

A large, light blue arc frames the central text. On the left side of the arc, there is a stylized blue leaf. On the right side, there is a cluster of overlapping blue leaves of various shades.

# **FAO Achievements in Lebanon**

## **1976 - 2011**

**FAO Representation in Lebanon**

**July 2011**





# **FAO Achievements in Lebanon**

## **1976 - 2011**

**FAO Representation in Lebanon**  
**July 2011**

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views of FAO.

ISBN 978-92-5-106944-8

All rights reserved. FAO encourages reproduction and dissemination of material in this information product. Non-commercial uses will be authorized free of charge, upon request. Reproduction for resale or other commercial purposes, including educational purposes, may incur fees. Applications for permission to reproduce or disseminate FAO copyright materials, and all queries concerning rights and licences, should be addressed by e-mail to [copyright@fao.org](mailto:copyright@fao.org) or to the Chief, Publishing Policy and Support Branch, Office of Knowledge Exchange, Research and Extension, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy.

## Table of Contents

	page
List of Acronyms	1
A. Introduction	2
B. Summary of FAO Projects and Interventions in Lebanon	4
a. Telefood Projects	6
b. TCP Projects	6
c. National Projects Funded from Extra-budgetary Funds	6
d. Regional Projects	7
C. Major Activities and Field Projects	8
C.1 Narrative on Activities/Achievements/Impact	8
C.2 List of Projects or a Few Examples of Most Representative activities	8
C.2.1 Information and Statistics	9
C.2.2 Animal Production	12
C.2.3 Forestry	17
C.2.4 Crop Production	22
C.2.5 Food and Nutrition	29
D. Success Stories	30
Wrap-up of Some Success Stories	32



## Abbreviations and Acronyms

AFDC	Association for Forest Development and Conservation
ARD	Animal Resources Directorate at the Ministry of Agriculture
AUB	American University of Beirut
GCP	Government Cooperative Programmes
GDP	Gross Domestic Product
GF-TADs	Global Framework for Progressive Control of Transboundary Animal Diseases
GIS	Geographical Information Systems
GMOs	Genetically Modified Organisms
GOL	Government of Lebanon
HPAI/H5N1	Highly Pathogenic Avian Influenza
IPM	Integrated Pest Management
LRF	Lebanese Recovery Fund
MOA	Ministry of Agriculture
MOU	Memorandum of Understanding
NECP	Near East Cooperation Programme
NBC	Nahr El-Bared (Region of North Lebanon )
NU	United Nations
OIE	Office International des Epizooties
OSRO	Acronym for FAO's emergency extra-budgetary projects
OWL	Other Wood Land
RAHC/ECTAD	Regional Animal Health Center
TCES	Special Emergency Programme Service
TCP	Technical Cooperation Programme
TDF	Telefood
TOF	Trees Outside Forest
ULV	Ultra Low Volume
UN	United Nations
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
UE	European Union
UNRWA	United Nations Office for the Relief of Palestinian Refugees Workers
UTF	Unilateral Trust Funds



## A. Introduction

- FAO implemented projects in Lebanon since 1960, mainly through UNDP projects till 1993.
- An MOU was signed with the GOL on February 7, 1977 to open an FAO representation office in Lebanon. It was signed by the Lebanese Minister for Foreign Affairs, Mr. Fouad Boutros and the FAO Director General, Mr. Edouard Saouma. It became effective June 14, 1977.
- In 1977, after the war of “two years”, most of the International Agencies were leaving or considering leaving the country. FAO was the only International Organization that remained in the country for the whole period of the civil war. The office and staff of the FAO were suffering similarly to all Lebanese, electricity cut, bad communication facilities, hazards of moving and displacement.
- The office was moved from Beirut to a safer place in the suburbs, Baabda, in 1979. FAO played a crucial role during the civil war. The interventions were on the institutional level and on the humanitarian level, without neglecting the technical assistance projects whenever the security situation in Lebanon allowed.
- During a certain period, the FAO premises in Baabda had to host other UN Agencies.
- During the end of the eighties, the Office had to deal simultaneously with two governments.
- A booklet on FAO/Lebanon 40 years of cooperation was produced in 1985.
- In May 2000, the FAO Regional Conference was held in Lebanon.
- In 2003, Cyprus stopped to be covered by the office except for some minor financial transactions.



- In 2005, a report on the FAO/Lebanon 60 years of cooperation was prepared.
- After the July 2006 hostilities, FAO shifted to a programme focusing mainly on emergency assistance and then from 2009 and onwards, the programme concentrated more and more on supporting the Lebanese Government in its rebuilding and development of the Agricultural sector.
- A Regional Animal Health Center for the Middle East region, based in Beirut was established (June 2007 – June 2010).
- In 2008, the Lebanese Government achieved the construction of Chabrouh Dam based on FAO's study made in 1977 (within project LEB/77030/).
- Some FAO projects in the area of sectoral studies and policies as well as data collection remain as reference even after several years such as LEB/79013/; NECP/LEB/001/SAU; UTF/LEB/016; TCP/LEB/2903; ..).
- Till today, FAO implemented 75 national TCP projects, 39 Telefood projects, 41 UNDP national projects, 18 national Trust Fund national projects (UTF/GCP), 10 emergency projects and participated in 41 regional projects. The total budget of the national projects amounts to US\$ 25,031,284 (attached completed list).



## B. Summary of FAO Projects and Interventions in Lebanon

On February 7, 1977 an MOU was signed with the GOL to open an FAO representation office in Lebanon. It became effective on June 14, 1977. FAO representation in Beirut was accredited to Lebanon as well as to Cyprus (till 2003).



In 1977, after the war of “two years”, most of the International Agencies were leaving or considering leaving the country. FAO was the only International Organization that remained in the country for the whole period of the civil war. The office and staff of the FAO were suffering similarly to all Lebanese, electricity cut, bad communication facilities, hazards of moving and displacement. The office was moved from Beirut to a safer place in the suburbs, Baabda, in 1979.

FAO played a crucial role during the civil war. The interventions were on the institutional level and on the humanitarian level, without neglecting the technical assistance projects whenever the security situation in Lebanon allowed.

During the events and the war in the Lebanon years, FAO has been the sole specialized agency maintaining its technical activities in Lebanon, in spite of the difficulties of any order; all other organizations or assistances bi or multi-lateral, gradually modified their assistance in humanitarian aid.

Lebanon is a small nation, with an area not exceeding 10,452 Square meter, located east the Mediterranean sea. Despite its size, the country is enjoying many geographic, climatic, demographic, socio-economic and political characteristics that gives the country a kind of “uniqueness”.



