractive work opportunities outside the Arab region.

4.1.4. Poor Reliance on Technology:

The agricultural research and guiding institutions are considered as keystone to discover the possibilities hidden in agriculture in the Arab region – if they are supported and sufficient capital is allocated for their research work, to overcome the current shortcomings in this field. The available statistics indicate that the contribution of Arab researchers in their efforts to develop agricultural techniques applied by the end of millennium programs, was 0.3% only against 10% in developing countries and 30% in USA. In this regard, the Arab region is facinga number of challenges to take necessary curative actions to develop the research i.e. extremely poor benefit from the technical and research cadres available in most of the agricultural research institutions, poor financial allocations, limited participation of private sectors in agricultural research, insufficient training and poor coordination between academic and research institutions and very low incentives for researchers. This is in additionto big gaps found between mainstream innovations and value chain development and inaccessibility to the scientific knowledge in advanced countries or utilizing developed technology in most of the time. What leads to this low flow of technology is the result of absence or poor coordination between the research institutions and agricultural services, aswell

as, the poor participation of producers in decisions making process related to the development of technology.

4.1.5. Non-availability of Favourable Policies and Strategies:

The Arab agriculture is suffering from either absence or lack of joint Arab policies and regulations necessary and sufficient to create sustainable agricultural development, which aggravated due to the political disturbances in the Arab region and on the country level, so as the policy making is fragmented at different institutional level. In the meantime, the required knowledge and skills to formulate and evaluate the policies are negligible. For example, the agricultural policies-making is neglecting the use of comprehensive approach related to macroeconomic policies, in addition to ignoring the value chain. As a result, this approach loses the complete integration for the production, marketing and sub-services. Onthe other hand, the intervention of external bodies or the countries that offer technical and/or financial support, may lead to hindering the process of setting local policies. Also theperformance of policy-making institutions would often get disturbed due to the international

environmental and economic changes. And that is because it is not flexible enough to cope with these variables.

4.2. Urgent Related Issues:

4.2.1. Loss and Waste of Food:

The challenges of food waste and loss; its far-reaching impact reflects on the food security, environment and economy. The Arab region is suffering from high quantity of food waste andloss, as some times, it reaches to more than 210 kg per person per year. Despite the importance of this issue in the Arab region, where the population crosses 400 million, the search process indicates to a rarely found applied studies that search out the motives, sources, management, quantification, policies, interventions and initiatives aiming at controlling food waste and loss in the Arab world. It provides a limited data about food wasteand loss in the Arab region. And not to mention that, the available studies rely on sampling, that does not allow to generalize the result throughout the Arab region, or even to carry outcomparative studies. What requires is to carry out more research about the food loss and waste across the food supply chain in the Arab world, focusing on social, technological, behavioral and cultural motives, reasons and dimensions, and the economic and environmental impacts as well.

Similarly, the consumers' stands towards waste, in general, and the food waste in particular, also considered as one of the important topics to be discussed in the light of differences in cultural practices, norms and traditions in all over the Arab world.

4.2.2. Trade integration (Technical barriers for trade (TBT), sanitary and phytosanitary system SPS)

The Arab countries should come closer to adopt trade facilitation measures as per the worldtrade organization system to promote marketing and trade. But there should not be arbitraryuse of TBT and SPS in Arab environmental trade, like putting technical and health barriers against the flow of goods and the service providers inside the region. Instead, technical and health measures must be enough to ensure the food security.

The International Trade Organization Accord encourages the member countries to rely upon the international standards to facilitate the trading. Similarly, the agreement on trade in services gives the individuals the freedom of movement across the borders. There is no doubtthat abiding the Arab countries by these agreements and other procedures related to facilitating trade — like, facilitating border regulation procedures on commodities, will lead to strengthen the Arab agricultural trade integration with additional benefit of providing trading environment, where the prediction could be possible.

4.2.3. Social Justice and Women and Youth Empowerment in Remote Rural Societies:

The issues of equality between the two gender – specially the participation of women and youth in the whole process of sustainable agricultural development and in all sectors- make a source of great interest among the countries of the region. The main requirements include the guarantee of equality for the women in the distribution of resources, education, financeand technology, and enabling them to get work opportunities across the value chains. On thesame way, the prospects of youth - who makes 60% of the Arab population – need to enhancebenefitting it by giving them investment opportunities across the value chains, and providing them with adequate training, the institutions that work properly and the appropriate policies to develop their innovative capabilities (with consideration of equality and diversity).

4.2.4. Capacity of Adaptation and Resilience:

Building resilience capacities, coping with climate changes, is a critical problem, especially inless developing countries i.e. Djibouti, Somalia, Sudan and Yemen, where the life of a big number of people is under threat due to repeated droughts, change in heavy rains patterns, clashes and conflicts. To enhance the capacity to tackle with hunger and malnutrition of the people of those countries, quick and appropriate actions should be taken to help them and to enhance their capacity to cope with the climate change in a best possible way. Favourable policies should also be made to empower youth and to build their capacities, that would helpthem to take initiative in

making a climate-resilient development in their region, and that willprovide the youth with ample opportunities in the development area as a whole, in addition to extending the international cooperation and work side by side with the Paris accord to build societies capable to adapt to the climate.

4.2.5. Environmental Issues (Biodiversity and Climate Change):

The harsh environment that affects the Arab agricultural sectors, leaves a number of negative impacts, i.e. low productivity, lack of work opportunities, lack of food, hunger and malnutrition. These conditions get worse because of the climate change that leaves a big pressure on biodiversity. And it leads to the loss of a number of plant, animal and aquatic species. That requires to take suitable and effective actions to reduce the impacts of climatechange to protect animals and plants. Some of these actions are: the cooperation with the rural societies and authorities to establish village and school nurseries to restore the original vegetation through reforestation, natural regeneration and sand dune stabilization. These activities must be supported by training, building capacities, institutional support and enhancing the policies and regulation framework. On the other hand, the conservation of species in gene banks, plays an important role in preserving biodiversity.

4.2.6. The Interdependence of Water, Energy and Food (Nexus):

Despite having this high and growing interconnections between water, energy and food (Nexus) in the Arab region, the ineffective management of these areas, caused to an imbalance in between its different usages, and that will increase due to the high population growth, climate change risks and consumption options. Viewing this, it is necessary to follow coordinated policy approach to achieve the balance between all three areas of water, energy and food, to ensure its sustainability and consistency. While doing this, the learning and innovation opportunities will be open to check the security risks, promoting efficient utilization of resources, managing demand and sustainable and balanced consumption patterns.

