



Agriculture and Irrigation

General Overview of the Sector

Current state of the agricultural sector

Agriculture in Lebanon is based on individual initiatives, under a liberal and open economic system. During the past three decades, this sector has undergone major changes, among which:

An increase of 36% in the number of farm holders working in agriculture to 195 thousand agricultural investors; an increase of 155% in the area of irrigated lands to 100 thousand hectares of 284 thousand hectares of cultivated lands; the fragmentation of agricultural lands in such a manner that 75% of farming units do not exceed 1 hectare and represent 20% of the total cultivated area.

Even though the sector's contribution to the GDP is low (6.3%), it covers 17% of the value of exports, and it is either the sole or an additional source of income for a large portion of the Lebanese rural population.

Agriculture consumes 64% of available water supplies. Increased water needs result in additional pressure on irrigated agriculture, leading to an increase in the number of lands abandoned due to lack of water or to decline in investment opportunities and agricultural profits for smallholders.

The Lebanese agricultural production is mainly characterized by its high production cost and limited competitiveness due to the openness to international markets and to the signed trade agreements.

Nevertheless, Lebanon's geographical location, its diversified climate and its production are a strong asset if only it can seize available opportunities, make rational use of its natural resources, especially water, overcome the obstacles limiting its competitiveness, and preserve the environment.

The main problems of the sector

There are two types of agriculture in Lebanon: commercial agriculture, generally efficient, modern, depending on adequate financial resources for investment and exploiting every profit possibility. This type of agriculture is practiced in around 35 thousand farming units and covers about 25% of total agricultural holdings. It is based on the integration of pre-production and post-production agricultural activities, and on openness to foreign markets. The second type is an agriculture mainly devoted to the preservation of cultural and family heritage. It is practiced in smallholdings with no investment or profit opportunities, and considered as extra income and as subsistence agriculture. Most rural farmers practice this type of agriculture.

It is therefore important to distinguish between means intended to support the rural community, and those destined for the economic activation of the agricultural sector, and which target farms able to respond effectively.

As for agricultural markets, they are unstable and have an adverse effect on farmers' income due to the weakness and lack of transparency of marketing operations. This is also

due to the marketing policies of operators in the agribusiness which are not usually in the farmer's interest. Therefore, structures for three types of markets should be established: (1) the local market for fresh produce, (2) a market for products intended for processing, (3) a market for fresh agricultural produce and processed products intended for export.

Agricultural and rural cooperative movement is characterized by a lack of transparency and a disparate application of laws, and is thus far from the desired goals of collaborative work.

The agricultural sector also lacks the state's active role in keeping pace with technical developments in the fields of agricultural research, training and extension. The state failed to activate its role and coordinate between administrations concerned with the agricultural sector. Moreover, the technical and marketing information related to agriculture is insufficient, despite some achievements in the context of the comprehensive agricultural census, and despite the support provided by the national program of agricultural export support, "Export Plus", launched by IDAL.

Furthermore, the growing demand on water in the upcoming years will require: (1) providing additional sources by building water storage dams, lakes and facilities, (2) rehabilitating and modernizing surface water and groundwater facilities, (3) regulating water use in order to make it more efficient, by adhering to a suitable legal framework.

The Israeli war of July 2006 had a very negative impact on the

Lebanese economy in general, including the agricultural sector which, in addition to its original problem of lack of outlets, incurred heavy losses that exhausted those working in it and increased Lebanese farmers' frustration. To face all these challenges, it was imperative to assess damages, make a quick contingency plan and provide the necessary funding for it, simultaneously with the initial plan intended for this sector.

A Vision for the Future

The growing water demand will require setting an integrated development plan for using available water resources by rehabilitating existing facilities, finding additional water sources and building dams and lakes, and by rationalizing water use and management, including maintenance and operating. The implementation of irrigation projects will increase the area of irrigated lands between 36 and 50 thousand hectares in the next thirty years, which will result in an increased agricultural production and improve farmers' income, provided that the agricultural produce has the competitiveness related to production and marketing factors, namely: selecting processed agricultural products with value-added features, ensuring continuous market supply of quality products, in sufficient quantities and in the required times, and examining the development of exploitable farming units.

