

Republic of Lebanon

The Ministry of Agriculture

Strategy Advancement of the Agricultural Sector

Program of Action 2010 – 2014

December 2009

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Introduction

The agricultural sector in Lebanon suffers from chronic crisis, caused by structural reasons which to do a necessary radical assess of the different components of this sector to promote it. In addition providing an appropriate institutional framework focusing on quality growth rather than only on rates, and considering development issues that target the human rights and living conditions also do reforms including the role of the government and its agricultural sector components. These reforms must be determined and completed in an integrated frame among different concerned official and private parties.

The general directorate and framework of economy approved by the Lebanese didn't provide a positive impact on agriculture, sector especially that great part of the government budget allocates for public debt service and the priority is given to other sectors, which reduce the investment level in the agricultural sector and reduce thus the opportunities for development and increase its ability to competition.

The neglect of the agriculture sector in Lebanon had resulted in increase in poverty in rural areas and internal migration which led to the emergence of poverty belts around cities and led to outward migration.

Any explore for the future of the agricultural sector in Lebanon must be linked to the concept of sustainable contemporary development that affects multiple aspects beyond the economic aspects to include social and environmental proportions and requires development and coordination of the public and private institutions to make it part of the comprehensive political community.

Accordingly, the concept of agricultural sector development is based on the following:

1. Economic Aspects:

the economic aspect requires a system which enables it to provide agricultural products that meet an adequate part of local demand, and has competitive capacity (the appropriate cost of production and high quality) that able it to access internal and external markets:

- 1. Production of adequate quantities of goods and services.
- 2. Proper use of available resources.
- 3. Adopt items required for the internal and external markets.

The Activation of the Economic Aspects would result to:

- 1. Provide work opportunities.
- 2. Growth of agricultural income and increase its size in the national income level.
- 3. Reduction of the food invoice and the deficit in agricultural trade balance.
- 4. Avoid Inheriting the next generations a high cost.

2. Environmental Aspects:

Through two decades, ago the world attention on the environmental results has been increased arising from the density population and the high economic growth movement. This crystallized through the increased attention on the natural resources its conservation its appropriate use. The pollution control focusing on developing the proper agriculture that takes into account the balanced environment and human health aspects (adoption of standards, organic agriculture, touristic agriculture and environmental ... etc).

Focusing on the important environmental agricultural aspects in Lebanon became imperative to confront several negative aspects including:

- 1. Urban growth has led to shrinking agricultural limited areas.
- 2. Increasing the risks of the desertification resulted from climate change.
- 3. Retreat forest space and reduced vegetation cover.
- 4. Excessive use of irrigation water.
- 5. Pollution of water, rivers, marine, soil and groundwater (chemical and dynamic).
- 6. Food contamination and its impact on human health.

The deterioration of the environment in Lebanon is an economic and social problem with multiple aspects must be corrected and solved. The result of this degradation generation health, leads to social and economic risks and a burden for coming.

3. Social Aspects:

The development of the agricultural sector and rural development contributes at the social level in achieving:

- 1. Balanced development between regions.
- 2. Reduce poverty and mal nutrition.
- 3. Provide concept of food security through quantity, quality and prices.
- 4. Minimizing the rural areas immigration.
- 5. Strengthening the role of women & youth in rural development.

To illustrate the importance of social aspects for the development of agricultural sector, the following table shows the percentages of poverty in Lebanon (2007, UNDP):

Mohafazat	Poverty rate	Poverty rate
	at mohafazat level (%)	at national level (%)
Beirut	2.1	10.3
Mount Lebanon (including the suburbs of Beirut)	27.3	39.9
Bekaa	13.0	12.7
South	15.6	10.5
Nabatiyah	4	5.9
North	38.0	20.7

Note:

The proportion of poor workers in the agricultural sector is 25%, the highest proportion compared with other economic sectors (UNDP,2005).

Part I

Current situation of the Agriculture Sector in Lebanon

1. Statistical data on the agricultural sector:

The Agricultural Sector showed a relative retreat through the three recent decades but this did not abolish its status in the national economy since it:

- 1. Provides about 6% of income at national levels.
- 2. Run what among 20% and 30 % of employment.
- 3. Present about 17 % of the value exports.

The use of agricultural land covers more than a quarter of Lebanon overall area; in 2007 the land area was around 277000 ha out of 142000 ha irrigated.

The Lebanese Agriculture stays even the areas are narrow, a special situation distinct in Middle East, since it have different climatic and agricultural circumstances which allows the high diversity of its products.

The availability of water can help in irrigating about half land cultivated and decreases the influence of negative factors of climatic conditions.

The volume of agricultural production in the same year reached 2944 billion Lebanese pounds distributed as follows:

- 1. 73% of agricultural production plant (2155 billion lire).
- 2. 27% of agricultural production animal (789 billion lire).

