

10th FYP - Chapter Seven

Agriculture and irrigation

7-1 Background

Syria has diverse agricultural environments, which allow the production of many crops including grain, legumes, vegetables and fruits, in addition to animal breeding. This diversity has always made it possible to amend the crop structure in order to meet food needs and other requirements (manufacturing and export) on the one hand, and boost competitiveness of many products on the other.

Agriculture is one of the key economic sectors in Syria in terms of contribution to the GDP; employment; balance of trade; huge role in providing food for the population and raw materials for agro manufacturing and food industries; in addition creating new jobs for significant part of the transport sector and providing the necessary production inputs.

Given that the Syrian economy has, due objective circumstances, rely heavily on agriculture, the state has allocated special importance for the water sector given the country's limited water resources and the need for maximum utilization of available water resources.

The agricultural sector contributes to 25-27% of the GDP; agricultural products contribute to 16-22% of total exports (according to climate conditions), not to mention the contribution to manufacturing and food industries that use agricultural inputs.

The private sector has a lion's share (98.5%) of total agricultural investments (cooperative sector is considered private being a service sector) against 1% for the joint sector and 0.5% for the public sector.

Irrational utilization has affected land resources reducing cultivable lands as a result of planned and unplanned urban expansion into agrarian lands in many areas, deteriorating the soil in other areas as a result of extensive exploitation of natural pastures and lowering soil fertility in some areas as a result of not applying the suitable crop rotations. In addition, water resources are being depleted in most water basins where stats show that there is now an average water shortage of /1727/ million cubic meters annually. This shortage reached 3,125 billion cubic meters at the moment given the increasing non-renewable consumption and population and economic growth and their bad management. This situation is coupled with lowered rainfalls and their unbalanced distribution which resulted in lowered ground water levels, drying-up of some springs, lowered discharge of some rivers, in addition to the fact that some water resources became exposed to various levels of pollution from a variety of sources.

Agriculture production fluctuates due to weather conditions, poor post-harvesting operations and the many difficulties in internal and external marketing, provision of production inputs and access to necessary funding to create production assets.

Syria's population reached around 17,917,000 in the beginning of 2005. 51% of which are males against 49% females. The urban population constituted 53% against 47% rural. Syrian is distinguished by its young population where the age category 24 and below constitutes around 62%.

People working in farming constitute around 26-30% of total workforce who according to 2003 figures reached 1,169,000 people (70% males and 30% females), which constitute 26.2% of total workers in the agricultural sector. The number of females in that category in the public sector reached 18,400 or 1.6% of total workers in this sector.

People working in the public agricultural and irrigation sector according to the 2004 figures reached 89,508, which constitutes 9% of the total number of workers in the state and public sector. As for educational qualifications, those holding elementary/vocational certificates of education or under constituted 48%, which is a huge figure, while those holding preparatory certificates of education or above up to junior college constituted 32% and those holding university and post-university degrees constituted 20%.

GNP per capita in the agricultural sector reached around SYL 36,000 annually, which is very low compared to net production per capita on macro level reached SYL 65,000 annually.

7-2 Performance of agricultural and irrigation sector in the 9th FYP

Agriculture

Agriculture in Syria witness a tangible development during the 9th FYP as a result of increasing the area of irrigated lands on the one hand, and reclaiming mountainous and rocky lands and farming them with environmentally suitable crops and trees on the other, in addition to providing the necessary services for agricultural production and providing its inputs in general in time and also the accumulated experience of farmers, especially in farming strategic crops. Thus self-sufficiency and surplus in some crops were achieved such as wheat, legume (chickpea and lentil), cotton, vegetables (especially potato and tomato) various fruits (citrus fruits, fruits of the rose family), in addition to olive. At the same time, Syria is suffering from a shortage of some key foodstuffs such as sugar, some liquid and hydrogenated vegetable oils (excluding olive oil), red meats and milk derivatives (milk powder, butter, cheeses), in addition to the import of large quantities of yellow maize and barley in certain years.

The following are the 9th FYP performance indicators (detailed data are included in the attached tables from 1 to 8).

- Agricultural production achieved a 1.7% growth rate during 2001-2004, while the agricultural sector contribution to the GDP grew by 2.1%.
- The area of actual cultivated land grew by 3%. The area of irrigated land grew by 3.2% against 0.1% for unirrigated land.
- Production of irrigated wheat rose by 7.3%, while production of unirrigated wheat dropped 17.1% (due to weather conditions).

- Cotton production rose by an annual growth rate of 0.6%, while sugar beet production rose by 0.1%.
- Some other crops and fruit trees achieved positive growth rates (potato, tomato, olive and apple), while other crops and fruit trees achieved negative but inconsistent growth rates according to season (barley, chickpea, lentil, grape and cherry).
- Animal products achieved positive growth rates; 0.06% for red meat, 10.5% for milk, 14% for poultry, 6.7% for fish, 6.3% for honey and 14.4% for egg.
- Out of the planned 250,000 hectares annually, 20,000 hectares were transferred to modern irrigation technologies.
- Up to 30/8/2005, spending rate for projects of the Ministry of Agriculture and its bodies reached 72% and this figure is expected to rise to around 80% by the end of the year, bearing in mind that the drop is mainly for foreign resources as a result of unsuccessful tenders.
- Up to 30/8/2005, spending rate for projects of the Ministry of Irrigation reached 80% and this figure is expected to rise to 95% by the end of the year.
- The contribution of raw/manufactured/exported agricultural products to supporting the balance of trade where they constituted 16-22% of total exports during the period 2000-2004.

Irrigation

The average available water resources is around 15 billion cubic meters, which makes Syria one of the water-poor countries according to international standards which consider that the water poverty line is 1000 cubic meters per person per year. The average overall water use was around 15 billion cubic meters; therefore there is a water shortage in the water balance of around 3 billion cubic meters annually or around 20%. This shortage is tangible in the basins of Barad, Al-Aaawaj, Tigris and Al-Khabour and is due to the annual increase in water consumption in various sectors in amounts exceeding renewable water levels.

The irrigation sector enjoys a number of strengths:

- Built dams contributed to increasing the rate of utilization of surface water and reducing the negative effect of imbalanced rainfall distribution. The number of dams has increased from /153/ with a storing capacity of /16785/ million cubic meters in 2000 to /161/ with a storing capacity of /18629/ cubic meters in 2005.
- The area of reclaimed land through government irrigation project has increased 51000 hectares.
- Work in continuing with the Ministry of Agriculture in the rain harvesting projects in the Syrian Desert. These projects help to provide water to animal breeders.
- The possibility of exploiting some surface water resources such as the Euphrates River on which reclaimed areas can be expanded.
- In the framework of the administrative modernization process for bodies involved in the water resources, Decree 90 of 2005 for establishing the Public Authority for Water Resources has been issued in an attempt to attain integrated water resources management and simplify procedures for citizens.
- In the field of developing the water sector's legal environment, the water legislation laws has been issued in an attempt to achieve the desired development in that sector but to modern irrigation methods, collective utilization

of water, preserve sustainable water development, in addition to taking the necessary measures to create the modern irrigation transformation fund, stop the depletion of ground water and organize the relation between citizens and public service providers.

- The modern irrigation transformation project in coordination between the Ministry of Agriculture and the Ministry of Irrigation. The weather forecasting stations project (water information center) in cooperation with JICA.
- Begin establishing research centers to upgrade and raise the efficiency of irrigated areas.

Water resources management and development

First: Background

The current 10th FYP is adopting the elaboration of a successful policy for water resources management, distribution, quality-control, sustainability-maintenance and utilization-efficiency enhancement in order to support state economic reform plans and serve the future generations.

Second: performance of the water resources sector in the 9th FYP

The 9th FYP underlined the importance of incorporating the concept integrated and sustainable water resources management in order to protect these resources in terms of quantity and quality. However, the implementation mechanisms of this concept, although not explicitly laid out, are still in their early beginnings.

Third: 10th FYP

Wider objectives

1. Elaborate a nationwide plan for the integrated utilization, well management and sustainability of available water resources, in addition to providing the necessary water supplies for all socioeconomic development needs and focusing on the importance of preserving the ground water storage as a vital reserve for food security.
2. Raise the efficiency of various water utilizations and boost agricultural land yield in order improve the water sector contribution to the GDP.
3. Conduct a comprehensive evaluation of various water facilities such as blocking facilities, dams, irrigation and sewage disposal projects and other, start upgrading vital projects of high economic and environmental output and good performance indicators and propose projects that fulfill sustainable development requirements.
4. Set up suitable structure for institutions and authorities involved in water management, build the capacity of their staff and establish a comprehensive water resources information network connected with the information sub centers in the basins.
5. Install a system to monitor the quality of water resources, especially wastewater, and work to establish water treatment stations covering inhabited areas and treating all-origin wastewater to maintain the quality of

water within standard specifications and curb problem of polluted water resources.

6. Lay out proper mechanisms to increase the utilization of water in Euphrates and Tigris rivers.

Specific objectives

1. Transform 50% of lands currently irrigated by old irrigation methods to introduce modern irrigation methods.
2. Raise the efficiency of water utilization in irrigation from around 50% to around 80% in lands transformed to modern irrigation methods and reduce squandering in various water transfer networks.
3. Increase the utilization of wastewater treated in calculated rates according to each sector.
4. Effectively curb the depletion of groundwater by reducing the percentage of lands irrigated by non-renewable groundwater or by unlicensed wells by 10% annually.
5. Increase the percentage of technical personnel and qualified people able to apply integrated water resources management principles and can handle software, numerical sampling programs and database analysis necessary for this application to 25%.
6. Transform crops farmed in lands irrigated by non-renewable ground water to unirrigated crops and raise the efficiency of water harvesting in these lands.
7. Increase as much as possible the yield of lands introducing modern irrigation methods which have currently low yield.
8. Expand agricultural drain networks in lands suffering from drainage and salinity problems, especially in the Euphrates basin, by at least 10% annually.
9. Pollutants in water should stay within minimum levels permitted by standard specifications and not affecting public health.

Fourth: Strategy

The following strategies are meant to achieve the 10th FYP objectives

- Strategies pertaining to the first objective
 - 1- The state shall elaborate an integrated hydraulic plan, via the Public Authority for Water Resources and in cooperation and cooperation with all other bodies concerned, for all water basins so that it shall be implemented and updated throughout the duration of the upcoming FYPs to ensure the protection and sustainability of natural resources through specific water basins.
- Strategies pertaining to the second objective
 - 2- The state shall support the transformation to modern irrigation methods technologically and financially and shall provide the empowering environment to facilitate this process.

3- Lands shall be prepared and leveled of to be fit for modern irrigation methods, with which agricultural competitive plans shall be elaborated to achieve higher economic yield with less water consumption.

▪ Strategies pertaining to the third objective

4- Technical and economic feasibility studies shall be prepared for projects currently existing in water basins in attempt to finding the best methods to upgrade these projects to perform a feasible and economic role.

5- Projects of feasible developmental indicators on basin levels shall be executed.

▪ Strategies pertaining to the fourth objective

6- Conduct an integrated hydraulic plan to rehabilitate the strategic water basins, especially those planned to be depended on in the future to draw drinking water to Damascus city, such as the coastal and the Euphrates basins, or for developmental programs such as the Northeastern Region.

7- The state shall set up a decentralized structure for water resources management through which investors shall be able to discuss its water policies and propose feasible projects to develop of water sector. Performance.

8- The government shall establish an information monitoring network to enable trained technical staff to collect and analyze topographic, geological and hydrological information. The results shall be used in water planning and in controlling water balances.

▪ Strategies pertaining to the fifth objective

9- The Public Authority for Water Resources shall lay out an efficient mechanism to control water quality and connect this mechanism with the information collection network system from the basins by using the best methods and modern technologies to ensure their protection and rehabilitate polluted basins.

10- The Public Authority for Water Resources shall elaborate a plan to collect and treat all-origin wastewater within each basin and it shall implement policies that enable it control liquid waste hazards and prevent their disposal in surface or ground water.

▪ Strategies pertaining to the sixth objective

11- The state shall give priority to development in the Northeastern Region and shall seek to attract programmed investments to it to shore up water resources sustainability and improve its general conditions to increase its contribution to the GDP and help satisfy the increasing water demand.

Fifth: Viable policies

1. Lay out mechanisms to increase the exploitation of Syria's surface water resources in the Euphrates and Tigris rivers.
2. Set up an organizational structure suitable for public institutions and boost capacity building of public employees.
3. Stimulate and improve water resources management by applying integrated water resources management principles since economic development is totally synonymous with the sustainable water resources management.
4. Upgrade vital projects of high economic and environmental yield and good performance indicators, and introduce projects that fulfill sustainable development requirements.
5. Increase the water resources sector contribution to the GDP.
6. Set up an integrated system to monitor water supplies and curb water resources pollution.