The geographic and climatic diversification of the country, coupled with its richness in water resources, amplified the agricultural potentials of the country.

Within this macro-economic context, the agricultural sector being the most vulnerable to economic shocks, was almost absent from the government agenda and started deteriorating, both in terms of contribution to national income, as well as in terms of its share of financing.

The agricultural sector in Lebanon, though contributing only by 7 percent of GDP, is a very important sector for the livelihood of the poor, who constitute a considerable segment of the population. Plant production is characterized by the predominance of tree-fruit, olive, farming and gardening. Animal production represents 22% of agricultural production. Lebanese agriculture faces a set of constraints related to the availability of factors of production, the high cost production, organization of markets and the actors and the weakness of the means of the concerned public institutions. However, despite the huge efforts exerted, by national and international partners, to solve these problems, the lack of coordination mechanism among the different concerned parties and the absence of a unified and complete vision of the sector's prospects are considered as a limiting factor to achieve a viable and sustainable solution.

FAO cooperation mainly focused on agricultural and animal production and the forestry sector. Assistance aimed mainly to strengthen institutional capacity and develop production.

During the period 1960-2011, FAO implemented around 183 national projects and participated in 41 regional projects. These projects took into consideration the priorities of Lebanon, while respecting the FAO mandate and scope of interventions. In previous years, the FAO programme was run almost exclusively with the Ministry of Agriculture. Recently, the Ministry of the Environment and the Ministry of Energy and Water have benefited from several national and regional projects. TCP executed since the year 2000 are of different categories: Advisory Services, emergency, training and investment.



## a. Telefood Projects

Since its start-up, Lebanon has so far received 39 Telefood projects totaling 327,830 EU\$. It was mostly allocated for micro-interventions on community level with a wide variety of disciplines. The areas covered by these projects were: crop production, fruit trees, nursery, poultry, sheep and goat rearing food processing, beekeeping, trout production and farm gardens and poultry in schools.

## b. TCP Projects

There are 75 national projects under this category with a total sum of 8,365,384 US\$ and 15 regional TCP projects.

## c. National Projects Funded from Extra-budgetary Funds

They were usually large national scale projects (41 UNDP projects and 28 projects Trust fund (UTF/GCP and emergency projects (Annex I). They are funded by extra budgetary resources such as UNDP for a total of 41 projects with a budget of USD 15,847,280, 6 Unilateral Trust Funds (UTF) with a total budget of USD 3,499,229 US\$, and in the case of multilateral trust funds that are called Near East Cooperation Programme (NECP) or Government Cooperative Programmes (GCP) for a total of 4 projects and an amount of USD 5,381,550 wa budgeted.

Rehabilitation, development, education are common in the titles of these projects. They contribute to the policy and planning formulation on sectoral and institutional levels as well they contain considerable emergency aids (OSRO) which amounted to a total 18 projects and a budget of 16,150,565 US\$.

FAO projects in Lebanon were funded by several major donors; UNDP, FAO (Technical Cooperation Programme), Italy, Austria and Kingdom of Saudi Arabia. Prior to 1994, FAO and UNDP were almost the only donors for the projects implemented by FAO. Regional projects involving Lebanon are funded by Italy, France, Bahrain, Japan, EU and multilateral funds.



## d. Regional Projects

Since 1976, 42 regional projects were launched (from which 16 TCP projects). The areas covered by regional projects included animal health projects, fishery and aquaculture projects, plant protection projects, forestry projects, in trade development and others such as apiculture, wild species conservation, agriculture development, extension, genetics, IPM, poultry, quarantine, GMOs, invasive plants, water scarcity and resource management disciplines. The budgets of regional projects were allocated to several benefiting countries. It is not applicable to mention them since it is hard to estimate the net share of Lebanon out of the total budget.



## C. Major Activities and Field Projects

### C.1 Narrative on Activities/Achievements/Impact

FAO intervenes at several levels:

- at the public level:
  - boosting the agricultural sector through the reinforcement of the Ministry of Agriculture and other concerned institutions
  - by motivating donors and governments to fund projects within the framework of the national policy and strategy in Lebanon or within the institutional mechanisms developed within FAO's projects in Lebanon
  - ensuring the necessary institutional infrastructure's elements and basic requirements to enable these institutions to work and fulfill their responsibilities
- at the private sector level: by its role as interlocutor for companies and private companies which refer to FAO for all studies/publications or advice
- at the level of the farmer: through the FAO projects that ensure applied experimentation, the dissemination of results, analyses (soils, water, disease, leaf, animal pathology,...) the advice and the supply of vaccines, plants,...

### C. 2 List of Projects or a Few Examples of Most Representative Activities

In accordance with the Organization's mandate, the FAO Representative in Lebanon has always sought to promote the harmonious and sustainable development of the agricultural sector. However, the scope of interventions of FAO in Lebanon has been expanded to cover in priority assistance for the reconstruction of the agricultural sector till few years ago. The tendency now is heading more the development and reshaping of the agricultural sector.

A list of all projects implemented by FAO since its start in Lebanon is attached for your information. Some of the projects, closed or ongoing, are detailed hereafter for your information and consideration. The selected projects are



national ones grouped by category of intervention without any distinction between the kind of programmes or the source of funding, as follows

### C.2.1 Information and Statistics

Reliable information and statistics for decision-making is a core issue in the mandate of FAO. Scarcity of data and statistics pertaining to the agricultural sector was a gap for decision-makers and researchers. The importance of data and statistics is crucial on the institutional level both public and private, education centers, NGOs, companies and individuals. It is the platform for planning, formulation, coordination, monitoring and reviewing of policies and activities for sustainable agricultural development.

FAO formulated 3 projects to cover this vital gap, with a total budget of 2,550,000 US\$. TCP/LEB/8924 and TCP/LEB/2801 under the title “Building Capacity for Enhanced Spatial Data Management” phase I and II; UTF/LEB/016/LEB “Assistance to the Agricultural Census” and GCP /LEB/020/ITA “Lebanese National Observatory for Agricultural Development”.

*a - Building Capacity for Enhanced Spatial Data Management –TCP 8924 & 2801 (1999) – US\$ 234,000 and US\$ 91,000 respectively*

**Background:** The agricultural land and associated ecosystems relapse are due to human interventions and civil war that were aggravated by the demographic changes and inheritance laws. The scientific approach of terrestrial ecosystem management is a prerequisite for sustainable development. TCP/LEB/8924 and TCP/LEB/2901 were formulated to initiate the rectifying process.

**Objectives:** The objective was to assist the GOL to fully recognize the changes taking place in land resources as part of agriculture development and planning.

