I. Introduction and Context

Country Context

Lebanon is a small (10,452 km2) upper-middle income country with a population of 4.3 million, a large diaspora population, and an average per capita GNI of $9,110 in 2011. Real GDP growth was 8.0% per annum from 2007 to 2010, but slowed to 3.0% in 2011 due largely to turmoil in neighboring countries. About 85% of the population is urban, but there are significant pockets of poverty (28% of the population) concentrated in some suburban and rural areas. Lebanon has few natural resources but is driven by a dynamic service-based economy with significant linkages to the Arab world. The economy is highly vulnerable to external shocks and regional instability due to its reliance on the flow of goods, services, financial resources, and workers from abroad. A downturn in tourism, direct investment, and other capital inflows such as remittances can exacerbate the capital account deficit ($7.5 billion in 2010) and the financing of the substantial external debt (157% of GDP in 2008), which crowds out productive investments elsewhere. In the near term, Lebanon remains vulnerable to economic shocks and steps are needed to tackle its twin deficits (current account and budget), which will require careful fiscal and debt management as well as a prudent macroeconomic approach and sustained reform.

Sectoral and Institutional Context

Agriculture plays a relatively minor role in the economy (contributing about 6% of GDP in 2004...
and 8% of the effective labor force) but is particularly important in poor rural areas. The rural population accounts for only 13% of the total but a larger proportion is poor. Around 20 to 25% of the active population has some activity in agriculture (on a full time or part time basis, including seasonal family labor). In the poorest regions of the country such as in the South, Akkar (North Lebanon), and in the Baalbeck and Hermel area (Northern Bekaa), agriculture accounts for up to 80% of the local GDP. Farm households are diverse and typically engage in non-agricultural economic activities as well as in agriculture, although poorer rural households tend to rely more heavily on agriculture than better-off households.

Only 14% of the land is arable due to the predominance of mountainous and upland terrain, of which 67% is actively farmed at present. Lebanon possesses relatively ample water resources compared to neighboring countries, with annual precipitation averaging 8.6 billion cubic meters (BCM). However, rainfall is concentrated during the winter months and irrigation is a key requirement for agricultural productivity given the Mediterranean climate and relative lack of rainfall during the long summer growing period. Around 20% of farm land is irrigated with production concentrated on high-value crops such as fruit trees, olive trees, and vegetables, while the non-irrigated land is planted to lower value rain-fed cereals, used for livestock grazing, or abandoned.

Producers face a high cost structure due to the predominance of mountainous areas, a small domestic market and fragmented small holdings, and a high proportion of hired labor (around 30%), mostly foreign. Nevertheless, studies have shown that Lebanon has a comparative advantage in the production of high-value horticultural crops (fresh fruit and vegetables) and, due to geographic location, is in a position to export to high-income countries in the Middle East and Europe. However, lack of access to irrigation severely limits agricultural productivity and a shortage of irrigated land exacerbates poverty in rural areas since poor households tend to derive a larger portion of their household income from agriculture. This suggests that the development of agriculture, especially through the expansion of irrigation, would help improve income for the poorest rural households.

In its strategy, the Ministry of Agriculture (MoA) places high importance on irrigation improvement and associated infrastructure for high-value crops. The MoA also places a high priority on reforestation, as articulated in its National Reforestation Plan, which aims at increasing the current forested area of 136,900 ha by an additional 70,000 ha in the next 12 to 20 years. The MoA has started the rehabilitation of 9 forestry nurseries and is developing 10 new forest centers in addition to equipping 34 existing ones to improve forest management and protection.