7-3 Problems and challenges facing the agriculture and irrigation sector

The agriculture and irrigation sector is facing many difficulties and internal/external challenges that affect its performance and sustainable development, most importantly:

7-3-1 Limitedness of basic natural and agricultural resources and exposure to environmental and climatic factors:

- Limitedness of horizontal expansion in agricultural areas, especially irrigated ones, due to lack of water.
- Disappearance of the natural vegetation in the Syrian Desert, which constitutes around 55% of Syria's total area, due to husbandry, farming and grazing.
- Competition on exploiting and using desert areas for grazing, which hinders the development of its resources and weakens results of rehabilitation programs.
- Agricultural lands are affected by erosion and soil deterioration as a result of wind, which led also to the drift of sands and the formation of sand hills in some areas.
- Low tree density in forests and high rate of tree death due to dry conditions.
- Deterioration of woods due to fires, grazing and illegal activities, which caused the anticipated positive results of the reforestation program not to show.
- Weakness of and failure to enforce the laws and regulations governing the protection and utilization of natural resources.
- Depletion of ground water as a result of uncontrolled and extensive drawing of ground water beyond renewability levels in most water basins, not fully utilize the available water resources in some areas and the existing shortage in other areas.
- Qualitative changes in water and its pollution due to uncontrolled and increasing pumping, and the infiltration of sewage disposal, industrial and agricultural wastewater into the groundwater in some areas.

- Decline of water per capita below the international water poverty line, which is around /1000/ cubic meters per person per year.
- The utilization of around 90% of total available water resources by the agricultural sector, mostly using traditional irrigation methods where the irrigated lands using these methods constitute around 84% of the total irrigated area.
- Lowered utilization efficiency in agriculture due to poor governing legislations and lack of support to have farmers transform to modern irrigation methods and rehabilitate some irrigation networks to transform them from surface to pressure irrigation.
- Slow pace of building sewage disposal stations and not establishing them based on using triple treatment in order for wastewater to be fit for environmentally safe agricultural irrigation.
- Minor role of beneficiaries (agriculture, drinking water, industrial utilizations and other) in planning, maintenance, operating and management of water resources.
- A deficit in the water balance on basin level: around /3988/ million cubic meters in the 2001-2002 season and around /2236 million cubic meters in the 2002-2003 season. This deficit is mainly concentrated in the Tigris, Al-Khabour, the Orontes, Barada, Al-Aawaj and Al-Yarmouk basins and is due to the disproportion between renewability and increasing demand in various sectors.
- Pollution of some water resources by various degrees due to being affected sometimes by sewage disposal water/agricultural wastewater/salinity and sometimes by waste of factories/tanneries/oil refineries.
- Not fully exploiting Syria's quota of the Euphrates River or the volume of water allowed to pass from Jarablos on the Turkish-Syrian borders according to the signed agreements.
- Poor institutional system that manage water affairs, poor coordination between bodies concerned and poor capacities in the areas of scientific research and HR.

7-3-2 Population growth and agricultural job opportunities

- Half of Syria's population depends on agriculture and its various activities for livelihood, and it is noted that there is a decline in job creation due to population growth in levels surpassing the resources growth levels, which negatively affected the seasonal workforce required for agricultural activities.
- Scarcity of investments in the agricultural sector, which limits job creation and results in increased random migration from rural to urban areas with the ensuing problems of shortage of experienced workforce and pressurizing cities.

7-3-3 Fragmentation of agricultural ownership

- The number of persons possessing agricultural property has increased by 25% due to the inheritance system and other factors coupled with a light increase in new areas, which led to diminished utilized areas, lack of employment of mechanization and higher production costs. All this necessitates the establishment of the proper legal framework to reduce the fragmentation of agricultural ownership.
- Multiplicity of land utilization methods given the variety of governing laws and regulations (agricultural relations, acquisition, inheritance, woods, state property and other), which led to numerous problems that are escalating with time, especially in the field of inheritance and distribution of property.

- Encroachment on agricultural lands due to random housing, urban expansion or other infringements in woodland or desert. All this has contributed to fragmenting ownerships and hindered the possibility of employing modern technologies and achieving optimal utilization, which in turn played an important part in raising production costs.

7-3-4 Insufficiency of financial resources

- The Agricultural sector suffers from scarcity of financial investments, whether from the public or private sector, despite their necessity to fulfill the required development and modernization targets.
- More than 85% of loans granted by the Agricultural Cooperative Bank are short-term that are recovered annually and do not contribute to creating production assets.
- Investors are afraid to go to the agricultural sector given its risky nature and that it has long capital recovery period compared to other sectors, coupled with the nonexistence of agricultural insurance.
- The banking mechanism, agricultural cooperative bank law and guarantees required from investors do not help the transformation to modern irrigation methods.

7-3-5. The diverse array of official bodies in charge of the agriculture and irrigation sector and their coordination mechanism

- The diversity of public bodies in charge of agriculture and irrigation and the overlapping of their duties constitutes an obstacle to development requirements, especially the complicated coordination mechanism between various bodies involved in agriculture and especially in the field of pricing and financing policies, plan enforcement, provision of agricultural work requirements, in addition to the fact that post-harvest operations are entrusted totally to the ministries of industry and economy.

7-3-6 Changes in the global economy

- Global economies are heading toward trade liberalization, the spread of the phenomenon of globalization and to the latest developments in the field of IT.
- Signing of many international, regional and bilateral agreements that define international cooperation relations, trade conditions, intellectual property and other that require abandoning protection of national agricultural products.
- Total or partial elimination of tariffs imposed on products of other countries, which will have negative impact on local products, will intensify competition and bring prices down for producers.

7-3-7 Subsidy of agricultural products in other countries and heightening of competition

- Huge state subsidies on agricultural production especially in developed countries drives global prices down, especially for some commodities exported by Syrian such as wheat and cotton, which will make export institutions suffer losses.
- Rising level of competition and shrinking chances of uncompetitive goods to reach global markets.

- Agricultural products that are not allowed to enter external markets are not sufficiently upgraded, especially under the absence of a marketing information system and lack of control over exports.
- Obstacles facing production in the post-harvesting stage related to the procedures required for selling the product at farms up to reaching its final destination (sorting, packing, scaling, storing, cooling, transporting and other), which minimizes the chances of our raw or manufactured agricultural products to enter external markets.

7-3-8 Problems related to macro policies

There are plenty of problems and restrictions related to macro economic policies that directly or indirectly affecting the agricultural sector such as financial and monetary policies, interest rates, pricing policies, state subsidies, trade policies and other.

7-4 Future prospect of the agriculture and irrigation sector

In the field of agriculture

Through engagement, uniting of efforts, cooperation and coordination between government bodies and the public sector, the agriculture and irrigation sector is expected to develop in the coming two decades as to:

- Better utilize natural resources and ensure their sustainability taking into consideration the environmental dimension, and efficiently utilize these resources according to international standards to fulfill human needs the socioeconomic development targets.
- Make use of the relative advantage, seek to achieve food security, create and support competitive capacity and adopt the production diversity approach according to environmental appropriateness.
- Seek to achieve a surplus in agricultural production with good quality and prepared for local consumption or export within international standard specifications.
- Cooperate with the other sectors and unit efforts in the development process according to priorities (technology, labor orienting, provision of production inputs and other).
- Create a suitable investment environment suitable to encourage agricultural investment/manufacturing to increase yield of agricultural work, create jobs, improve living standards, alleviate poverty and curb migration from urban to rural areas.
- Achieve good contribution to the GDP through increasing production and optimal utilization of resources.
- Introduce revenue-generating alternative crops as much as possible and advise the competent ministries to focus on exporting finished and semi-finished products to benefit from the value-added, increase economic return and achieve positive balance of payments.
- Seek to provide income-generating projects to help improve standards of living of producers, revive the least developed areas, alleviate poverty and achieve integrated and comprehensive development for all sectors and areas.

- Activate the role of agricultural extension services units in transferring scientific research results to farmers and vice versa to solve their problems, benefit from the biological and environmental diversity of local product and raise awareness amongst farmers to enhance production efficiency.
- Achieve sustainability of water resources through conducting integrated studies for hydrologic basins, and study the possibility of their IT chaining.
- Provide guidance and raise awareness towards participatory exploitation of ground water, establish governed projects to facilitate ground water utilization and management and reduce its random depletion.
- Introduce a new regulatory structure for institutional work between government bodies on the one hand, and farmers and producers on the other to target underprivileged farmers, activate the participatory role of civil society as a developmental target and find a suitable financial and banking formula to govern financing and loaning mechanisms.
- Build apt cadres qualified to develop the integrated management of natural resources through training (local/international).

In the field of irrigation

1- Horizontal expansion

a. Land reclamation

The 10th FYP has adopted the principle of non-expansion in newly reclaimed lands unless in the light of sustainable water supplies. This focus will be on increasing the area of reclaimed lands in the Euphrates basin (southern Aleppo plains) given the availability of unexploited water, in addition to Tigris and Khabour basins in the light of the possibility of providing water from the Tigris River in order to rebalance ground water levels.

In addition, projects launched at the end of 2004 and the beginning of 2005 shall be completed in all water basins

b. Dams

The possibility of building dams in all water promising areas shall be studied, especially in the coastal and Euphrates basins and in the light of the technical and economic feasibility studies for these dams.

2- Vertical expansion

The agriculture and irrigation sector's plan aims to speed up programs for transformation to modern irrigation methods in the remaining area totaling around /1219/ thousand hectares where they shall be implemented over a period of ten years starting 2006. The goal is to reduce the consumption of water per irrigated hectare from /12800/ to /8000/ cubic meters per year by establishing the specialized administrations and setting up a special modern irrigation transformation fund to support beneficiaries. Focus shall initially be on the basins with most water balance deficit (Tigris, Al-Khabour, Barada and Al-Aawaj basins).

3- Activities and assistance

a. Training, qualifying and research:

Enhancing the capacities and efficiency of workers in the water sector will be the key factor in rendering success to the measures that shall be taken within the water sector strategy. Hence, the Ministry is currently drawing up timetables to enhance the capacities of workers in this sector in harmony with the anticipated development in this field, stimulating scientific research and establishing an advanced center for water utilization researches.

b. Completion of water monitoring network and water information centers:

The availability of accurate water information and their analysis is considered the keystone to reach the right decision. From this perspective, the sector's strategy included maintaining the establishment of the climatic and hydrological monitoring network, establish water information centers in all governorates, provide the requirements of these centers to ensure their continuation and endurance and train and qualify the technical cadre.

c. Operating and maintaining irrigation projects:

Attaining the desired results from irrigation projects is mainly associated with the operating, utilizing and optimal maintaining of these projects. Thus the sector's plan included ongoing provision of necessary inputs (material, financial and labor) for operating and maintaining irrigation projects according to international specifications.

d. Legal environment

Stringently applying the water sector-related legislations, especially the new water legislation, in harmony with the desired development in order for these legislations to help transforming to modern irrigation methods and collective utilization of water and preserve sustainable development by broadening the participatory basis for water utilization.

e. Institutional environment

Create the unified and integrated water resources management and achieve the required harmony with the other sectors in order to establish reciprocal relations that help the sustainable development of water resources.

f. Sifting from supply management to demand management

The limitedness of water resources and their narrow expansion scope necessitates shifting to the principle of managing and rationalizing the demand for water in order to achieve balance between the limited supply and the rationalized demand for water.

g. Common waters

Seek to get our fair share of the waters of Tigris and Euphrates rivers pursuant to international laws.

h. Restructuring the sector

The structure of the Ministry of Irrigation and the institutions and directorates connected to it shall be developed in order to attain a structure suitable for implementing the water resources integrated management and consolidating its decentralized utilization. In this regard, Decree 90 of 2005 containing the establishment of the Public Authority for Water Resources in order to remove the many obstacles that exist in water resources management such as:

- Duality of duties with some ministries, public institutions and directorates.
- Inability to achieve a centralized water resources control.
- Difficulty of strategic planning for the water sector.
- Extreme difficulty in issuing the annual general water balance.