**Outputs:** The main output was the creation of a Geographic Information System (GIS). Land resources, geology, hydrology, topography, administrative units, infrastructure and agricultural production were found included in the



form of shapefiles and grids. The most important data sets for agriculture and rural development were land cover and land use map. The Agricultural Atlas has been developed that contained thematic maps, statistical maps based on the data of the agricultural census of 1998.

### *Implementing Department:*

The Directorate of Coordination and Studies at the Ministry of Agriculture.

### *b - Assistance to the Agricultural census UTF/LEB/016/LEB (1998) – US\$ 2,134,206*

**Background:** The lack of official and reliable statistics especially in the agricultural sector has been always the aspiration of researchers and interested bodies. This issue gained more importance and became fundamental during the reconstruction phase of the country for both public and private sector. Plans and policies cannot be developed and decisions cannot be taken unless data and statistics are found.

**Objectives:** To provide a reliable and accurate data and statistics sources within the Ministry of Agriculture and made them public for the use of stakeholders.

**Outputs:** The Agricultural census, which started in 1998 provided lots of useful data sets to be included in the Atlas. Exhaustive data and statistics on plant and animal production by crop and species were incorporated. The statistical component contained plant production and animal production data and statistics. From November 2004 until April 2005, FAO and the Ministry of Agriculture widened the scope of the census by exploring the current situation of Aromatic and Medicinal Plants in Lebanon. Species were identified along with the cost of production, yield, content of active ingredients, market review.

But, the main outputs of this project would remain the agricultural census, the establishment of the homogeneous zones for Lebanon, the review of food chains profiles and the National Strategy for Agricultural development.



**Implementing Department:**

The Directorate of Coordination and Studies at the Ministry of Agriculture.

c) *GCP/LEB/020/ITA: « Lebanese National Observatory for Agricultural Development» (2009) – US\$ 1,545,700*

**Background:** Develop adequate synergies for private and professional initiatives allowing a better active participation and concrete dialogue and coordination between all actors involved in the agricultural sector.

**Objectives:** The Observatory will help contributing to the increase of the capacity of absorption of the agricultural sector by establishing a managed and updated data base and a rational capacity of methodological appraisal for the preparation and follow-up of the agricultural sector's policies, programs and projects.

**Outputs:** Furthermore, the catalyst role expected from the Observatory aims to fill the gap caused by the inertia and the weak reactivity of the administrative institutions to globalization imperatives' challenges and to sustainable development. In this context, the funding of the Italian Cooperation and the FAO technical assistance, based on their respective experiences in agricultural and rural projects will help realize through this partnership 4 major outputs:

- 1 - The observatory legal aspects and management structure are established;
- 2 - A data base unit for the production and management of agricultural statistics data is maintained, strengthened and operational;
- 3 - A support unit which will contribute to the studies related to the agricultural and rural policy and strategy of the MOA is operational;
- 4 - Dialogue, internal and external partnership is promoted.

**Implementing Department:**

The Directorate of Coordination and Studies at the Ministry of Agriculture.



## C.2.2 Animal Production

With the increasing importance of animal production in Lebanon especially with the presence of a big gap with the consumption, the annual import of animals and animal byproducts is around 85% of the national consumption. Within this context there were recently 3 projects under the animal production sector besides the establishment of the Regional Animal Health Center (RAHC/ECTAD). The TCP/LEB/0068 titled "Introduction of techniques for the valorization of by-products in the agro-industry as animal nutrition in the Bekaa Valley"; TCP/LEB/3102 "Strengthening emergency preparedness for avian influenza and other epizootic diseases"; OSRO/LEB/702/UNJ "Early Recovery Assistance to War-affected, Resource-poor livestock Keepers in Southern Lebanon" and OSRO/LEB/901/UNJ 'Recovery and Rehabilitation of Dairy Sector in Bekaa Valley and Hermel-Akkar Uplands'.

*a - Introduction of techniques for the valorization of by-products in the agro-industry as animal nutrition in the Bekaa Valley' - TCP/LEB/0068 (2001) – US\$ 206,000*

**Background:** The supply of forage crops in Lebanon compared to the demand is scarce or expensive. Animal production and especially milk relies on good rations and feeding practices. The practices of dairy farmers led to minimize their profits and sacrificing the general health conditions of their herds.

### Objectives:

- The evaluation of food industry waste products in Bekaa.
- The uses of local supplies of animal feed
- To increase in production along with the decrease
- To introduce of new animal nutrition techniques.
- To training of farmers and local technicians.

**Outputs:** The main outputs were:

- A decrease in price was noticed due to the increase in supply and because animal producers started their own forage production.
- Silage of ray grass raised the milk production decreased digestion problems and diseases and made some savings in feed concentrate.



- Farmers' better understanding animal nutrition and ration preparation
- The success of this project had an echo in Akkar, North Lebanon, but this time using olive waste products that are abundant in the area.

### *Implementing Department:*

The Lebanese Agricultural Research Institute – Tal Amara Station.

### *b - "Strengthening emergency preparedness for avian influenza and other epizootic diseases" - TCP/LEB/3102 (2008) – US\$ 212,000*

**Background:** Since livestock and their products have become a matter of great importance to Lebanon, it is becoming increasingly more important to combat the OIE reportable disease list. Animal disease outbreaks spread rapidly resulting in serious problems for farmers and adversely affect the socio-economic situation. Increasingly, diseases are of direct concern to human health as currently is the case with HPAI; indeed in this case the potential to generate a human pandemic is of global concern. The presence of these diseases is a serious constraint to the brokerage of livestock to other countries in the region which is a business enterprise of considerable potential.

**Objectives:** The Animal Resources Directorate (ARD) of Government wanted to:

- (1) Strengthen its ability to recognize at an early stage the occurrence of epidemiologically significant disease events, especially at present HPAI.
- (2) Undertake risk assessment studies of high-risk trade-associated pathogens
- (3) To facilitate the development of control strategies in the form of animal disease contingency plans and the testing of emergency preparedness through real-time alert exercises.
- (4) Specifically to conduct Rinderpest serosurveillance to enable OIE accreditation of Rinderpest freedom and HPAI diagnosis with serosurveillance to monitor status.

In order to achieve this ARD wishes to benefit from technical and other assistance to develop capacity which is beyond its ability to finance directly.