Lebanon imports agricultural materials and food production per year, equivalent to nearly the value that reached 2914 billion Lebanese pounds in 2007 distributed as follows:

- 1. Farm products plant: 874 billion lire.
- 2. Agricultural products animal: 750 billion lire.
- 3. Agricultural products processed: 1290 billion lire.

Thus Agricultural imports constitute about 16.3% of the total value of Lebanon imports. In addition to that, Lebanon imports more than 80% of its food needs.

Lebanon witnesses a self- fulfillment in some products like olive oil and chicken meat and eggs while it gets in this self-sufficiency on certain kinds of vegetables and fruit in certain periods corresponding to periods of production. As for the milk self-sufficiency constitutes a ratio of 63%, while the lower figure of wheat, despite the support experienced by these goods, reaches 20%, and red meat (lamb 20%, beef 9%), which makes it imperative for Lebanon to import these goods to meet consumer needs. Because of the high value of the import bill, they should work to encourage and increase investment in the agricultural sector and increase competitiveness of agricultural supplies to increase our exports and thus reduce the deficit in agricultural trade balance.

2. The cost and quality of production:

The cost of agricultural production in Lebanon is the highest compared with neighboring countries, due to many reasons mainly:

- 1. The absence of agricultural credit and high interest incurred by the farm loans.
- 2. The high cost of irrigation due to the absence of irrigation projects and adopt traditional methods of irrigation and other reasons.
- 3. Rely heavily on imported agricultural inputs which are more expensive.
- 4. The high cost of energy.
- 5. Weak guidance, training and supervision.
- 6. Weakening of the role of cooperative enterprises and trade unions.
- 7. Limited agricultural areas and high cost of agricultural land pledge.
- 8. The small size of agricultural holdings in general.
- 9. The limited use of automation and technology.
- 10. The problems of real estate ownership.
- 11. The high cost of labor.
- 12. Lack of direct and indirect support in comparison with neighboring countries.
- 13. The high cost of transport due to the lack of infrastructure.

Some of the Lebanese agricultural products suffer a lack of quality due to several reasons, mainly:

1. Varieties and traditional patterns.

- 2. Weak extension and training.
- 3. Weak control.
- 4. The excessive use of agricultural inputs, particularly pesticides and fertilizers.
- 5. The absence of tracking systems and agricultural trade mark Traceability and Labeling.
- 6. Non-mandatory standards for agricultural commodities.
- 7. Failure to follow good practice of the post-harvest (transport, packaging, storage ...)

3. **Legislation:**

The absence of legislation is the basic constraints to any development process of the agricultural sector so as to laws, decrees or decisions.

4. <u>Institutional structures and in the private sector:</u>

The absence or weakness of institutional structures in the private and public sectors constitutes a major obstacle to any process for the development of the agricultural sector, including the agricultural credit, the role of cooperatives or trade unions or networks of packaging and cooling, manufacturing, marketing and exportation.

5. The budget allocated to the Ministry of Agriculture:

The low percentage of the budget of the Ministry of Agriculture from the general budget (less of 4‰, including salaries and operating expenses and budgets of Green Project and LARI) is the key factors that challenges the department's ability to play the actor in the development of the Agricultural sector.

despite the existence of provisions contained in the budgets of the other ministries addressed to the agriculture sector such as the Ministry of Energy and water (irrigation projects, dams) and the Ministry of Finance (subsidies for growing tobacco) and the Ministry of Economy and Trade (subsidies for growing wheat) and the Ministry of Environment (forestation projects). In addition to the amounts allocated to certain programs and projects contained through donor institutions, it did not remove the problems of the agricultural sector, compounded year after year during the past two decades and for many reasons including:

1. The low budget of the Ministry of Agriculture, which has led to:

- Serious shortcomings in the cadre of the human and the ability to rehabilitate and training them.
- A fatal lack of buildings and machinery and equipment, especially laboratories.
- A dire shortage of necessary funds to implement programs of scientific research, extension and training, oversight and protection of forests and fisheries.
- The absence of a plan to promote Lebanese products.
- 2. Limited coordination Between the Ministry of Agriculture and other government institutions and international organizations and non-governmental organizations which increased of unit problems and especially in rural development project that sponsored multiple sources, and led to the failure in achieving the desired objectives.

6. Agricultural infrastructure:

Despite the implementation of a number of projects, agricultural roads, ponds and hilly land reclamation, agricultural sector is still suffering from a dearth of infrastructure which affect the cost of production and quality and lead to waste of natural resources.

7. Agricultural and trade agreement between regional Arab and international organizations:

Multiple conventions agreed with the neighboring countries or in frame (convention on facilitation Arab partnership, euro-Mediterranean. ..) or setup subscriptions in the Organization of International Trade, problematic of the markets opening and facing the competition of the external products, due to the high costs of local production and its non - conformity specifications, and the lack of a systems and mechanisms effective for marketing.