7-5 Long-term objectives

While taking into consideration the environmental dimension, and throughout the duration of the up coming two FYPs and to 2015, the wider objectives of future advancement in the agricultural sector and its sustainable development shall be expressed in:

- Increase economic growth rates in the agricultural sector (not less than 3.5% annually) overtopping population growth rate to help boost the producers' income, improving their socioeconomic conditions, consolidating their stability and curbing the problem of migration to cities.
- Move toward the rationalized economic utilization of natural resources and protecting these resources from deterioration, depletion and pollution to ensure safety of the environment and achieve sustainable development.
- Increase agricultural output value through rationalized utilization of production inputs, improvement of area unit productivity, especially those irrigated and also animal unit productivity and provide ago-industry inputs.
- Provide pricing and marketing requirements to secure national consumption needs of basic foodstuffs (wheat, legumes and other).
- Achieve food security by growing and producing crops of relative quality capable of competing in internal and external markets in order to boost revenues.
- Provide planned support to develop the agricultural and irrigation sector in order to secure national consumption needs of food.
- Seek to provide agricultural goods in the required quantities and qualities for local manufactures and for export.
- Attract and encourage national, Arab and foreign investors to work in the agricultural sector and in the agro-industries given that they constitute a main tool for taking part in the development process.
- Develop rural infrastructure/services and local and traditional industries and introduce income-generating projects and activities to create extra job opportunities for rural inhabitants.
- Develop and update laws and regulations related to the agriculture and irrigation sector to ensure optimal utilization of lands and water and guarantee producers' rights.

- Issue the necessary laws and legislations and their amendments regulating organic farming, protect water resources from pollution, preserve protected areas and preserve DNA of endangered species and other.
- Expand clean and safe farming.

This shall require, throughout the duration of the upcoming two FYPs, utilizing the resources earmarked for the new projects included in the plan to achieve the following:

- Qualify the workforce to possess high vocational, know-how and educational capacities able to develop the agricultural, manufacturing and marketing sector for agricultural products.
- Draw up the suitable policies in tune with the policies, regulations and legislations in force according to international agreements, employ expert houses to assist in the implementation of studies and visualize means to develop things on the ground.
- Introduce international standards and specifications in the production process, achieve quality of raw and manufactured agricultural products and provide the necessary databases, information systems and labs.

7-6 10th FYP

a. Objectives

1. Develop agricultural production, increase economic growth rates in the sector to achieve comprehensive rural development that contribute to improving producers' income, alleviating poverty, making advanced steps toward achieving food security and provide national consumption needs of basic foodstuffs.
2. Economic and rationalized utilization of natural resources (lands, water, forests, pastures) to ensure their sustainability and protection from deterioration, depletion and pollution.
3. Provide agricultural goods for local producers and export, develop a marketing mechanism for agricultural products, encourage the manufacture of these products to benefit from the value-added, increase exports, develop local and traditional industries and rural income-generating projects.
4. Modernize means of production; expand the use of up to date technologies; transfer modern technologies and improve their utilization methods; provide and distribute agricultural production inputs in quality, time and suitable prices; develop agricultural scientific research, extension services and education; qualify personnel and develop rural infrastructure and services.
5. Revamp the bank financing and crediting system to contribute to developing and modernizing the agricultural production, and encourage national, Arab and foreign investments in the agricultural sector and in all fields.
6. Adopt specific pricing and marketing policies to direct executive programs toward boosting production volume, efficiency, quality and competitiveness, and support the agricultural sector in line with methods adopted in other countries and in harmony with WTO regulations.

Introduce legislative and structural amendments capable of keeping pace with the 10th FYP requirements, achieving agricultural and rural development, improving standard of producers and alleviating poverty.

B- Main quantified objectives

The FYP main quantified objectives were developed in the light of the current indicators of investment projects (ongoing) to achieve an average annual growth rate of 4%.

The quantified objectives of the 10th FYP include: increasing the macro growth rates to maximize production at higher levels than the population growth rates in order to realise agricultural development create new jobs for rural population and improve their living standards. The growth rates vary in accordance with available indicators and incoherence with the available natural and human resources. These rates can be increased according to the additional development projects to be decided within the 10th FYP or future projects built by the private sector.

The following indicators refer to the expected growth rates under the available resources and the current and ongoing projects. Tables 9-19 show the relevant details.

1. Increase the GDP value by 3.5% in fixed prices and 3.2% in market prices.
2. Increasing the investments by 2% will increase the Ministry employment growth rate by 4.6%.
3. increase the area of actually cultivated lands by 0.8% annually (due to the limited possibility of adding new areas), while unirrigated forested lands can be increased by 2.1% annually in addition to the possibility of maximizing the output through improving the area unit productivity while implementing of the new irrigation technologies program stipulated in Decree 91 of 2005.
4. increase the wheat production by 2.6%, cotton by 0.49% and sugar beet by 1.6%.
5. increase the growth rate of certain fruit trees between 3.5% and more than 11% (according to the farmed area) as a result of new trees entering the production stage. However, grapes crop is expected to drop by 6% annually because of replacing it in mountaineering regions with apple trees, which have better properties (higher outcome, better storage characteristics, better export potential).
6. increase the outcome by 3-5% for certain irrigated crops and 1-2% for certain unirrigated crops.
7. increase the animal production growth rate by 2.4% for meat, 5% for milk, 4.3% for poultry, 1.7% for fish, 7% for honey and 4.7% for eggs.

C. Strategy

- the agriculture and irrigation sector is playing a major role in agricultural and rural development with a significant impact on the overall economic development.. the sector is one of the most important sources for generating the national income, ensure food security, creating new jobs and providing necessary inputs for food industry in addition to contributing to enhancing demographic stability in the countryside. It also supports the process of restructuring the national economy and ensuring regional balance among different governorates.
- The sector is already realising good growth rates, which still can be increased with optimal utilisation of resources and timely provision of quality requirements in

addition to benefiting from the comparative advantages of certain products and promote their production through enhancing their competitiveness.

- To develop this vital sector, which affects the population's life standards and food security, it should be supported and modernised through providing its requirements and services, building the HR capacities to keep up with its development and tap its potential resources and remove the difficulties impeding the production of safe and secure commodities, a must to maintain man as well as environment, enhance opportunities in foreign markets, strengthen the balance of trade and replace other major components of this balance, which are expected to retreat. To ensure this, we should develop proper policies, conduct structural amendments in coherence with the modernisation and development process, and ensure conducive environment for local and foreign investments.
- Another important role of this sector is to create jobs for the ever increasing population. Its potential capabilities constitute a vital chance for creating jobs and generating income in less developed areas through the implementation of an integral program covering skill building, business community training, investment maximization, technology improvement and the provision of necessary funding especially medium/long term credit in order to establish production assets in the rural areas and support the manufacturing of agricultural inputs to benefit from the added value.
- Once this integral program has been successfully plugged to market requirements, it will play a significant role in realising the sector development and ensure its positive impact on the overall development and in reducing poverty, creating enough jobs to keep up with the labour market entry levels.

Strategies required to achieve the above goals:

- **Develop the agricultural production and increase economic growth levels in the sector to realise a comprehensive rural development that would improve the producers' income, limit poverty and achieve significant steps towards realising food security and satisfying the local consumption of food and living commodities (Objective 1).**
 1. develop the vegetal production, secure its requirements and enhance its competitiveness.
 2. given the natural resources limitations, we should implement the vertical development in the agricultural sector in addition to improving quality, using and disseminate modern technologies, reducing production costs, utilizing alternative and renewable energy sources to provide the population needs for living commodities.
 3. increase animal productivity (meat, milk, wool, eggs ..) through implementing support measure to develop the animal production sector and provide its requirements.
- **Economical and rational utilization of natural resources (land, water, forests, pastures), in a way that would ensure their sustainability and protect them against deterioration, exhaustion and pollution (Objective 2).**
 1. develop effective land management programs using proper technologies and provide necessary investments to ensure optimal implementation.

2. improve the irrigation water management and keep consumption within the available renewable resources through organizing and improving consumption methods and increasing the economic return of water by implementing the integrated water resources management approach.
 3. improve the management of the Syrian Badiah's pastures, develop these pastures, create income generating activities for local population to ensure their stable settlement and implement a participatory approach in pasture utilisation and protection.
 4. improve the economical management of forests, protect them against abuse and fire and develop an integrated forest management program with a participatory approach involving the local community to develop the forests and enhance their environmental and tourist investment.
- **Provide agricultural inputs for local/export food industries, develop a marketing mechanism for agricultural products and encourage their manufacture to add value and increase exports, and enhance local and traditional industries and income generating activities in rural areas (Objective 3).**
 1. organise the relationship between producers and marketing firms to provide the necessary raw material, create sophisticated marketing institutions with proper mechanisms for the internal/external marketing of agricultural products, and secure necessary requirements for agricultural production on site.
 2. focus on agro industries to process the production surplus and use the comparative advantages of agricultural products to develop a map specifying the most suitable locations to build manufacturing plants to benefit from the added value.
 3. promote local and foreign investments in agricultural marketing and manufacturing through introducing proper investment promotion mechanisms.
 - **Modernise the production means and expand the transfer/introduction of modern technology and improve their implementation methods; secure agricultural production inputs and ensure timely distribution at suitable quality and prices; improve the agricultural scientific research, extension, education and HR capacity building; and develop infrastructure and services in rural areas (Objective 4).**
 1. establish close links between agricultural scientific research, extension, rehabilitation and training in order to develop a clear strategy for agricultural scientific research with defined priorities and structural interventions focusing on the current issues and introducing new technologies.
 2. define the agricultural extension role in transferring the results of scientific research and addressing the challenges of enhancing the field management of scientific research aimed at developing production and productivity, introducing alternative and support crops and solving the producers' problems and building their capacities.
 3. improve the level of agricultural education through providing qualified teachers and supervisors as well as other necessary requirements.
 4. build HR capacities through local and international training in coherence with the development of agricultural production.


5. secure production inputs (fertilizers, pesticides, veterinarian drugs, vaccines etc.) to help develop and improve the agricultural production.
 6. allow different sectors to secure production inputs, while emphasizing the state monitoring function to ensure good product specifications.
- **Develop the bank funding and crediting system to contribute to improving and modernise the agricultural production; encourage local Arab and international investment in the agricultural sector (Objective 5).**
 1. review the funding policies and improve them towards serving the agricultural sector in different areas (production, manufacturing and marketing).
 2. improve and expand the crediting facilities and facilitate their procedures.
 3. encourage the provision of private loans to introduce new production technologies.
 - **Develop pricing and marketing policies that would help directing the implementation programs towards increasing the production efficiency, quality and competitiveness; provide subsidies to the agricultural sector similar to other countries and in coherence with the WTO rules (Objective 6).**
 1. continue the current pricing policy for strategic crops marketed by the government and in accordance with their importance for food security, export and farming efficiency.
 2. price some new crops that have economical return to encourage their cultivation and provide support services to their growers.
 3. develop a viable subsidies program to promote the competitiveness of agricultural production; and establish a special fund to provide specific subsidies in order not to affect the prices.
 - **Introduce regulatory and structural amendments that would respond to the FYP implementation requirements, realise agricultural and rural development, improve the producers' living standards and reduce poverty (Objective 7).**
 1. restructure the institutions related to the agricultural sector to enable them of implement their tasks in coherence with the new trend in economic, social and service areas.
 2. issue and amend agriculture-related laws and regulations so that they consider resources sustainability and the development of production, marketing and investment processes.
 3. enhance cooperation and coordination with agriculture-related Arab, regional and international institutions and benefit from local and international expertise in developing the production levels and enhance its contribution to reducing poverty and achieving better living standards for the citizens.

Policies and action plan:

- **Develop the vegetal production, secure its requirements and improve its competitiveness (Strategy 1)**

- generalize the integrated management approach in combating pesticide with special focus on biological control to improve quality and ensure sound and competitive outcome.
- Increase the areas of industrial and exportable crops.
- Expand the areas planted with ornamental and aromatic plants.
- Reduce production costs through developing high-productivity varieties, using modern technologies and reducing waste in planting, cropping and marketing stages (laser leveling of lands, automatic sowing, agrarian service, modern irrigation equipment, modern harvesting machines including sorting, packaging and transport, cost-effective and renewable energies .. etc.)
- **Introduce top-down development in agriculture, improve production quality and use modern technologies (Strategy 2)**
 - Focus more on crop with comparative advantages.
 - Classify crops according to outcome/water consumption ratio.
 - Amend the crop structure increasing the beans varieties to improve the land fertility and raise unit productivity.
 - Focus on top-down development in production through enhancing the management of agricultural processes, improving inputs utilization and introducing crop rotation.
 - Provide crossbred and diversified varieties for each commodity to ensure better specifications and proper quality for both local (consumption and processing) and export markets.
 - Introduce alternative crops to the crop rotation as a result of agricultural scientific research and according to economical return; and generalize the newly introduced fruit trees growing.
 - Ensure integration between vegetal and animal production, expand the growing of fodder crops and use farms wastes as animal food.
- **Increase animal productivity with different commodities (Strategy 3)**
 - Secure crossbred species and provide necessary fodder.
 - Develop the Badiah pastures and organise their utilization.
 - Secure necessary veterinary care requirements.
 - Encourage the extensive breeding of sheep especially in the Forth Agricultural Stability Zone along the Badiah.
 - Encourage the establishment of animal farms for highly adaptable species (goat, poultry, rabbit) in the Third and Forth Agricultural Stability Zones.
 - Modernise and develop the silkworm and bees breeding to increase silk and honey production, and introduce modern breeding methods with optimal return.
 - Rationalize the utilization of different water basins and enhance investments in fisheries.
 - Develop agro industries in rural areas and encourage the building of factories near production sites.
 - Develop an integrated program to detect various animal diseases.
- **Develop land management programs and introduce support technologies to implement them and secure necessary investments (Strategy 4).**
 - Develop an environmental, agricultural and economic map for the country specifying optimal divisions of available cultivable lands among different crops

and trees in coherence with the Syrian land classification and comparative advantages, using the GIS system.