In view of the leading role of technical, statistical and marketing data in the field of agricultural development, administrative facilities and professional organizations are expected to attach

great importance to the creation of an information system that allows all those working in the sector, farmers in particular, to get the information they need, whenever they need it.

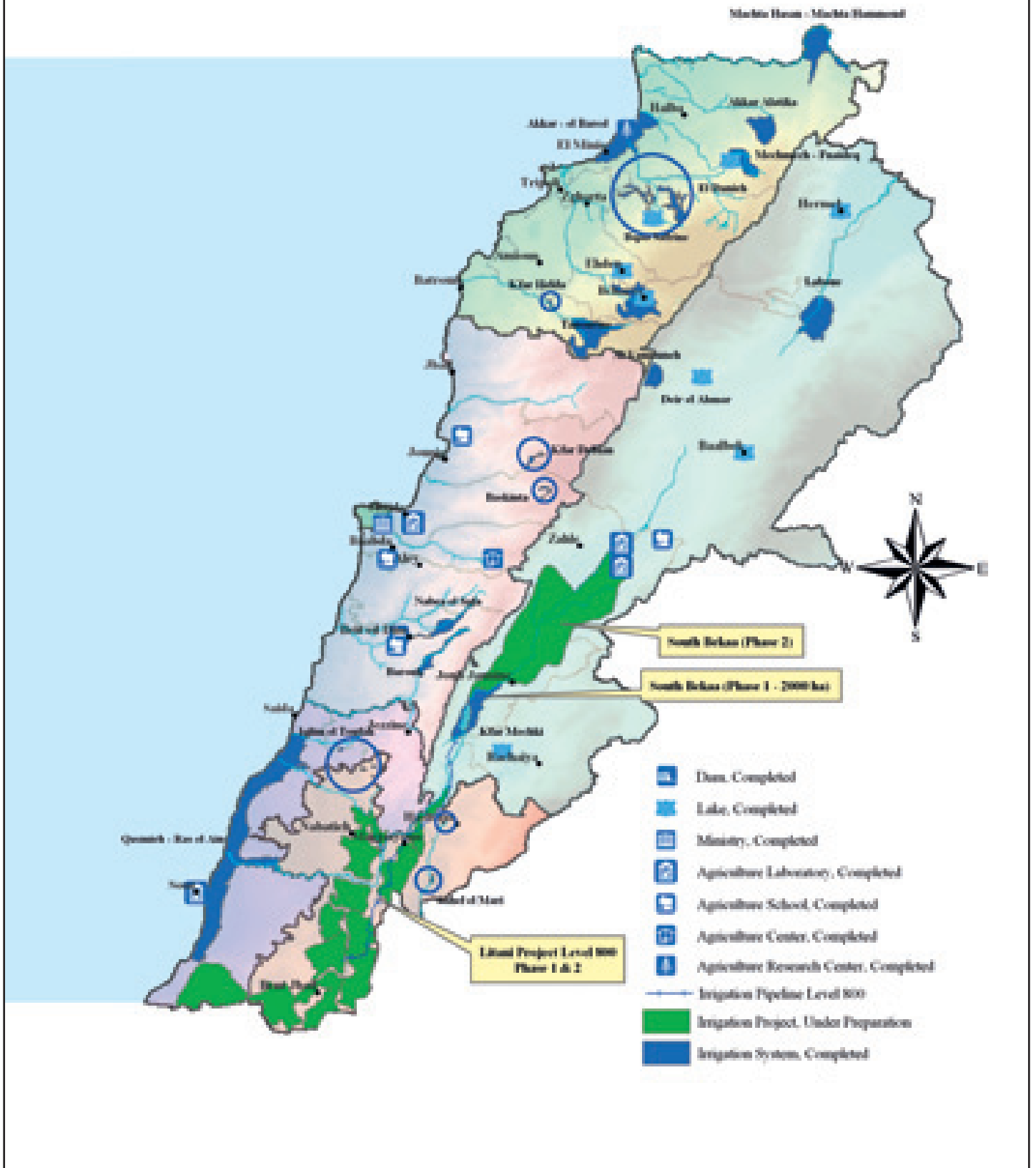
The future role of the state is to develop strategies and action plans. It will also have a legislative, follow up and control role, in consultation with private sector representatives. In this context, the agricultural strategy focused on the main sectors with development potential (such as olives, grapes, certified seeds, flowers and organic agriculture), and on projects involving the modernization of production and exports chains. It also focused on developing laws regulating the exploitation of agricultural lands, quality assurance and quality control, as well as laws on the work of agricultural and marketing organizations.