Relationship to CAS
The SALMA project would contribute to the economic infrastructure area of engagement outlined in the Country Partnership Strategy (CPS) for FY11-14 and is aligned with the lessons learned in the FY08-09 Interim Strategy Note (ISN). Three aspects of economic infrastructure are addressed: agriculture, environment, and transportation. The project is in keeping with the flexible approach outlined in the CPS by supporting activities that fall within a well-articulated policy agenda and that contribute to the GoL’s goals of economic growth and social cohesion. By directing resources to rural farmers the project will contribute to Strategic Goal 3.5 of the CPS, community driven development that will create jobs, income opportunities, and leverage local assets thereby increasing economic empowerment in communities and reducing regional disparities; and, Strategic Goal 4.2 of the CPS, improving living standards of the most poor and vulnerable parts of Lebanese society.
Further, the project addresses two of three Millennium Development Goals (MDGs) that risk not being met by 2015: (i) halving extreme poverty; and, (ii) reversing environmental degradation.

The project is also a priority for the GoL. On December 15, 2011, the Bank received an official letter from the Minister of Finance requesting financial assistance to support the “Strategy of the Ministry of Agriculture to Promote the Agriculture Sector”, particularly in the areas of natural resources development and agricultural infrastructure. On February 8, 2012, a World Bank Agriculture Sector mission met the Minister of Agriculture to discuss the specifics of the request for financial assistance. A project focusing on establishment of hill lakes in remote areas and integrated activities related to construction of agricultural roads, upstream reforestation and/or agro-forestry, and promoting supplementary irrigation for the production of high value crops was agreed. On March 19, 2012, the Ministry of Finance officially requested an IBRD loan of US$20 million to finance a project on Development of Natural Resources and Agricultural Infrastructure. The design builds on the earlier Bank-funded Agriculture Infrastructure Development Project (AIDP) that closed in 2004 and on successful approaches that have been used by other donors in the field notably IFAD and UNDP.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed Project Development Objective (PDO) is to expand access of small farmers to supplementary irrigation and increase protection of agricultural lands from soil erosion in targeted remote hilly areas.

Key Results (From PCN)

The project is anticipated to produce the following key results in the project areas:

1. Increased water storage capacity for irrigation uses
2. Increased area of farm land under supplementary irrigation
3. Increased production of fruits, vegetables and other high value crops
4. Increased value of crop production, particularly for small farmers;
5. Increased area under forest cover

III. Preliminary Description

Concept Description

The PDO will be achieved by: (i) storing water from seasonal springs and run-off for supplementary irrigation by small farmers during the dry summer season by constructing hill lakes and associated soil conservation works; (ii) assisting beneficiaries of the hill lakes by installing primarily gravity-based modern irrigation networks to allow supplementary irrigation of fruit trees and vegetables; (iii) supporting reforestation in the project areas to enhance watershed management and control soil erosion, and to provide additional sources of income for communities in the project areas; (iv) constructing agricultural roads in the project area to facilitate access by farmers to their remote lands and thus reduce their production and marketing costs and encourage farmers to upgrade abandoned agricultural lands; and (v) providing technical assistance and capacity enhancement to the MoA, particularly to better target its activities to benefit smaller farmers in remote hilly areas, as well as to beneficiaries to appropriate adoption and use of the irrigation technology and sustainable management of water and forestry resources.

The project will not support agricultural extension and marketing activities. Such support will be
provided by the seven six Farmer Service Centers which will be established by the IFAD-funded project on Hilly Areas Sustainable Agricultural Development (HASAD) project. Given that the HASAD and SALMA projects will very much target the same hilly areas with the highest prevalence of rural poverty, it is anticipated that the beneficiaries of the SALMA project would also benefit from all the services to be provided by the Farmer Service Centers.

The proposed project would consist of five components with World Bank funding of US$ 20 million over five years. The design incorporates lessons based on experiences under previous and on-going projects in the sector such as the Bank-funded Agriculture Infrastructure Development Project that closed in 2004, and successful approaches that have been used by other donors in the field notably IFAD and UNDP. The project geographical coverage would include the same three focus areas as defined by the HASAD project, namely: (i) North Lebanon: Akkar-Danniyeh; (ii) North Bekaa: North Baalbek and Hermel; and (iii) South Lebanon: South Litani below Lake Karaoun. Other geographic areas would be considered to maintain inter-regional balance. The project would also use a demand-driven approach and similar criteria for selection of specific sites.

