

FAO / Government of Italy Cooperative Programme



Food and Agriculture Organization  
of the United Nations



Ministry of Agriculture  
and Agrarian Reform



Italian Cooperation

**Project GCP/SYR/006/ITA**  
**Assistance in Institutional Strengthening and Agricultural Policy**

Final Report  
on

## **Reorganization of the Ministry of Agriculture and Agrarian Reform**

**ABDALLA A. ABDALLA**  
FAO International Consultant

**Damascus – Syria, May 2000**

- Opinions and judgments expressed are the authors' only. FAO proposes the text as basis for starting the discussion among scholars and policy makers on the issues related to the subject of the study.



## Table of Contents

<b>I. INTRODUCTION.....</b>	<b>5</b>
1.1 WHY INSTITUTIONAL RESTRUCTURING? .....	5
1.2 OBJECTIVES .....	5
1.3 ORGANIZATION OF THE REPORT .....	5
<b>II. AGROECONOMIC ZONES AND FARMING SYSTEMS.....</b>	<b>7</b>
2.1 AGRO-ECONOMIC ZONES .....	7
2.2 RAIN FED FARMING .....	7
2.3 IRRIGATED FARMING .....	8
2.4 LIVESTOCK .....	8
2.5 FOREST “HIRAG” .....	8
<b>III. OBJECTIVES OF AGRICULTUREAL DEVELOPMENT.....</b>	<b>8</b>
3.1 PRINCIPAL OBJECTIVES OF AGRICULTURE .....	8
3.2 STRATEGIES FOR AGRICULTURAL DEVELOPMENT.....	9
3.3 PRIORITIES OF MAAR .....	9
<b>IV. MANAGEMENT OF AGRICULTURAL DEVELOPMENT IN SYRIA .....</b>	<b>11</b>
4.1 THE SUPREME AGRICULTURAL COUNCIL .....	11
4.2 THE MINISTRY OF AGRICULTURE AND AGRARIAN REFORM .....	11
4.2.1 Structure of MAAR.....	11
4.2.2 Functions of MAAR .....	12
4.2.3 Functions of the Minister and his Deputies.....	13
4.2.4 Functions of the Central Directorates.....	13
4.2.5 Functions of the Specialized Commodity Bureaus.....	17
4.2.6 Functions of the Public Agricultural Corporations .....	17
4.3 GOVERNMENT AGENCIES RELATED TO THE AGRICULTURAL SECTOR .....	18
<b>V. MAJOR MANAGERIAL CONSTRAINTS.....</b>	<b>20</b>
5.1 ORGANIZATIONAL CONSTRAINTS .....	20
5.2 MONITORING AND EVALUATION CONSTRAINTS .....	20
5.3 HUMAN RESOURCES CONSTRAINTS .....	20
5.4 TERMS OF REFERENCE/MANDATE CONSTRAINTS .....	21
5.5 FINANCIAL MANAGEMENT CONSTRAINTS.....	21
<b>VI. THE ORGANIZATIONAL STRUCTURE OF MAAR AND MEETING NEW CHALLENGES.....</b>	<b>24</b>
6.1 THE NEED FOR THE RESTRUCTURING OF MAAR.....	24
6.2 THE NEED FOR WELL DESIGNED STRATEGIES, POLICIES, AND PLANS .....	24
6.3 THE NEED FOR EFFECTIVE MONITORING AND EVALUATION .....	25
6.4 THE NEED FOR EFFICIENT MARKETS AND MARKETING.....	25
6.5 THE NEED FOR CONSERVATION AND MANAGEMENT OF NATURAL RESOURCES .....	25
6.6 THE NEED FOR A WELL INTEGRATED RURAL INFRASTRUCTURE.....	25
6.7 THE NEED FOR GENERATING , ADAPTING AND ADOPTING NEW TECHNOLOGY .....	25
6.8 THE NEED FOR SKILLFUL LABOR FORCE.....	26
6.9 THE NEED FOR COORDINATION.....	26
6.10 THE NEED FOR ENHANCING AGRICULTURAL EXPORTS .....	26
6.11 THE NEED FOR EFFICIENCY IN PROVIDING PUBLIC GOODS AND SERVICES .....	27
6.12 THE NEED FOR THE TRANSFER OF SERVICES TO THE PRIVATE SECTOR .....	27
6.13 THE NEED FOR EFFECTIVE AND EFFICIENT MANAGEMENT OF MAAR .....	27
<b>VII. PROPOSED RESTRUCTURING .....</b>	<b>28</b>
7.1 MAIN FEATURES OF THE PROPOSED RESTRUCTURING .....	28
7.2 THE PROPOSED NEW STRUCTURE.....	28
7.2.1 Organizational Units directly linked to the Minister .....	28
7.2.2 The Directorate Generals within the Ministry.....	30
<b>REFERENCES: .....</b>	<b>35</b>
<b>ANNEXES.....</b>	<b>36</b>



## **I. INTRODUCTION**

### **1.1 Why Institutional Restructuring?**

Restructuring of rural development institutions is generally viewed as an instrument of adjustment to changes in the socioeconomic environment at the national, regional, or international levels, with a view to increasing their effectiveness and efficiency in achieving their mission, performing their roles, and carrying out their functions. Hence, restructuring of these institutions would enable the preparation and implementation of well designed agricultural development strategies and policies that would serve the agricultural sector and hence the national economy. These policies should meet the development needs of the agricultural sector and consider its real constraints and provide solutions for its problems and should further maintain a steady focus on their environment. Institutions like the Ministry of Agriculture should be structured in accordance with the specific development needs of the country, stressing its ability to respond to the current and future socioeconomic and environmental changes.

The current structure of MAAR has its roots in the philosophy of a directed centrally managed economy dominated by the public sector. Several fundamental economic, social and environmental changes have occurred during the last three decades. The nature of tasks performed by MAAR and systems of provision and delivery of inputs have changed, and new functions for MAAR have been added.

During the last three decades, new ideas relating to the economic development have emerged focusing on governance, roles of public institutions and their decentralization, the role of the different levels of the civil society in developing public policies and the relative roles of the public and private sectors. Since the 1980s, big changes related to the divestment of the government role, privatization, transparency, accountability, devolution and empowerment, have taken place. Moreover, structural adjustment programs, accompanied by rapid advances in the communication and information technologies have been implemented. Economic liberalization policies have been adopted at varying degrees by several developing countries in the 1990s, including Syria. These policies have their great influence on the agricultural strategies, policies, research, inputs, marketing, extension, agricultural services and the natural resources management.

Within this general scenario, the role of government is revisited to focus on policies, provision of rules and regulation, monitoring and evaluation, building capacities, contributing to technical backstopping and the sustainability of agricultural growth. The new approach calls for increased participation of farmers in planning, extension and input delivery.

### **1.2 Objectives**

This study aims at producing a feasible proposal for restructuring and development of an effective organizational structure for MAAR to increase its effectiveness and efficiency in performing its duties in the new-market oriented scenario, including human and financial implications of the proposed reorganization (see Annex I).

### **1.3 Organization of the Report**

The report is organized into six chapters. Chapter I covers the introduction. Chapter II identifies the agro-economic zones and farming systems in Syria. Chapter III gives the main objectives of agriculture, and strategies and priorities for agricultural development. Chapter IV analyses the management of agricultural

development in Syria including the Higher Council for Agriculture, the structure and functions of the Ministry of Agriculture and Agrarian Reform, principal government agencies linked to MAAR, and the performance of the agricultural. Chapter V summarizes the major institutional constraints including organizational, decision-making, monitoring and evaluation, human resources and financial management constraints. Chapter VI discusses the need for the organizational restructuring of MAAR within the ongoing socioeconomic and political changes at the international, regional and domestic levels. Finally Chapter VII gives the proposed restructure of the MAAR, outlining its main features.

## **II. AGROECONOMIC ZONES AND FARMING SYSTEMS**

### **2.1 Agro-economic Zones**

Geographically situated in the eastern coast of the Mediterranean, the total land area of Syria is 18,517,971 ha. The country is divided into four geographical areas, namely the coastal, mountains, interior planes and Badia. For the sake of land use and agricultural development planning, Syria has been classified into five agro-ecological Zones based on the rate of annual precipitation:

- The first zone represents 14.6 % of the total area of Syria, with average annual rainfall exceeding 350 ml. This zone is further classified into two zones:
  - Zone 1.a, with average rainfall over 600 MM. A wide range of crops may be grown, and fallowing is not necessary.
  - Zone 1.b, with average rainfall between 350 and 600 mm, with at least 300 mm in two thirds of the years surveyed. The main crops are wheat, food legumes, and summer crops.
- The second zone: represents 13.3 % of the total area of the country, with annual rainfall of 250-350 mm and at least 250 mm in two thirds of the years surveyed. Barley, wheat, food legumes, and summer crops are grown.
- The third zone: represents 7.1 % of the total area of the country, with average annual rainfall over 250 mm, achieved at least half the years surveyed. Barley is the principal crop, but some food legumes are also grown.
- The fourth zone: represents 9.9 % of the total area of the country, with average annual rainfall between 200 and 250 mm, and at least 200 mm during half of the years surveyed. Barley is the predominant crop. This area is also used for grazing.
- The fifth zone (Badia): Cover the rest of the country. This steppe land is not suitable for rainfed agriculture, but parts of it can be used for winter pasturing. It is the main pastoral area for sheep rearing.