- Increase the irrigated areas by introducing modern irrigation techniques and irrigation projects, reclaiming more lands and digging new wells in areas where the renewable water basins allow it.
 - Increase the lands with unirrigated crops through reclaiming certain mountaineering areas to be planted with crops or fruit trees as appropriate.
 - Define the areas exposed to erosion and deterioration, study these areas and develop suitable projects to stop their deterioration and rehabilitate them for investment.
 - Define the areas that have already deteriorated due to the lack of fertility components and develop the relevant rehabilitation programs.
 - Finalise the master plans in the Syrian cities and their districts, towns and villages, amend the construction system in order to prevent building activities in farmed lands, and issue a strict legislation to stop the urban expansion into the agricultural areas.
 - Review the situation of agricultural property including small and scattered ownerships and develop the proper legal framework.
 - Establish professional associations to gather ownerships and introduce integrated technology packages.
- **Improve the management of irrigation water within the available renewable resources, organise and rationalize its utilization (Strategy 5).**
- Improve the irrigation efficiency in different water resources especially in government projects and rehabilitate these project to introduce modern irrigation techniques and secure necessary water for every crop.
 - Stop digging random wells and regulate the status of illegal wells; rationalize groundwater consumption, install meters on the wells after fixing the rations in coherence with the needs and levels of renewable resources and ensure efficient monitoring.
 - Protect water resources against different pollution sources and levels (chemical, sewage, salinity etc.)
 - Create associations or leagues for water users and increase their participation in developing and implementing irrigation programs to support the government efforts in distributing the resources and maintaining them against deterioration and hyper-consumption.
 - Consider and develop methods for artificial rainfalls to optimally serve the agricultural production.
- **improve the management of the Syrian Badiah's pastures, develop these pastures, create income generating activities for local population to ensure their stable settlement and implement a participatory approach in pasture utilisation and protection (Strategy 6)**
- Provide services and infrastructure for the Badiah population.
 - Use water harvesting methods such as  storing pits (small, medium and large).
 - Increase the number of wells to secure drinking water for Badiah population and establish desalination units on these wells to provide enough water for cattle.
 - Use alternative energy resources (son .. etc.) to replace the use of wood in order to maintain the Badiah's plant/pasture cover.

- Improve and develop pasture growing and produce grazing seeds and saplings, encourage their growing, stress on the direct sowing method and provide necessary requirements.
- Rationalise the management of pastures and sheep, which represent the core activity in sustaining the Badiah life.
- Provide veterinary services, create mobile veterinary units to handle the cattle health programs and support the product marketing and fodder purchasing processes.
- Issue legislations to regulate joint irrigation through establishing preserves with the possibility for the nearby right holders to benefit from these preserves; realise the right of sheep breeding cooperatives and improve pasture/resources management in the Badiah.
- Encourage the establishment of manual and traditional rural industries to increase the income-generating activities to secure breeders' stable settlement.
- Encourage small and medium food industries especially those using the cattle products and improve their marketing to raise the community income.
- Encourage archeological, cultural and environmental tourism to diversify the Badiah population income.
- Issue a strict legislation to protect the Badiah against violations.
- Establish cooperation among scientific and research institutions to develop an atlas containing chemical description of the Badiah to use it in medical processes and pharmaceutical industries.
- **Improve the economical management of forests, protect them against abuse and fire and develop an integrated forest management program with a participatory approach involving the local community (Strategy 7)**
 - Continue the forestation activities in suitable locations and plant environment-friendly varieties in the expansion areas.
 - Develop an integrated program for the joint management of forests (government and local community) to ensure forest development and renewal and improve the living standards of local population through benefiting from forest products (wood, fodder, firewood, fruits etc.)
 - Develop a forest map based on air landscaping to describe the current situation and define violations and abuse by comparing with old maps.
- **organise relationship between producers and marketing firms to provide the necessary raw material and create sophisticated marketing institutions.**
 - Conduct regular studies to monitor the movement of agricultural products in wholesale/retail markets (quantities, quality, prices and marketing methods) to set up scenarios to develop these products in coherence with local and international developments.
 - Develop a marketing information system to provide producers/exporters with information about export markets requirements including preferred varieties and high seasons.
 - Improve the internal marketing through providing different requirements in terms of:
 - Facilitate funding and purchasing modern technologies for the after harvest stage (modern and refrigerated trucks, storage and refrigerating places, sorting/packaging centers .. etc.) to help avoid wasting any part of

- o return and protect producers against price fluctuations.
 - o Encourage the establishment of professional associations for agricultural producers/exporters to provide a marketing system that would improve the product efficiency during harvest and processing periods
- Enhance external marketing (export) and remove its barriers especially:
 - o Introduce export-oriented work mechanisms and procedures and remove red tape.
 - o Establish laboratories providing international certification (certificate of origin for exporters and of specifications for producers) and enable producers to obtain these certificates directly and without previous application.
 - o Create a public body supporting the agricultural exports with tasks including opening new markets, promotion, export encouragement, private sector support and monitoring the exports quality and specifications.
- **Focus on agro industries to process the production surplus and use the comparative advantages of agricultural products (Strategy 9)**
 - Manufacture agricultural products and packaging materials according to international standards to enhance their internal/external marketing.
 - Develop the rural and traditional industries and improve their quality; provide loans and necessary facilities for plants establishment and secure refrigerated transport.
 - Secure quality inputs, and expand growing industrial crops and introduce new crops required for the manufacturing process.
- **Promote local and foreign investment in agricultural processing and export (Strategy 10).**
 - Provide facilities and incentives that would encourage the establishment of agricultural projects and agro industries.
 - Give privileged treatment to companies focusing on specialised agricultural marketing oriented towards building production, processing and marketing services centers as well as collection center in production sites.
 - Provide more incentives to investment in agricultural areas and remote regions, and introduce high technologies.
 - Direct investment towards production activities in general and agricultural manufacturing and marketing in particular.
- establish close links between agricultural scientific research, extension, rehabilitation and training in order to develop a clear strategy for agricultural scientific research (Strategy 11)
 - Link the priorities of agricultural scientific research to addressing the outstanding issues to help sustain resources and protect environment.
 - Introduce typical crop rotations and proper crop alternatives while focusing on drought-enduring, salinity-resistant crops, which need less water and give better outcome and which will satisfy the market and population needs while protecting the environment and ensuring sustainability.
 - Establish crop-oriented research centers (fruits, vegetables, animal products, irrigation, land, forestation).

- Develop a mechanism to maintain the genetic origins, and establish genetic collections covering different species and keep these species using sophisticated scientific methods, and issue a legislation regulating the circulation process.
- Conduct necessary studies on local and introduced breeds and races, proliferate and disseminate them, conduct crossbreeding operations and introduce high-productivity animal species.
- Hire qualified researchers and train existent researchers and provide international training opportunities for employees.
- Establish cooperation and coordination among national, Arabic and international research institutions to help develop the scientific research and solve associated problems.
- **Define the role of agricultural extension in conveying the results of scientific research to the growers and remove the obstacles facing the field management of agricultural research in order to develop production and productivity and introduce alternative and support crops (Strategy 12).**
 - Develop agricultural extension to enable it to convey the results of scientific research and solve the production problems to help enhance production, implement ratified plans and generalise extension schools.
 - Build the capacities of agricultural guides to enable them to implement specialised extension programs, convey their results to growers through training in specialised scientific and technical areas.
 - Rehabilitate the extension units and support them with different requirements (staff, lodgment, transport means and other equipment).
 - Develop specific programs to improve the rural women's skills and performance in managing family projects and rural industries, and introduce environmental and marketing concepts to these programs.
- **Improve the level of agricultural education through providing qualified teachers and supervisors (Strategy 13).**
 - Secure the education institutions requirements in terms of teachers, scientific cadres, laboratories, equipment, illustration tools and transport means, proportional to the number of students.
 - Modernise the teaching and educational curricula to be able to produce qualified technicians who can satisfy the requirements of modern education process.
- **Train and build the capacities of human resources through local and international training (Strategy 14).**
 - Develop an integrated program to train the people operating in the agricultural sector, increase the number of training centers to satisfy the growing needs in this area including pre-service and on-the-job training.
 - Establish advanced training centers satisfying the requirements of specific training in important agricultural sites (reading halls, restaurant, bakery, internship system, illustration tools .. etc.)
 - Involve institutes, schools and training centers in the research and extension activities.
- **Provide production inputs (fertilisers, pesticides, fodders, veterinary medicines, vaccines and others) in order to improve production (Strategy 15)**

- Provide environment-friendly improved seeds of high productivity for all agricultural crops and vegetables, particularly the basic and strategic ones.
- Provide disease-free and reliable plants of high productivity that are suitable to local market and off-shore competition and develop bringing in new environment-friendly species.
- Provide the necessary fertilisers to fulfill the production plan requirements on time and of good quality.
- Provide reliable pesticides, herbicides and vaccines of good qualities.
- Provide suitable containers for agricultural products that keep them unspoiled.
- Provide veterinary care services and requirements and introduce modern and common animal diseases investigation.
- **Allow all sectors to provide production inputs, enhancing the state monitoring role (Strategy 16)**
 - Develop local production of medicines, encourage all sectors to manufacture them, and assure their quality and effectiveness through enhanced supervision.
 - Develop the quality and quantity of local fertiliser production, allow private sector to establish fertiliser plants, and assure imports quality through enhanced government supervision.
- **Reconsider and develop finance policies in order to service investment in all agricultural sector's areas (Strategy 17)**
 - Grant agricultural loans in accordance with agriculture contribution to the national economy and in order to service and develop all areas of agricultural production.
 - Increase long and medium term loans due to their role in production assets building, and increase the Agricultural Bank capital to enable it from providing the necessary loans.
- **Develop and facilitate loaning process and expand the range thereof (Strategy 18)**
 - Develop the Agricultural Bank Transactions System, facilitate in kind and cash loaning process, and modernise and computerise the work completely in order to put an end to the red tapes.
 - Organise loan giving, execution and recovery processes, expand their range, strengthen enforcement and supervision authorities and develop their performance improvement mechanisms.
- **Encourage loaning for modern production technologies (Strategy 19)**
 - Facilitate loaning for modern agricultural technologies use, particularly loans for modern irrigation systems that rationalise water use.
 - Encourage and improve the loans specified for livestock breeding and animal products processing.
 - Facilitate loaning for alternative and new crops that prove to have a better economic proceeds compared with the existing crops.
- **Continue pricing the strategic crops marketed by the government according to their importance to food security or export (Strategy 20)**
 - Continue the pricing policy of strategic merchandises, so that the administratively defined price will include the real production cost and a margin of profit that secures suitable income to farmers, in order to guide the agricultural process and execute the scheduled plans and programmes; the other merchandises' prices, however, will be the current ones determined by supply/demand mechanism.