This approach will help the Arab region to comply with the Sustainable Development Goals, and the commitments to reduce the carbon usages under the Paris summit framework of climate held in 2015. Despite the region lacks aquatic resources and varies in providing food, but it is blessed with huge energy and financing resources that could be mobilized to help the countries with limited resources to get the desired Nexus.



General Framework for the Sustainable Arab Agricultural Development Strategy (Modified) 2020-2030.

5. General Framework for the Sustainable Arab Agricultural Development Strategy (Modified) 2020-2030.

The Strategy 2020-2030 was prepared as a modified and alternative strategy (of the Sustainable Arab Agricultural Development) for the two decades (2005-2025), keeping the following in to consideration:

- Evaluation of advancement made in the Strategy 2005-2025, throughout the period often years from when the Strategy was implemented in 2008, dealing with problems & limitations and evaluation of achievements and success stories.
- The world level changes, related to agricultural sectors, i.e. economic reorientation, changes in the development thoughts, world economic changes, technological advancement and moving from millennium development goals to the Sustainable Development Goals 2030.
- Matching the timeline of the Strategy with the remaining timeline of Sustainable Development Goals (SDGs) 2030.
- Achieving the goals, for which the organization was established, under deep andthorough study of the current situation of the Arab region.
- Benefiting from the SWOT analysis results, focusing on maximizing Strengths and Opportunities and minimizing negative impacts of threats and weaknesses.

5.1. Modified Strategy (2020-2030) Preparation Motives:

The strategy was modified by using change or transformation theory approach which reflects the ambition and commitment of the Organization and all partners concerned with the agricultural development in Arab nation—member countries and local, regional and international organizations. And that is to achieve the following:

- Making a paradigm shift for Arab agricultural development sectors, that would contribute to achieve a sustainable Arab agricultural development and high productivity at high level of wellbeing for the people of Arab countries, particularly the rural societies.
- Enabling the organization to achieve its commitments towards the prosperity of its member countries through consistent development of the Arab agricultural sectors, particularly in the field of promoting agricultural integration.
- Effective contribution in meeting the needs of Arab countries like; agricultural goods, increasing competitive capabilities for the Arab agricultural products and reaching out to the international markets.

- The organization's assistance in periodic and non-periodic reports and releases, for which the organization collects its data and publish it. Some of them are as follow:
- Year book of agricultural statistics
- Year book of fish statistics
- Arab food security conditions report
- Report on monitoring and following-up the food security in the Arab region.
- Report on following-up the implementation of Arab programs for the sustainability of food security
- Report on the condition of agricultural resources:
 - Agricultural lands; unified Arab report on efforts, made by the Arab countries, in neutralizing land degradation etc.
 - Water
 - Plant and animal genetic resources
 - Sustainable development and climate change challenges
 - o Sustainable countryside development and women & youth empowerment
- Activating the role of follow-up and evaluation of the activities done by the organization. The desired change is based on the organization's initiatives to contribute in transforming the Arab agricultural sector into an important competitive sector regionally and internationally and ready to achieve the sustainable development goals (SDGs), by developing capacities to support the Arab countries with each other, through enhancing possibilities of joint ventures and cooperation and the environmental integration, and that is to achieve social and economic benefits for the Arab region, driven by healthy and safe environment in which, theagricultural research contributes in exchanging knowledge, that strengthens the food security, nutrition and well-being. And that enables the Arab region to be self-dependent and capable to fulfill its commitments and aspirations towards food production and import in a sustainable way, strengthening the role of the Organization and its supervisory capacities. Particularly when, it has an artistic vision accepted and appreciated by all member countries as an Arab experience house in fish and agriculture field.

The change also aims at enhancing the Organization's efforts to achieve its main goals, represented in supporting or strengthening the policies of member countries to maintainingthe environment, protecting the biodiversity of ecosystems and responding to the risks and threats of the climate change.

The support from the Organization for implementing the Strategy 2020-2030 will be completely done through enhancing human and institutional capacities, and effective execution of auxiliary advisory service, offered by the organization to the Arab countries to create an environment, favorable to the desired radical change in development approach in the Arab region.

5.2. Strategy (2020-2030) Change Approach:

The strategy change approach depends on transformation and adaptation of the Arabagricultural sector, so as it becomes a competitive sector and capable to achieve the sustainable food security and to achieve the Sustainable Development Goals 2030 through the following outputs:

Sustainable long-term strategy outputs:

- Sustainability of wellbeing, income and the prosperity of rural areas in the Arab countries.
- Increasing agricultural sector's contribution to the gross domestic products (GDP) in most of the Arab countries.
- Increasing government revenues.
- Increasing rural employment, especially among women and youth.
- Increasing product and agricultural productivity.
- Enhancing competitiveness in the market (profitability and rate of return on theagricultural investment)
- Promoting agricultural research and sharing knowledge.
- Better management and sustainability of Arab agricultural resources (land, water, climateand plant and animal genetic resources)

Influencing Factors:

- Availability of favorable regional and local agricultural policies, rules and regulations.
- The extent of adherence to the principles of responsible agricultural investment (PRAI).
- Strengthening the resource governance, particularly in compliance with the
 international principles and guidelines, as offered by the international council
 of food security (CFS), and these are the voluntary guidelines on the Responsible
 Governance of Tenure of Land, fisheries and forests in the context of National
 Food Security-VGGT.

- Emphasizing on social gainings for traditional agricultural societies, eliminating all kindsof injustice and allocating land justly.
- Enhancing competitiveness between the countries and agricultural subsectors topromote agricultural product.
- Provision of enhanced macroeconomic policies both financial and monetary, toagricultural sector.

❖ Merits:

- Low costs of business and trade dealings.
- Proper and Sensible utilization of the two resources- land and water, in agriculture.
- Quick and appropriated response to threats and disasters through active use of electronic platforms and early warning systems.
- More investment and partnerships between public and private sectors.
- More self-reliance in every country and sustainability financing programs.

Sustainable outputs of the moderate-term strategy:

- Organized and sustained institutional and human capabilities.
- Sustainable and compatible smart techniques throughout the value chain.
- Agricultural production and various products, reflecting the diversity of natural resourcesin Arab countries.
- Biologically and environmentally safe, health and veterinary procedures and services.
- Less food & fodder waste and loss.
- More developed and widespread agricultural and industrial business.
- Extensive utilization of technologies, agricultural tools and alternate energy to increaseproduction and productivity.
- Enhanced response to the climate changes.