### **2.2 Rain fed Farming**

The rainfed farming is generally confined to areas with an average annual rainfall exceeding 350 ml. Nearly all suitable lands for rainfed agriculture are already used, and therefore policies have been oriented towards increasing yields and intensification of agriculture production. The total area of trees and crops was 3355 thousands ha in 1999 distributed in all zones, except the Badia. The main activity in the Baida is sheep herding on natural pasture. The dry farming area cultivated annually represents 73 % of the total agricultural investment area. The degree of crop intensification varies with the amount and distribution of rainfall. The major dry farming crops include wheat, barley, lentils, and chickpea. In the areas of less than 300 ml annual rainfall, farmer crops choices are restricted and with low ceilings on crop yields. Policy actions for rainfed agriculture lie in the improvement of the productivity through adopting modern technical packages and farm inputs, and use of supplemental irrigation from groundwater resources, whenever possible. In the different production systems, the sound management of the resources and institutional building are needed. Research should be oriented to develop recommendations for marginal lands. Impacts of the sectoral policies and strategies on rainfed agriculture are several and serious. These include steppe and rangeland degradation, soil degradation, and loss of bio- diversity and loss of agricultural and range lands.

### **2.3 Irrigated Farming**

The type of irrigation used is pumping from rivers, wells and water flows from dams and springs. There is a wide variation in the irrigated cropping patterns due to variations in water sources, irrigation methods and different microclimates. The total agricultural area under irrigation is 1186000 ha 1999. Irrigated major crops are cotton, wheat, vegetables and fruits; strategic crops such as wheat and cotton are concentrated in the north and east of the country; winter vegetables production is more in the coastal areas while the summer crops are more in the interior planes. Past sectoral policies have emphasized the expansion of irrigated areas through the construction of dams, irrigation networks and development of ground water resources. These policies were accompanied by intensification of land use policies for increased yields and production in the irrigated crops. Problems related to irrigated agriculture include several environmental, socioeconomic and technological problems such as soil salinity, ground water depletion and pollution, and slow adoption of technologies.

### **2.4 livestock**

Livestock rearing is concentrated in the grazing areas of the Badia in an open access livestock system. The total animal herd varies between 12-15 million heads dominated by sheep. The variation is due to variations in rainfall and frequent droughts. Open access land tenure system and overgrazing are the major causes of natural rangelands degradation in the Badia.

### **2.5 Forest “Hirag”**

The total forest area constitutes only 3 % of the total area of the country. The forests are generally thin and confined largely to the provinces of Latakia and Tartous. Forest area has been increasing. However, this fact is not reflected in the statistics, since the forest area has been reassessed in 1992, modifying the criteria used for their assessment. The government is giving due attention to afforestation. The last agricultural development plan included the reclamation of 24000 ha for the cultivation of forest trees. The 1994 forest law has given a significant improvement to the forest sub-sector management, protection and sustainability of forest ecosystems, Sustainable forestry will provide the rural people with fire wood, and the supply of non-wood products in addition to protective services against natural risks as erosion. There is an obvious need for more elaborate legislation in the area of forestry.

## **III. OBJECTIVES OF AGRICULTUREAL DEVELOPMENT**

### **3.1 Principal Objectives of Agriculture**

MAAR is the public agency responsible for the development of the agricultural sector in Syria. It provides the policy direction and strategies and the development planning for sustainable agricultural growth and development. It implements the public role in the legitimate areas of public interventions in the use and protection of the natural resources, public services, regulation and the growth of private investment in agriculture to develop a competitive market oriented agriculture and food processing. The principal goals of agriculture are:

- Ensuring sustainable agricultural growth.
- Ensuring food security for a fast growing population.
- Enhancement and diversification of the agricultural exports.
- Provision of adequate supply of raw materials for the domestic agri-base processing.

- Ensure adequate levels of rural employment and curtail migration to urban areas.
- Achieving adequate targets of poverty alleviation and equitable levels of income distribution.

### **3.2 Strategies for Agricultural Development**

Prior to mid 1980s, Syria was adopting a strict state managed central planning system. The basic features of the economy were the domination of the public sector, very limited role for the private sector in foreign trade and services, ensured employment, price stability and redistribution of income in favor of the laborers and farmers.

Several instruments were used to achieve these objectives including direct central planning, control of all economic activities including public investment and the government interventions through price policies, subsidies and soft credit. In relation to the agriculture sector, the 5-year- agriculture plans and the annual production plans arising from them were used as a base for the management of the agricultural activities. After the approval of the annual agricultural development plan by the Supreme Agricultural Council, the implementation of the plan becomes obligatory by the various organs of MAAR and the farmers. The plan determines areas for cultivation, crops, rotations and the cultural practices. These directions were strictly enforced. This period also witnessed large investments in the agricultural sector. Policies and plans aimed at increasing agricultural resources use to secure self-sufficiency in the major food crops and the industrial crops for domestic processing and to provide rural employment. Marketing of the agricultural produce was controlled by the state through its public corporations and companies and the farmers were obliged to sell to these corporation at prices fixed by the Supreme Agricultural Council.

Starting 1986, Syria began to take gradual steps towards economic reform in the area of agriculture. Input and output subsidies were gradually removed and the price and marketing policies were relaxed. The preparation of the agricultural production plan became more of a participatory nature, with a relaxation in the control measures. Several revisions relating the role of government in preparation and approval of the plan were introduced. The plan became largely indicative and for the strategic crops in light of demand for the crops. The marketing policies of the agricultural crop and inputs also witnessed big changes towards liberalization. The private sector was given a larger role in the marketing activities together with a shift towards the protection of the producer and the consumer and improvement in the marketing functions and services. The public sector now undertakes optional marketing of several crops in a framework of a fixed price. The marketing of the industrial crops, such as cotton, sugar beet and tobacco is done by the public sector. The government owns these industries. The private sector plays a greater role in marketing the other agricultural products.

The period after 1986 witnessed improvements in the agricultural investment policies. Decree No. 10, 1986 was enacted relating to the establishment of the joint-venture agricultural companies and later in 1991 investment law No. 10 was instituted as the main law regulating the investment policy. It provides many privileges and incentives like tax exemption, transfer of funds etc.

### **3.3 Priorities of MAAR**

The priorities set for the MAAR are:

- Increased role for MAAR in agricultural policies and participatory sector development planning and implementation.

- Make agricultural planning an interactive process with increased participation of farmers and other related agencies at the central and province levels.
- Decentralize some agricultural operations to the province level; ultimately the central level should address only national policy, planning, regulation and backstopping functions, capacity building, research and training.
- Re-organization, consolidation and re-orientation of agricultural research.
- Strengthen research capacity and incorporate in the proposed agricultural research corporation (council, institution) and provide means for effective extension out-reach to farmers and herders particularly to the rain-fed and rangelands, and adopt new extension approaches.
- Strengthening regulatory agencies to provide stability in the market for agricultural goods and also transparency.
- Increased capability for effective monitoring and evaluation of agricultural activities.
- Strengthening capabilities for sustainable agricultural development management particularly in the low rainfall areas.
- Build a motivated skilled labor force and strong information system.
- Apply the economic multiplicity approach giving a chance to all economic sector including public, private, cooperative and joint sectors based on their economic efficiency)

## **IV. MANAGEMENT OF AGRICULTURAL DEVELOPMENT IN SYRIA**

### **4.1 The Supreme Agricultural Council**

The national economy is managed by the executive organ headed by the Prime Minister. Ministries undertake their respective functions and responsibilities as prescribed by law. There are also a number of Supreme Specialized Councils created by law and headed by the P.M. The Supreme Agricultural Council is the highest authority for agriculture. It approves the government annual agricultural production plan suggested by MAAR and decides on production, pricing and marketing of the strategic agricultural commodities. The National Planning Commission supervises investment planning including the agricultural sector and defines government projects for implementation according to the set national priorities. It prepares the general budget and presents it to the Supreme Planning Council for approval.

### **4.2 The Ministry of Agriculture and Agrarian Reform**

#### **4.2.1 Structure of MAAR**

4.2.1.1 The Main Structure: MAAR consists of the Minister of Agriculture, two Deputy Ministers each of whom supervise several departments, the central directorates with their sections and sub-sections, specialized bureaus, public corporations, the agricultural departments in the provinces, and public investment projects (Figure 1). The directorates have technical, administrative, regulatory and service functions.

Three departments affiliate directly to the Minister's Office, the Directory for Internal *Monitoring*, and the Directorate of the economic sector. Public corporations belong directly to the Minister. They comprise seed propagation, poultry, fodder, state farms, agricultural mechanization, livestock, and fisheries corporations.