**Outputs:** The program impact was the reinforcement the capacity of the ARD to detect, investigate, document data, analyze findings, report them and use the disease intelligence generated to strengthen both emergency preparedness and disease control through these achieved results:

1. ARD teams capacity building was implemented
2. The census of the livestock & poultry was upgraded and the biosecurity measures data was documented.
3. Accurate data on the actual situation of the mentioned diseases spread in the country lead to a better implementation of control and emergency preparedness plans.
4. The Fanar laboratory was rehabilitated & the enhanced diagnostic/ surveillance capacity was strengthened in accordance of the national preparedness plans and specific epidemiological studies of the major diseases.
5. (Also, a functional, computerized national animal disease surveillance system (NADSS) comprising a reporting system, investigational capability, increased national capacity and preparedness was built.
6. An awareness program was launched all over the Lebanese territories on the biosecurity measures in poultry farms, HPAI H5N1 prevention & control, & other animal diseases.
7. In addition, the submission to OIE of a dossier in support of an application for recognition of Rinderpest infection freedom was established before the launching of this project, & during this project we got the certificate of freedom.

### **Implementing Department:**

The Directorate of Animal Resources at the Ministry of Agriculture.

*c - Early Recovery Assistance to War-affected, Resource-poor livestock Keepers in Southern Lebanon - OSRO/LEB/702/ UNJ (2007) – US\$ 1,900,163*

**Background:** Between 12 July and 14 August 2006, large-scale hostilities broke out in southern Lebanon. The major damage was caused as a result of the impossible access to the fields during the 33 days of bombing as farmers fled their villages and left the crops unattended. The interruption in the care of crops was responsible for a large portion of the income/production losses.



**Objectives:** The development goal of the project is to improve the food security, nutritional and economic status of low-income rural families by initiating comprehensive recovery measures to support the war-affected livestock smallholders, mainly by restocking and distribution of animals (cattle, goats, draft animal power and beehives). The immediate objectives are improvement of the lives and livelihoods of 715 war-affected livestock owners with special emphasis on women-headed households, through restocking of animals.

**Outputs:**

- Provision of 202 pregnant imported heifers to one beneficiary each
- Distribution of 190 tons Alfalfa pellets for cattle beneficiaries and distribution of 200 tons feed concentrate for cattle beneficiaries
- Distribution of 99 imported Shami bucks for upgrading local Baladi goats (30 farmers received only Shami bucks and 69 farmers received Baladi goats and Shami bucks)
- Provision of 1,500 local Baladi goats with their kids (1,500 kids) distributed to 250 farmers (6 female Baladi goats and 6 kids/farmer)
- Training provided to participating farmers on appropriate husbandry techniques and related issues also booklets and posters related to the most important topics faced by dairy farmers were distributed to the beneficiaries.

In total, 482 farmers in 50 villages south of the Litani River have been reached by the project.

**Implementing Department:**

The Directorate of Coordination and Studies and the Directorate of Animal Resources at the Ministry of Agriculture.

*d - Recovery and Rehabilitation of Dairy Sector in Bekâa Valley and Hermel-Akkar Uplands OSRO/LEB/901/UNJ (2009) – US\$ 2,509,863*

**Background:** The dairy sector in Lebanon is currently facing serious setbacks and the country is strongly dependant on imports of more than 80 percent of its dairy products. Dairy cows are concentrated in Bekâa Valley and North Akkar,



which are considered as Lebanon's dairy basin, ensuring the main local dairy supply for the country. The last conflict (August 2006) had a negative impact and hardship on the livestock sub-sector in Lebanon. The number of dairy cows across Lebanon has decreased dramatically following the high death toll of livestock during the 2006 war and its aftermath and the continuously increasing number of dairy farms shutting down.

**Objectives:** The proposed project is also aiming to provide alternative income-generating activities to the poorest farmers with the highest level of socio-economic deprivation in Hermel-Akkar highlands in order to reduce their dependence on illicit crops.

**Outputs:** The main outputs for this project are:

- Through this project many households independently improved their income and employment opportunities
- Improved dairy production and increase increased milk production in the country with decreased reliance on imports as well as improved standards of food safety through the availability of better milk quality using appropriate cooling system and milk handling;
- Improved farm management skills acquired through a comprehensive training programme for 600 farmers.

### Implementing Department:

The Directorate of Animal Resources at the Ministry of Agriculture.



### e - Regional Animal Health Center - RAHC (OSRO/RAB/701/SWE)

This center aims at organizing and reinforcing regional capacities to manage risks due to animal pathology by setting up regional prevention, organization and evaluation structures that form the Regional Centers (RAHC).

This initiative was jointly launched by FAO and OIE through a signed agreement set up by the GF-TADs (Global Framework for Progressive Control of Transboundary Animal Diseases) and therefore allowed the establishment of a Regional Animal Health Center for the Middle East region, based in Beirut (June 2007). The Center aims at providing a framework for the coordination and harmonization of follow-up and control strategies regarding Avian Influenza and other Transboundary Animal Diseases in the region:

Its main objectives are:

- 1- Early detection and eradication of primary Avian Influenza outbreaks.
- 2- Elaboration of emergency measures on the national and regional level, as well as setting up Avian Influenza preparedness and response programs.
- 3- Surveillance and control of the Foot and Mouth Disease and other Transboundary Animal Diseases.
- 4- Setting up a signaling system and a launching operation for the fight against RinderPest in the countries of the region.

The activities of the RAHC were frozen end of June 2010 due to the lack of necessary funds.

### C.2.3 Forestry

Forests are considered as a major component of environmental stability, goal 7 of the Millennium Development Goal. Forests in Lebanon have been subject to continuous threats from different sources, severe cutting, fires, pests and illegal activities especially during the period of civil war in Lebanon. The severity of cut is proportional to the price of oil byproducts and to the severity of the economic situation prevailing. There was a lack of reliable and scientific forestry data. FAO assisted Lebanon in the forest sector by 3 interventions, project TCP/LEB/0169 "Protection of the forests with particular emphasis on the new pest *Cephalica tannourinensis* infesting Lebanon's Cedars"; TCP/LEB/2903 "National Forest and Tree Inventory and Assessment" and OSRO/LEB/703/UNJ "Integrated forest fires management – forest fires prevention, forest fires fighting (control) and damaged forests assessment and rehabilitation".



a - *“Protection of the forests with particular emphasis on the new pest *Cephalica tannourinensis* infesting Lebanon’s Cedars” - TCP/LEB/0169 (2001) – US\$ 150,000*

**Background:** Cedar trees in Tannourine – Lebanon has been severely infested by a new insect species, the web-spinning sawfly. There was a possibility for the spread to surrounding forests. Neighboring countries including Syria and Cyprus expressed concerns for the spread of the pest. *Cedrus libani* population in Lebanon are spread over 2200 Ha and considered to be a national symbol and it is found of the Lebanese flag. “Cedars of the God” in Bcharreh – North Lebanon have been registered in the world heritage convention.