8. Statistical data on agricultural production in 2007 (Ministry of Agriculture):

A - Crop Production:

Cereals	Wheat: 52800 hectares			
	Barley: 15	750 hectare	es	
Mount Lebanon	North	Bekaa	South	Nabatiyah
0%	23%	62%	6%	9%

Beans	Chickpe	Chickpeas: 1800 hectares		
	Kidney E	Bean: 1420 l	nectares	
	Green B	ean: 1845 h	ectares	
Mount Lebanon	North	Bekaa	South	Nabatiyah
6%	24%	53%	3%	14%

Vegetables	Cabbage: 1950 hectares
	Cucumber: 3100 hectares
	Squash: 1600 hectares
	Okra: 1238 hectares
	Tomato: 4060 hectares

	Watermelon: 1550 hectares			
	Potato: 20	100 hectare	S	
	Onion: 18	00 hectares		
Mount Lebanon	North	Bekaa	South	Nabatiyah
7%	33%	58%	1%	1%

Fruit trees	Citrus: 16763 hectares			
	Apples: 10100 hectares			
	Pear: 3050) hectares		
	Apricot: 6	397 hectare	S	
	Cherry: 83	100 hectares	}	
	Peaches: 3	3550 hectare	es	
	Peach: 20	16 hectares		
	Almonds: 6250 hectares			
	Grapes: 10500 hectares			
	Bananas: 2990 hectares			
Mount Lebanon	North	Bekaa	South	Nabatiyah
19%	28%	34%	17%	2%

Olive	Olive: 58,600 hectares			
Mount Lebanon	North	Bekaa	South	Nabatiyah
17%	42%	4%	17%	20%

B. Animal production:

Cattle	Cows: 77400 header (58% dairy)			
Mount Lebanon	North	Bekaa	South	Nabatiyah
14.6%	31.6%	38.8%	8%	7%

Sheep	Sheep: 324000 head (67% dairy)			
Mount Lebanon	North	Bekaa	South	Nabatiyah
4.7%	9.2%	78.9%	1.8%	5.4%

Goat	Goats: 434,700 head (54% dairy)			
Mount Lebanon	North	Bekaa	South	Nabatiyah
11.8%	8.5%	56.8%	10.5%	12.4%

Milk	Milk Cows: 183.6 thousand tons
	Sheep's milk: 24.7 thousand tons
	Goat's milk: 34.0 thousand tons

Poultry	Chicken meat: 135200 tons
	Eggs: 762 million eggs

River Fish	Trout: 1100 tons
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Bees Beehives: 115000 wilderness	
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Honey: 965 tons

Part II

Strategy of Promoting Agricultural Sector

1. Introduction about the strategy of promoting agricultural sector

The Ministry of Agriculture is considered the administration responsible for drafting the strategic framework for the agricultural sector and the development of policies and practical programs for the advancement of this sector and the development of legal and legislative frames and secure infrastructures to facilitate investment production and marketing and the involvement of many Lebanese in them.

The ministry is responsible for the on implementations and update laws, decrees and decisions that falls within the validity and is responsible for coordinating with ministries, general departments, Arab organizations, regional, international and non-governmental organizations and the private sector.

It is responsible on ensuring the interests of the agricultural sector in Arab and regional and international levels conventions.

On the other hand, the Ministry of Agriculture essential role in development is in the management of natural resources (agricultural land, water, irrigation forest, forestry, fisheries and pastures that are commensurate with the size of variables) and rural development programs areas (the role of women and youth), in what the agricultural sector can benefit from the geographical climate agricultural products that give added value and competitive advantage.

2. Strategic Axes supported the advancement in the agricultural sector:

The First Axis: update and issue the necessary legislation (laws - decrees - decisions).

The Second Axis: the development of the structure and role of the Ministry of Agriculture and coordination with the public, private and civil sectors.

The Third Axis: update the agricultural infrastructure and raising the efficiency of the use of natural resources.

The Fourth Axis: activation of agricultural extension.

The Fifth Axis: Activating the control of products and agricultural inputs, forestry and woodland, fishing and hunting.

The Sixth Axis: the development of production chains and improving the quality and activating the manufacturing, marketing and export.

The Seventh Axis: Develop programs and mechanisms of credit to small and medium projects.

The Eighth Axis: conservation of natural resources: soil, forests, biodiversity, regulating the use of marginal lands, pastures and fisheries.

The First Axis

Update and issuing the necessary legislation (laws - decrees - Decisions):

- 1. Update the number of laws, decrees and decisions on the agricultural sector.
- 2. Issuing a number of laws, decrees and decisions in order to complete legislative package for the agricultural sector.
- 3. Update or issue a number of laws, decrees and decisions related to Arab, Regional and international levels, agricultural and commercial agreements.

The Second Axis

Development of MoA structure and role and the coordination with public private and civil sectors:

- 1. Update the structures and functions and coordination within the Ministry of Agriculture (General Directorate of Agriculture, Agricultural Research Institute, the Green Project, General Directorate of Cooperatives).
- 2. Organizing and activating cooperation with governmental and non-governmental organizations and regional and international levels.