Other central directorates, commodity bureaus and public investment projects are supervised by the Minister through his deputies as follows:

- One of the two Deputy Ministers supervises 12 directorates, two specialized bureaus, and three projects. The 12 directorates include: administrative affairs, financial affairs, Arab and international relations, statistics and planning, informatics, agricultural affairs, plant protection, animal production, animal health, Badia and pastures, engineering and transport, and state properties. The two bureaus include the veterinary drugs and Arab horses. The three projects are Syrian Badia development project, al tanf Wadi Al Hamad development project, and the central and coastal area development project.
- The other Deputy Minister supervises seven directorates, five bureaus, and three projects. The directorates include: agricultural extension, agricultural education and training, irrigation and water uses, soils, forest, scientific agricultural research and agricultural economics. The bureaus include cotton, olive, citrus, apple and sugar beet bureaus. The projects include Martyre Ali Al Ali project, rain evoking project, and the central and southern region development project.

4.2.1.2 Provincial Directorates for Agriculture: There are 14 provinces in Syria. They vary in size, resource endowments and farming systems. In each province there is a branch of the High Agricultural Council headed by the governor of the province. There is also, in each province, a directorate for agriculture divided into sections corresponding to the central directorates in MAAR headquarters. Sections are further split into "dawa'er" and units at the village level. The agricultural

organizational structure at the province level is replicated for all provinces without consideration to size, resources, and variations in the agricultural system. The province agricultural directorate is technically linked to the central directorates and administratively to the province authorities. All staff in the provinces belong to the MAAR staff list and obtain their salaries from the MAAR general salary allocations. The province directorate of agriculture implements the agricultural development plan in the province with the technical backstopping from the center.

4.2.1.3 Specialized Commodity Bureaus: These bureaus are created by the Minister, and rank as central directorates. The veterinary drugs and Arab horses's bureaus are located in Damascus, while the others are located in other provinces. The bureaus are, more or less, similar to central directorates, except that they are specialized. Some of these bureaus do not have separate investment plans, as their plans are included in that of relevant central departments. However, this does not apply to the cotton bureau due to the importance of cotton and the multiplicity of its financial resources.

4.1.2.4 Public Agricultural Corporations: Each public corporation is managed by a board and a general director. They are directly under the supervision of the Minister. Their affairs are channeled to the minister through the Minister's Office and /or the Economic Sector Directorate. These corporations were created in the mid seventies as economic enterprises and also to render some limited services to targeted groups and act as safety valve against sharp increases in commodity prices. Each corporation prepares its own production and financial plans, which are approved by its management board and confirmed by the Minister, who does not chair the discussion meeting. The plans are, then, passed together with the ministry plans for approval by the Supreme Agricultural Council.

4.1.2.5 Public Investment Projects: The government has been engaged in investment projects in support of the agricultural sector since the early seventies. The earlier investment projects focussed on soil reclamation of the mountainous areas and planting of fruit trees. A shift was later made towards integrating rural development dimensions like extension, training, water resources and women... Each project is managed separately as a directorate by staff transferred from MAAR. These projects are financed either by the government, donors or both. When the prescribed duration of any project ends and the donors leave, the project remains intact as a central directorate which continues to use the machinery and other assets acquired by the project. The cost of the maintenance of this old machinery is extremely high which makes these projects very costly to operate and become a burden on the Ministry of Finance. The sustainability of these projects under such circumstances is doubtful.

## **4.2.2 Functions of MAAR**

MAAR retains a central but not exclusive role in articulating and implementing public interventions related to the production, regulation and distribution of the agricultural goods and activities. A few economic and social interventions come from several technical and operational agencies outside MAAR. MAAR activities are governed by resolution 2590 issued in 1968 and its amendments. The resolution aimed at building a socialist agricultural base. It specifies the following functions for MAAR.

- Implementation and management of agrarian reform and the state properties.
- Preparation of the scientific vision and future prospects for the improvement of agricultural production.
- Preparation and coordination of:

- Short, medium and long-term plans according to instructions from the National Planning Commission (NPC).
- Government instructions to enable the provinces and the economic establishments prepare plans.
- Collection of agricultural information
- Conduct agricultural research and extension.
- Program cooperation with other countries and organizations.
- Program, and design agricultural socialist cooperative societies.
- Ensure democratic participation of the rural people through effective support required for increased agricultural productivity.
- Establishment of state farms to provide improved seeds and animal breeds etc.
- Scientific expansion of forests and the establishment of windbreaks and its protection.
- Reclamation of lands and the alleviation of salinity encroachment to new lands.
- Concentration of investment means, cash, kind and loans in the areas and the production aspects with effective economic impact on the promotion of the agricultural socialist development.
- Preparation of plans for agricultural commercial production of crops together with marketing, storage, in cooperation with other agencies.
- Determine prices of the agricultural commodities.
- Undertakes agricultural education and technical training and prepare plans for training of the employees of MAAR.

#### **4.2.3 Functions of the Minister and his Deputies**

The Minister undertakes the following functions:

- Supervision and monitoring of all activities of MAAR; technical, administrative, financial and regulatory; and
- Decides on the creation of new directorates and administrative division of the directorates between his deputies.

The Minister's Office provides clerical and technical services to the minister, prepares technical studies for the ministers meetings, takes minutes, and study complaints reaching the minister's office. The Office also conducts all matters relevant to the ministers' activities. Monitoring and inspection activities geared to evaluate the performance within the ministry and propose means for improvement are undertaken by the directorate, directly attached to the Minister. The department of internal supervision undertakes investigation of administrative and behavioral violations.

The two deputy ministers assist the Minister in performing his duties, and the Minister has the liberty to distribute responsibilities among his deputies.

#### **4.2.4 Functions of the Central Directorates**

MAAR provides several agricultural and other services including planning, investment, training, research, extension, propagation of improved seeds, horticulture, plant protection, artificial insemination, disease control and animal production services.

The directorates that provide these services and others are briefly outlined below:

1. The agricultural affairs directorate deals with all aspects related to the agricultural plan and its implementation. It also implements and manages Tashgeer and the Green Belt projects and participates in studies relating to development projects. It provides seedlings for the farmers at reduced prices. It

also gives import and export permissions of vegetable seed and seedlings. It conveys agricultural problems to the relevant authorities. There are 70 employees in the directorate, 51 engineers and the rest secondary schools and institutes graduates and others. The directorate is constrained by inadequate qualified staff.

2. The animal health directorate is primarily a service directorate that supports animal health. It protects the animal herd from diseases and epidemics, prepares and executes the annual plans of vaccination, provides training, manages veterinary laboratories and ensures the availability of veterinary drugs. The directorate has several centers for veterinary care and veterinary quarantine measures. The directorate consists of several sections namely: Vet. labs, poultry laboratories, vaccine production, drugs and other veterinary inputs, production control, studies and follow up and a center for brucellosis.

3. The soil directorate conducts soil research and field experimentation; makes plans for agricultural land use, rationalize fertilizer use and provides technical supervision for the stations and laboratories. The directorate has several sections including land classification, soil fertility and plant nutrition, land use, bio-fertilizers, soil conservation, laboratories, agricultural environment and follow up sections.

4. The irrigation and water use directorate was created in 1986 as a result of the split of the original Soil and Water Directorate into two directorates. Its functions include:

- Undertakes irrigation research and studies at farm level.
- Water use rationalization and introduction of modern irrigation techniques.
- Determination of water requirements for crops.
- Preparations of plans of water resources use.
- Study, design, and implement irrigation networks in farmers' fields.
- Collaboration with agricultural extension in transfer of irrigation management practices to farmers.
- Protection of water resources.

The directorate consists of three professional divisions namely Research and Water Studies, Projects and Exploitation and Maintenance in addition to an administrative division. Each division is further divided into sections. The directorate operates 12 research stations and a research center in the Badia. The research plan includes water requirements, supplementary irrigation, irrigation methods, drainage and salinity, water harvesting and spreading.

5. The crop protection directorate undertakes the following functions:

- Prepare, execute and supervises crop protection activities using pesticides and IPM.
- Prepare and enforce legislation and regulations for the agricultural quarantine measures.
- Manages a flying unit and pest management equipment.
- Provides protection against major insects in the country.

The directorate consists of several sections namely Control (Implementation of activities), Pesticides (legislation), Quarantine (Regulatory), Agricultural Flying Unit and Agricultural Pesticide Machinery. Crop protection research is a section within the Directorate of Scientific Research Directorate.