- Production inputs provided by the government will be priced at their actual cost calculated according to merchandise typical standards; local market will be controlled to prevent monopoly.
- Price the basic food merchandises or those marketed and manufactured by the state sector (wheat, cotton, sugar beet and tobacco).
- **Pricing some new crops with economic proceeds in order to encourage the production thereof (Strategy 21)**
 - Price and market some proposed alternative crops in order to encourage producers and achieve the purpose of incorporating them into the agricultural cycle.
 - Ensure a good margin of profit for the alternative crops of economic proceeds during the early years in order to encourage farmers to grow them.
- **Develop a practical programme to support agricultural production in order to enhance its competitiveness (Strategy 22)**
 - Establish a special fund to support strategic and alternative crops in accordance with their importance to food security, job opportunities' creation, stability in rural areas, and improve producers' conditions, the poor ones in particular.
 - Determine the amount of subsidy and the quantities to be produced of each product separately, and announce that in advance in order to contribute to the execution of state production plan and strategy.
- **Restructure the agricultural sector-related bodies in order to enable them from executing their tasks in accordance with the new economic, social, service and other orientations (Strategy 23)**
 - Harmonise the agricultural sector-related bodies in order to have more flexibility while realizing the scheduled programmes.
 - Continuously modernise the Ministry of Agriculture's subordinate bodies (the General Commission for Agricultural Scientific Researches, the MOAAR subordinate institutions, the administrations and directorates) in order to keep up with the developments.
 - Restructure the MOAAR subordinate institutions after amending their establishment decrees in order to become service and technical institutions instead of economic ones.
 - Restructure the agriculture-related bodies (General Union of Peasants, Agricultural Chambers Federation, manufacturing industries establishments and others) in order to activate participatory methods and achieve the desired development.
- **Issue or amend the legislations and laws regulating the agricultural sector so that resources sustainability and development of production, marketing, investment and other processes are taken into consideration (Strategy 24)**
 - Issue the necessary legislations to comply with the requirements of the trade agreements concluded, particularly the Greater Arab Free Trade Area Agreement, the EU-Syria Association Agreement and joining the WTO, and particularly:
 - Abide by the standards of the International Plant Protection Convention.
 - Implement the food safety requirements.
 - Abide by livestock and the products thereof sanitary conditions in accordance with the International Epidemic Office legislations.

- Abide by intellectual property, particularly joining the International Convention on Plant Diversity.
- Develop the necessary legal framework to aggregate agricultural lands and unify land exploitation formula (agricultural relations, possession and heritage, forestry, state property etc.).
- Issue or amend the important legislations, particularly:
 - Develop and rationalise water resources use in order to reduce their exhaustion, use them more efficiently, and protect them against all kind and degrees of pollution.
 - Protect the desert from trespasses, organise collective pasturing, establish protectorates, execute cooperatives' right to breed sheep and improve desert pastures.
 - Amend the Forestry Law to comply with the developments, protect forests from trespasses and exploit them economically, aoristically and environmentally.
 - Organic agriculture to protect environment and increase the opportunity of entering off-shore markets.
 - Keep plant and animal genetic origins and regulate their circulation.
 - Establish a general government body to supervise agricultural goods export. This body will target opening new markets for agricultural products and exports supervision. Establish the necessary laboratories to determine if those exports comply with the international standards.
 - Organise and control local and imported seeds to assure their quality.
 - Establish a special fund to support strategic and alternative crops as well as the quantities targeted as defined by the government.
 - Amend hunting and fishing laws in order to protect the resident and immigrating species.
- **Enhance cooperation and coordination with the agriculture-related Arab, regional and international bodies and organizations and make befit from local and international expertise in order to contribute to production development and raise its level in order to reduce poverty and improve citizen standards of living. (Strategy 25)**
 - Issue the necessary legislations to comply with the requirements of the trade agreements concluded, particularly the Greater Arab Free Trade Area Agreement, the EU-Syria Association Agreement and joining the WTO, and particularly:
 - Abide by the standards of the International Plant Protection Convention.
 - Implement the food safety requirements.
 - Abide by livestock and the products thereof sanitary conditions in accordance with the International Epidemic Office legislations.
 - Abide by intellectual property, particularly joining the International Convention on Plant Diversity.
 - Issue or amend the important legislations, particularly:
 - Develop and rationalise water resources use in order to reduce their exhaustion, use them more efficiently, and protect them against all kind and degrees of pollution.

- Protect the desert from trespasses, organise collective pasturing, establish protectorates, execute cooperatives' right to breed sheep and improve desert pastures.
- Amend the Forestry Law to comply with the developments, protect forests from trespasses and exploit them economically, aoristically and environmentally.
- Organic agriculture to protect environment and increase the opportunity of entering off-shore markets.
- Keep plant and animal genetic origins and regulate their circulation.
- Establish a general government body to supervise agricultural goods export. This body will target opening new markets for agricultural products and exports supervision. Establish the necessary laboratories to determine if those exports comply with the international standards.
- Organise and control local and imported seeds to assure their quality.
- Establish a special fund to support strategic and alternative crops as well as the quantities targeted as defined by the State.
- Amend hunting and fishing laws in order to protect the resident and immigrating species.

F. Programmes and Projects:

Hereafter a summary of the 10th FYP programmes and projects, where the projects, whose allocations are available, have been classified within the first priority group; they are mainly the relocated and continuous projects and replacement and renewal projects, in addition to some vital projects whose investments are allocated, such as Changing to Modern Irrigation Fund and others that target providing services to agriculture and irrigation sector in a way that affects it positively, improves its products, enhance its competitiveness, create job opportunities for producers, improve their standards of living and reduce poverty.

Priorities 2 & 3 have been defined according to the indicators of the (Service – Opportunities Creation) Scenario, as prepared by the ISMF for agricultural projects, in addition to some new agreed on projects that the Ministry of Irrigation will implement if sufficient investments are made available, which is not the case so far, whether totally or partially.

Here are the investment projects prioritised according to allocations availability:

Summary of the prioritised programmes and projects (SYL million)

Priorities	Number of Programmes & Projects	Investments during the 10 th FYP
P1: the programmes that have allocations in the 10 th FYP	120 projects to be implemented by the Ministries of Agriculture and Irrigation and the establishments thereof, distributed as: 51 projects to be implemented by the Ministry of Agriculture and the establishments thereof. 69 projects to be implemented by the Ministry of Irrigation and	١٧٣٧٠٣

	Basins and the establishments thereof. They are the relocated and continuous projects and replacement and renewal projects, as well as the important projects whose funds are allocated.	
P2: some projects listed according to the (Service – Opportunities Creation) Scenario implemented by the ISMF for agriculture and the projects prioritised by the Ministry of Irrigation.	32 of the projects listed in Table /19/; those projects are numbered (1 – 26) for Agriculture + the Ministry of Irrigation and the Public Agency for Water Resources and Basins projects with the numbers (43 – 45) + the Land Reclamation Projects (48 – 50).	٢٢١٨٩,١
P3: Rest of projects listed according to the (Service – Opportunities Creation) Scenario implemented by the ISMF for agriculture and the projects prioritised by the Ministry of Irrigation.	20 of the projects listed in Table /19/; those projects are numbered (27 – 42) for Agriculture + the Ministry of Irrigation and the Public Agency for Water Resources and Basins projects with the numbers (46 – 47) + the Land Reclamation Projects (51 – 52).	٤٠٣٦٩,٤
Grand total	172 projects	٢٤٦٢٦١,٥

7-7 Sector's Achievements and Returns Anticipated in the Plan:

7-7-1 Extra increase in the GDP growth rates:

the scheduled programmes whose allocations are available (Priority 1) are expected to contribute to 2.5% approximately. If the necessary investments for Priorities 2 & 3 projects are made available, they are expected to increase the growth rate by 2% approximately, so that the growth rate will be 4.5% if those projects are implemented in addition to the existing and ongoing projects.

7-7-2 Contribution to agricultural and comprehensive development, poverty reduction and human resources development:

Developing and expanding agriculture and irrigation sector according to the 10th FYP objectives is projected in the efforts made to secure a suitable environment for local and foreign investments increase in order to modernise agriculture and agriculture-related industries that have a relative advantage and according to the national priorities; also to improve their competitiveness, upgrade Syrian products quality, and increase productivity. This package of activities is expected to realise direct contribution to increased economic growth rates and put the basis for sustainable development.

The Plan will also concentrate on the income-generating small enterprises at rural households and provide them with the necessary finance. all that will be within the household income increase, standard of living improvement, rural woman role enhancement and the reflex of that on household income, poverty reduction, social equity as well as optimum use of resources through concentrating on the extremely poor areas. The Plan, therefore, introduces an integrated programme to carry out those vital developmental projects and pay close attention to the geographical

distribution thereof through medium and long term loaning programmes and execute the necessary training to ensure the effective investment and make those enterprises a success.

7-7-3 Contribution to job opportunities creation:

the extra projects are expected to create 70,000 job opportunities approximately, the Ministry of Irrigation projects are expected to create 30,000 job opportunities approximately, which means that there will be a chance to create 100,000 job opportunities approximately.

7-8 Implementation expected roadblocks and risks and the expected results:

- Not amending the legislations to be in harmony with international economic developments.
- Not implementing the proposed policies and work plans and not qualifying the staff to implement them.
- Not providing the necessary investments to implement the scheduled projects.
- Local and international investments don't invest in agricultural sector and the tributaries thereof.
- Failure to modernise agricultural products and improve their properties in order to facilitate their accessibility to foreign markets.
- No coordination among the ministries on the implementation of the proposed policies and programmes.
- Climate conditions don't conform with agricultural production.
- Production inputs are not available on time and at the suitable quality and prices.
- Market confusion.

7-9 Indicators of performance follow-up and returns:

- Activate follow-up and correction systems to supervise the execution of the defined physical and time programmes and amend them when necessary according to scientific performance standards and indicators.
- Develop an accurate database on agricultural production covering the production, the inputs, agricultural labour force and lands.
- Carry out studies to cover all agricultural sector's areas in order to identify their strengths and weaknesses and propose the practical procedures needed for development process and identify the sector's need of employment, power and others.
- **Statistical reports to track the overall indicators of productivity improvement, quality of work and capital management and run, production factors growth, Syrian products development according to international quality certificates and conformity with environment protection standards.**

Strategy	Programs & Projects	Expected Profits	indicators	Implementing authority	Implementation Timeframe
Agricultural production Development (Strategies 1-3)	Projects related to protecting agricultural production (vegetal & animal) and securing its requirements	Increase vegetal production growth rates by 3% of animal production by 5%	Support the agricultural production and protect it to enhance its role	Ministry of Agriculture (MOAAR) and some of its directorates	Ongoing throughout the FYP period
Rationalise the use of natural resources (Strategies 4-5-6-7)	Projects related to land development, water consumption and Badiah & forests management improvement.	Increase agricultural production by increasing farmed areas and improving unit productivity while maintaining the environment	Optimal utilisation of natural resources while maintaining the environment	MOAAR, Ministry of Irrigation (MOI) and the private sector	Ongoing throughout two FYPs to turn traditionally irrigated areas into modern irrigation methods
Improve product quality to increase manufacturing and marketing potential, and encourage sector investment (Strategies 8-9-10)	Projects related to agricultural production development, quality improvement and producing varieties and species that suit the local market, export and manufacturing requirements	Improve the agricultural work profitability through enhancing manufacturing and marketing processes	Enhance the agricultural production, improve its quality and increase its competitiveness	MOAAR, other agriculture-related ministries	Permanent
Improve agricultural varieties and animal species through enhancing scientific research and improving guidance mechanisms to transfer modern technologies and qualify the HR (Strategies 11-12-13-14)	Research Projects related to animal production, agricultural extension, capacity building and training	Improve agricultural production through the introduction and dissemination of new varieties and species, and provide skilled workers to handle the agricultural work	Produce high-productivity vegetal/animal species and disseminate them to contribute to maximizing profits, raising producers' income and reducing poverty	MOSSR, Agricultural Scientific Research in different vegetal/animal branches, MOAAR Department (esp. Extension and Capacity Building & Training)	Permanent
Develop the agricultural credit system to satisfy the agricultural sector requirements and build production assets	Projects related to irrigation technologies and the provision of agricultural requirements	Satisfy the production process requirements and build necessary assets to develop the agricultural sector	Provide funding for the production plan to help realise the planned objectives and improve the producers' situations	Agricultural Bank, Fund for Modern Irrigation and all departments involved in providing production requirements	Permanent and regularly modified to cope with the agricultural process requirements and the establishment of development projects

(Strategies 17-18-19)					
Timely and provision of quality production requirements (Strategies 15-16)	Projects related to purchasing seeds, saplings, pesticides, veterinary medicines and vaccines	Increase the agricultural production (vegetal & animal) after providing necessary quality requirements on timely basis and with appropriate quantities	Provide the requirements of implementing the production plan to increase production, create new jobs and maximize the agricultural activity profits	MOAAR, production facilities, Departments of Agricultural Affairs, Animal Health and Animal Production	Seasonal, annual and permanent work throughout the FYP period
Develop a pricing policy that can help implement the FYP and introduce viable support mechanism to enable producers to develop production (Strategies 20-21-22)	Projects and programs conducting feasibility studies funded by the investment budget and some studies funded by the current budget	Lay the scientific foundation and propose necessary policies to develop production and implement the FYP	Help direct production to contributing to the comprehensive agricultural development	MOAAR, different Department (esp. Policy; Statistics & Planning; Agricultural Economy)	Permanent but following up the FYP developments and policy amendments necessities
Develop frameworks and issue or amend legislations to help enhance the production process (Strategies 23-24-25)	Production and service projects in general	Help take support measures to develop the agricultural sector and enable it to keep up with changes	Establish conducive environment to increase production, improve product quality and enhance competitiveness	MOAAR and its different bodies	Ongoing throughout the FYP period and according to work priorities