The Third Axis

Reload agricultural infrastructure and raising the efficiency of the use of natural resources:

- 1. Increase efficient use of water resources (water harvesting, the rational use of irrigation water, reducing water pollution ... etc.).
- 2. Expansion of land reclamation in order to increase the cultivated area.
- 3. Develop a network of agricultural roads.

The Fourth Axis:

Activating the extension:

- 1. Re-evaluate the current situation of agricultural extension and the development of an integrated heuristic scheme.
- 2. Update the structure and mechanisms of extension and provision of human and financial resources and infrastructure.
- 3. Integration with all concerned guidance.

The Fifth Axis:

Activating the control of products and agricultural inputs, forestry and woodland, fishing and hunting:

- 1. Training and use of equipments and mechanisms of control and developing of laboratories.
- 2. Training and use of veterinary and plant quarantine centers on the border posts and the adoption of all control over exports and imports and inputs.
- 3. Control over the safety of agricultural products in the Lebanese markets.
- 4. Encourage and assist producers and farmers to comply with the specifications and standards imposed by domestic and foreign markets in order to ensure differential advantage for production.

- 5. Encourage and assist producers and farmers to adopt tracking systems and agricultural trade mark Traceability and Labeling.
- 6. Organizing technical control laboratories of food.

The sixth Axis:

The development of production chains and improves the quality and activating the manufacturing, marketing and export:

- 1. Activate the production chains within the integrated agricultural development strategy.
- 2. Shift to more specialized production chains at the level of the domestic market, manufacturing or export.
- 3. Raise the efficiency of production in order to increase competitiveness and give added value to products.
- 4. Activation and development of mechanisms and marketing programs, internal and external.
- 5. Activation and the development of agricultural export subsidies.

Contains the center of the development of production chains and improve the quality and activating the manufacturing, marketing and export of the following: basic crops:

- Plant production (potatoes, grapes, cereals, Beans, forages, Almonds, Apples, olives, citrus fruits, bananas, vegetables, strawberry, medical and aromatic plants, nurseries, seed production, flowers).
- Animal production (sheep, goats, cows, poultry and birds, bees, fish).

The Seventh Axis:

Develop programs and mechanisms of credit to small and medium projects:

1. Provide sources of funding for affordable and subsidized investment in the agricultural sector in order to enable smallholders and medium-sized enterprises access to agricultural loans.

- 2. Development of new mechanisms for agricultural credit through the banking sector.
- 3. Credit linked to agricultural adoption of standards, specifications and tracking systems and Trademark agribusiness Traceability and Labeling.
- 4. Restore respect for traditional products in Lebanon.

The Eighth Axis:

Conservation of natural resources: soil, forests, biodiversity, regulating the use of marginal lands, pastures and fisheries.

- 1. The sustainable management of marginal lands and pastures.
- 2. Rationalize the use of agricultural land and reduce the pollution of soil and desertification.
- 3. The conservation of biological diversity and ecosystem (forests, pastures, water, fish ... etc.)
- 4. Develop and implement the national plan for forest management.

Part III:

Work Plan to Execute the Basic Axis for the Strategy Advancement of the Agricultural Sector

The First Axis:

Updated and issue of the necessary legislation (laws - decrees - decisions)

- 1. Update of laws, decrees and decisions related to the agricultural sector:
 - 1. Law on the structure of the Ministry of Agriculture (General Directorate of Agriculture, General Directorate of Cooperatives, Agricultural Research Institute, Green Project).
 - 2. Laws, decrees and decisions concerning the organization of sectors of agricultural occupations.
 - 3. The Forestry Act.
 - 4. Real property laws.
 - 5. Decisions related to Animal Departments (import meat live animals veterinary drugs and vaccines milk and milk products ... etc).
 - 6. Decisions on Agricultural Department (Commission on agricultural medicines, the Committee on fertilizers, seedlings and seeds ... etc.).
 - 7. Decisions on Rural Development Directorate of natural resources (forests, fish ... etc).
- 2. Issuing a number of laws, decrees and decisions in order to complete legislative package for the agricultural sector:
 - A. Laws to be issued:
- Career Law of Import and sale of agricultural products.
- Food Safety Law.
- Veterinary Quarantine Act.
- Law of farmers.
- Law nurseries and seed.
- Law of Chambers of Agriculture.

- Registration Act of agriculture.
- The law of organic agriculture.
- Guarantee Fund Act of disaster.
- Genetic Resource Management Act.
- The law of maritime fishing.
- The law of technical regulations and conformity assessment procedures.
- Law of the National Register of local and imported varieties.
- Protection Act for the olive tree.
- The law regulating the local development groups.
- Investment law for land (commonly, Republican, fiscal).
- B Establishing a decree of the National Observatory for Women in Agriculture and rural areas.
- C Issuing a Decision for the formation of joint committees between the Ministry of Agriculture and other governmental institutions, non-governmental actors who work on the development of the agricultural sector.
 - 3. Implementation of Article 8 of Legislative Decree 97 / 82 on the establishment of the Supreme Council of Agriculture.
 - 4. Activation of the coordination and planning.
 - 5. Issue a number of laws, decrees and decisions related to the conventions of Arab, regional and international levels.