6. The agricultural economics directorate undertakes economic studies, analysis and evaluation, pricing, marketing and nutrition studies. It outlines agricultural resources and organizes investment. The directorate has four centers for economic studies located in the central, coastal, northern and southern areas. Each center services 3-5 provinces. These centers, however, are inadequately staffed.
7. The economic sector directorate is directly under the minister and it deals mainly with the affairs of the economically oriented agricultural public corporations. The directorate cooperates with the public corporations in preparing their production and investment plans, and prepares reports on the implementation of these plans. It also contributes to studies of production costs and care for technical problems facing the corporations. It has four sections, i.e., production and planning, joint ventures, finance and administration. The technical staff includes one Ph.D. holder, and 20 university graduates.
8. The agricultural education and training directorate undertakes the academic (*agricultural technical*) training management activities of 23 agricultural secondary schools, 11 veterinary and 4 agricultural mechanization schools in addition to 14 mid level agricultural and 2 veterinary institutes. The directorate provides training for the farmers, mechanics, tractor drivers, horticulturist and animal health workers. The directorate operates five training centers equipped with facilities for training in different specializations. The directorate also undertakes the formulation of study and training programs and curricula and is also responsible for admission and registration.
9. The statistics and planning directorate provides statistics and information required for planning. It takes a lead role in the preparation of the annual agricultural development, investment and workforce plans. It also participates in the formulation of the long-term vision. It consists of several sections including: Planning, Monitoring, Statistics, as well as the agricultural documentation center.
10. The extension directorate comprises four sections, namely the technical, information, programs and evaluation and home economics and women. The directorate undertakes technical implementation of extension programs including training for extension. Implementation is done through 900 extension units. These units offer services to 6500 villages. Commodity extension approach has lately been adopted. The extension agents register problems facing producers and inform the research and other directorates and also disseminate approved technologies, provide training of the extension workers and farmers in cooperation with the education and training directorate.
11. The scientific agricultural research directorate undertakes scientific applied and adaptive research in both crops and animals. The research activities are spread over 40 experiment stations in the various agro-ecological zones with greater focus in the irrigated and high rainfall areas. The directorate has several specialized sections including horticulture, plant protection, animal production, economic and social studies, food industries, protected cropping, tissue culture, pesticides analysis and animal health (*research*). The research activities aim at providing technologies capable of increasing crops and animals productivity. Research programs originate largely from the research scientists with limited participation from the extension agents and farmers. Direct requests are also made by the ministry. The research plan is discussed within the directorate and then submitted to the minister and incorporated in the annual agricultural development plan. The directorate also undertakes the implementation of crop and animal improvement

projects jointly with the other concerned agencies and donors. There has been lately an improvement in the quality and quantity of the research laboratory equipment. This improvement has not been accompanied by improvement in the scientific research cadre required for improved efficiency. It is observed that several research activities are isolated in different directorates such as water and soil research.

12. The forests “ Hirag” directorate was initiated to undertake the preparation and the implementation of the policies and plans relating to forestry. Its (*recent*) plans called for brining 24000 ha into forest and the production of 30 million forest seedlings. The directorate undertakes research on forest trees. It has four forest research stations spread in the different geographical areas. The directorate is also responsible for the protection of forests and its improvement. There are 4 Ph.D. holders in the directorate in addition to five Hirag engineers and eight supervisors.
13. The financial and trade affairs directorate manages the budget allocated by the government to the agricultural sector including current and investment resources budgets. Other resources come from external financing in terms of loans, facilities and donations. There are three main sections in the directorate namely: Accounts, Contracts and Foreign Financing. Proposals for the investment budget originate from the provinces that have projects already underway or initiating new projects. These projects are discussed in the Statistics and Planning Directorate and then submitted to the NPC where the final articulation of the plan is made and is then submitted to the Supreme Council for Planning for approval. The current budget is prepared in coordination with the financial directorate, discussed with the Ministry of Finance and then submitted to the Supreme Council for Planning by The Ministry of Finance for approval. The budget is then distributed to the directorates and the provinces for action. The means and tools of supervision and financial management remained as hand tools. Only the salaries are computerized. The need for modernization of management is clear. However, use of new technologies requires qualified human resources that are currently scarce.
14. The directorate of Badia, pasture and steppe undertakes the following functions:
  - Deals with matters relating to the natural pasture, fodder, water and animal husbandry in the Badia.
  - Manages the fodder fund to supply livestock producers with credit to buy feed.
  - There are currently within the Badia Directorate three projects for the distribution of pastoral seedlings, digging wells, installation and maintenance.
  - The Badia Development project and the Tanf project both in the Badia aim at receptively reclaim 3 million and 600.000 thousands ha in the Badia. The Tanf project provides for sheep breeding and water harvesting. Each of the projects is a separate directorate.
15. The directorate of animal production undertakes studies and preparation of plans and secure the availability of animal production inputs including AI. It also determines fodder regimes in terms of quality and quantity in addition to training. The directorate consists of six sections namely, the Central Laboratory for Feed Analysis, Fodder Control, Breeding, Animal Production, A.I and Fisheries. The technical staff is mixed vets and agricultural engineers.

16. Engineering and Transport directorate supervises the movement of the agricultural equipment and its maintenance and provide specifications in addition to the preparation of the buildings and works of the investment projects. It has several sections including, transport and mechanics, maintenance, fuel, large equipment, study and design in addition to technical backstopping and regulatory services.
17. The government property and agrarian reform directorate is a caretaker for government properties and implements the agrarian reform law. It distributes the government land and provides for registration. It also processes applications for transfer of public property.
18. The directorate for Arab and international relations promotes technical cooperation with regional and international organizations and bilaterally with Arab and other countries.
19. The directorate of informatics is a new directorate geared to promote services, administration and agricultural affairs, vested in the directorates of MAAR, through computer technology and information networks.

#### **4.2.5 Functions of the Specialized Commodity Bureaus**

The specialised commodity bureaus include the cotton, olives and citrus bureaus. Their functions are summarised below:

1. The cotton bureau conducts research to breed improved cotton varieties and generate other technologies. It also undertakes research related to cotton ginning and marketing. It produces the cotton foundation seed to be multiplied by the Seed Multiplication Corporation.
2. The olive bureau the bureau supervises the production of olives seedlings in coordination with the department of agricultural affairs. It also carries out research to improve olives productivity and protection against disease and makes proposals for the promotion of olive growing. It establishes genetic resources protectorates and mother stocks. It has an extension role and supervises olive oil manufacturing.
3. The citrus bureau (*the bureau carries out research on citrus cultivars and introduces new varieties according to their adaptability to the Syrian environment. It also takes the action needed to protect citrus from diseases and carries out biological control*). Moreover, it determines the areas for citrus cultivation, studies irrigation and drainage problems, distribute seedlings, introduce new cultivars, and extension for citrus production.

#### **4.2.6 Functions of the Public Agricultural Corporations**

1. The seed multiplication public corporation multiplies breeder seeds and distributes certified seed to farmers at cost prices through the Agricultural Cooperative Bank. Except for a few farmers who save their own seeds, the strategic crops seed industry in Syria has been restricted to the seed corporation. The corporation distributes all the cottonseeds, 60 % of the wheat seed requirement and 10 % of the barley seeds in addition to the pulses. It also imports sugar beet, sunflower and maize seeds. *As for vegetable seeds, they are entirely provided by private sector.*
2. The poultry public corporation produces broilers, eggs, and chicks. It deals in the open market and sells at market prices. The corporation has been for some time self-financing and contributing to the treasury. The presence of a strong competitive private sector in poultry production and marketing forces the

corporation to operate on competitive ways. The corporation serves as a buffer in times of sharp price fluctuations.

3. The fodder public corporation markets raw and processed fodder. It buys raw fodder from the producers at prices fixed by the corporation for maize and soybean. Barley is collected from the farmers by the grain public corporation at prices fixed by Supreme Agricultural Council. The fodder public corporation receives the barley and sells it to the animal owners. The corporation obtains the cotton cake from the oil mills of the food public corporation. Bran is obtained from flourmills.
4. State farms public corporation operates state farms. Conceived as an economic enterprise, the corporation aims at economic returns and also provides some targeted services. The total agricultural area under the corporation is 110,133 ha of which 69,175 ha are under strategic crops and fruit trees. Fifty thousands ha are in rainfed farming in the third and fourth agro-ecological zones and the farms are scattered over a large area, The corporation also deals in livestock production.
5. The agricultural mechanization public corporation provides mechanization services to the farmers. It also manufactures agricultural implements and conducts experimental field research. However, it failed to compete with the private sector. Recently, it has been focussing more on farm experimentation, funded by MAAR.
6. The cattle farms public corporation it produces cattle for dairy and meat production) It has branches spread in several provinces. The total herd of the corporation is about 8000 cows.
7. The fisheries public corporation produces fish in its fish farms distributed in several areas. It also has a sea fishing branch for fish production on the Syrian coast.