Short-term sustainable outputs:

- Better awareness towards toward value chains and its importance in increasing income.
- A favorable & compatible environment that enhances suitable agricultural policy-making at regional and national level.

- Good management of the well-developed agricultural infrastructures.
- Broader knowledge and well-developed capabilities of the workers in both the sectors-agriculture and fish.
- Spreading agricultural entrepreneurship among women and youth.

5.3. Vision, Mission, Goals and Basic Values:

The vision, mission, goals and values of the Strategy (2020-2030) was formulated after a long discussion with the concerned people, making it compatible with transformation issues, competitiveness, sustainability, increasing production and agricultural productivity, adaptability with environmental and climate changes and regional and international new developments. It also strengthens the capabilities of the Arab countries to adhere with its global obligations, and to achieve the sustainable development goals 2030 (SDGs 2030), increasing agricultural income, providing work opportunities and to achieve social stability, agricultural integration as well as the Arab food security.

Vision:

A competitive, sustainable, adaptable, shock -resistant Arab agricultural sector, that would also be productive and promoting economic growth, social development, stability, countryside prosperity and food security.

Mission:

Finding innovative, harmonious, competitive and sustainable Arab agricultural sectors, that enhance the food and nutrition security, contribute in eliminating poverty and capable to compete in national and international market. That would be done by utilizing climate friendly smart technologies and innovative approaches to generate and exchange knowledge, creating innovative platforms and specified networks and building active partnerships leading to a paradigm shift in the Arab agricultural sector.

General Goal:

Contribution in improving agricultural product and productivity, food and nutrition safety and security, improving the livelihoods and protection of environment and resources to achieve sustainable social and economic development, equitable growth and rural prosperity.

Basis Values and Guidelines:

The implementation of the Strategy 2020-2030 is based on the following:

- ✓ Principles of solidarity and integrity, based on delegation and relative advantage foreach Arab country.
- ✓ Transparency and mutual responsibility about the outcomes and procedures and exchange of information.
- ✓ Establishing partnerships with mutual benefits and coordination and cooperation between various concerned peoples in the Arab countries and the international standards, to enhance the exchange of information at the right time, to improve the decision-making mechanism regionally and nationally.
- ✓ Respecting biodiversity, awareness of resources scarcity and response toemergencies and disasters as per regional and global agreements.
- ✓ Respecting and abiding by the principles of UN agriculture and food organizationthat talk about the responsible agricultural investment (RPAIs), and voluntary

guidelines on the Responsible Governance of Tenure of Land (VGGT), signed by most of the member countries in the Arab organization for agricultural development.

✓ Flexibility and dynamism – with highly professional approaches- for the emergingissues, either political, social or environmental.

Strategic Goals:

The sustainable Arab agricultural development Strategy 2020-2030 aims at providing aframework to govern and deal with the challenges related to agriculture sector in the Arab countries, through achieving the long-term strategic goals and that are as follow:

Goal 1: To support transformation and adaptation in agriculture and food systems to over- come hunger and reduce poverty.

Goal 2: To maintain good governance of the agricultural resources and ecosystems, and its sustainability in the Arab region.

Goal 3: To enhance Arab agricultural integration and formulating mechanism, procedures, policies, trading system and the Arab agricultural investment.

Goal 4: Growth and prosperity of the Arab rural areas, and enabling and supporting adaptability with societal, economic and environmental changes related to agricultural sector.

Goal 5: Good governance and partnership, and imparting agricultural knowledge – technical and institutional, to support decision-makers.

Format (1): General framework of the modified Strategy Theory of Change (2020-2030)Transforming agricultural sector in Arab countries from lack of unsafe food to a sufficient and sustainable to achieve sustainabledevelopment goals. Sustainability of promoting agricultural Increasing rural Increasing government Long-term Strategy outputs wellbeing, income research and sharing employment, especially revenues. and the prosperity of knowledge. among women and youth rural areas in the Arab countries Better management and Increasing agricultural **Enhancing** Increasing product and sustainability of Arab sector's contribution competitiveness in the agricultural productivity. agricultural resources to the gross domestic market (profitability and (land, water, climate and products (GDP) in most rate of return on the plant and animal genetic of the Arab countries. agricultural investment) resources) Sustainable and Organized and sustained Agricultural production Biologically and and various products, reflecting the diversity of compatible smart institutional and human environmentally safe, Moderate and short -term techniques throughout health and veterinary capabilities. natural resources in Arab procedures and services. the value chain. countries. Strategy outputs Extensive utilization of More developed and Enhanced response to Less food & fodder technologies, agricultural the climate changes. widespread agricultural waste and loss. tools and alternate energy and industrial business. to increase production and productivity. A favorable & compatible Better awareness Broader knowledge and Good management of the environment that enhances well- developed capabilities towards toward value well-developed agricultural suitable agricultural policyof the workers in both the infrastructures. chains and its importance making at regional and national level. sectors- agriculture and in increasing income Spreading agricultural entrepreneurship among women and youth



Programs and its Main Components:

6. Programs and its Main Components:

In view of the vision and to achieve the proposed goals of the Strategy 2020-2030, the main and sub programs, specifying the fields and priorities of the tasks to be done during the Strategy period, were set in sch a way that it would serve as to achieve the Five Strategic Goals. While setting the elements and components of the main programs, the following characteristics were kept in mind:

- Getting maximum consistency in between the Strategic Goals and the sustainabledevelopment goals (SDGs) 2030, that would contribute in helping the countries to assure its regional and international obligations related to Agriculture sector.
- Co-relation in between the programs and the strategic goals; it means: each program from the proposed programs, leads to achieve one or more from the strategic goals directly or indirectly.
- Achieving maximum possible coordination and integration within the programs and in between the programs and the programs in-lined with the regional agricultural development plans.
- Giving due attention to development priorities, plans and strategies of the regional agricultural
 growth, particularly in the areas where the Arab agriculture is suffering fromobvious shortcomings
 and downfalls, either due to the scarcity of resources or due to very limited efficient utilization of
 those resources.
- Logical follow-up of the implementation, as some of the components must be followed by the implementation of other components.
- Enhancing the capabilities of the countries to improve the wellbeing, income and socialstability
 for the countryside people through adopting sectorial reforms that encourage the responsible
 governance, transparency and easy financing.
- Achieving a great amount of coordination and integration in utilizing the resources and current capacities, considering the active utilization of strengths and available opportunities.
- Maximizing the points of strength and available opportunities for Arab agriculture and minimizing the threats and weaknesses.