The second axis:

Development of the structure and activating the role of the Ministry of Agriculture and coordination with public and private sectors and civil

- 1. Development within the Ministry of Agriculture:
- 1. Re-consideration of all the structures and functions commensurate with the strategy and work program of the Ministry of Agriculture for the years 2010 to 2014.
- 2. Ensure human cadre required:

	The number of jobs is made in the Contracting	The number of posts filled in government	The number of vacant posts in government Contracting	Vacancy rate In government Contracting
General Directorate of Agriculture	1118	414	774	69.23%
Agricultural Research Institute (LARI)	327 138	88 46	239 92	71.18%
Green Project	135 171	0 62	135 109	79.73%
General Directorate of Cooperatives	95	27	68	71.57%
Agricultural Education	192	49	143	74.47%

- 3. Rehabilitation of the existing staff.
- 4. Benefit from national experience working in universities and research centers.
- 5. Develop the functions and capabilities of extension and training.
- 6. Develop the functions and capabilities of scientific research.
- 7. Link the functions of scientific research guidance and training.
- 8. Development and activation of vocational agricultural education.
- 9. Development of oversight functions.

- 10. Link the functions of scientific research oversight.
- 11. Conduct annual agricultural statistics.
- 12. Link map of infrastructure with the map of development priorities.
- 13. Activate the agricultural technical services (examinations and laboratory tests, artificial insemination, vaccination, control of epidemic ... etc.).

2. <u>Development of cooperation with the Lebanese official:</u>

1. Office:

Council for Development and Reconstruction:

Secure the necessary funding for agricultural infrastructure (dams, agricultural roads, pools hilly).

Investment Promotion Foundation (IDAL):

Develop and update the program to support Lebanese agricultural exports by increasing its budget and the development of new mechanisms of support lead to an increase in exports on the one hand and to expand the fan benefit, especially small farmers on the other.

National Council for Scientific Research:

Develop coordination between the Ministry of Agriculture and the Council to serve the processes of scientific research and monitoring and the use of remote sensing systems.

B - The Ministry of Justice:

Activation of the coordination and integration between the Ministries of Agriculture and Justice, including role of the judgement in the application of laws and decrees related to the agricultural sector.

<u>C</u> - The Ministry of Foreign Affairs and Emigrants:

Activation of the coordination and integration between the Ministries of Agriculture and Foreign Affairs and Emigrants for:

- Topics related to the agricultural sector with the outside world (the parliaments and governments).
- Agricultural and commercial agreements with Arab, regional and international levels.
- Lebanon's role in Arab, regional and international organizations.
- The role of Lebanese embassies in the marketing of Lebanese agricultural products abroad.

D - Ministry of Interior and Municipalities:

Activation of the coordination and integration between the Ministries of Agriculture, Interior and Municipalities for:

- The role of security forces in the application of laws, decrees and decisions on the agricultural sector.
- The role of civil defense in the fight against forest fires.
- The role of municipalities and the Federation of Municipalities in rural development and agricultural sector development and control over food and protection of direction ... etc...

E - Ministry of Finance:

Activation of the coordination and integration between the Ministries of Agriculture and Finance for:

- Higher Council of Customs and the General Directorate of Customs:
 Statistics and control of exports and imports.
 - Management of the tobacco and tobacco (subsidies for growing tobacco).

<u>F - Ministry of National Defense:</u>

Activation of the coordination and integration between the ministries of agriculture and national defense for:

- Army's role in law enforcement decrees and decisions of the agricultural sector.
- Army's role in supporting the agricultural sector (spraying aircraft, reforestation ... etc.).

G - Ministry of National Education and Higher Education:

Activation of the coordination and integration between the Ministries of Agriculture and the National Education and Higher Education with regard to:

- Education curricula and education (concepts about agriculture, environment and forests ... etc.).
- The role of teachers and students to protect and expand green spaces.
- Scientific research and training in coordination with the Lebanese University.

H - Ministry of Public Health:

Activation of the coordination and integration between the Ministries of Agriculture and Public Health concerning:

- Food safety.
- Control of local and imported agricultural product.

I - Ministry of Labor:

Enhancing coordination and integration between the Ministries of Agriculture and Labor, for the need of health and social insurance for farmers and fishermen.

<u>J - Ministry of Information:</u>

Activation of the coordination and integration between the Ministries of Agriculture and Information, for the education, extension and training.

K - Ministry of Public Works and Transport:

Activation of the coordination and integration between the Ministries of Agriculture and Public Works and Transport, for the ports for fishermen (General Directorate for Transport), charts, guidelines and protection of Agricultural land (General Directorate of Urban Planning).