#### **4.3 Government Agencies related to the agricultural sector**

*(there are several agencies related to the agricultural sector such as:*

1. The National Planning Commission supervises investment planning including the agricultural sector and defines government projects for implementation according to the set national priorities. It prepares the general budget and presents it to the Supreme Planning Council for approval. The Ministry of Irrigation undertakes the study of water resources, design of irrigation projects, construction of irrigation works, and its operation and maintenance. It has linked to it several public corporations. Other ministries linked to MAAR include the ministries of finance, economics, commerce and trade and environment.
2. Public agencies involved in agricultural commodities that are under ministries other than MAAR include the following:
  - The Public Corporation for Grain Trade and Processing, belonging to the Ministry of Supply and Internal Trade undertakes marketing of the main grains and pulses (wheat, barley, chickpea, and lentils). Prices are fixed by the Supreme Agricultural Council.
  - The Public Corporation for Cotton Ginning and Marketing, belonging to the Ministry of Economics and Foreign Trade, receives cotton from the farmers, and undertakes ginning and marketing at prices fixed by the Supreme Agricultural Council.

- The Public Corporation for Food Processing, belonging to the Ministry of Industry, processes some agricultural products.
- The Public Corporation for Sugar Industry, belonging to the Ministry of Industry, collects and processes sugar beet.
- The Public Corporation for Tobacco, belonging to the Ministry of Economy and Foreign Trade, produces processes and markets tobacco. Prices are determined by a specialized committee.

## **V. MAJOR MANAGERIAL CONSTRAINTS**

### **5.1 Organizational Constraints**

In its current organizational structure, MAAR is unable to provide and implement effective agricultural sector policies to achieve the desired sustainable agricultural growth and development. In its present form and capabilities MAAR is not able to cope with the on going economic, technological and policy changes at the international, regional and local levels. This might be due to the fact that the present structure was largely based on the philosophy of a centralized state that manages all development activities in the sector. Evidence of the inappropriate organizational structure include the following:

- The large number of directorates and the lack of task coordination (some of the directorates might not be needed under the on-going move towards the market system - examples include the animal production and agricultural affairs directorates).
- The existence of gray areas and possibilities of duplication among some directorates, and investment projects. Moreover, some of the departments that have similar responsibilities are not supervised by the same deputy minister.
- The classification of the large numbers of the directorates and the specialized commodity bureaus under the supervision of the two deputies of the minister without clear reasoning of philosophy. Examples include the split between the agricultural economics and statistics and planning directorate.
- The less than needed policy analysis, policy formulation and planning capacity within the ministry.
- The existence of specialized commodity bureaus carrying out research functions, along with a specialized directorate for scientific agricultural research. A matter that might result in duplication of efforts and/or split of research activities.
- Decision-making is, to a large extent, centralized in the Minister himself.
- There are no specifications of formal responsibilities for the deputy ministers.
- Delegation of authority is not widely practiced
- Lack of institutional facility for human resources' development and manpower planning.
- Lack of mechanisms for the coordination of activities among numerous directorates in MAAR.
- The in-existence of institutional framework for regular consultation between various agencies involved in the development of the sector, which resulted in insufficient in-and between-sector coordination.

### **5.2 Monitoring and Evaluation Constraints**

In spite of the large number of directorates, monitoring and evaluation have been neglected. There is no directorate to undertake these responsibilities. This resulted in weak regulatory monitoring and evaluation facilities.

### **5.3 Human Resources Constraints**

The Government employs all graduates from Syrian colleges of agriculture. While the government is not obliged to employ all veterinary graduates, it usually employs those who apply. Lay-off is rare. All employees belong to one general centrally administered list. The total numbers of the employees in MAAR amounts to 49,727 person; 77% are employed in the agricultural directorates in the provinces, 5% in the HQ central directorates, 14% in the public corporations and the remaining 4% split between bureaus and projects. Tables 1-4 give classification of these numbers according to their qualifications, and among headquarters' directorates, provincial directorates, public corporations, projects, and specialized offices.

Analyses of these figures indicate that university graduates, mainly agriculturist and veterinarians constitute about 20 % of the total employment, 23% are secondary and mid-level education graduates. Less than 1 % of the employees hold postgraduate degrees. About 82 % of the university graduates are in the provinces, 7 % in the H.Q directorates. The remainder are in the bureaus and projects. Less than 1 % of the employees hold post-graduate degrees, 50 % in the provinces, 31% in the H.Q directorates, 16.5 % in the corporations. The distribution of the university and post-graduates is not based on objective criteria such as the importance of the crops grown or areas of strategic crops. Al-Hasaka for example, grows 40 % of the cotton and 40 % of the wheat and yet has only two post-graduate degree holders and a relatively lower number of university graduates. This is also true for Al-Raqa and the other northeastern provinces.

The main problems relating to the human resources include:

- Centralization of routine management.
- Routine training with no follow-up evaluation.
- Inadequate management skills.
- Inadequate reporting System.
- Low salaries and wages which negatively influences the performance.
- Limited opportunities for post graduate training.
- Lack of objective criteria for distribution of staff in provinces.

#### **5.4 Terms of Reference/Mandate Constraints**

The existing job specification is not clear and/or sufficient for the effective and trouble free performance of duties and distribution of responsibilities.

#### **5.5 Financial Management Constraints**

Lack of effective training and computerized budgetary control system, which slow down budget preparation and impedes effective monitoring. Financial implications include computer budgetary control system. The cost of re-organization will be minimal. All employees will be retained. The salary system is likely to stay as part of the over-all government system. The costs will be in the area of new office equipment, training courses and new information system and the likely creation of about ten top management posts.

**Table 1: Number of MAAR Employees in the H.Q Directorates**

<b>Directorate</b>	<b>Below Uni.</b>	<b>Uni. Degree</b>	<b>MS/Ph. D</b>	<b>Total</b>
Minister office	10	13	-	23
Economic sector	3	17	2	22
Statistics & Planning	8	37	4	49
Arab And Int. Relations	11	21	-	32
Administration and legal	147	18	3	168
Crop protection	101	28	4	133
Finance	47	26	-	73
Agric. Affairs	15	62	-	77
Animal Health	110	57	7	174
Animal Prod.	196	56	5	257
State Prop.	14	15	-	29
Eng. & Transport	117	85	3	205
Badia, Steppe	19	26	1	46
Agricultural Research	106	181	56	343
Soils	70	56	5	131
Forests	7	24	5	36
Ed. & training	19	21	1	41
Extension	25	34	3	62
Water uses	31	32	5	68
Ag. Economics	12	18	3	33
Internal Monitory	12	8	-	20
Informatics (new)	-	-	-	-
<b>Total</b>	<b>1080</b>	<b>835</b>	<b>107</b>	<b>2002</b>

**Table 2: Number of MAAR Employees in the Provinces:**

Province Directorate of Agriculture	Below Degree	Uni.	Uni. Degree	M.S/Ph.D	Total
Damascus	370		69	-	439
Rural Damascus	3753		876	22	4651
Dara'a	1549		460	4	2013
Swedia	1537		284	12	1833
Qunatra	547		119	8	674
Hims	1637		864	13	2504
Hama	5225		1074	15	6314
Lathikya	2130		1457	20	3607
Tartous	1414		906	10	2330
Idlib	1248		512	15	1775
Halab	4109		1329	28	5466
Al Raqa	2052		304	1	2357
Dir Alzur	1646		658	16	2320
Hasakah	1628		530	2	2160
Total	28845		9442	166	38443

**Table 3: Number of Employees in the Public Corporations**

Province Directorate of Agriculture	Below Degree	Uni.	Uni. Degree	MS/Ph.D.	Total
Fodder	1427		226	5	1658
Poultry	1496		149	11	1656
Seeds	657		225	18	900
Livestock	934		73	8	1015
Mechanization	396		64	2	462
Fish	318		32	6	356
State Farms	1728		173	7	1908
Total	6956		942	57	7955

**Table 4: Number of employee by H.Q, provinces, Corporations and projects**

Province Directorate of Agriculture	Below Degree	Uni.	Uni. Degree	MS/Ph.D.	Total
H.Q.	1080		835	107	2022
Provinces	28845		9442	166	38453
Corporations	6956		942	57	7955
Projects	955		115	3	1073
Makatib	154		93	7	2
Total	37990		7	340	49757

## **VI. The Organizational Structure of MAAR and Meeting New Challenges**

### **6.1 The need for the restructuring of MAAR**

During the last three decades, agriculture in Syria has achieved considerable progress. Production and yield increases have been realized for the basic food crops (wheat, barley) reflected in high levels of self-sufficiency for cereals at affordable prices, increased agricultural exports and provision of raw material for the domestic processing plants. It also improved the rural income reflected in good levels of poverty alleviation in the rural areas, containment of migration to the urban areas, and a high level of employment. There have also been considerable achievements in the rural infrastructure and the building of supporting institutions.

These results have been possible through a package of structural, price, trade, subsidies and marketing policies. The implementation of these policies have been possible through a unique institutional structure involving a Supreme Agricultural Council, MAAR and its public corporations, several ministries and public companies, farmers unions, the political party, the cooperatives and chambers. It was possible to reconcile conflicting interests. The main issue is however, the ability of these policies and such a complex system of rules and regulations to allow dynamic adaptation of Syrian agriculture to the changing domestic and external environment together with the sustainability of the natural agricultural resources. Further sustainability of these achievements faces several interdependent demographic, financial, institutional and world market orientation challenges and opportunities.