**Objectives:** The objective of the project is to control the web-spinning sawfly infesting the cedars of Tannourine.

**Outputs:**

- Joint venture with the American University of Beirut (AUB) and the French “Institut National de la Recherche Agronomique” (INRA) to identify the new pest, identifying the its life cycle and its natural enemy complex for an immediate control and long term management.
- Collection of data on the pest and its damage to determine the necessary intervention. Consequently ULV spraying operation using a suitable insect growth regulator covered the infested area and a special team evaluated the condition by direct surveys before and after spraying.
- Laboratory back up was available to identify the pest.
- Various publications were issued and public awareness campaign included the provision of pamphlets along with articles in national newspapers.
- Since the project was ongoing for the sawfly, it was convenient to widen the survey to cover all pests and diseases threatening forests in Lebanon.
- Exchange of information about control methods of forest pests, aerial application and IPM through a study tour in France.
- The project succeeded and was nominated as a candidate to FAO SAOUMA award.



**Implementing Department:**

The Directorate of Natural Resources and Rural Development at the Ministry of Agriculture.

**b - National Forest and Tree Inventory and Assessment - TCP/LEB/2903 (2003) – US\$ 314,000**

**Background:** The project of National Forest and Tree Inventory Assessment came to cover the lack of facts and figures of the forestry sector in Lebanon. The pre-project existing information is inadequate to monitor and counteract forest depletion and environmental degradation.

**Objectives:** The project objective was to prepare a reliable and scientific baseline data to support a national policy plan by strengthening the capacity of MOA for compiling, analyzing and disseminating reliable and up-to-date information on forest and Trees outside Forest (TOF). The whole process would be done through training the national staff:

- To prepare a complete national forest inventory
- Define tree species
- Locate forests and explore their conditions and characteristics.

**Outputs:** The outputs of the project were defined as follows:

- Preparation and arrangements to the acquisition of equipment, recruitment of staff, production of manual fields and forms, working maps, geographic data, training sessions for the team, methodology adjustment and harmonizing vegetation classification system according to national requirements.
- Field work and measurements paralleled with interviews were conducted by field teams. A systematic grid was established in accordance with FAO approach to supporting National forest assessment. A forest information System was developed to receive data on the wood and non-wood-forest products and services according to FAO specifications.
- Processing, analyzing and interpretation of data collected. After the reinterpretation of the existing spatial data base (TCP/LEB/8924 and 2801) supported by the best geo-referenced information and a period of intensive validation a Derived Map of the forest and Trees outside Forests was completed.



- The project findings corrected figures mentioned in earlier studies. Both the Derived Forest Map and National Forest Assessment showed consistent figures. The forest area of Lebanon is around 13% and the Trees outside Forest percentage is around 11%. Forest types with approximate figures were coniferous 33%, broadleaved forest 55% and mixed forest 12%. The above ground standing volume of forest wood was in the vicinity of 35 cubic meters per Ha, 5 cubic meters for other wood lands and 3.7 cubic meters per Ha for other land. The total national biomass is found to be 3.52 million MT.
- Characteristics of forest and other wood land (OWL) proved that 85% of them are in disturbed by settlements and utilization. 60% of forests and 80% of OWL are privately owned. Fires are confined to coniferous stands with an evidence of fire covering around 14% of the total area.
- The project was a big success, because of the exceptional management of the project, no time extension and savings in budget, competence of the team, some of the joined FAO as forest experts outside Lebanon and the outstanding performance in reaching the objectives and deliverables.

### *Implementing Department:*

The Directorate of Natural Resources and Rural Development at the Ministry of Agriculture.



c - *“Integrated forest fires management – forest fires prevention, forest fires fighting (control) and damaged forests assessment and rehabilitation” – OSRO/LEB/703/UNJ (2008) – US\$ 2,609,965*



**Background:** During the 15 months (2006-2007), forested areas in Lebanon suffered from a major decline. More than 3000 ha (2.2% of total forests) were either burned or blocked for access by local people. Main causes for this loss were the multiple adverse impacts of the war of July 2006 compounded by the disastrous fires of October 2007.

**Objectives:** The project will comprise three main ways of intervention, one aiming at fire preventive measures, the second concentrating on fire fighting (control) and the third focusing on damaged forests assessment and rehabilitation.

**Outputs:** Supporting early recovery and alleviating poverty through improved forest fires management (prevention, control, assessment & rehabilitation) and their associated benefits to environment and rural communities.

Prevention:

- Establishment of a modern and efficient early warning system particularly in high risk ; Research/development, implementation and monitoring of an integrated forest management programme.

Control:

- Maintenance and supply of software and hardware tools for fire fighting.

Assessment & Rehabilitation:

- Assessment of ecological/socio-economic losses; Identification/implementation of best restoration techniques per affected area as well as implementation; Upgrading and follow up of the National Reforestation Programme, as one of the restoration techniques.

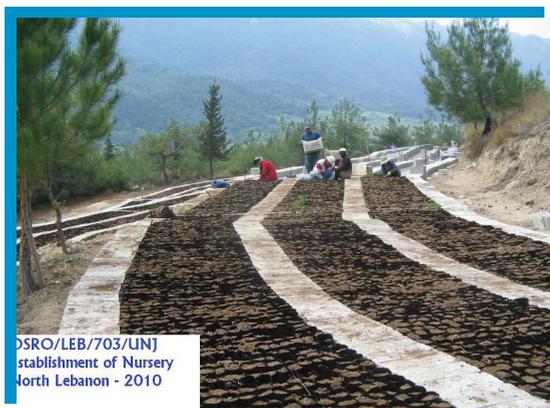
Cross-Cutting:

- Promotion of research and development related to forest fires prevention and fighting; Organization of a targeted public awareness campaign; Organization of a training programme for local municipalities, communities and stakeholders; Human resources mobilization at both the public and the private sectors and encouragement of civil society initiatives; Law development and enforcement.

**Implementing Department:**

The Ministry of Environment.





## C.2.4 Crop Production

There are 15 plant production projects with a budget of 5,423,020 US\$, covering mainly the food chains, greenhouse vegetable production and the establishment of nurseries.

*α- "Rehabilitation greenhouse vegetable production standards for safety & quality" Phase I and II. TCP/LEB/0067 (2001) and TCP/LEB/2906 (2003) – US\$ 197,000*

**Background :** The greenhouse production sector in Lebanon is traditional and did not benefit from latest technological developments compared to other countries in the region. Integrated production and protection is an imperative substitute to conventional production and protection where agro-chemicals are exclusively used and sometimes abused.