L - Ministry of Economy and Trade:

Activation of the coordination and integration between the Ministries of Agriculture and Economy and Trade for:

- Agricultural and commercial agreements, Arab, regional and international levels.
- o The application of anti-dumping law.
- Subsidies for growing wheat.
- o A trace and label agribusiness (Traceability and Labeling).
- o Control of local and imported agricultural products.

M- Ministry of Energy and Water:

Activation of the coordination and integration between the Ministries of Agriculture and Energy and Water for:

- o Irrigation projects (dams, lakes, water harvesting, feed wells, irrigation canals, canals and rain water drainage, drilling ... etc).
- Reduction of water pollution.

N - Ministry of Tourism:

Activation of the coordination and integration between the Ministries of Agriculture and Tourism for agro-tourism and environmental issues.

O - Ministry of Social Affairs:

Enhancing coordination and integration between the Ministries of Agriculture and Social Affairs for the roles of women and youth in rural development and programs to combat poverty and malnutrition.

P - Ministry of Environment:

Activation of the coordination and integration between the Ministries of Agriculture and Environment in terms of:

- Forest, forestation and conservation of vegetation and desertification control.
- Biodiversity conservation and biological diversity.
- o Pollution control in water, soil and air.
- o Control of local agricultural products and importing countries.
- o Processing waste from agricultural processing.

Q- Ministry of Industry:

Activation of the coordination and integration between the Ministries of Agriculture and Industry for:

- Development of the manufacturing sector, the agricultural and food production.
- Control over the agro-processing industries and food
- The role of the Institute of Industrial Research in the field of scientific research and monitoring on processed local and imported agricultural products.

3. <u>Activation of the coordination and integration with non-Arab, regional</u> and international organizations:

FAO, ICARDA, ACSAD, European Union, IFAD, the International Center for Corn and Wheat Research Program, UNDP, Arab Fund for Economic and Social Development, Islamic Bank, CIHEAM, embassies, the International Atomic Energy Agency, International Fund for Policy Research IFPRI, the World Bank, Organization of Petroleum Exporting Countries (OPEC), Kuwait Fund for Arab Economic Development, the International Olive Council IOC, the Organization of Afro-Asian Rural Development ARRDO, the International Organization of Vine OIV etc., in order to contextualize all programs and projects within an integrated strategy.

4. <u>Activation of the coordination and integration with public and private</u> universities and educational institutions:

In the areas of scientific research, training, guidance, oversight and policy formulation and program development.

5. Enhancing coordination and integration with the Order of Engineers of Beirut and the north and the veterinarians Syndicate:

Through the involvement of trade unions in the relevant committees for policy formulation and program development, implementation and preparation of laws and decrees on the organization of professions.

6. <u>Activation of the coordination and integration with the local non-governmental organizations:</u>

The involvement representatives of farmers, producers (unions, cooperatives, associations ... etc.) in the relevant committees for policy formulation and program development, implementation, encourage the families of farmers to engage in production and manufacture of manual and animal husbandry.

The Third Axes:

Reload agricultural infrastructure and raising the efficiency of use of natural resources

Work projects	Immediate objectives	Stakeholders
Ponds hilly	Secure additional water resources	Green Project International Organizations
	Reduce the cost	

	of production	
Construction of agricultural roads		Green Project
	Increase the cultivated area	
Land reclamation	Increase the cultivated area	Green Project
Modern irrigation systems	Reduce the cost of production	Department of Irrigation, Engineering Department in Rural Development, the Green Project, International Organizations

The fourth Axis:

Activate the extension:

- 1. Raise the level of agricultural extension service to the level of the Directorate.
- 2. Establishment of a pilot in each district and provide it with employees, materials and equipments required.
- 3. To develop and implement specific guidelines linked to production chains.
- 4. Preparation and implementation of applied research and extension specialist that cooperate between the Directorate of Agricultural Extension and Agricultural Research Institute.
- 5. Adoption and implementation of extension programs in partnership and integration with higher education institutions and professional bodies, trade unions and non-governmental organizations and Arab, regional and international levels.

The Fifth Axis:

Activating the control of products and agricultural inputs, forestry and woodland, fishing and hunting:

- 1. Training and use of equipment and control mechanisms through:
- 1. Increase the number of staff and raise the level of human efficiency.
- 2. Development and processing laboratories of the Ministry: Kafrshima, Tel Amara, Fanar, Tyr, Abdeh, Terbole, Kfardan, Kfrchakhna, Lebaa.

- 3. Establishing and equipping laboratories in the four new stations: Hermel, Kesrwan, Hasbaya, Chouf.
- 4. The development of systems and control mechanisms in coordination between the General Directorate for Agriculture and Agricultural Research Institute and the Directorate of Consumer Protection in the Ministry of Economy and Commerce and the National Council for Scientific Research and the Institute of Industrial Research.
- 5. The issuance of an integrated package of decisions that would activate the control of **products and agricultural inputs**, **forestry and woodland**, **fishing and hunting**.