Moreover, population growth rate remains high and therefore agricultural policies should ensure adequate agricultural growth to meet increasing food demands and the creation of new employment opportunities for an increasing labor force. Increased agricultural production has been achieved by horizontal expansions in reclaimed areas and the intensification of the utilization of the natural resource base. Such land use and water management has resulted in increasing pressure on the resources leading to land and water and range degradation and ground water depletion and pollution. Coping with these constraints of sustainability has important technological dimensions in all the farming and the livestock systems, which will create increasing demand in terms of technology generation, adaptation, adoption and diffusion of these technologies.

Efficient and sustainable use of natural resources has also its economic implications at both macro and micro levels. The macro issue relates to the ability of the system to signal resources scarcity through market signals as well as through command and control interventions to regulate the access to the natural resources. The micro level issue relates to the ability of the production unit to flexibly adapt to the changing scarcity of the natural resources in terms of production patterns and technology.

Last, but not least, the international, regional and domestic scenes have recently witnessed considerable socioeconomic and political changes. Most important among these changes are the on-going overwhelming move towards the market-oriented economy in so many countries, and the pressure felt by developing countries after the establishment of the International Trade Organization to join in the on-going integration of domestic and international markets.

Taking all the above-mentioned facts into consideration, the following sections identify different needs along with the necessary structural/functional changes needed within MAAR to promote its ability to meet these needs.

### **6.2 The need for well designed strategies, policies, and plans**

The role of the government in agriculture within a market-oriented economy and in the context of the international economic changes is not only important, but also difficult to implement. This is due to the fact that under such a system governments refrain from direct interference in production, marketing and distribution activities, which are almost completely left to the private sector to undertake. Governments resort to policy directives to guide the private sector to implement governments strategies and policies. Hence the need is tremendous for well designed strategies and policies that include clear and effective policy directives capable of motivating farmers and fostering private sector investment in agriculture and related services. The need is also there for the periodic revision of these strategies and policies to increase flexibility and create dynamic efficiency, not only within MAAR, but also within the agricultural sector. Needed institutional changes include:

- A strong policy and planning organ.
- Efficient points of interface within MAAR, for farmers, planners, private sector, and NGOs.
- A powerful statistical and data base system.
- A powerful management information system.
- A unit for private investment and joint ventures.

### **6.3 The need for effective monitoring and evaluation**

Strategies, policies, and plans, no matter how well designed, lose their effectiveness if they are not well implemented. Hence the need is there for monitoring and evaluation. Needed institutional changes include:

- A strong monitoring and evaluation organ.

### **6.4 The need for efficient markets and marketing**

Problems farmers meet in marketing their products might be more pressing than problems they meet in production. The more efficient the marketing is the better prices farmers will get for their products. Needed institutional changes include:

- A powerful marketing information system that collects and disseminates markets and marketing data and information on daily, weekly, and monthly bases.

### **6.5 The need for conservation and management of natural resources**

The sustainable development of agriculture necessitates the conservation and good management of the natural resources to ensure sustainable use. Needed institutional changes include:

- A strong natural resources management organ.
- Instituting environmental planning.

### **6.6 The need for a well integrated rural infrastructure**

The sustainable development of agriculture and rural development requires a well-established and integrated rural infrastructure. Public investment is strongly needed to provide for this infrastructure. Needed institutional changes, in addition to those mentioned under item 6.1, include:

- A good public investment budgeting organ.

### **6.7 The need for generating , adapting and adopting new technology**

Development of agriculture is a function of, among other things; the utilized advanced agricultural technology. Keeping up-to-date with new technology through generation and/or adapting and ensuring the adoption of these appropriate technology by agricultural producers necessitates carrying out appropriate research in agricultural fields and extending such knowledge to farmers in a way that would make them adopt appropriate technology for their conditions. Needed institutional changes include:

- Consolidation of agricultural research into a national agricultural research institution with full mandate over all aspects of agricultural research and link it with the central extension organ.

### **6.8 The need for skillful labor force**

Adoption and application of new and appropriate technology in agriculture requires developing skillful labor force and manpower at different levels and in different fields of agricultural work. Needed institutional changes include:

- Strengthening agricultural and middle level technical education and retraining.
- Re-organization implications relating to human resources include:
  - All staff will be trained according to government policy.
  - Need for an improved personnel management system and record keeping.
  - Need for performance evaluation system.
  - Revision and re-orientation of the training centers.
  - Management training courses for all levels.
  - Mechanisms to facilitate communication.
  - Personnel information system.

### **6.9 The need for coordination**

Effective and efficient policy formulation and planning requires development of effective coordination between agencies involved in agricultural production input delivery, marketing and processing. Needed institutional changes include:

- Inter-sectoral policy planning and coordination committee headed by the minister of agriculture and with high level membership from related ministries and agencies. Also an internal coordination committee headed by the under-secretary or Deputy Minister, and a technical committee on plan and budget coordination.

### **6.10 The need for enhancing agricultural exports**

For agriculture to be self-dependent with respect to foreign exchange and contribute significantly to the development of the economy, agricultural exports need to be enhanced. Needed institutional changes include:

- Relaxation and flexibility in the development planning to enable farmers respond to price signals; judicious balance between land for export crops and locally consumed crops; promote private farming and livestock rearing.
- Creation of specialized groups and marketing services companies.

### **6.11 The need for efficiency in providing public goods and services**

Achieving the objectives of good strategies, policies, and plans require, among other things, efficiency in the provision of public goods and services. To enhance such efficiency more focus should be directed to plant and animal pest and diseases control, having a well designed seed law, and setting standards and specifications for crops, inputs, and machinery. Needed institutional changes include:

- Directorate general for animal health with strong regulatory focus.
- Directorate general for crop production and regulation.
- Directorate general for crop protection
- Directorate for international cooperation.

### **6.12 The need for the transfer of services to the private sector**

The successful move to the market-oriented economy requires the gradual transfer of services to the private sector.

Services to be partly transferred to private sector or joint venture organizations include:

- Production of improved seeds
- Nurseries and distribution of seedlings.
- Production of day-old chicks.

Services to be commercialized include:

- Soil survey labs.
- Artificial insemination.
- Veterinary supplies.
- Fertilizers

### **6.13 The need for effective and efficient management of MAAR**

The effective and efficient management of MAAR is a prerequisite for the achievement of all the above mentioned objectives. Needed institutional changes include:

- Deputy Ministers.
- Internal Auditing and supervision.
- Decentralization.
- Functional distribution of authority and responsibility among Deputy Ministers.
- Good administrative and financial organs

## VII. PROPOSED RESTRUCTURING

### 7.1 Main Features of the Proposed Restructuring

The main features of the proposed restructuring include the following:

- i) Creation of under-security post.
- ii) Reduction and consolidation of the existing 23 directorates in MAAR to seven strong directorate generals within the ministry.
  - Directorate General for Policy and Planning.
  - Directorate General for Natural Resources Management.
  - Directorate General for Crop Production and Regulation.
  - Directorate General for Crop Protection.
  - Directorate General for Animal Health.
  - Directorate General for Animal Production and Regulation.
  - Directorate General for Education and Training.
- iii) A directorate for international cooperation and a directorate for finance and administration under the supervision of the Under-Secretary.
- iv) Consolidation of all agricultural research activities in a single agricultural research institution (Corporation or Center).
- v) Incorporating the central extension directorate into the proposed agricultural research institution. Local extension services remain in provinces.
- vi) Creation of an agricultural research and extension committee headed by the minister.
- vii) Establish a high level MIS in the executive office of the minister together with a legal unit.
- viii) Institute high-level coordination committees.
  - Inter-sectoral policy planning and coordination headed by the minister of agriculture.
  - Internal coordination committee.
  - Plan and budget coordination committee.
- ix) Public corporations be commercialized and if not successful privatized (Joint Ventures or Private Institutions).
- x) Development projects: Corresponding directorates and International Cooperation Directorate.

### 7.2 The Proposed New Structure

#### 7.2.1 Organizational Units directly linked to the Minister

**7.2.1.1 The Executive Office of the Minister:** It consists of a Legal Unit and a Management Information System Unit. It would deal with special political or strategic functions that require direct intervention by the Minister.

- i) **The legal unit** would undertake all legal functions and responsibilities.

ii) **The Management Information System (MIS)** would be the core information center for the Minister. It would:

- Provide information to the top management.
- Monitor and evaluate all directorates and sector corporations etc.
- Develop agricultural production database.
- Develop and keep documentation.

**7.2.1.2 Internal Ministry Coordination Committee:** It would be chaired by the Minister and composed of the Under-Secretary, the Director Generals and heads of sector corporations. Its main functions include:

- (i) Coordinating internal activities of the different organs of the ministry.
- (ii) Making periodic review meetings.