**Objectives:** The objectives of the projects were to:

- Convey the recent technologies and sound cultural practices in greenhouse production.
- Introduce new protection techniques based on IPM and to minimize the use of pesticides.
- Introduce and benefit from information technology in identifying crop varieties and marketing.
- Raise farmers' capacities in financial and technical management of greenhouse production.



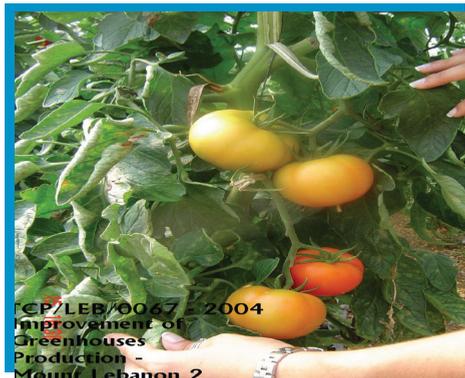
**Outputs:** FAO executed 2 projects TCP/LEB/0067 and TCP/LEB/2906 under the same title “Rehabilitation greenhouse vegetable production standards for safety & quality” and 2 phases. 4 international consultants and 2 national were involved in this project with a FAO contribution of 431,000 US\$ in the 2 phases. The project was composed of 4 components, technical, organizational, financial and dissemination of findings.

The technical component:

- Greenhouse structure: (Greenhouse assembly, Steel components, Plastic sheets stretching and fixation)
- Irrigation System (Components, Design Fundamentals, Operation)
- Cultural Practices (Beds preparation, Plant training, Harvesting)
- Integrated pest management (Soil solarization, Mulching, Plant grafting, Planting density, Pruning old leaves and suckers, Bumble bees for pollination. Ventilation and aeration, Double door entry to greenhouses , Use of nets and yellow sticky traps as insect barriers, Introduction of HORTIVAR)
- Organizational component (Establishment of a “Greenhouse Advisory Team” (GAT), Establishment of a “Farmers’ Association” )
- Marketing: (Identify exporters’ capacities, weaknesses and strengths)
- Financial (Cost benefit assessment, NPV and IRR calculation)
- Dissemination (Technical booklet, brochures and IPP cards)

### Implementing Department

The Directorate of Coordination and Studies and the Directorate of Plant Resources at the Ministry of Agriculture.



## *b - Early Recovery Assistance for the Agriculture Small-holder OSRO/LEB/701/UNJ (2007) – US\$ 1,370,893*

**Background:** Between 12 July and 14 August 2006, large-scale hostilities broke out in southern Lebanon. The major damage was caused as a result of the impossible access to the fields during the 33 days of bombing as farmers fled their villages and left the crops unattended. The interruption in the care of crops was responsible for a large portion of the income/production losses.

**Objectives:** The key immediate objective of the project is to provide support to the lives and livelihoods of 1,600 resource-poor and vulnerable horticulture farmers – with critical crop harvest losses – in south Lebanon”.

**Outputs:** The project is designed to provide assistance to vulnerable horticulture farmers in the governorates of the South and Nabatiyeh who have sustained significant losses related to war-conflict.

- Small-scale farmers enabled to resume crop production activities, and technical improvement of the production systems through the
  - installation of 50 greenhouses and Upgrading of 40 greenhouses . 90 greenhouse beneficiaries of the project were trained on planting density, the use of mulching, plant hooks and sticky traps;
  - establishment of 4 plant nurseries and training to staff of the 4 nurseries established on plantlet production and nursery
  - high quality vegetable seeds (cucumber, melon, squash, snake melon, okra and bean) distributed to 1,752 open field farmers in 77 villages.
- Water- and fertilizer use efficiency improved through rational use of water using localized/adapted drip irrigation systems through the:
  - distribution of fertilizers, including organic fertilizer and peat to enrich the soil with nutrients for improved crop production, quality and increase yield and distribution of low toxicity plant protection products
  - holding of 5 training sessions for some 1,600 open-field farmers.

### **Implementing Department:**

The Directorate of Coordination and Studies and the Directorate of Plant



Resources at the Ministry of Agriculture.

### *c - Improving Sustainable Agriculture for Palestine Refugee Camps and Gatherings in Southern Lebanon OSRO/LEB/902/UNR (2010) – US\$ 52,965*

**Background:** This project is integrated in a larger UNRWA designed to assist the poor Palestinian refugees residing in the Southern camps of Lebanon through small grants. The assistance of FAO was requested to initiate a new kind of assistance to them through the provision of agricultural inputs coupled with necessary trainings.

- 1- 2,140 families registered with UNRWA as Special Hardship Cases (SHCs) surrounding Tyre area of South Lebanon.
- 2- SHCs are families living in acute poverty with a lack of sustainable income.

#### **Objectives:**

- 1- To enable poor Palestinian refugees residing in the Southern camps of Lebanon to develop a sustainable income from agricultural activities.
- 2- To enable a greater number of Palestine refugees to participate in the local economy.
- 3- To develop the capacity of the agricultural sector in the Tyre camps and gatherings as well as to provide employment opportunities for Palestine refugees.
- 4- To build and improve the technical capacity of the Palestine refugee farmers for better planning and production.

#### **Outputs**

The project was implemented by UNRWA with technical support and expertise provided by the Food and Agriculture Organization, FAO

The implementation of the project was divided into two components:

1. all activities related to needs assessment, identification of beneficiaries, identification of assistance to be provided according to needs and preparation of technical specifications in addition to the contribution with UNRWA in the preparation of inception report.
2. all activities related to procurement, distribution of inputs, Training,



Monitoring and Evaluation and preparation of final report.

As immediate outputs, we can mention that:

- Approximately 130 (approx \$1,500 per beneficiary) agricultural businesses established / strengthened.
- An increase in the socio-economic capacities of the Palestinian refugees in the South.

### *Implementing Department:*

The Service of Plant Resources for South Lebanon at the Ministry of Agriculture.

d) *“Recovery of Nahr El Bared Camp surrounding communities affected by 2006 and 2007 communities - UNDP/FAO Agricultural Component “ LEB/102010) 34/01/001/ ) – Total Budget : almost US\$ 600,000 and FAO Budget US\$ 69,116.*

**Background:** The farmers in North Lebanon are suffering from structural constraints that are facing the agricultural sector at national level. Those constraints, namely i) the underdeveloped marketing infrastructure ii) the weak institutional, organizational and regulatory framework governing the agricultural sector iii) the lack of mobilization of factors of production and their high costs, iv) the lack of sustainable efficient and well targeted extension services, etc. are hindering progress of the agriculture in all Lebanese regions;

The agricultural sub-sectors most affected by NBC crisis in terms of decrease of farmers revenues are the olive and green houses.