2. Training and use of veterinary quarantine centers and vegetation and the adoption of export controls and imports in all border posts:

- 1. Rafic Hariri International Airport.
- 2. Port of Beirut.
- 3. Port of Tripoli.
- 4. Port of Sidon.
- 5. The Border
- 6. Abodeie Border
- 7. Areeda Border

3. The preparation and implementation of action programs to encourage and help producers and farmers to:

- 1. Comply with the specifications and standards imposed by domestic and foreign markets in order to ensure differential advantage for production.
- 2. Tracking systems and the adoption of agricultural trade mark, Traceability and labeling access to the application of similar systems, HACCP and ISO.
- 3. To engage in surveillance systems and agricultural technical services (examinations and laboratory tests, periodic statements, the control of epidemic ... etc.).

Through:

- o Extension programs and training.
- o Incentive schemes relating to agricultural loans and export subsidies.
- The adoption of quality certification systems.
- Competitive activities.

The Sixth Axis:

The development of production chains and improves the quality and activating the manufacturing, marketing and export:

1. Basic crops:

- 1. Plant production (potato, grapes, almonds, cereals, beans, forages, apples, olives, citrus fruits, bananas, vegetables, medicinal plants and aromatic, nurseries, seed production, flowers).
- 2. Animal production (sheep, goats, cows, poultry and birds, bees, fish).

Projects Action:

1. **Crop production:**

Work projects	Immediate objectives	Stakeholders
An integrated program to develop the production of seeds and seedlings deep-	Reduce the cost of plant assets approved	Directorate of Agricultural Products
rooted and well-documented	Job creation	LARI
and rehabilitation of nursery and classification	The possibility of marketing and export of productive assets	NGO's and international organizations
	Raise the quality and implementing a tracking system	The private sector
The introduction of new species and varieties	Improve productivity and sustainability of agricultural pests and regionalization	Directorate of Agricultural Products
	Increase competitive opportunities for crops	Directorate of Rural Development LARI
	Linking agriculture with industry Raise the quality and implementing a tracking system	NGO's and international organizations The private sector
Transactions to improve production and	Reduction in the cost	Directorate of Agricultural Products
dissemination of methods of use of modern techniques in agriculture, irrigation,	Improve productivity Reduce water pollution and soil	Green Project

harvesting and post-harvest	Improve the experiences of producers Raise the quality and implementing a tracking system	LARI, and non- Governmental Organizations
Develop a program of integrated control (production of natural enemies etc.) for major crops and the application of pilot projects and dissemination	Reduction of pollution of agricultural production and maintain food safety Improve the quality of production Reduction in the cost Increase the competitiveness and marketing opportunities Implementing a tracking system	Directorate of Agricultural Products LARI NGO's and international organizations
Development and diffusion of organic agriculture	Reduction of food contamination, soil and water Maintain the ecological balance Increase the added value of the product Implementing a tracking system	The Ministry of Environment Directorate of Agricultural Products Directorate of Rural Development LARI Associations and non- governmental organizations

2. **Animal production:**

Work projects	Immediate objectives	Stakeholders
Develop an integrated program to manage the farm	Improve productivity and quality of animal products	Directorate of Animals
(Animal health, nutrition, fattening, artificial	Increase the capacity and expertise of educators	Directorate of Rural Development
insemination etc.)	Limit the spread of epidemic	LARI
	diseases	Farmers
	Improve the local breed herd	International organizations and non-governmental
Development of milk production sector	Improve the quality of milk and increase the value added	Directorate of Animals Directorate of Rural
	Increase the opportunities for marketing and processing	
		The Ministry of Economy
		LARI
		Milk collection centers and the private sector
Organization and development sector slaughterhouses	Maintaining the quality and the quality of meat	Directorate of Animals
e e e e e e e e e e e e e e e e e e e	Implementing a tracking	The Ministry of Health
	system for animals intended for slaughter and meat	The Ministry of Economy
	consumed	Municipalities
		The private sector and slaughterhouses
		Professional
		organizations

Regulate the production of poultry (Eggs and chicken and	Improve the productivity of poultry	Directorate of Animals
animal feed etc.) and	pourry	Directorate of Rural
production of vaccines	Reduce the cost of	Development
1	production	-
		The private sector
	Improve the quality of	D C : 1
	products	Professional
		organizations
Regulatory beekeeping and	Raise the competitiveness of	The Ministry of
encourage the establishment of	Lebanese products	Environment
specialized units with advanced	T	D: 4 6
technology (queens and strains)	Maintain the vegetation	Directorate of
	Allowing educators to the	Agricultural Products
	integrated management of	Directorate of Rural
	pests and diseases	Development
	pests and diseases	Development
		Professional
		organizations
Sector regulation and river	Regulation of the profession	Directorate of Rural
fishing and the production of	of fishing	Development
fish eggs		The second secon
66	Conservation of fisheries	The private sector and
	resources	professional
		organizations
		The Ministry of
		Environment

<u>C - Activate and develop mechanisms and programs of processing and internal and external marketing:</u>