Component 1: Sustainable Land and Water Management. In line with the Government strategy for agricultural development through the improvement of small-scale irrigation, the project would support the following interventions:

a) Hill Lake Development. The project would fund the development of small hill lakes for storing water from springs and run-off and the associated micro-catchment protection and land conservation (e.g. terraces). The water would be used by small groups of farmers primarily for supplementary irrigation of high-value crops such as fruit and vegetables in the summer. The hill lakes would range in size from 20 to 50,000 m³ (small) and from 50 to 100,000 m³ (medium). Around 14 hill lakes would be selected based on requests from beneficiaries and agreement on a set of conditions including a functioning water users’ association (cooperative) and types of crops to be irrigated.

b) Irrigation Systems. The project would support the development of primarily gravity-based irrigation networks downstream of the hill lakes consisting of pipes, drip irrigation, and micro-sprinklers on about 500 ha. The irrigation network investments would be partly financed by the individual farmers.

Component 2: Reforestation. The project would support reforestation and afforestation activities to enhance watershed management in the project areas. The project would finance the planting of around 2,000 ha of trees and shrubs on State-owned lands and on lands donated by local municipalities or by religious endowments (waqf). Emphasis will be placed on tree and plant species that can generate economic revenues for local communities, primarily from non-wood forest products. Afforestation will focus on water catchment areas above the hill lakes to protect them from severe flood events, in addition to agroforestry planting for the benefit of communities in the project area. The MoA will supply the forest seedlings, while hole-drilling equipment will be provided by local municipalities in the project areas. The Bank funding would cover labor for tree-planting and the cost of irrigation and protective fencing during the first 3 years of establishment.

Component 3: Agricultural Roads. Around 40 km of small agricultural roads would be constructed to enable farmers to reach their previously cropped or fallow lands, primarily land with available irrigation water under Component 1, and to access markets. Selection criteria would follow the standard criteria in use by the Green Plan which include (among others): (i) request by all beneficiary farmers and their agreement to donate the land for the road (with no expropriation); (ii)
a minimum of 10 beneficiary farmers per km of road; and (iii) agreement by beneficiaries to abide by zoning requirement of a maximum 5% of the area for construction.

Component 4: Technical Assistance and Capacity-Enhancement. The component would include: a) capacity-building and training for staff of Green Plan in both fiduciary and technical topics and for staff of the Forestry Unit of the Department of Rural Development and Natural Resources in the MoA; b) technical assistance to the MoA in the area of Carbon Finance, including training on methodologies for measurement and monitoring of carbon sequestration and for preparing carbon finance funding proposals, as well as the provision of related laboratory equipment; c) studies in key topics such as water and irrigation management, sustainable land management, curtailing land degradation, and high value crop production would also be instituted to improve knowledge and skills; d)

Component 5: Project Coordination and Management. The component will finance the incremental operating costs of the existing IFAD-supported Project Management Unit (PMU) within the Green Plan, including costs of additional staff for procurement, financial management, information technology, and monitoring and evaluation. Incremental costs could also include the means of transport and field work in the project areas and additional surveying equipment as required. In addition, the following technical areas should be included: a) additional specialists such as a qualified hydrologist, irrigation specialist and environmental specialist (for environmental assessment and monitoring); and b) consulting engineering services for the preparation of feasibility studies, surveys, design and supervision of construction; c) consulting for impact assessments including baseline survey, interim and final project evaluations; and audit. The Green Plan would provide their own resources for civil engineers, and costs of administration, salaries, rent and utilities.

IV. Safeguard Policies that might apply

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Global Environment Facility (GEF) 0.00
Total 22.00

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