**Objectives:** Under the livelihood component of the “Recovery of Nahr El Bared Camp (NBC) surrounding communities affected by 2006 and 2007 conflicts” project funded by Lebanon Recovery Fund (LRF), UNDP, in collaboration with FAO, launched an in-depth assessment to evaluate the impact of NBC crisis on the agriculture sector in the 28 targeted villages surrounding NBC. The assessment findings will help in identifying and designing the appropriate activities for the recovery and improvement of the agriculture sector in the targeted area .



The Beneficiaries are farmers from the 28 targeted villages surrounding NBC.

**Outputs:** The proposed intervention to be implemented includes the following components:

1. Support the improvement of the extension services of the MOA at headquarters and north level (technically and logistically);
2. Supporting the improvement of the livelihood as well as the technical capacities of the olive farmers;
3. Supporting the improving of the livelihood as well as the technical capacities of the green houses farmers.

#### **Implementing Department:**

The Directorate of Plant Resources and Service of Plant Resources for North Lebanon at the Ministry of Agriculture.

### ***e - Strengthening Production and Marketing of Lebanese Agricultural Products - Main Phase GCP /LEB/021/ITA (2009) – US\$ 2,888,187***

**Background:** Lebanese agriculture, which has long been known for the high quality and wide variety of its fresh fruits and vegetables (and a major exporter to neighboring countries), lagged behind the technological developments and horticultural industry changes, and consequently quality of agricultural production has deteriorated and some of the traditional export markets have been lost. Under such conditions, neighboring countries, particularly Jordan, Syria and Turkey along with Egypt have taken over and became significant exporters of fruits and vegetables to traditional Lebanese markets mainly in the Gulf States and Europe.

**Objectives:** The main objective of the project is to increase the competitiveness of Lebanese agricultural products, which will contribute to improved livelihoods of farming communities, in order to achieve a sustainable food security and agricultural development in Lebanon.

The project aims at achieving three outcomes focusing on a total of thirteen areas/outputs:

- Improved production of good quality and safe agricultural products through strengthened institutional and operational capacity and adequate delivery of services to farmers



- Improved agricultural post-harvest, marketing, food quality and safety practices through strengthened institutional and operational capacity and adequate delivery of services to stakeholders
- Institutional and operational capacities upgraded for managing food safety and quality systems.

**Outputs:** The main expected outputs of the project could be summarized in:

**Outcome 1:** Improved production of good quality and safe agricultural products through strengthened institutional and operational capacity and adequate delivery of services to farmers

1. Regulatory systems for agricultural inputs (seeds and nursery stock, pesticides registration, feed...) improved/ at the level of MOA
2. Agricultural production practices improved in view of product quality, safety and system sustainability
3. Plant quarantine measures improved

**Outcome 2:** Improved agricultural post-harvest, marketing, food quality and safety practices through strengthened institutional and operational capacity and adequate delivery of services to stakeholders

1. Agricultural post-harvest practices and support services improved
2. Adequate food safety systems developed for use by small and medium producers
3. Traceability system is developed and tested
4. Quality of selected number of Lebanese products upgraded and promoted
5. Agricultural marketing improved

**Outcome 3:** Institutional and operational capacities upgraded for managing food safety and quality systems

1. Inspection and quality control capacities of MOA concerned departments strengthened
2. Standards and technical regulations related to food safety updated
3. National monitoring programs on contaminants and residues developed
4. Laboratories capacities developed
5. Import/Export inspection and control systems upgraded and risk-based



*Implementing Department:*

The Directorate of Plant Resources and Service of Plant Resources for North Lebanon at the Ministry of Agriculture.

**C.2.5 Food and Nutrition**

*α - LEB/90003/ «strengthening of sanitary control of foodstuffs of animal origin» (completed in 1996) and TCP/LEB/8822 «strengthening national capacities in food control» (completed 2000) – US\$ 815,500 and US\$ 192,000 respectively*

**Objectives:** These projects had the following objectives:

- the protection of public health
- the creation of the inter-departmental Coordination Committee
- update and gaps in the legislation of food control
- laboratory improvement: Biochemistry, bacteriology and chemical
- training of technical staff
- improvement of the efficiency of the food system through better organization and planning of analyses and the training of trainers and agrifood industries personnel.

**Outputs:**

- Establishment of a secretariat for the inter-departmental Coordination Committee
- proposal, review and translation of the overall nutrition Act
- training technical staff and personnel of the agro-food industries
- expand the range of analyses at Fanar their laboratories
- preparation of the draft law on nutrition
- strengthening of laboratory equipment and training of staff.



## D. Success Stories

In agriculture, FAO has been and remains the reference and has a catalyst role both at the level of National Institutions and at the level of farmers. For example, the study of «Reconstruction and development of Agriculture» (project FAO/UNDP/LEB/79013/) conducted in 1980 at the request of the Government, served for many years (and even today for some of its components), as a reference for the programming of all projects relating to agriculture, forests and fisheries.

The reports produced in the framework of projects NECP/LEB/001/SAU «Technical support for agriculture and rural development planning»; UTF/LEB/016/LEB “Assistance au Recensement Agricole” and TCP/LEB/2903 “National Forest and Tree Inventory and Assessment” whose results remain, so far, the most used by visitors to the Representation’s library, mainly for agricultural and economical studies and research.

Indeed, thanks to the presence of FAO, despite ongoing challenges (departure of international experts, progressive paralysis of public institutions, exodus of brains, absenteeism of national frameworks etc), the departments of the Ministry of Agriculture, autonomous Offices (their, Office for Animal Production,...), as well as the National Agency of the Litani River could continue to operate and provide the public with the usual basic services.

This is particularly evident for departments which benefit from FAO’s direct support of our Organization; such is the case of the their, unlike other offices who have suffered from the departure of technical skills which have, through our assistance, maintain its various departments in action, equip laboratories, recycle its technical staff, stay in touch with research institutes foreigners and to provide the rural world quality complimentary service.

Some outreach activities within the jurisdiction of the Ministry of Agriculture had to also be assured by our projects and this because of the failure of national structures and financial problems they face.

At institutional level, FAO has supported the Ministry of Agriculture in its effort to revise and redefine the functions and responsibilities of its structures. This



reflection has been undertaken for the restructuring of the Ministry of Agriculture, and the order of application of Decree-Law No. 97 (project LEB/90001/).