Ninth FYP performance (2001-2004)

1) Agricultural sector contribution to total production and GDP in current prices and fixed prices of 2000

Table 1: Agricultural sector contribution to total production and GDP (2001-2004)

Description	9 th FYP years		Growth Rate 2001-2004
	2001	2004	
GDP of agricultural sector	361947	380436	1.7
Intermediate consumption of agricultural sector	120051	123215	0.9
GDP of agricultural sector	241896	257221	2.1
GDP	950245	1038421	3
Agricultural production to GDP ratio (%)	25	25	-

2) Land use balance

Table 2: Land use balance during the period 2001-2004 (1000 hectare)

Description		2001 - 2004		Growth Rate 2001-2004	
		2001	2004		
Cultivable area		٥٩٨٨	٥٩١٠	-0.3	
Exploited area		٥٤٥٠	٥٥٢٦	0.3	
Actually planted	Total	Total	٤٥٤٩	٤٧٢٩	3
		Irrigated	١٢٦٧	١٤٣٩	3.2
		Unirrigated	٣٢٨٢	٣٢٩٠	0.1
	Irrigated	non-forested	١١٢٥	١٢٧٣	3.1
		Forested	١٤٢	١٦٦	4.0
	Unirrigated	non-forested	٢٥٩٨	٢٥٨٨	-0.1
Forested		٦٨٤	٧٠٣	0.7	
Laid for rest		٩٠١	٧٩٦	-3.0	
Not exploited		٥٣٨	٣٨٤	-8.1	
Uncultivable		٣٦٩٠	٣٧٣٦	0.3	
Meadow & pasture		٨٢٧٣	٨٢٧٩	0.0	
Forests		٥٦٦	٥٩٣	1.2	
Total		١٨٥١٨	١٨٥١٨	0.0	

Note: forested areas include those considered as forested in Jabal Abdul Aziz in spite of their low density (around 80,000 hectare)

3) Vegetal production

Table 3: Agricultural production during the period 2001-2004 (1000 ton)

Crop	2001	2004	Growth Rate 2001-2004
Total wheat	4745	4537	-1.5
Irrigated wheat	2744	3393	7.3
Unirrigated wheat	2000	1145	-17.0
Barley	1956	527	-35.4
Lentil	177	125	-11.0
Chick-pea	60	45	-9.2
Cotton	1010	1029	0.6
Sugar beet	1215	1218	0.1
Yellow Corn	216	210	-0.9
Potato	453	542	6.1
Tomato	772	965	7.7
Olive	497	1027	27.4
Citrus fruit	833	844	0.4
Grapes	389	243	-14.6
Apple	263	358	10.8
Cherry	51	35	-11.7

Note: agricultural production varies from one year to another according climate changes

4) Animal production

Table 4: Animal production during the period 2001-2004

Description	Unit	9 th FYP years		
		2001	2004	Growth Rate 2001-2004
Cows	Head	۸۳۶۸۶۸	۱۰۲۴۱۲۰	6.96
Goats	Head	۹۷۹۳۲۵,۰	۱۱۳۰۹۹۶,۰	4.92
Sheep	Head	۱۲۳۶۱۸۲۴	۱۷۵۶۵۲۲۲	12.42
Meat Production	1000 ton	۲۱۶	۲۱۶	0.06
Milk Production	1000 ton	۱۵۷۸	۲۱۲۹	10.50
Livestock Production	1000 ton	۱۱۵,۶	۱۷۱,۸	14.13
Fish	1000 ton	۱۴,۲	۱۷,۲	6.69
Honey	1000 ton	۱,۷۷۸	۲,۱۳۷	6.32
Eggs	Million	۲۶۷۱	۴۰۰۲	14.43

5) Production Objectives

Table 5: Production Objectives for the period 2001-2004

Description	Unit	Total (planned)	Total (Executed)	Execution percentage
Fruit trees	Million	22.5	30.8	136.9
Rocky land reclaimed for forestation	1000 hectare	40.4	40.6	100.5
Forest saplings	Million	76.9	82.3	107.0
Forestation	1000 hectare	67.9	71.4	105.2
Opening and paving forest routes	km	6402	4236	66.2
Operating wells	Well (accumulative)	930	914	98.3
Land reclamation in Southern Region	1000 hectare	25.3	18.9	74.7
Sperm production	1000 dose	2450	3178	129.7
Nitrogen liquid production	1000 hectare	1500	1587	105.8
Artificial fecundation	1000 operation	2450	3019	123.2
Bee parcel	Parcel	6500	3777	58.1
Modern wood hive	1000 hive	17.5	20.6	117.7
Pastoral saplings	Million	54	51.2	94.8
Pastoral seeds	Ton	365	372	101.9
Pastoral farming	1000 hectare	85	86.6	101.9
Pest combating	1000 hectare	1732.5	1732.5	100.0
Herb combating	1000 hectare	2944	3571.3	121.3
Combating field rats	1000 hectare	2203.3	3280.2	148.9
Cost of combating equipment	Million US\$	53.9	54.7	101.5
Extension units	Unit	120	120	100.0
Fodder samples analysis	1000 analyses	82	88	107.3
Land reclamation in Middle and Coastal Regions	1000 hectare	26.3	11.203	42.6
Land reclamation in Jabal Al-Hoss	1000 hectare	16	14.2	88.8
Fertilizers/additional element				
Ozone	1000 ton	1175	821	69.9
Phosphor	1000 ton	585	409	69.9
Potassium	1000 ton	80	32.3	40.4
Improved seeds	Ton	785474	691211.45	88.0

6) Investments

Table 6: Investments In MOAAR and related bodies during 2001-2004 (1000 SYP)

Description	Total committed ٢٠٠٤-٢٠٠١	Spent ٢٠٠٤-٢٠٠١	Committed until ٢٠٠٥	Total spent Of 2005 until 31.08.05	Committed grand total	Spent Grand total	Record (%)
Central administration & research authority	٤٠٥٧٩٩٣٦	٣١٧٩٣٦١٠	٩٧٦٩٠٠٠	٤٤٠٤٠٠٠	٥٠٣٤٨٩٣٦	٣٦١٩٧٦١٠	٧١,٨٩٣
Real estate Service Institutions	٥٩٣٩٢٣	٣٢٤٦١٨	١٣٥٠٠٠	٥٣٠٠٠	٧٢٨٩٢٣	٣٧٧٦١٨	٥١,٨٠٥
Poultry	١٥١٠٠٣	١٥١٠٠٣	٢٨٠٠٠	٢٥١٧٩	١٧٩٠٠٣	١٧٦١٨٢	٩٨,٤٢٤
Cow barn	٢٤٣٠٤٠	١١٣٣٦٢	٣٠٠٠٠	٩٧٨	٢٧٣٠٤٠	١١٤٣٤٠	٤١,٨٧٧
Fish	١٩٠٨١	١٨٣٠٠	٥٠٠٠	٤٨٢٥	٢٤٠٨١	٢٣١٢٥	٩٦,٠٣٠
Fodder	١١٤١٩١١	٨٨٩٦٤٥	١٠٠٠٠٠	٤٥٠٨٦	١٢٤١٩١١	٩٣٤٧٣١	٧٥,٢٦٦
Seed proliferation	٤٨٥٤٨٠	٣٩٣٤٣٧	٣٨٠٠٠	٢٢٢١٦	٥٢٣٤٨٠	٤١٥٦٥٣	٧٩,٤٠٢
Agricultural mechanization	١٩٧٦٢	١١٨٥١	.	.	١٩٧٦٢	١١٨٥١	٥٩,٩٦٩
Ghab Plain investment	١١٢٤٤٢٥	٩٨٤٣٣٨	٣٢٧٠٠٠	٢٠٦٨٨٢	١٤٥١٤٢٥	١١٩١٢٢٠	٨٢,٠٧٢
State farms	٨٧٣٨٨	٧٣١٢٣	١٠٠٠٠	٥١٨٤	٩٧٣٨٨	٧٨٣٠٧	٨٠,٤٠٧
Total institutions	٣٢٧٢٠٩٠	٢٦٣٥٠٥٩	٥٣٨٠٠٠	٣١٠٣٥٠	٣٨١٠٠٩٠	٢٩٤٥٥٤٩	٧٧,٣٠٥
Grand total	٤٤٤٤٥٥٩٤٩	٣٤٧٥٣٢٨٧	١٠٤٤٢٠٠٠	٤٧٦٧٣٥٠	٥٤٨٨٧٩٤٩	٣٩٥٢٠٦٣٧	٧٢,٠٠٢

Expenditure will increase by the end of 2005 taking into consideration that the Table figures cover until 31.08.05

Table 7: Implementing government irrigation projects

A. Reclaimed areas during 2001-2004 (hectare)

Description	Total planned ٢٠٠٤ -٢٠٠١	Total implemented ٢٠٠٤ -٢٠٠١	Implementation level (%)
Total area	٦٧٠٠٠	٤٠٦٩٠	60.7

B. Dams (hectare)

الوحدة: هكتار

Description	Total planned ٢٠٠٤ -٢٠٠١	Total implemented ٢٠٠٤ -٢٠٠١	Implementation level (%)
No. of dams	١١	٧	63.6
Storage capacity (million m ³)	٢٠٣٠	١٧٨٣	87.8

C. Shift to modern irrigation (hectare)

Description	Years	
	٢٠٠١	٢٠٠٤
Area using modern irrigation techniques		

Total area using modern irrigation techniques	۱۱۰۰۰۰	۱۸۸۰۰۰
Areas shifted after the decision of the Higher Agricultural Council	۷۸۰۰۰	

Table 8: Ministry of Irrigation investments during 2001-2004 (million SYP)

Ministry Of Irrigation (Central administration & institutions)	Committed	Spent	Implementation level (%)
۲۰۰۱	۱۶۲۶۹	۱۳۸۱۳	۸۴,۹
۲۰۰۲	۱۶۵۵۱	۱۴۹۸۴	۹۰,۵
۲۰۰۳	۱۸۰۰۸	۱۴۵۹۸	۸۱,۱
۲۰۰۴	۱۶۸۷۲	۱۶۱۴۵	۹۵,۷
۲۰۰۵	۱۳۳۹۹	۸۶۷۱ Until 31.08.05	۶۴,۷
Grand total	۸۱۰۹۹	۶۸۲۱۱	۸۴,۱

Tenth FYP performance indicators

1. Future objectives of major FYP variables

Table 9: Agricultural sector contribution to the Production & GDP during 2006-2010

(million SYP)

Description	10 th FYP years		Growth Rate 2006-2010
	2006	2010	
Agricultural GDP	480621	507307	3.50
Tariffs	129.0	13.6	0.30
GDP at production cost	498026	57.367	3.42
Production inputs	172471	20.991	3.90
GDP at market prices	326.00	379370	3.17
Workforce	60893	789.4	4.61

2. Future objectives of land use balance during the 10th FYP

Table 10: Land use balance during 2006-2010 (1000 hectare)

Description		10 th FYP years		Growth Rate 2006-2010	
		2006	2010		
Cultivable area		6.11	6104	0.6	
Exploited area		5640	5788	0.6	
Actually planted	Total Irrigated + unirrigated	Total	4780	4938	0.8
		Irrigated	1492	1026	0.6
		Unirrigated	3292	3412	0.9
	Irrigated	non-forested	1294	1327	0.6
		Forested	199	199	0.1
	Unirrigated	non-forested	2089	2649	0.6
Forested		7.4	764	2.1	
Laid for rest		86	80	-0.3	
Not exploited		367	366	0.0	
Uncultivable		3603	3033	-0.8	
Meadows & pastures		8301	8308	-0.1	
Forest		0.3	023	1.0	
Total		18018	18018	0.0	

Irrigated: 33,700 hectare during 2007-2010 (an annual increase of 8,400 hectare at the expense of unirrigated non-forested and non-exploited).

Irrigated trees: an annual increase of 149 hectare with the rest of the area devoted to non-forested.

Unirrigated: +15000 hectare for forested and + 15000 hectare for non-forested as a result of reclaiming uncultivable (rocky) land.

Forest: + 5000 hectare annually during 2007-2010 at the expense of meadows and pastures and rocky, given the fact that the forested area include the extensively forested

area.

For rest: has decreased to maintain the crop rotation on one hand and for non-forested and unirrigated on the other.