The sustainable Arab agricultural development strategy includes 6 main programs, with 19 sub programs, covering all major fields of agricultural growth, and it also covers all 2030 Sustainable Development Goals, related to the agriculture sector.

- 1. Main program for transferring the technologies and increasing and sustaining production and productivity and the agricultural revenue.
- 2. Main program for governing management systems, utilizing Arab agricultural resources and their sustainability.
- **3.** Main program for enhancing competitiveness for agricultural products and to improve the environment of investment and Arab agricultural trade.

- **4.** Main program for the plant and animal health and the food safety.
- **5.** Main program for the countryside development and prosperity, innovation and entrepreneurship to empower women and youth and minimizing the differences between the two gender.
- **6.** Main program for building human and institutional capabilities and imparting knowledge (Knowledge Tank)

6.1. Main program for transferring the technologies and increasing and sustaining production and productivity and the agricultural revenue:

This program helps to achieve all Strategic Goals, with special focus on the first strategic goal, that talks about supporting the transformation and adaptation in food and agriculture systems, to overcome hunger and reduce poverty. It is also expected that this program will contribute in achieving the following sub-goals:

- ✓ Growth, development and sustainability of the competitive Arab agricultural production, that helps to eliminate hunger and reduce poverty.
- ✓ Developing the countryside agricultural systems for small producers and family farming and supporting innovation, agricultural entrepreneurship, value chain approach, and countryside manufacturing.

This program will also contribute in achieving the following goals of Sustainable Development2030:

- Eliminating all kinds of poverty from everywhere (Goal 1)
- Eliminating hunger, achieving food security, improving nutrition and enhancing sustainable agriculture (Goal 2)
- Enhancing the usage of empowering technology, particularly the information and communication technology to enhance empowering women (Goal 5)
- Expanding global cooperation and supporting capabilities for developing countries inwater fields, that includes efficiency in water usage and water harvesting (Goal 6)
- Ensuring the availability of consumption patterns and sustainable production (Goal 12)

The program includes three sub-programs, that are as follow:

- Sub-program for adopting and spreading modern and compatible agricultural technologies, agricultural smart technologies and the adaptability with environment and climate changes for the sustainable agricultural production.
- Sub-program for adopting and spreading aquaculture technologies
- Sub-program for adopting and spreading good agricultural practices, circular economyin the agricultural sector and food systems.

6.2. Main program for the governance of management system and the utilization of Arab agricultural resources and its sustainability:

This program contributes in achieving the second strategic goal; related to maintaining better management of the agricultural resources, ecosystems and its sustainability in the Arab region. It is expected that this program would contribute in achieving the following sub-goals:

- > Enhancing safe and sound management and governance approach for the Arab agricultural resources.
- > Developing and sustaining ecosystems and benefitting from the global efforts.

It is also expected that this will help to achieve the following sustainable developmentgoals:

- Goal 6: Expansion of global cooperation and contribution in building capabilities for developing countries in water fields; that include efficiency in water utilization and water harvesting.
- Goal 8: Promotion of sustainable an inclusive economic growth, complete and productive employment and provision for the jobs for all
- Goal 13: Taking quick actions to combat climate change and its impact.
- Goal 14: protection of oceans, seas and sea resources and their utilization on a sustainable way to achieve sustainable development.
- Goal 15: Protection and restoration of terrestrial ecosystem and its utilization on a sustainable way, managing forest sustainably, combating desertification, stopping land degradation and its impact and stop losing biodiversity.
- Goal 17: Enhancing means of implementation and mobilizing the global partnership for the sake of sustainable development.

The program includes three sub-programs:

- Sub-program for adopting and spreading interventions of agricultural governance and related global agreements
- Sub-program for the application of interconnectedness approach in managing the natural resources
- Sub-program for preserving resources and plant and animal genetic roots.

6.3. Main program for enhancing competitiveness for the agricultural products and improving the environment of investment and Arab agricultural trade:

The program contributes in achieving the third strategic goal; and that is to enhancing Arab agricultural integration and formulating mechanism, procedures and policies of the Arab agricultural investment and trading systems. This will help in achieving the following sub- goals:

- \checkmark Improving the environment of investment in agriculture and food and agricultural manufacturing.
- ✓ Coordinating and developing the Arab agricultural trading systems.

It will also help to achieve the following sustainable goals:

- Goal 2: Eliminating hunger, providing food security and improved nutrition andenhancing sustainable agriculture.
- Goal 12: Ensuring the availability of consumption patterns and a sustainable production.
- Goal 17: Promoting the means of implementation and mobilizing global partnershipfor the sake of sustainable development.

This includes two sub-programs:

- Sub-program to enhance fish and agricultural quality products and to raise its competitive capabilities and effectiveness of the agricultural products markets.
- Sub-program to coordinate and harmonize the Arab agricultural rules, regulations and policies and to improve the environment of Arab agricultural investment and its promotion.

6.4. Main program for plant and animal health and food safety:

This program will contribute in achieving the third strategic goal; strengthening the Arab agricultural integration and formulating mechanism, procedures and policies of Arab agricultural investment and trading systems, and that will help to achieve the following sub-goals:

- Maintaining the health of human, plants and animals by supporting frameworks and mechanism to control the common, transboundary and endemic pests and diseases.
- Raising the competitiveness of the Arab agricultural products by supporting food safety framework and mechanism

This also aims to achieve the following Sustainable Development Goals:

- Goal 2: Eliminating hunger, providing food security and improved nutrition and promoting sustainable agriculture
- Goal 12: Ensuring the availability of consumption patterns and sustainable production.

It consists of three sub-programs, that are as follow:

- Sub-program for pests and animal diseases
- Sub-program for pests and plant diseases
- Sub-program for food security

6.5. Main program for the development and prosperity of countryside, innovation, entrepreneurship to empower women and youth and minimizing the differences between the two genders:

This program aims to achieve the fourth and fifth strategic goals by developing and prospering the Arab outskirt, enabling and supporting adaptation capabilities to cope with environmental, economic and societal changes related to agriculture sector. It is expected that this program will contribute in achieving the following sub-goals:

- > To improve the livelihoods of small producers and to empower women and youth.
- > To promote resilience and flexibility of rural societies to adapt with environmental, economic and societal changes.