Rural development has become a necessity for balanced development. It is based on the establishment of integrated anti-poverty programs taking into consideration the particularities of rural areas, and involving the development of social sectors and the provision of minimum living allowances and job opportunities. The implementation of an integrated plan related to the preservation of environment and natural resources, and the coordination and integration with concerned parties, as well as the adoption of the principle of partnership with local communities, are therefore required.

2 - Main achievements (1992 - 2008)

CDR adopted the implementation of the agricultural projects it has been preparing over the past years

Agriculture & Irrigation Completed, Ongoing & Under Preparation Projects



within the scope of sectoral development programs such as the National Emergency Rehabilitation Plan (NERP) and in collaboration with the concerned ministries.

Before setting the agricultural strategy, CDR undertook the implementation of urgent projects that would contribute to the development of the infrastructure of agriculture and irrigation, in particular the rehabilitation of agricultural schools (Fanar, Ghazir, Abdeh, Baaqleen, Nasriyet Rizk and the Kfarshima silk factory) through a grant provided by the Saudi Fund for Development (SFD).

Moreover, a loan from the International Fund for Agricultural Development (IFAD) financed the implementation of projects aiming at strengthening the Ministry of Agriculture's (MoA) capacities and institutions (the Green Plan and the Lebanese Agricultural Research Institute) through contracts for the supply of vehicles and necessary equipment and instruments, and contracts for the rehabilitation of agricultural extension centers in Sour and Abdeh, and the rehabilitation and equipment of laboratories and greenhouses for research institutes in Sour, Fanar and Tal Amara. Technical assistance, studies, training and maintenance necessary for these institutions were provided through consultancy services contracts.

The IFAD loan also allowed the construction of small hill lakes in locations specified by the Green Plan in Becharre, Mechmech, Bkaasfreen, Bkoufa, Hermel, Deir el Ahmar and Kfarmishki, and the provision of agricultural extension services in all areas of irrigated

agriculture, through the implementation of consultancy contracts with NGO's.

In view of MoA's need for technical assistance in conducting sectoral studies and agricultural censuses, the financing and implementation of the agricultural planning assistance project was provided through CDR by a grant from the European Union which resulted in setting the elements of the agricultural policy and its master plan, in coordination with the agricultural census technical assistance project implemented by CDR through a contract with FAO partially financed by the World Bank's loan destined for this project. The result was setting the agricultural strategy and MoA's agenda for five years (2005 – 2009). Concerning irrigation, around 27 thousand hectares of agricultural lands were rehabilitated through the World Bank's loan intended for the rehabilitation of irrigation projects in Qasmiyeh (3600 ha), western Bekaa (2000 ha), Yammouneh (4500 ha), Diniyeh (4400 ha), Akkar el Bared (1500 ha) in addition to medium and small projects in the North and Mount Lebanon (7500 ha) and in the South (3200 ha). This loan also served for financing contracts for the institutional support of the Ministry of Hydraulic and Electric Resources (MHER) and the Litani River Authority (ONL), and for the provision of vehicles, equipment, instruments, consultancy contracts, training and studies that facilitated the implementation of these projects. A part of the consultant's mission pertaining to the Litani Water - South Lebanon Conveyer water project which will supply irrigation and potable water (Canal

800) – Phase I, was implemented.