Work projects	Immediate objectives	Stakeholders
Organization and development of post-harvest operations (Sorting, packaging, storage, refrigeration etc.) Organization and development center industry, packaging and cooling Organization and development of the food industry	Disposal of surplus production Raise the quality of the product and implementing a tracking system Expand the adoption of modern technologies Control of food production	Directorate of Agricultural Products Directorate of Studies and Coordination Directorate of Rural Development Ministry of Economy and Trade Municipalities, cooperatives and trade unions The private sector
Organization and development of wholesale markets in cooperation with the competent authorities	Raise the quality of the product and implementing a tracking system Connect the local market from global markets to improve the marketing opportunities Increase the competitiveness of the product	Directorate of Agricultural Products Directorate of Studies and Coordination Ministry of Economy and Trade Municipalities, cooperatives and trade unions The private sector Chambers of Commerce, Industry and Agriculture

Organization and development of popular markets and farmers markets	The protection of agricultural producers	Directorate of Agricultural Products
Activating role of agricultural fairs and festivals	Raise quality of the product and implementing a tracking system	Directorate of Studies and Coordination
tans and resulvais	Create market opportunities for new local	Ministry of Economy and Trade
	Increase the return to farmers and reduce the costs of agricultural products to the	Municipalities, cooperatives and trade unions
	consumer	The private sector
		Chambers of Commerce, Industry and Agriculture
Activation and development of agricultural export subsidies	Better marketing opportunities outside	The Ministry of Agriculture
Active participation in agricultural fairs Arab, regional	Raise the quality of the product and implementing a tracking	IDAL
and international	system	The Ministry of Economy
	Support local products	Control companies
		Chambers of Commerce, Industry and Agriculture

The Seventh Axis:

Develop programs and mechanisms of credit to small and medium projects:

1. Contribute to a loan program by:

- A Lebanese Government (Ministry of Finance, the Central Bank of Lebanon).
- B International institutions.
- C Lebanese banks.
- D Kafalat.

2. Goal of the program:

Provide subsidized loans to small and medium producers through a network of Banks in Lebanon according to the studied mechanisms that ease credit conditions and maintain safeguards in order to:

- 1. Increased investment in the agricultural sector.
- 2. Reduce the cost of production and improve quality.
- 3. Credit linked to new technologies and tracking systems and agricultural trade mark (Traceability and Labeling) and a certificate of quality.
- 4. To give priority in the program of export subsidies.

3. Support programs and training on the economic feasibility:

To enable producers to obtain loans, a support programs and specialized training should be developed and implemented to provide feasibility studies for small and medium enterprises in cooperation between the Ministry of Agriculture, banks, cooperatives, trade unions, NGOs and chambers of commerce and industry and agriculture.

The Eighth Axis:

Conservation of natural resources: soil, forests, biodiversity, regulating the use of marginal lands, pastures and fisheries:

Work projects	Immediate objectives	Stakeholders
Adoption and implementation of the scheme for the homogeneous agricultural regions	The preparation of scientific reference to determine the types of crops and plants suitable for different types of land to guide farms towards the appropriate crops	Army Command Directorate of Agricultural Products Directorate of Studies and Coordination Directorate of Rural Development National Council for Scientific Research Municipalities, cooperatives and trade unions
The implementation of the National Plan to Combat Desertification issued by the Ministry of Agriculture in 2003	Reduce the negative impacts on soil Poverty reduction and internal migration Increase the vegetation cover Raise the efficiency of use of natural resources	Directorate of Agricultural Products Green Project The Ministry of Environment Directorate of Rural Development Directorate of Studies and

		Coordination
		Agricultural Research Institute
		Municipalities, cooperatives and trade unions
		Associations and non-governmental organizations
		International Organizations
Development and management of rangelands on the basis of participation and	To maintain grasslands, and biodiversity and natural resources	Directorate of Agricultural Products
sustainability	Secure sources of natural fodder Reduce the costs of production	The Ministry of Environment
		Directorate of Rural Development
		Directorate of Studies and Coordination
		LARI
		Municipalities, cooperatives and trade unions
		Associations and non-governmental organizations
		International Organizations

An integrated program for sustainable management of forests and forest resources and public gardens	Forest conservation and forestry Increasing the green areas Conservation of biological diversity and natural resources Promote agro-tourism	Ministry of Defense The Ministry of Education The Ministry of Environment The Ministry of Information Directorate of Rural Development Directorate of Studies and Coordination LARI Municipalities, cooperatives and trade unions Associations and non-governmental organizations International Organizations
Develop a specialized program on environmental	Conservation of natural resources Mainstream the concept of	Ministry of Defense
education in the agricultural and environmental sectors	participatory conservation farming Promote agro-tourism	The Ministry of Education The Ministry of Environment

The Ministry of Information Directorate of Rural Development Directorate of Studies and Coordination Agricultural Research Institute Municipalities, cooperatives and trade unions Associations and non-governmental organizations International Organizations