Al also to achieve following sustainable development goals:

- Goal 1: Eliminating all kinds of poverty from every where
- Goal 2: Overcoming hunger, assuring food security, improving nutrition and promoting sustainable agriculture.
- Goal 5: Promoting the utilization of empowering technology, particularly the information and communication technology to enhance empowering women.

The program consists of three sub-programs:

- Sub-program to improve livelihood in the Arab countryside
- o Sub-program for innovation and agricultural entrepreneurship
- o Sub-program to enhance the capabilities of small producers.

6.6. Main program for building human and institutional capabilities and imparting agricultural knowledge (knowledge tank):

This program aims at contributing to achieve the fifth strategic goal related to bettermanagement partnership and providing institutional and technical agricultural knowledge tosupport the decision makers (agricultural knowledge tank). It is also to achieve the followingsub goals:

- ✓ Adopting and developing innovative system and approaches to generate agriculturalknowledge.
- ✓ Improving effectiveness of communication system and spreading the agriculturalknowledge consistently to all concern sectors.
- ✓ Enhancing and supporting the specialized local and global networks and partnerships.

It also aims at achieving the following Sustainable Development Goals 2030:

- Goal 4: Ensuring the better, just and inclusive education for all, strengthening lifetimelearning opportunities.
- Goal 17: Strengthening the means of implementation and activating the partnership forthe sake of sustainable development,

And this includes the following sub program:

- Sub-program for fish and agricultural guidelines, orientation and training
- Sub-program for statistics and agricultural information
- Sub-Program for documenting and publishing agricultural knowledge
- Sub-Program for specified agricultural networks and enhancing partnerships withconcerned local, regional and international institutions and organizations.
- Sub-program for building human and institutional capabilities.



Implementation, Monitoring, Evaluation and Preparing Report:

7. Implementation, Monitoring, Evaluation and Preparing Report:

7.1. Implementation Procedures:

The Arab Organization for the agricultural development is well-guided by the vision, mission and the strategic goals in serving the member countries, to achieve it goals, reflected in the development of its agricultural sectors, and to maintain a prosperous, and sustainable agricultural sector, supporting the economic growth in the Arab countries, particularly in the rural societies. The timeline of the strategy stretches from 2020 to 2030. And it is completely aligned with the Sustainable Development Goals (SDGs) and the goals of African union agenda 2063.

The support for the implementation of strategy will be done through organizational and administrative structure of the Organization.

- 1) General Assembly: This is the highest administrative body of the Organization; it comprises Arab agriculture Ministers. This body makes policies and strategies for the organization and general planning. It is also responsible to monitor technical, administrative and economic performance of the organization. General Assembly elects executive council members, appoints general manager and coordinates between the organization and the member countries and international organization. They hold their general meeting once in every two years.
- 2) Executive council: the executive council consist of 8 agriculture ministers elected by general body members for two years. Executive council meet in every 8 months and execute the decision taken by general assembly and it monitors general administration of the organization and apprise of planning, timeline and the decision to be put before the general assembly. In addition to the executive council takes decision regarding proposalsmade by the general administration.
- 3) General administration: it is an executive body of the organization with theresponsibilities and capabilities in accordance with the agreement of the organization. It is responsible to execute the plan approved by the general assembly and executive council. The general administration is headed by general manager assisted by the deputymanager, technical advisor, legal advisor and administrative staffs in addition to technicaland administrative experts. The structural plan specifies the details of the administrations, units, various centers of the organization, horizontal and vertical levels, decision making areas and report preparation, locations of the administration and internal links and foreign relations etc. There are 4 regional offices under the ambit of the organization divided in to four areas of the Arab region, in addition to Arab institution forforests, pastures and fisheries and the headquarter located in in Syria.

It is in addition to direct technical support provided by the organization to the countries. Hence all technical administration of the organization and regional offices will assist in implementing the strategy.

7.2. Tools for implementation

It will devise objective, conceptual and operational approaches, frame works to fasten and guide the implementation of the strategy. There are number of frameworks and approaches and some of them are as follow:

7.2.1. Value Chains:

The value chains work as a comprehensive approach in all areas of sustainable agricultural developments. Various regions may utilize value chains to strengthen the effectiveness and market integration. To attain the target the various value chains are used like value chain of the commodities, food supply chain, agricultural food chains for the agricultural development, poor friendly value chains for the sake of economic development related to the agricultural developments.

7.2.2. Entrepreneurship and partnership between the two sectors - public and private:

Under this strategy the entrepreneurship and partnership are focused as an approach to create entrepreneurs to expand the economics base concentrating on the rural and urban opportunities, whereas most of the government agreed on the rule and regulation of the partnerships between private and public sectors in order to share the resources, risks, benefits and experiences to increase the productive efficiencies and to maximize the revenues. The project of the partnership between the two sector-public and private-requires a vast and common interests and strong comprehensive opportunities for success despite having different goals of the sectors.

Having partnership between the two sectors – private and public considered as one of the important example of agricultural developments, in view of its big role in strengthening theentrepreneurships which will facilitate the fields for innovation as a result for its role in strengthening the benefits of the resources, knowledge and experiences existed in two sidesthrough interaction of the partners and through common learning and innovative process. The partnership acts in the best form when the relation between the cast and revenues are equal between the partners.

The entrepreneurship is considered chief development key for agricultural sector and basic factor to strengthen the rolling wealth. Hence the establishment of the entrepreneurship societies which work for transforming the researchers to work for job providers is considered as a significant matter for agricultural development in Arab countries. The entrepreneurshipmay be encouraged through providing the different forms of the support and stimulation such as sponsorship with favorable terms, consultative support, supporting policies and conferring distinction and help and tax rebate etc. however the experiences show that providing finance, facilities and allowances may be essential but not enough to guarantee theresponse of the entrepreneurship.

7.2.3. Partnership:

The Arab organization for agricultural development is active in developing the partnership with different Arab companies and organizations – global and regional- concerned with agricultural issues, and building various activities of cooperation and coordination with them, while it is

important to expand this cooperation, and in all fields of organization's work that has importance in strengthening to deal with the sustainable management of agricultural sector, and enriching experiences and exchanging knowledge, generating innovative thoughts and achieving fruitful results.

7.2.4. Networks and innovative platforms:

The Arab organization of the agricultural development will work on development and theexpansion of its activities related to its current specific networks, to reach to a strong system of agricultural innovation, that relies on establishing platforms of innovations and alliances. By the virtue of its societal nature, these platforms of innovation will require to have some sessions ondevelopment for the existing networks, by merging its technical, social, institutional and organizational components.