FAO assistance has covered high value-added production or the introduction of advanced technologies (Production of improved seed, fruit plants, exotic fruits, Central Culture in vitro, improved crop production including IPM and improved greenhouses, olive cultivation, Aquaculture, various agricultural census and assessments, fodder production, animal nutrition and production, farm management, etc.)

Through its Technical Cooperation Programme (TCP), FAO was able to meet specific urgent queries such as «the Protection of Cedars», «Combating varroasis», «Flood damage estimates», «rehabilitation of fish production”, “help farmers to resume their activities during emergencies”.

FAO assisted Lebanon in the forest sector by 3 interventions, project TCP/LEB/0169 “Protection of the forests with particular emphasis on the new pest *Cephalica tannourinensis* infesting Lebanon»s Cedars”; TCP/LEB/2903 “National Forest and Tree Inventory and Assessment” and OSRO/LEB/703/UNJ “Integrated forest fires management – forest fires prevention, forest fires fighting (control) and damaged forests assessment and rehabilitation”. The interventions of FAO go from the emergency till the initiation to new techniques/ methodologies and rehabilitation.

The TCP/LEB/0068 titled “Introduction of techniques for the valorization of by-products in the agro-industry as animal nutrition in the Bekaa Valley’ ; TCP/LEB/3102 “Strengthening emergency preparedness for avian influenza and other epizootic diseases”; OSRO/LEB/702/UNJ “Early Recovery Assistance to War-affected, Resource-poor livestock Keepers in Southern Lebanon’ and OSRO/LEB/901/UNJ ‘Recovery and Rehabilitation of Dairy Sector in Bekaa Valley and Hermel-Akkar Uplands’. This kind of projects coming in series and from several sources help to develop and reinforce the sector at national level.

FAO formulated 3 projects to cover this vital gap, with a total budget of 2,550,000 US\$. TCP 8924 and TCP 2801 under the title “Building Capacity for Enhanced Spatial Data Management” phase I and II; UTF/LEB/016/



LEB “Assistance to Agricultural Census” and GCP /LEB/020/ITA “Lebanese National Observatory for Agricultural Development”. This kind of projects coming in series and from several sources help to develop and reinforce the sector at national level.

A major example to be noticed here is the execution of an emergency programme in a country in perfect collaboration with the Representation including the regular programme and normative work. The same can be said about the work undertaken by the Regional Animal Health Center (RAHC/ECTAD) in collaboration with the Representation and the Regional Office.

## Wrap-up of Some Success Stories

### 1. Conservation of Natural Resources

The importance of the sector inducted to a very important projects on pest control and forest assessment that was followed by another one on the forestry policies (TCP/LEB/3301 Baby 1). Within the process, two new technologies were introduced in the field of forest assessment and inventory (TCP/LEB/2903) as well as the monitoring system for the prevention and control of forest fires (OSRO/LEB/703/UNJ) and forest pests (TCP/LEB/0169).

The major impact of this activity was the sustainability of new technologies introduced for the first time to Lebanon by FAO such as the study of lifecycle for a new pest aiming a proper control and the new methodology and techniques for a forest and trees assessment and inventory.



## 2. Development of Animal Production

Two TCPs and two OSROs (TCP/LEB/0068, TCP/LEB/2905 and OSRO/LEB/702/UNJ, OSRO/LEB/901/UNJ) contributed to the sensitization on the importance of this value chain in Lebanon and to the necessity to encourage the control of animal diseases in a regional framework through the exchange of information and techniques (TCP/LEB/3102) and the need for a regional strategy which will improve the performance of all actions namely the Regional Animal Health Center instituted in 2008 by the Minister of Agriculture.

It is to be noted that despite the very encouraging results that were supported by the Lebanese Government, the center run the risk to be closed because of the FAO's incapacity of ensuring the sustainability of this monitoring regional body/structure.



## 3. Establishment of Agricultural Planning Tools

This activity was initiated by an FAO assistance for agricultural planning through a project launched in 1990 (NECP/LEB/001/SAU), followed by the implementation of a project related to the organizational structure of the Ministry of Agriculture departments (LEB/90001/), and resulted in a project to initiate the Agricultural Census for the first time in Lebanon, in 1995 (UTF/LEB/016) supported by two TCPs (TCP/LEB/2801 and TCP/LEB/8924).

The importance of the results acquired, which were inherently the reliable and sustained sectoral policies, has led to the approval in 2008 of the project



GCP/LEB/020/ITA aiming the establishment of the «Lebanese Observatory for Agricultural Development» structurally attached to the Ministry of Agriculture. The achievements are as follows:

- a) Introduction of technologies related to the agricultural census
- b) Bringing the Government to realize the importance of this tool in the decision-making and of the elaboration of the agricultural strategy.



#### 4. Restructuring of the Agricultural Sector to Cope with the Challenges of Globalization

This activity was introduced to the effect of allowing an upgrade of the agricultural sector in relation with the systems of production and marketing of agricultural products in accordance with international requirements enacted by the agreements and conventions to which Lebanon has endorsed or is to subscribe (negotiation of accession to the WTO for Lebanon).

Expected achievements of this activity through the project GCP/LEB/021/ITA, relate to:

- a) upgrade of legislative and regulatory measures in the three components of the project: Outcome 1: Improved production of good quality and safe agricultural products through strengthened institutional and operational capacity and adequate delivery of services to farmers (AGP); Outcome 2: Improved agricultural post-harvest, marketing, food quality and safety practices through strengthened institutional and operational capacity and adequate delivery of services to stakeholders (AGS); Outcome 3:



- Institutional and operational capacities upgraded for managing food safety and quality systems (AGN).
- b) Upgrading of MOA's staff capacities for training and capacity building
  - c) Provision of necessary tools and means for the technical and scientific structures guiding and accompanying this upgrade (i- sanitary and phytosanitary control authorities at both level domestic and at borders; ii- laboratories for the agricultural analysis and for the conformity of the pesticides' composition).
  - d) On the other hand, this project has allowed or will incur other additional actions for funding and implementation such as: TCP/LEB/3302 «Seed and Seedlings Policy» and the TCP under preparation on the phytosanitary map of Lebanon.







Food and Agriculture Organization  
FAO Representation in Lebanon  
Rayess Bldg. Rayess Street, Tallet El-Rayess, Baabda, Lebanon  
PO Box 40010, Beirut, Lebanon  
Tel: +961 5 924007 Fax: +961 5 922128  
E-mail: [FAO-LB@fao.org](mailto:FAO-LB@fao.org)  
FAO HQ Website: <http://www.fao.org>  
FAO Near East Website: <http://neareast.fao.org>

ISBN 978-92-5-106944-8



9 789251 069448

BA0014E/1/08.11