**7.2.1.3 Agricultural Research and Extension Committee:** Its main functions include:

- (i) Developing national research priorities and programs.
- (ii) Making periodic review of the research activities.
- (iii) Advising on funding and cooperation links.

**7.2.1.4 Inter-Sectoral Policy, Planning, and Coordination Committee:** It would be chaired by the Minister and composed of the Under-Secretary or D. Ministers of Agriculture, representatives of the ministries of finance, irrigation, commerce, etc., heads of agricultural corporations, and the Director-General of the Agricultural Cooperative Bank. The committee would undertake regular consultation and coordination among MAAR, the provinces, and other related ministries and organizations that have impact on agricultural policies and interventions.

**7.2.1.5 The Under-Secretary:**

- **Functions:** The Under-Secretary is the chief administrative and executive officer.

He mainly undertakes the following functions:

- (i) Advises on policy and actions.
- (ii) Overseas development activities.
- (iii) Prepares plans and budgets.
- (iv) Coordinates internal activities of the directorates and the corporations.

- **Directorates directly attached to the Under-Secretary are:**

(i) **The Directorate of International Cooperation** would provide interface with international organizations such as FAO, IFAD and UNDP, and regional organizations such as CGIAR, ACSAD, AOAD, etc. It would:

- Coordinate projects for international and regional cooperation.
- Provide technical backstopping on matters relating to international agricultural implications.

(ii) **The Administration and Finance Directorate** would be responsible for administrative control. It would undertake the following functions:

- Manage personal and material resources.
- Manage the budget.
- Public relations.
- Establish and manage a personnel information system.
- Maintain records of financial accounts and supplies.

## 7.2.2 The Directorate Generals within the Ministry

These include the following:

**7.2.2.1 The Directorate General for Policy and Planning:** Its main functions would include:

- Formulation, monitoring and evaluation of agricultural policies , sector plans and projects;
- Prepare budgets.
- Provide technical support to other directorates and provinces.

Directorates under the directorate general will include:

- (i) **Agricultural Policies Directorate:** It would be responsible for the formulation of structural, price and trade, marketing, employment, export and import policies; formulate policies for crops, animals and natural resources.
- (ii) **Planning Directorate:** Prepare agricultural development plans, prepare projects, follow-up, prepare and coordinate budgets, collection of agricultural production data, etc. It may have deputy directors for crops, animals, and natural resources and sector planning. The deputy directors for crops, animals and natural resources will prepare long-term plans for crops, animals and natural resources. Deputy Director sector planning will prepare consolidated long term plans for crops, animals and natural resources; consolidated annual development plans; review budget submissions, discuss budget proposal with finance; projects accounts; conduct periodic reviews of public and private sector investment.
- (iii) **Agricultural Economics Directorate:** Estimate annual demand of inputs and monitor delivery; collect, analyses and disseminate data on prices for the main crops, livestock products and agricultural inputs; undertake policy related studies in key areas; establish a documentation center and data-bank for agricultural statistics; market studies and food balance sheets.
- (iv) **Statistics Directorate:** Statistical surveys; analysis and evaluation of data received; documentation and publication.
- (v) **Food Security and Nutrition Directorate:** Food security issues and programs; monitoring food crops production and availability and consumption, prices, storage and transport; coordination with remote sensing; nutritional intake assessment and planning nutrition needs.
- (vi) **Agricultural Investment Directorate:** Advise on allocation of land and water for private investment consistent with investment act; provide advice and promotional services; monitor and evaluate public and private sector investment in agriculture and related activities and develop joint-venture projects; promote investment in range and forest, develop marketing information base and dissemination.

- (vii) **Technical Committee on Plan and Budget Coordination:** Instrument for regular planning consultations; provide guidelines for preparations development plans, investment projects and development and recurrent budget; review proposals and consolidate plans, review follow up reports.

#### 7.2.2.2 The Directorate General for Natural Resources

Its overall objective is to protect the natural agricultural resource base and ensure efficient and sustainable use of the natural endowment through:

- Develop polices and programs ensuring sustainable use of the resources.
- Enforce rules and regulations for sustainable agricultural development.

Its directorates include:

- (i) **Land Use and Conservation Directorate:** Develop land use planning based on land capabilities; participate in policies for land use, undertake soil surveys analysis and rationalization of fertilizer use, operate soil analysis laboratory.
- (ii) **Water resources use directorate:** Water resources planning and management, conduct surveys; watershed management; regulation of use and protection of water resources, develop efficient irrigation techniques, participate in water use policies.
- (iii) **Range and Forest directorate:** Management, conservation, protection and regulation, integrated livestock crop and range management, identify projects for forest and range create forest areas, regeneration and rehabilitation programs.
- (iv) **Environmental Monitoring and Drought management:** Environmental Impact Assessment (EIA) drought management (data on soils, water, rainfall and other data pertaining to drought), prepare maps, documents and participate in planning and polices.

#### 7.2.2.3 The Directorate General for Crop Production and Regulation.

It would undertake appropriate regulatory means for crop production involving seed, field and horticultural, crops and mechanization. It implements rules and regulations and participates in planning and policies formulation relating to crop production.

It would include the following directorates:

(i) **Seed Directorate:** Its functions would include:

- Setting standards for seeds
- Testing and certification of all seeds.
- Technical support to seed industry
- Initiate seed legislation and enforce seed law.

(ii) **Horticulture Directorate:** Its would undertake the following functions:

- Propose national strategies for horticulture crops (Fruits, vegetables, flowers, medicinal plants).
- Provide technical support to farmers and organization involved.

- Monitoring and regulation of seeds, seedlings, of horticultural crops.
- Collect information on horticulture technologies and exports.
- Supervise national gardens.

**(iii) Field Crops Directorate:** It would undertake the following functions:

- Monitoring implementation of the field crops production plan.
- Provide technical support.
- Water licenses

**(iv) Mechanization Directorate:** It would undertake the following functions:

- Setting standards, testing and certifying agriculture equipment.
- Provide technical support to private and public sectors
- Provide engineering services to MAAR.

#### **7.2.2.4 The Directorate General for Crop Protection**

It would provide appropriate regulatory means for crop protection against pests and diseases; survey and combat pests and enforce rules and regulations, and manage national crop protection operations also participate in policy and planning and provide technical support to relevant areas. It would include the following directorates.

- (i) Technical affairs directorate:** It would monitor and coordinate crop protection activities such as plant quarantine, phytosanitary measures, pest control, etc.
- (ii) Operations directorate:** It would conduct and coordinate control of migratory pests.

#### **7.2.2.5 The Directorate General for Animal Health:**

Its functions would include

- Disease control and quarantine
- Provide regulatory covenants for disease control and quarantine; implement rules and regulation and participate in policy and planning.

It would have the following directorates:

**(i) Animal Disease Control Directorate: which would:**

- Formulate agreements of animal health.
- Classify animal disease and assess impact.
- Provide technical support.

**(ii) Quarantine and Meat Hygiene Directorate: which would undertake the following functions:**

- Inspection, supervision and updating of quarantines, meat plants , cold storage etc:
- Issue animal health certificates.
- Propose specifications and quality controls of meat.
- Provide technical support.

**(iii) Veterinary Supplies Directorate:** which would undertake the following functions:

- Prepare list of veterinary preparations, and publication.
- Advising and giving permits for private practice.
- Provide technical support.

**(iv) Disease monitoring directorate:** which would undertake the following functions:

- Disease reporting and notification.
- Advising on outbreaks and prepare maps of out-breaks and collect data.
- Technical support.

#### **7.2.2.6 The Directorate General Animal Production**

It would propose policies and programs for animals' production, and implement rules and regulations and provide technical backstopping. It would supervise the following directorates.

**(i) Livestock Production Directorate:** Examine national and imported livestock breeds and confirm pedigree certificates; prepare specifications, standards and control measures for meat and dairy products etc. and provide technical support.

**(ii) Poultry Production Directorate:** It would provide quality control measures of poultry products, participate in policies and planning and monitor inputs.

**(iii) Animal Nutrition directorate:** Its functions would include:

- Monitor and supervise animal feed production and manufacturing.
- Provide technical support.

#### **7.2.2.7 The Directorate General for Education and Training:**

Skilled agriculture labor force and information are becoming increasingly important capital for agricultural growth and development. It is therefore advised that the education and training directorate remain as a strong directorate in the MAAR. The current capabilities of the directorate are however weak. There is an urgent need for reforming this directorate in terms of staff, curricula and equipment. It is important that the staff should be highly qualified, well trained and conversant with teaching and training methods, and permanently assigned to the teaching and training profession, provided opportunities for further training and given incentives to stay as teachers and trainers.

Although it is the policy of the country that 70 % of the students be channeled in the technical education, I would still think that the current agricultural secondary schools are revised. Greater emphasis should be directed towards strengthening the post- secondary mid-level education. The current curricula need be revised with

increased emphasis on field and technology orientation. These mid-level institutes should have a specially trained and motivated staff and adequate training facilities.