3. future objectives for most important crops and fruit trees (irrigated/unirrigated)

Table 11: Agricultural production during 2006-2010

Crop	10 th FYP years		Growth Rate 2006-2010
	٢٠٠٦	٢٠١٠	
Irrigated wheat	٣٦٣٠	٤٠٠٢	٢,٥٤
Unirrigated wheat	١١٥٥	١٢٨٧	٢,٧٥
Total wheat	٤٧٨٥	٥٢٨٩	٢,٥٨
Barley	١٢٠٣	١٣١٧	٢,٢٩
Lentil	١٩٣	٢٢١	٣,٤٤
Chick-pea	٩٤	٩٩	١,٣٠
Cotton	٨٦٥	٨٨٢	٠,٤٩
Sugar beet	١٦٤٩	١٧٦٠	١,٦٤
Yellow Corn	٢٣٤	٢٥٩	٢,٥٧
Potato	٦٤٧	٧١٧	٢,٦٠
Tomato	٦٦٤	٧٣١	٢,٤٣
Fruit trees			
Olive	٩٤٨	١٤٥٨	١١,٣٦
Citrus fruit	٩٢٧	١٠٨٦	٤,٠٣
Grapes	٣٨١	٢٩٥	٦,١٩-
Apple	٣٥٦	٤٠٩	٣,٥١
Cherry	٩٢	١٢٥	٧,٨٦

4. Future objectives for animal production development during the 10th FYP

Table 12: Animal production during 2006-2010

البيان	الوحدة	10 th FYP years			
		٢٠٠٦	٢٠١٠	Total 10 th FYP years	Growth Rate 2006-2010
Cows	1000 Head	١٠٨٨	١٣٥٤	٦٠٧١	4.76
Goats	1000 Head	١١٦٢,١	١٢٣٩,٨	٦٠٠٠	1.54
Sheep	1000 Head	١٩٧٧٤	٢٥٠٦١	١١١٦٩٧	6.10
Meat Production	1000 ton	٢٩٣	٣٢٢	١٥٣٥	2.39
Milk Production	1000 ton	٢٢٢٧	٢٧٨٢	١٢٤٤٢	5
Livestock Production	1000 ton	١٨٨,٠	٢٢٢,٠	١٠٢٦	4.34
Fish	1000 ton	١٧,٨	١٩	٩٢	1.67
Honey	1000 ton	٢	٣	١٣	6.99
Eggs	Million egg	٤٤٤٧	٤٤٤٧	٦٠٧١	4.76

5. Future objectives of MOAAR during the 10th FYP

Table 13:

Description	Unit	10 th FYP years		Total 10 th FYP years	Growth rate (%) 2006-2010
		٢٠٠٦	٢٠١٠		
Fruit trees	Million	٦	٦	٣٠	0.00
Fruit forestation	hectare	١٠٦٠٠	١٠٥٨٠	٥٢٩٥٠	-0.06
Forest saplings	Million	١٢	١٢	٦٠	0.00
Forestation	1000 hectare	١٠	١٠	٥٠	0.00
Opening and paving forest routes	km	١٠٠٠	١٠٠٠	٥٠٠٠	0.00
Operating wells	Well	٢٥٩	٢٧٩	١٣٤٥	1.88
Land reclamation in Southern Region	1000 hectare	٤	٤	٢٠	0.00
Land definition and classification	1000 hectare	٥	٦,٣	٣٠	5.74
Sperm production	1000 dose	٧٥٠	٩٥٠	٤٢٥٠	6.09
Nitrogen liquid production	1000 liter	٤١٠	٤١٠	٢٠٥٠	0.00
Artificial fecundation	١٠٠٠ operation	٧٥٠	٩٥٠	٤٢٥٠	6.09
Modern wood hive	1000 hive	١٠	١٠	٥٠	0.00
Bee parcel	Parcel	١٧٠٠	١٧٠٠	٨٥٠٠	0.00
Pastoral saplings	Million	١٥	١٢	٦٦	-5.43
Pastoral farming (saplings & seeds)	1000 hectare	٣٥	٢٥	١٤٠	-8.07
Pest combating	1000 hectare	٣٦٠	٣٦٠	١٨٠٠	0.00
Herb combating	1000 hectare	٥٧٠	٥٧٠	٢٨٥٠	0.00
Combating field rats	1000 hectare	٧٦٠	٧٦٠	٣٨٠٠	0.00
Cost of combating equipment	Million US\$	١٢	١٢	٦٠	0.00
Extension units (accumulative)	Unit	١٠٤٧	١١١٩	٥٤١٥	1.68
Fodder samples analysis	1000 analyses	٢١	٢٨	١٢١	7.46
Pastoral preserves	1000 hectare	١٠٣٠	١٠٧٠	٥٢٥٠	0.96
Land reclamation in Jabal Al-Hoss	hectare	٣٧٠٠	٣٧٠٠	١٨٥٠٠	0.00
Land reclamation in Middle and Coastal Regions	hectare	١٠٠٠٠	١٠٠٠٠	٥٠٠٠٠	0.00
Cloud planting materials	Shell	١٣٠٠٠	١٣٠٠٠	٦٥٠٠٠	0.00
Rural development in Idleb	hectare	٤٠٠٠	٥٠٠٠	٢١٠٠٠	١,٣
Education & development	hectare	٥٥٠٠	٦٠٠٠	٢٨٥٠٠	2.20
Protection	hectare	٤٩٩٠٠٠	٥١٥٠٠٠	٢٥٣٥٠٠٠	0.79
Improved seeds	Ton	٢٠٨٠٠٠	٣٢٩٣٢٠	١٢٣٢١٢٠	12.17

Table 14: MOAAR: Projects with available investment during the 10th FYP (million SYP)

Launched projects	MOAAR (Central Administration)	٣٨٧٦٠
	Public Agency for Agricultural Scientific Research	٨٠٠٠
	General Directorate of Real Estate Services	٢٠٠٠
	Public Authority for Al-Ghab Development Management	٢٠٠٠
	Institutions	١٦٣٠
	Total	٥٢٣٩٠
New projects	Fund for Modern Irrigation	٢٢٠٠٠
	Feasibility studies for 7 new projects	٧
	New projects	٨١٧٨
	Total	٣٠١٨٥
Grand total		٨٢٥٧٥
New proposed projects with no available funding	MOAAR	٥٣٠٤٤

**Table 15: MOI: Projects with available investment during the 10th FYP
(million SYP)**

Replacement & renewal projects	Public Agency of Water Resources	٧٥٧٠
	Institutions	٦١١٤
Launched projects	MOI (Central Administration) (completing the MOI building)	١٠٠
	Public Agency of Water Resources	٣٤٢٤٥,٥
	Institutions	٣٥٣٨٤,٥
Decided new projects	MOI (Central Administration)	٣٧
	Public Agency of Water Resources	٤٨٥
	Public Establishment for Land Reclamation	٧١٩٢
Grand total		٩١١٢٨
New proposed projects with no available funding	Public Agency of Water Resources	١٥١٠,١
	Public Establishment for Land Reclamation	١٨٠٠,٢

**Table 16: overall project of 10th FYP in agricultural and irrigation sector
Total committed allocations for MOAAR and MOI (million SYP)**

Years	٢٠٠٦	٢٠٠٧	٢٠٠٨	٢٠٠٩	٢٠١٠	Total
MOAAR and Public Agency of Water Resources and affiliate bodies	١٠٧٩٢	١٦٣٠٩	١٧٣٤٩	١٨٤٦٤	١٩٦٦١	٨٢٥٧٥
MOI and affiliate bodies	١٢٩٢٤	١٧٨٨٤	١٩٧٢٦	٢٠٠١١	٢٠٥٨٣	٩١١٢٨
Total	٢٣٧١٦	٣٤١٩٣	٣٧٠٧٥	٣٨٤٧٥	٤٠٢٤٤	١٧٣٧٠,٣

**Table 17: MOAAR investment projects funding during the 10th FYP
(1000 SYP)**

No.	Project	Funding
١	Develop agricultural extension	١٢٥٠٠٠٠
٢	Support to general combating	١٢٥٠٠٠٠
٣	Fruit saplings production	٢٠٠٠٠٠٠
٤	Fruit forestation	٣٧٥٠٠٠٠
٥	Forest development	٥٠٠٠٠٠٠
٦	Veterinary Care development and dissemination	١٧٥٠٠٠٠
٧	Classification and improvement of local cows	١٠٠٠٠٠٠
٨	Badiyah wells renewal and equipment	١٢٥٠٠٠٠
٩	Syrian Badiyah development	١٢٥٠٠٠٠
١٠	Agricultural development in Southern Region	٥٠٠٠٠٠٠
١١	2 nd Fruit Forestation in Quneitra	١٥٠٠٠٠٠
١٢	Green zone around Deir Ezzor	٢٥٠٠٠٠٠
١٣	Development of bee breeding and honey production	٣٠٠٠٠٠٠
١٤	Arab horses farm	١٥٠٠٠٠٠
١٥	Forest growing and development	٥٠٠٠٠٠٠
١٦	Tleileh Natural Preserve	٢٥٠٠٠٠٠

No.	Project	Funding
١٧	Artificial Rain	٥٠٠٠٠٠
١٨	Forest protection and fire fighting	١٣٥٠٠٠٠
١٩	Fish wealth development	٢٥٠٠٠٠
٢٠	Rural development in Jabal Al-Hoss	٥٠٠٠٠٠
٢١	Agricultural development in Middle and Coastal Regions	١٧٠٠٠٠٠
٢٢	Integrated development in the Syrian Badiah	٢٥٠٠٠٠٠
٢٣	Building headquarters for 29 technical schools and 6 intermediate institutes	١٥٠٠٠٠٠
٢٤	Processes automation in MOAAR	٥٠٠٠٠٠
٢٥	Establish the Training Complex in Sabboura	٢٦٠٠٠٠
٢٦	Build the office of Tartous Directorate of Agriculture	١٧٠٠٠
٢٧	Build the office of Raqqa Directorate of Agriculture	٩٠٠٠٠
٢٨	Build the office of Deir Ezzor Directorate of Agriculture	٢٣٠٠٠
٢٩	Build the office of Damascus Rural Directorate of Agriculture	١٩٥٠٠٠
٣٠	Agricultural routes	٥٠٠٠٠٠
٣١	Build the MOAAR head office	١٠٠٠٠٠٠
٣٢	Rural development in Jabal Al-Hoss	٧٥٠٠٠
٣٣	Rural development in Idleb	١٧٠٠٠٠٠
٣٤	Develop training centers for agricultural education	٢٠٠٠٠٠٠
٣٥	Build agro industry plants in the governorates	١٠٠٠٠٠٠
٣٦	Develop the biological control	١٠٠٠٠٠٠
٣٧	Survey the natural and agricultural resources using remote sensing technologies	٣٠٠٠٠٠٠
٣٨	Develop agricultural statistics	٥٠٠٠٠٠٠
٣٩	Renew and replace the transport means	١٠٠٠٠٠٠
٤٠	8 March and Hurriah facilities	١٥٠٠٠٠٠
	MOAAR Total	٣٨٧٦٠٠٠٠
١	General authority for Agricultural Scientific Research	٨٠٠٠٠٠٠
٢	General authority for Al-Ghab management and development	٢٠٠٠٠٠٠
٣	Real Estate Directorate	٢٠٠٠٠٠٠
٤	Public Establishment for Seed proliferatio	٥٠٠٠٠٠٠
٥	Public Establishment for Cow Farms	٥٠٠٠٠٠٠
٦	Public Establishment for Poultry	٣٠٠٠٠٠٠
٧	Public Establishment for Fish	٣٠٠٠٠٠٠
٨	Public Establishment for Fodder	٣٠٠٠٠٠٠
	Total of MOAAR related bodies	١٣٦٣٠٠٠٠
١	Modern Irrigation Project	٢٢٠٠٠٠٠٠
٢	Feasibility studies for 7 new projects	٧٠٠٠٠
٣	New projects	٨١٧٨٠٠٠
	Grand Total	٨٢٥٧٥٠٠٠