7.3. Monitoring, Evaluation and Report Preparation.

7.3.1. Monitoring (Observation)

The observation and periodic evaluation of the Strategy 2030 will be done to check the performance of the Strategy. The procedure of the monitoring and evaluation will be done toensure the results and guarantee its quality and the consistency of learning process and knowledge management. The key performance indicators (KPIs) will be done by monitoring the achievement of the goals, set in every field, at the results and outputs level throughout the chain of results. The general framework of the evaluation includes, as well, annual priorities, means and approaches of implementation, support and fulfilment of resources. The development of the following tools will also be done to enhance the evaluation process:

- Implementation, Monitoring and Evaluation Framework (IMEF), closely aligned with the well-designed framework of monitoring and evaluation to evaluate the performance of regional and international agendas; like Sustainable Development Goals 2030 etc.
- Utilization of tools and means of monitoring and evaluation approved by Arab organization for agricultural development and the U N agriculture and food organizationetc.
- Setting and executing the annual work plans for the programs of the Strategy, where the priorities of the countries are considered.

• Strong ad close connection with the management of knowledge and learning and the participation of the concerned unit in the organization.

7.3.2. Evaluation:

The Strategy performance will be evaluated in such a way that would connect the achievements in the implementation of strategic goals with the regional and international initiatives for food and nutrition security, and for the resistance of shocks and disasters. The evaluation will be completed in two phases; the first phase will be done in 2020-2025 while the second phase will be completed during 2025-2030. The mid term evaluation procedure will be completed with the intention to correct the 1st phase implementation (2020-2025) and to connect the achievments directly with the sustainable development goal. The performance of the second phase 2025-2030) will be reviewed in view of the any modification

that may be required in the 1st phase. These planned parameters of directional and subjective evaluation of the strategy in designing, execution and results will come as follow:

- Importance: a well-defined judgement to determine the ongoing importance of the five goals of the Strategy.
- Effectiveness: evaluation of the achieved progress towards key results.
- Efficiency: internal audit system and human and capital resource management etc. it
 will also define the laid down coordination tools to execute the planned activities in the
 respective time.
- Sustainablity: Achieved benefits during the implementation of strategy paln in such way
 that the ownership and institutional capabilities and financial independency to carry
 forward the benefits constantly.
- The integration of learning and partnership in each phases of the execution including the citing the example of learner to get the improvement.

7.3.3. The reports:

It is expected that the preparation and presentation of the reports related to execution and performance will be done in an appropriate time during the implementation of strategy. The reports will base on the achieved results and carried out activities using the invested resources (efficiency). The schedule for presenting the reports will be put up in the beginning of the 1st year of the revised strategy. The reports will be supported by the data and accurate information in accordance with the rules of transparency, accuracy and accountability. This will be directed to all hierarchal levels in governance and administrative and structural requirements.

Table 7.1 requirements for preparation of the reports

Organizational structure of theorganization	Requirements for preparing thereports.
General assembly of the organization	 The reports of general manager on the performance of the organization during the two sessions of holding general assembly The report on work process in execution of the strategy duringholding the general assembly. Report of the chief executive council on the performance of council during holding general assembly session
The executive council	 Periodical reports on the work process of the implementation of the strategy. Periodical reports on the performance of the organization during the periodbetween the two sessions of holding the councils (report of general manager).
General administration of the organization	 Monthly, quarterly and anual technicalreports, Financial progress reports and documents about the work process inexecution the programme, activities and financial expenditures. Quarterly annual reports about implementation of the activities, plansand internal and external recommendations.
The social and economic council of Arab league	 Periodical reports on the work process in implementation of the strategy.

7.3.4. Well-equipped and integrated capabilities of monitoring and evaluation:

The enhanced technical and institutional capacity is considered as pre requisite for gradual and smooth implementation of the strategy 2020-2030. The enhanced capacities will work on improving working efficiency AOAD to strengthen the initiatives intended to organizational change, knowledge management, generalization of innovative ideas, strengthening internal communications and exchange of experiences specially between administrative and technical employees and between data collection coordination centers in Arab countries defined for implementing on going major program areas (MPAs) of the previous strategy 2005-2025. And to strengthen this process and to increase its effectiveness, the capabilities of related units employees will be improved at fields and agricultural level. The significant direction will be completed to build the capacities towards strengthening the participation of the organization and empowering youth and women.

7.3.5. The comprehensive institutional and technical capacities:

The enhanced institutional and technical capacity is considered as prerequisite to implement the 2020-2030 strategy in smooth and advanced manner. The enhanced capacities will work for improving the working efficiency of the organization intended to structural change, knowledge management, work for improving the innovative ideas and strengthening internal communications, exchange of experiences specially between administrative and technical employees and focal points related to data collection in the Arab countries assigned/ responsible to implement the major programs of the strategy to enhance this process and increase its effectiveness. The matter requires to work for enhancing the capabilities of the related units' employees at theoretical and practical level. The direction will be completed to build the capacities towards strengthening the vision of the organization at Arab countries level intended to empower youth and women.

The following advisory plans and areas will be taken care off while implementing the strategy.

- Organizational development: specify the group members to work as resource for monitoring and evaluation of the current and future major and sub- programs areas (MPAs – SPAs). The group member will be trained in such a way that the experts employees may train their colleagues on regular basis.
- Institutional learning: To support and develop the process/ mechanism to constant review of the counterparts between different parties working on extending agricultural value chain in the Arab countries.
- Department of research and knowledge: The organization, being a center for exchanging information and standards and comprehensive technical advisor for Arb agriculture Ministries, will specify and build capacities, subjectivities, essence of the research and exchange of the knowledge. the success requires in implementing this task to work on strengthening cooperation and partnerships between the participating agriculture ministries in executing the strategy.
- Communication and coordination: There will be a need to put more efforts to consolidate any idea to enhance agricultural product and productivity in the Arab countries. It becomes the responsibility of communication and advocacy campaigns that enhance ownership, increase awareness, simplify innovative ideas, reduce overlapping topics, and further promote broader participation from the locals of the Arab countries and encourage mutual visits.
- Resource mobilization: initiatives will be taken such as establishing strategic partnership to strengthen the capacity of the organization for resource mobilization, analysis of financial gap and partnership between private and public.