In addition to the above, CDR has contributed to the provision of external funding for the implementation of the Agricultural Infrastructure Rehabilitation project in favor of the Green Plan/MoA, which includes land reclamation, agricultural roads and support walls. It also contributed to the provision of local funding, from its own budget, for the project of rehabilitation of livestock production for smallholders in Bekaa. CDR also participated, through coordination committees, in the implementation of agricultural support projects provided in the framework of the Italian/Lebanese Protocol (1997) and (1998 – 2000) signed with the CDR, of which a part was allocated to the Baalback- Hermel agriculture development project and to the certified plant production project.

3 - Work progress in contracts awarded before 2008

The consultancy contract with the combined group Lahmeyer Int.GmbH/JBJGauff/ingenieur/D.A.H "Shair & Partners" ended in favor of CDR after 66 months of work, during which the advisory group completed the executive studies of all the contracts related to the Litani Water - South Lebanon Conveyer water project which will supply irrigation and potable water (Canal 800) – Phase I. The advisory group also provided technical assistance for awarding the works contract. Its remaining function is providing technical assistance for the awarding of the automatic control contract which will take place after the start of the project's execution, and supervising works implementation which was delayed due to an

increase in the project's implementation cost after the tender, compared to the initial cost estimated when studying the project. There is hence a need to modify the consultant's functions in light of the measures that will be adopted for the implementation of the project.

In the framework of the above project, institutional support was provided to the Litani River Authority by extending the consultancy services and technical assistance contract until the end of 2008.

Several consultancy contracts were also signed with NGO's for the provision of agricultural extension services, as well as contracts covering the construction of hill lakes, most of which were implemented, and CDR is trying to overcome the obstacles impeding their delivery.

4 - The main contracts signed in 2008

The major part of external funding intended for the agricultural sector after the war of July 2006 was allocated to the Lebanese Recovery Fund (LRF) set up after the Stockholm Conference to provide assistance for sectors damaged by the Israeli war.

Donor countries contributed by the provision of grants that were

implemented through LRF or MoA or directly, with the support of the United Nations Development Program (UNDP) or the Food and Agriculture Organization (FAO) or local associations.

5 - The main projects under preparation (2009 – 2011)

The "HASAD" (harvest) project is being prepared. It covers the construction of agricultural development hill lakes that will serve as an additional irrigation source in summer in poor rural regions suffering from water shortage. CDR procured funding through a loan by IFAD, and it is working on providing additional external funding through a loan by OPEC. The above project will be implemented through the Green Plan.

In coordination with MoA, the implementation of three projects, financed in the form of grants provided by the Italian government for helping the agricultural sector, is being prepared. The three projects are: the establishment of a National Observatory in MoA in order to provide agricultural information to be used for developing agricultural plans and programs; a project for providing economic and social support for olive producers in poor regions, and a project for supporting and developing the Wholesale Vegetables and Fruits

Markets, to be performed through the Bari Italian foundation.

CDR is currently preparing a project for "supporting local development in northern Lebanon", to be financed by a special grant from the European Union. A schedule will be set for the implementation of urgent projects concerning the rehabilitation of water facilities (including irrigation), the provision of technical assistance for local communities in the fields of administrative strengthening, water management and agricultural extension, and the contribution to the preparatory study for the establishment of a national natural reserve in Akkar.

The tender related to the execution of the Litani Water - South Lebanon Conveyer water project for the supply of irrigation and potable water (Canal 800) – Phase 1 which aims at providing 90 million cubic meters/year by gravity for the irrigation of some 13 thousand hectares, between the 800 and 400 levels of the lake Qaraoun, in addition to providing 20 million cubic meters/year of drinking water – is being reconsidered. The project will be financed through two available loans, the first provided by the Arab Fund for Economic and Social Development (AFESD) and the second by The Kuwait Fund for Arab Economic Development (KFAED).

Main projects under preparation (2009 – 2011)

Project	Estimated value (US\$)	Source of Funding	Starting	Expected completion
supporting local development in northern Lebanon	25 million	European Community (grant)	October 2009	October 2014
Litani Water - South Lebanon Conveyer water project	240 million	- AFESD - KFAED	September 2010	September 2014