**Table 18: details of MOI investment projects funding during the 10th FYP
(1000 SYP)
A- Launched Projects**

No.	Body	Investment Projects	Fixed investment costs (1000 SYP)	Governorate
MOI			١٠٠٠٠٠	
١		Completing the MOI building	١٠٠٠٠٠	Damascus Rural
Public Agency of Water Resources			٣٤٢٤٥٥٠٠	
٢		Combating the pollution of public water	١٩٨٨٠٠	National
٣		Complete the dams construction	٢٩١٣٨٠٠	National
٤		Water Resources Information Center (new/endorsed)	١٠٠٠٠٠	National
٥		Dam construction study	٢٢٠٠٠	National
٦		Establishing the Irrigation research center	٢٦٠٠٠	National
٧		Study the water balance of the Coastal basin	٣٣٨٠٠٠	Hama, Homs, Idleb, Latakia, Tartous
٨		Beit Sorak Dam irrigation project	٣٠١٣٠٠	Latakia
٩		Qurdaha Dam irrigation project	٤٠١٠٠	Latakia
١٠		Faqi Hasan Dam irrigation project	٣٠٦٣٠٠	Latakia
١١		Wata El-Khan Dam irrigation project	٣٠١٣٠٠	Latakia
١٢		Adlein Dam irrigation project (shared with the Lebanese side)	١٠١٠٥٠٠	Homs
١٣		Bradon Dam irrigation project	٣٣٤٩٥٠٠	Latakia
١٤		River bed organisation project	٥٠٠٠٠	National
١٥		Marqiyeh Dam irrigation project	١٦٥٦٥٠٠	Tartous, Damascus, Rural Damascus
١٦		Al-Husain Dam irrigation project	٨١٦٠٠٠	Tartous, Damascus, Rural Damascus
١٧		Project of winter pumping of Al-Sin Spring Water	١٨٣٥٧٠٠	Latakia - Tartous
١٨		Al-Sorani Dam irrigation project	٥٠٩٠٠	Tartous
١٩		Ein El-Bayda Hill irrigation networks	٢٤٠٢٠٠	Latakia
٢٠		Al-Mzayyaneh Dam irrigation project	١٦٩١٠٠	Homs
٢١		Dreikish Dam irrigation project	٥١٥٠٠	Tartous
٢٢		Modern irrigation in the Badiah	١٤٥٠٠٠	Homs
٢٣		Carrying the Euphrates water from Deir Ezzor to Palmyra	٧٥٧٠٠٠٠	Homs, Deir Ezzor
٢٤		Develop Al-Ghab and improve its investment	٢٨٧٤٠٠٠	Hama
٢٥		Al-Rouj Plain development	١١١٧٨٠٠	Idleb
٢٦		Irrigation and organisation of Ifreen Dam	١٤٤٤١٠٠	Aleppo
٢٧		Study and construct Zeita Dam	٣٢٩٢٠٠	Hama, Homs, Idleb
٢٨		Build the irrigation networks on dams and springs	٤٠٧٤٠٠	National
٢٩		Organise the current of Barada and A'awaj	٤٨٠٠٠٠	Damascus, Rural Damascus
٣٠		Consider new irrigation projects	١٣٠٠٠٠	National
٣١		Dig underground well in Sweida	٦٧٥٠٠٠	Sweida

No.	Body	Investment Projects	Fixed investment costs (1000 SYP)	Governorate
٣٢		Build government irrigation networks on dams and springs	٢.٩٠٠٠	National
٣٣		Build Quneitra Dam	١٨٥٠٠٠	Quneitra
٣٤		Collective irrigation in Ras El-Ein	٩٣٩٤٠٠	Hasakeh
٣٥		Building of 6 administration complexes	١.٠٠٠٠	Hasakeh
٣٦		Khabour irrigation project	٣٩٥١٦٠٠	Hasakeh
Public establishment of the Euphrates Basin investment & development			٤٥.٠٠٠٠	
٣٧		Central Administration	٤٠٨.٠٠٠	Aleppo, Raqqa
٣٨		Hor Project	٤٢.٠٠٠	Raqqa
Public Establishment for Land Reclamation			٣٢٩١٦٧.٠٠	
٣٩		Central Administration	٩٧٨.٠٠٠	Raqqa
٤٠		Bleikh Basin	٣٨٦٥.٠٠٠	Raqqa
٤١		Lower Euphrates	٣١.٢٠٠٠	Deir Ezzor
٤٢		New projects studies	١٣٥.٠٠٠٠	Aleppo, Raqqa, Deir Ezzor
٤٣		Bleikh section 5 project	٣٤٦٥.٠٠٠	Raqqa
٤٤		Section 3 West	١.٠٠٠٠٠	Raqqa
٤٥		Upper Euphrates Basin	٤٨٢٨.٠٠٠	Aleppo
٤٦		Tadef and Bab Plains	٢٢٥.٠٠٠	Aleppo
٤٧		Project of dragging water to Qweiq River (at 4 m ³ /sec)	٤٠٥.٠٠٠	Aleppo
٤٨		Southern Aleppo Plains project	٤٢٥.٠٠٠٠	Aleppo
٤٩		Study and construction of Halabieh & Zalabieh Dam	٢٠٢٥.٠٠٠	Deir Ezoor
٥٠		Sector 6 of Lower Euphrate	٥.٩٢٧.٠٠	Deir Ezoor
٥١		Operating the prebuilt pipe factory	٧٨١.٠٠٠	Raqqa, Deir Ezoor
٥٢		East Raqqa Reclamation Project	٢٤٥.٠٠٠٠	Raqqa
General Establishment of Euphrates Dam			٢.١٧٨.٠٠	
٥٣		Preparation for delivery and operation of Tishreen Dam Facility	٣٥١٥.٠٠	Aleppo - Raqqa
٥٤		The Euphrates Hydrology	٦٦٦.٠٠٠	Aleppo, Raqqa, Deir Ezoor
٥٥		Install a hydroelectric station on the outflow of Bleikh Canal	١.٠٠٠.٣.٠٠	Raqqa
Total			٦٩٧٣.٠٠٠٠	

Replacement and Renewal Projects

Serial	Project NO.	Project	Investment cost (million SYP)	Governorate
Public Agency of Water Resources			٧٥٧.٠٠٠	
١		Develop government irrigation networks	٢١٠٤.٠٠٠	National
٢		Maintenance and operation of irrigation facilities	٥٤١٦.٠٠٠	National
General Establishment of Euphrates Dam			١١٩٢.٠٠٠	
٣		Replacement & Renewal Project	١١٩٢.٠٠٠	National
General Establishment for Euphrates Basin Investment & development			٥٤٩.٠٠٠	
٤		Maintenance and operation of irrigation facilities in Al-Assad Plant at maskaneh	٥٤٩.٠٠٠	Aleppo
General Establishment for Land Reclamation			٤٣٧٣.٠٠٠	
٥		Maintenance and operation of Bleikh Basin (Middle)	٩٤٧.٠٠٠	Raqqa
٦		Maintenance and operation of Maskaneh Basin (upper)	١٩٨.٠٠٠	Aleppo - Raqqa
٧		Maintenance and operation of Euphrates Basin (lower)	١٤٤٦.٠٠٠	Deir Ezoor
Total			١٣٦٨٤.٠٠٠	

New Endorsed Projects

Serial	Project NO.	Project	Investment cost (million SYP)	Governorate
MOI			٣٧.٠٠٠	
١		Training and capacity building	٣٧.٠٠٠	National
Public Agency of Water Resources			٤٨٥.٠٠٠	
٢		Ballouta Dam irrigation	٤٠٠.١٠٠	Tartous
٣		Establishing irrigation projects on the sanitary water treatment plants	٥٤.٠٠٠	Dar'a, Sweida. Quneitra
٤		Study and implementation of Tigris irrigation project	٣٠.٩٠٠	Hasakeh
General Establishment for Land Reclamation			٧١٩٢.٠٠٠	
٥		Address the deluge and reclaim the Seeha plains	٣١٢٤.٠٠٠	Aleppo
٦		Reclamation of sector 8	٢٦٦٣.٠٠٠	Deir Ezoor
٧		Reclamation of Rasafeh Plains	١٤٠.٠٠٠	Raqqa
Total			٧٧١٤.٠٠٠	

Table 19: New Proposed Projects in agriculture (servicing, job creation) according to the ISMF project and adding the agreed on irrigation projects to be implemented upon resources availability

New project with no available funding

Serial	Project NO.	Project	Investment cost (million SYP)
١	١٠٣٤	Study the waste in agricultural products	٣١
٢	١٠٣١	Collection and redistribution of surface water and control water washouts in 150,000 hectare in the Badiah	١٥٠,٤
٣	١٠٦٠	Automation of the governorates real estate registrar	٣٣٧
٤	١٠٣٥	Develop and improve agricultural products specifications	٣٩٢,٥
٥	١٠٣٢	Expand the establishment of natural preserves in the Badiah (environmental, tourist and pastoral)	١١٣
٦	١٠٠٨	Development of humming bee breeding	٨٦
٧	١٠١٦	Developing organic agriculture	٨٩
٨	١٠٢٨	Building the Rural Women's Production Capacities	٣١٢
٩	١٠١٠	Enhance the farming of limited plants	١٣٣
١٠	١٠٢٩	Agriculture and development in the Badiah	١٩٩٩
١١	١٠٢٤	Establishing a marketing information system to provide information about international markets	٥٢
١٢	١٠٤٧	Generalise the artificial fecundation of sheep and goat	٧٨
١٣	١٠١٥	Expand the Growing/Classification/Export of Medical and Essential Plants	٥٧
١٤	١٠٥٩	establish networks of comprehensive automation systems in different departments of the General Establishment of Seed Proliferation	١٦٦
١٥	١٠٤٦	Developing drought and salinity-resistant varieties	٤١
١٦	١٠٢٧	Frost forecast project	٧٢٨
١٧	١٠٣٠	Support to extension units and secure requirements of extension activities	١٤٠٧
١٨	١٠٤٨	Transfer and introduction of embryo transplanting technologies	١٢٢
١٩	١٠٢٦	Transfer modern agricultural techniques to extension guides, farmers and to people concerned in agriculture	١٢٤
٢٠	١٠٣٨	Develop the vocational agricultural education and training	٢٩٦
٢١	١٠٥٥	Establish accredited labs to analyse agricultural products and grant certification	١٦٥١
٢٢	١٠٠١	Registration and establishment of agricultural animal breeders	٤٩١
٢٣	١٠٠٦	Infrastructure development in the Badiah	٤٠٧٦
٢٤	١٠١١	Use the GIS to develop a map for agricultural and economic environmental types and fruit trees that match the land classification and comparative advantages with special focus on vulnerable regions	٧٠٠
٢٥	١٠١٩	Detect animal diseases and provide necessary medicines and vaccines	٢٠٤
٢٦	١٠١٢	Pilot project for crop rotation and crop structuring according to comparative advantages, and rationalised use of resources	٤٢٣
٢٧	١٠٥٣	Establishment of the National Plant Genetic Bank	٩١,٥
٢٨	١٠٤٢	Set the rules for agricultural varieties and crop structure in marginalized regions	٤٢٥

Serial	Project NO.	Project	Investment cost (million SYP)
٢٩	١٠٣٩	Strengthening the specialised training centers	٢٨٦
٣٠	١٠٠٩	Maintaining the threatened local animals and develop their production	٣٠٨
٣١	١٠٤١	Survey the natural and agricultural resources using remote sensing technologies and GIS system	١١١٦
٣٢	١٠١٣	Early warning system for drought forecasting	٤٢٨
٣٣	١٠٥٠	Forest protection and fire fighting	٢٨٢
٣٤	١٠٠٧	Integrated combating programs for major crops	٩٦٧
٣٥	١٠٣٦	Establish the internal agricultural quarantine and its facilities	٤٩٩
٣٦	١٠٢١	Establish mobile labs to detect chemical and harmonic remnants in materials	٢١٠
٣٧	١٠١٤	Developing Awassi sheep productivity in different breeding methods in Syria	١٣٣
٣٨	١٠٤٣	Install a sophisticated computer network linking MOAAR with the directorates of Agriculture and other government bodies	٦٣٠
٣٩	١٠٥٢	Define and evaluate the agricultural and agro industry byproducts and improve their nourishing content and use them to feed cattle	٤٠٢
٤٠	١٠٢٣	Rural community development in pilot areas	٣٩٨٧
٤١	١٠٤٠	Developing infrastructure in central administration and General Agency for agricultural scientific research	٢٨٦١١
٤٢	١٠٥٤	Rationalise sea fishing and improve its services	٤١٢
MOAAR Total			٥٣٠٤٤

Serial	Project	Investment cost (million SYP)
	Public Agency for Water Resources	١٥١٠,١
٤٣	Babna Dam Irrigation	٢٦٩,٤
٤٤	Qadmous Dam Irrigation	٣٨٩,٤
٤٥	Qinieh Dam Irrigation	٤٧١,٤
٤٦	Bashkat Dam Irrigation	٣٢٩,٩
٤٧	Consider the possibility of establishing water harvesting projects	٥٠
	General Establishment of Land Reclamation	١٨٠٠٢
٤٨	Reclamation of Section 5 East of Bleikh	٦٢٠٠
٤٩	Reclamation of lands surrounding the Khabour	٦٢٠٠
٥٠	Reclamation of the remaining part of Region 1 of lower Euphrates	٤٤٠٠
٥١	Reclamation of the second priority of Southern Aleppo plains	١٠٠٠
٥٢	Reclamation of Jirniyeh plains	٢٠٢
Total		١٩٥١٢,١