7.3.6. The active parties and key responsibilities:

A complete unified and standard system will be evoked for monitoring, evaluation and learning system (IMELS) to strengthen the execution of 5th strategy goal: management of knowledge, research, monitoring, evaluation, communication and coordination. And also to support effective and timely implementation of the strategy 2020-2030. The support system will be provided by the main active parties which represent the production chains, main foodsupply of the agriculture sector, the policy

of marketing, trade and food safety and active parties in the field of nutrition and food security in the Arab countries as defined in the table below. Some major active parties will be appointed as a technical work group for revised strategy which will be coordinated by the senior official for monitoring and evaluation and supported by a senior staff of the knowledge management as prescribed in the institutional frame work for and advanced evaluation and monitoring unit of the organization which will work for development of KMD. The group of the organization will administer the knowledge and its publicity by communicating the important information to work for the system. the regional office of the organization will further support and contact points for implementation through following:

- 1. Collection of data with appropriate coordination
- 2. Preparation of related monitoring and evaluation information at member country level.
- 3. The guarantee of quality and safety of the data before putting forth before the technicalwork team of the revised strategy.

Table 7.2 strategy 2020-2030- Active parties and responsibilities- knowledge, monitoring and evaluation framework (KMEF)

At level	Participating parties	Roles and responsibilities
Organization	Technical administrations of the organization ACSAR development	 Developing and executing the activities to verify the achievedresults. Generating data and information and guarantee
	 ACSAD development members, UN food and agriculture organization, international food program etc. Regional offices and coordination centres. 	 its quality Management of knowledge, analysisand publish. Management of monitoring andevaluation unit Results management and qualityassurance. Communicating, reporting andpublishing. Culture enhancement and knowledgeexchange. Comprehensive support andadvisories.
Member country ofthe organization	Technical staffs in related unitsand companies.	 Data preparation at Arab countries level, quality guarantee, management of information, knowledge, analysis and publishing. Running the monitoring and evaluation department. Communication ports support and preparing report and publishing at level of the Arab region Culture enhancement and knowledge exchange.



8. Planning procedures of the implementation.

8.1. Required Resources:

8.1.1. Budget:

The annual expenses for the implementation of the strategy will be covered by the annual contributions of the countries in the budget of Arab organization for agricultural development, self-financing of the Organization through it's work as Arab agricultural experience house, and the contributions of the members of implementation. The Organization will put some special measures to mobilize resources, and fill the financial gap by making strategic partnerships with public and private financing sectors. Also the means of communication and coordination will be improved to reach out to the maximum possible number of interacting people.

Table (No. 8.1) Summary of annual budget distribution percentage on the 5 strategicgoals.

Strategic Goals	Specified percentage of the budget
First Strategic Goal	20%
Second Strategic Goal	10%
Third Strategic Goal	10%
Fourth Strategic Goal	20%
Fifth Strategic Goal	15%
Management components	25%
Gross Total	100%

Table (No. 8.2) Annual budget distribution percentage on the Strategic Goals in every 5 years.

Stratagia Coals	Financial Year		
Strategic Goals	2020	2025	2030
First Strategic Goal	20%	20%	20%
Second Strategic Goal	10%	10%	10%
Third Strategic Goal	10%	10%	10%
Fourth Strategic Goal	10%	20%	20%
Fifth Strategic Goal	25%	15%	15%
Management components	25%	25%	25%
Gross Total	100%	100%	100%

8.1.2. Strategy Finance Sources:

- Contribution of Arab member countries
- Arabic and Islamic financing companies
- EU, in relation with the Arab countries that have agreements with EU (North Africanand Mediterranean countries)
- Regional and International Development Organizations.
- Private Sectors

8.1.3. Partners of the Implementation:

- Arab Member Countries
- Concerned regional companies in the Arab countries.
- Regional and international Arab Development Organizations, working in the field.

ANNEXURES

Annexure No (1)

Framework 1: SWOT analysis summary of the main programs under the Sustainable Arab Agricultural Development Strategy for two decades 2005-2025.

First Main Program: Development of Agricultural Technologies:

- Points of Strength: The existence of deep-rooted research institutions with capable research
 cadres, that have experiences in the field of technology generation and its utilization, and get
 support from Arab Organization for Agricultural Development, and supported by a big amount
 of financial resources in many Arab countries and a possibility of reaching out to biodiversity,
 abundantly found in the animals and plants.
- Points of Weakness: improper utilization of the available cadre, people with limited training, insufficient links and contacts with local, regional and international researchers. Most of the time, they face uncertain financial problems, low participation of agricultural researches in private sectors, lack of basic research activities, huge innovation gap, due to low level researchers, smallfarmers with poor skills, and poor connections of research supervision.
- Opportunities: Possibility of cooperation with the global community in many fields of scientific and technological knowledge, and the development, investment and economic undertakings as well.
- Threats: Complexities in the rights of intellectual property that restricts access to the modern technologies, changes in the climate, global markets threatening to the generation of technology.

Second Program: Encouraging agricultural investments and manufacturing in the agricultural environments.:

- Points of Strength: Supplier capabilities that attract the diverse and successful agricultural investments throughout the value chains, investment initiatives and activities, effective private sector, and strong Arab funds.
- Points of Weakness: Poor natural conditions, complex procedure of the agricultural investment, conflicts and lack of social stability, limited / ineffective infrastructure, weak entrepreneurship and innovation, limited local markets and ineffective economic cooperation.
- Opportunities: Available investment to promote technology, global agricultural markets, international guidelines, and suggestions to encourage worthwhile agricultural investments.

• Threats: inconsistent flow of financial resources, disputes over revenues and the ownership of the lands, non-compliance of the investors with the principles of responsible investment (PRI).

Third Program: Enhancing competitiveness for the Arab agricultural outputs.

- Points of Strength: Strategic location of the region, presence of big Afro-Arab market, most of the Arab countries' membership in the World Trade Organization, big experience of the region in global and Arab trading, and possibility of production and trading in organic products.
- Points of Weakness: Poor agricultural productivity with low quality and high cost, unreliable food standards, insufficient infrastructure of the market, lack of market analyses, measures to run the business, poor agricultural trading between the Arab countries, low diversification in the agricultural exports and limited agricultural processing.
- Opportunities: Opportunities to benefit from the undistorted free global trade.
- Threats: Strict requirements of quality and safety in many importing countries, the fluctuating prices of agriculture in the global markets, shift in global demand due to increasing alternatives.