## References:

- الجمهورية العربية السورية-السياسات الزراعية في عقد الثمانينات  
المنظمة العربية للتنمية الزراعية 1994.  
التعليمات التنفيذية للقانون رقم 10 لتشجيع الاستثمار 1991.  
الأمم - اللجنة الاقتصادية والاجتماعية لغربي آسيا-تقييم السياسات الزراعية في الجمهورية العربية السورية  
المتحدة، نيويورك 1990.  
مديرية الشؤون الإدارية- وزارة الزراعة- دراسة أولية حول هيكلية و وزارة الزراعية و الإصلاح الزراعي  
سوريا (بدون تاريخ).  
- الاقتصاد الزراعي- سوريا- الهيكلية المالية (الحالية) لوزارة الزراعة والإصلاح الزراعي- د . ناهي الشيباني  
وزاز 1996.  
النظام الداخلي لوزارة الزراعة والإصلاح الإداري الصادر بالقرار /110/ بتاريخ 1986/6/15 .  
حالة الزراعة و الغذاء في الجمهورية العربية السورية- الجزء الأول 1992. تقرير المكتب الإقليمي للمنظمة  
دمشق-العربية للتنمية الزراعية  
دراسة تحليلية حول التغيرات الأساسية في الهيكل الزراعي و أنظمة الملكية الجارية في الزراعة العربية  
دمشق 1984- المكتب الإقليمي -السورية . المنظمة العربية للتنمية الزراعية  
The Annual Agricultural Statistics Abstract 1998 , Syria  
Food and Agricultural Sector Profiles , FAO 1997 . Inter  
Inter – conference on Agricultural Growth, Sustainable Resource Management and  
poverty Alleviation in the low rainfall areas of West Asia and North Africa- Amman,  
Jordan, April 1998.  
12Country Profile, The State of Food and Agriculture in Syria, Center for install  
strengthening and agricultural policies, Damascus  
حلقة العمل القومية حول مقرر البحوث المشتركة في مجال تطور كفاءة استخدام الموارد المائية في الدول العربية  
م أحمد زليف-البحرين 11/30-1999/12/2 . إعداد جورج العين

**ANNEXES**  
**TERMS OF REFERENCE FOR**  
**THE ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF**  
**AGRICULTURE AND AGRARIAN REFORM**

<b>Duration:</b>	1 <sup>st</sup> Mission: 1 month
	2 <sup>nd</sup> Mission: 1 month
<b>E.O.D.:</b>	1 <sup>st</sup> Mission: August 1999
	2 <sup>nd</sup> Mission: April 2000
<b>Duty Station:</b>	Damascus, Syria
<b>Language:</b>	English

**Activities:**

Under the direct supervision of the Chief RNER Operations Services and the Technical supervision of Chief RNEP, the CTA and in close collaboration with the director of NAPC/National Project Director, the consultant will:

1. Conduct a detailed study on a feasible restructuring of MAAR.
2. Develop a detailed feasible proposal for restructuring and development of an effective organizational structure for MAAR to perform its duties in the new market oriented scenario, including human and financial implications of the proposed reorganization.
3. Organize a seminar/workshop at the end of his assignment to present and discuss the results of the study.
4. Prepare a technical report outlining main findings, conclusions and recommendations for technical clearance by FAO.

To accomplish this task, the consultant will undertake two missions to Syria, each of one-month duration. During the first mission, the consultant will:

- ◀ Review the present institutional set-up related to Syrian agriculture;
- ◀ Review the mandate of MAAR, its specific functions at the central and local level, staff and their qualifications, financial resources, activities currently performed (e.g. current planning system, delivery of services, etc.) and instruments of intervention at various levels and in various sub-sectors;
- ◀ Review other institutions connected with agriculture, including other Government organizations and parastatals;
- ◀ Review and analyze the programming and budgetary processes and of the channeling and disbursement procedures for budgetary resources in the food and agriculture sector;
- ◀ Review and analyze public investment planning financing and implementation in the food and agriculture sector;
- ◀ Analyze the delivery systems and the different options for reallocation of tasks and their implications;
- ◀ Identify present constraints (related to allocation of human resources, financial resources, acquired social protection systems, etc.), and provide an initial

hypothesis on principles, which could guide an eventual reallocation of staff resources.

- ◀ Prepare a report on his preliminary findings and indications on the main areas of concern he plans to address in the second mission.

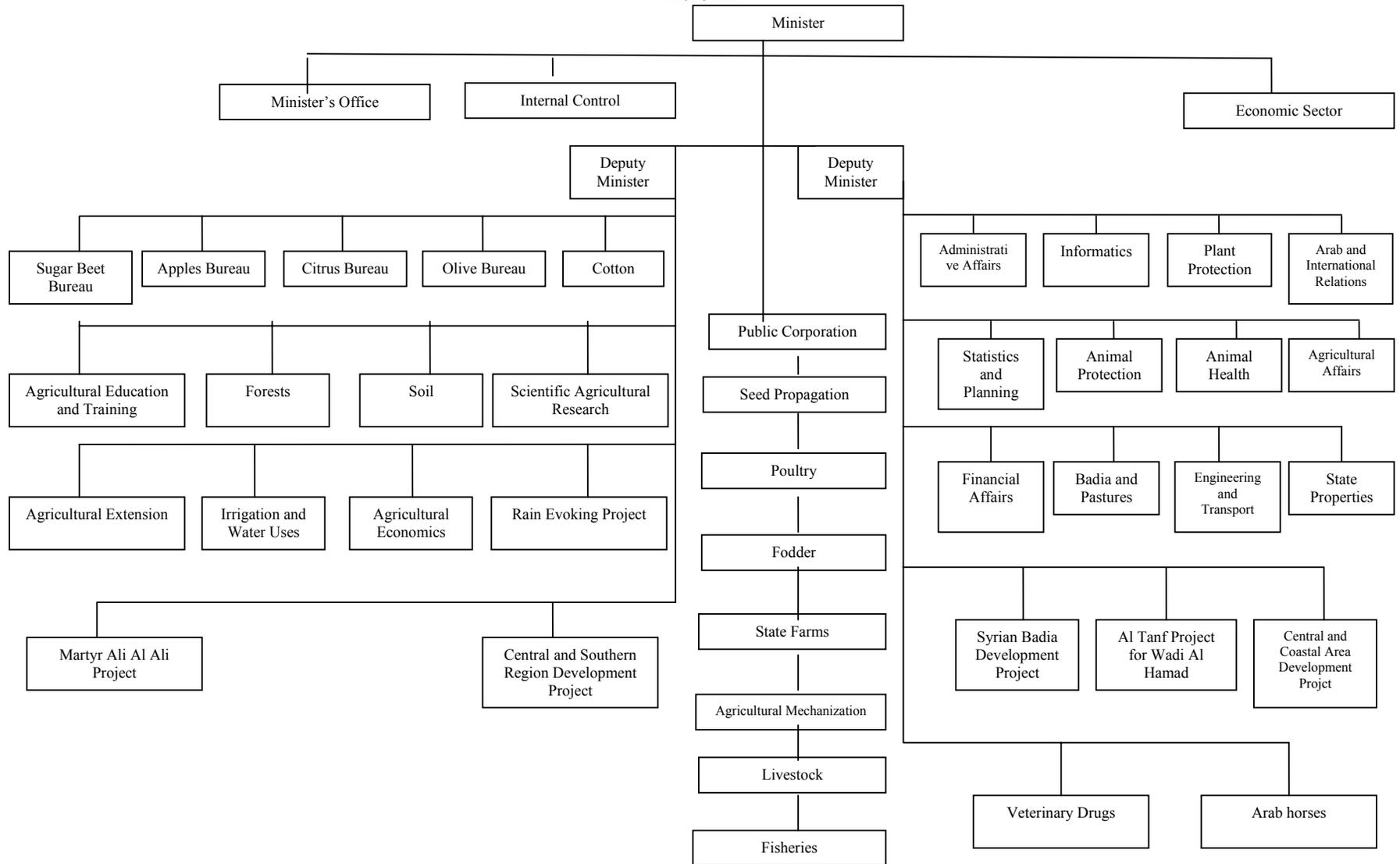
During the second mission, the consultant will:

- ◀ Develop a detailed feasible proposal for restructuring and development of an effective organizational structure of MAAR to perform its duties in the new market oriented scenario, including human and financial implications of the proposed reorganization.
- ◀ Organize a seminar/workshop for senior Government officials of MAAR, other relevant institutions and parastatals, concerned political and professional organizations, concerned agents in the private sector and representatives of the donor community, to present and discuss the results of the study.
- ◀ Prepare a technical report outlining main findings, conclusions and recommendations for technical clearance by FAO.

**Qualification:**

Agriculturist with extensive knowledge in agricultural development and wide working experience in the organizations and management of public sector establishments and in restructuring of public institutions following transition from planned to market oriented economies.

## The Organizational structure of the Ministry of Agriculture and Agrarian Reform



**Proposed Structure for  
MAAR**