Fourth Program: Setting-up fisheries and agricultural policies, rules and regulations:

- Points of Strength: Presence of diverse group of national and Arab companies, working in the field of sustainable agricultural development. Presence of regulations & policies related to the sustainable agricultural development, Common political guide to free trade, Adhering with the SDGs up-to-the level that enhances the local financial institutions.
- Points of Weakness: Weak structure of comprehensive and sufficient Arab policies, rule and regulation. Limited resources to set-up value chains. Formulation and coordination of national policies, instead of regional policies. Humble skills in policy making, Political problems that restrict setting appropriate Arab policies.
- Opportunities: Presence of rich and advanced knowledge of international policy, with the
 advantage of comprehensive and sustainable development goals policies support system,
 global financial institutions that support the implementation of the policies in the countries
 that have capacity to bear the debt for long-term, and to encourage the elimination of poverty
 and to achieve the sustainable development.
- Threats: Intervention of foreign assistance providers in internal policy-making.

Fifth Program: Building human and institutional capabilities.

- Points of Strength: Availability of basic structure to develop capabilities, in addition to the rich agricultural specialties that strengthen the training activities.
- Points of Weakness: lack of training cadre and facilities in some areas, non- compliance of the university programs with the market needs and students' wants, insufficient finance for building capabilities, poor exchange of training experiences, scarcity of business and producers' training, lack of motivational training, and the training that can change the farmers' mindset from sufficiency to the commercial production; entrepreneurship and innovation training.
- Opportunities: Availability of training and assistance opportunities including sustainable cultivation, global capabilities building opportunities for the developing countries in different areas, including the training in agricultural water management and its consumption, supporting the execution of sustainable development goals (SDGs)
- Threats: Mass migration of the qualified experts, increased cost of foreign qualified trainers, high cost of training in foreign institutions.

Sixth Program: Contribution to the prosperity of countryside:

- Points Strength: Availability of enough and untouched natural resources, opportunities available throughout the value chain to promote the work opportunities. Highly experienced agricultural employment.
- Points of Weakness: Poor infrastructure in rural areas, insufficient political administration, bias
 in distributing rural development gains, poor rural social services, limited job creation, bias
 against women, low agricultural productivity, high climatic and economic risks, social instability,
 displacement of the people from rural to urban areas because of poverty, poor database, low
 market sentiments, poor rural investment.
- Opportunities: Readiness of Many organizations to extend their help and cooperation in the
 development of rural area, and to abide by the obligations as per the agenda of WTO and SDGs
 to provide different kinds of support to the rural areas and the farmers who are in need of
 resources.
- Threats (Challenges): Climate change and desertification.

Seventh Program: Developing the management systems of fisheries, agricultural and environmental resources:

 Points of Strength: Availability of research data, experiences of Arab organization for agricultural development and the experiences of member countries in the issues related to natural resources, Arab participation in the global agenda of natural resources, sufficiently available financial resources in many Arabcountries.

- Points of Weakness: Ineffective utilization of natural resources, lack of ruralsocieties' obligations towards its protection and loss of cultivating lands, lack of unified policies for Arab natural resources, unwise horizontal agricultural expansion, local papulation displacement that causes threat to natural resources.
- Opportunities: Global concern toward the preservation of natural and environmental resources, existence of rules & regulations, technology and funds for its development, commitments and obligations and global agreements responsible to the sustainable management of the natural resources.
- Challenges (Threats): Climate change, pollution caused by petro-chemical manufacturing that damages natural resources, flow of refugees in the region causes threat to the natural resources, unwise utilization of land by the foreign investors.

Annexure No (2) (KEY RESULTS FRAMEWORK)

Strategic Goals	Sub-Goals	Progress indicators towardsachieving strategic goals.
1 st strategic goal: Transformation and adaptation support in food and agriculture system to overcome hunger and reduce poverty.	 Growth, development and sustainability of Arab agricultural product; that is competitive and helpful to overcome hunger and reduce poverty. Development of rural agricultural system for smallfarmers and family agriculture, supporting innovation and agricultural entrepreneurship, value chain approach and rural manufacturing. 	 Product & productivityincrease/decrease. Annual product and productivity stability levelfor agricultural products Number of agricultural sub-sectors upon which the value chain and supplychain are based. Loss and waste reductionratio Variable in small rural agriculture system andpreparation. Water energy and food interconnectedness ratio inthe programs and the existing and new national agricultural policies.
2 nd Strategic Goal: Maintaining better management of agricultural resources, ecosystem and its sustainability in the Arab region.	 Enhancing safe and sound managing and governing approach to the Arab agricultural resources Growth and sustainability of ecosystem and benefit from global efforts. 	 Up to what extent the development of rules & regulations and systemrelated to agricultural resources, Increase in productivity foranimal, land and water unit. Level of achieved progressin maintaining the animal and plant genetic resources. The extent of achieved progress in dealing with negative impact of climatechange and degradation of land.
The third strategic goal:Enhancing Arab agricultural integration	 Improvement in agricultural investment and in 	 The change in the volumeof Arab agriculture

and formulating mechanism, procedures and policies of trade system and Arab agriculture investment.	agriculture and in food manufacturing. Coordination and development of Arab agriculture trade system	 exchange in both fresh andprocessed environment Application of global agreements related to process of health and plants in agricultural tradeexchange. Decreasing level in using the technical problems andhealth process in restricting the flow of the goods between Arab countries. Making rules and modifiedsystem encouraging investment and environmental agriculturaltrade exchange.
Fourth strategic goal: Development and progress of Arab outskirt,orientation and supporting adapting capabilities with environmental, economicand societal changes related to agriculture sector.	 Improving livelihoods of small producers and empowering women and youth. Enhancing resilience and flexibility in rural societies to adapt with environmental, economic and societal changes. 	 Increasing level of the income of small farmersspecially for youth and women. The change level in Arabrural unemployment. Extension Level of formerorganizations. Capability of farmers forearly respond to the natural calamities.
Fifth strategic goal: better management and partnership and providingagricultural knowledge - Technical and institutional- to help the decision makers.	 Adopting and developing innovative ways and systems to generate agricultural knowledge. Improving the system of communication and publishing agricultural knowledge on regular basis for all concerned. Enhancing and supporting the specialized networks for Arab and global companies. 	 Adopting to use agricultural innovation in linking between water, food and energy. Availability of the procedures for monitoring, evaluation and process of communication and coordination. Availiblity of the system to prepare documents, writing good reports timelyand accurately. Enebaling the visitors to visit the website of the organization, e library,networks and specificdatabase. Availability of platforms toexchange of knowledge about employability of youth and women in rural and social integration.