

LEBANON

FAO Plan of Action for Resilient Livelihoods 2014 – 2018



**Addressing the Impact of the Syria Crisis & Food Security
Response and Stabilization of Rural Livelihoods**

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ABBREVIATIONS AND ACRONYMS

CBO	Community-based organization
DRM	Disaster risk management
ECTAD	Emergency Centre for Trans boundary Animal Diseases
EMPRES	Emergency Prevention System for Trans boundary Animal and Plant Pests and Diseases
ESIA	Economic and Social Impact Assessment
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer field school
FMD	Foot-and-mouth disease
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
IDP	Internally Displaced Person
IMF	International Monetary Fund
IPM	Integrated Pest Management
LBP	Lebanese Pound
LSD	Lumpy skin disease
NGO	Non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
PPR	<i>Peste des petits ruminants</i>
RRP	Regional Response Plan
RNE	Regional Office for the Near East and North Africa (FAO)
SO	Strategic Objective
TAD	Trans boundary animal diseases
UN	United Nations
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
USD	United States Dollar
WFP	World Food Programme

EXECUTIVE SUMMARY

1. Introduction

Almost three years of conflict in Syria has resulted in massive influxes of refugees into Lebanon and across the region at large. As part of the group of neighbouring countries that are most affected—Iraq, Jordan, Lebanon and Turkey – Lebanon is the one where unprecedented numbers of refugees may have the most destabilizing consequences. As of November 2013 (at the time when the formulation mission for this document started) over 1.5 million people were estimated to have crossed the border between Lebanon and Syria because of the Syrian conflict. Lebanon hosts the largest number of Syrian refugees in both absolute terms and relative to population shares— these 1.5 million people represent 34 per cent of Lebanon’s pre-crisis population. These individuals and groups of people are competing with Lebanese citizens for jobs and for access to public services and infrastructure, and in particular for the already scarce and fragile natural resources (land, water, forests). Such increase in the number of refugees into Lebanon is also endangering the country’s delicate sectarian balance and constitutes a threat to its institutional and political stability and to regional peace and security.

At the request of the Government of Lebanon, in September 2013, the World Bank, in collaboration with the United Nations (UN), the European Union (EU) and the International Monetary Fund (IMF), undertook a rapid Economic and Social Impact and Stabilization Assessment (ESIA) of the Syrian conflict on Lebanon for the 2012–2014 period. Following the presentation of the ESIA report, a second phase of this World Bank-led process (the Stabilization Plan) started, outlining key priorities for programmatic interventions at the national and regional levels. It focused on identification of policy recommendations, programmes and projects to mitigate the impact of the Syrian conflict. The objective was to propose a credible framework which would underpin donors' confidence in financing specific projects as identified jointly by the Government of Lebanon, UN agencies and other donors and partners. It is against this background that a Food and Agriculture Organization of the United Nations (FAO) mission was fielded to Lebanon in November/December 2013 with the objective to formulate a FAO-led agriculture and food security programme that could feed into the Stabilization Plan. While encompassing the short-term actions planned under the Regional Response Plan (RRP), the proposed Plan of Action also informs the Office for the Coordination of Humanitarian Affairs (OCHA)-led Regional Comprehensive Strategy and United Nations Development Group (UNDG) Position Paper on “A Resilience-Based Development Response to the Syria Crisis”.

2. Situation and Impact Analysis

Although the role of agriculture in the national economy of Lebanon is declining in relative terms, it still plays an important role in the rural economy and has a significant impact on rural livelihoods. In 2011, agriculture accounted for 4 percent of Lebanon’s Gross Domestic Product (GDP), employed 6 percent of the labor force (2009), with wide regional variations (up to 25 percent), and accounted for 15 percent of total exports and imports in 2012. However, as far as the geographical areas most affected by the Syria crisis are concerned – i.e. northern Lebanon and the Bekaa – agriculture is contributing up to 80 percent of the local GDP. Together with its directly related sub-sectors of input supply, processing, marketing and transport of farming produce, agriculture represents by far the most important livelihoods opportunity, especially in the poorest sub-governorates of Akkar and Baalbek-Hermel – and it is in these poorest areas of Lebanon, such as the governorates of Bekaa and North, where most of the Syrian refugees are concentrated. And here, agriculture is the primary source of income and employment, particularly for the poorest communities.

The conflict in Syria – a country that is closely linked, through historical, social and economic ties to Lebanon – is severely and negatively impacting the Lebanese economy. Related spill over into Lebanon have rapidly moved beyond the humanitarian to the economic and social spheres, where large, negative and growing repercussions are occurring. The ESIA report finds that during the 2012–2014 period, the conflict may (1) cut real GDP growth by 2.9 percentage points each year, entailing large losses in terms of wages, profits, taxes or private consumption and investment; (2) push approximately 170 000 Lebanese into poverty (over and above the 1 million currently living below the poverty line) and double the unemployment rate to above 20 per cent, most of them unskilled youth; and (3) depress government revenue collection by USD 1.5 billion while simultaneously increasing government expenditure by USD1.1 billion due to the surge in demand for public services.

The economic repercussions and the unstable security situation have particularly impacted the agriculture economy and its food production capacities, especially in the most affected geographical areas of northern and eastern Lebanon – and even more in the border areas of Hermel, Baalbek and Akkar where farmers can, to a great extent, not even access their agricultural land. Farmers who have traditionally relied on agricultural inputs and services at subsidized/cheaper rates from Syria today face a sky-rocketing increase in input/production costs and are struggling in keeping up production. Furthermore, farmers and pastoralists are increasingly abandoning their livestock as they are unable to cope with the escalating feed prices and decreasing prices of their animals and animal products. Farmers' income is also affected by the disruption of trade routes (closure of border points) and increase in transportation costs. The below highlights the main impact areas which simultaneously represent the key challenges that need to be addressed either directly or indirectly in the short, medium and long term (1–5 years) in order to safeguard and stabilize the livelihoods of the poorest and most vulnerable farming communities in those geographical areas hardest hit by the repercussions of the Syria crisis.

Key challenges:

- Reduction in household income from agriculture and increased poverty levels
- Reduction of jobs and wages in agriculture and increased competition
- Reduction in household food and nutrition security
- Temporary/permanent abandonment of farmland in bordering areas (due to hostilities and insecurity)
- Reduction of agriculture productivity and profitability (input/output constellation)
- Increased cost of production (for production inputs and services, for both crop and livestock systems)
- Inadequate handling, processing, storage and marketing (affecting quality, shelf-life and prices)
- Increased cost of processing, storage and transportation
- Reduced food safety and weak phytosanitary control (poor handling/processing, border/trade inspection)
- Increased risk of pests and disease outbreaks (weak border/trade inspections, inadequate crop practices)
- Weak or absent crop advisory/extension systems
- Increasing numbers of livestock being moved into Lebanon
- High numbers of animals (loss of assets) being sold/liquidated (due to financial constraints of owners)
- Weak or absent veterinarian services – increased risk of outbreak of trans boundary diseases
- Depletion of rangelands and grazing areas (overgrazing)
- Depletion and degradation of wood and forest resources (incursion for illegal cutting, grazing, fires)
- Increased depletion of water resources (contamination of irrigation water, lowering of water tables, drought)
- Affected water management practices (inadequate irrigation, increasing costs for pumping, pollution)
- Degradation of natural resources – alteration of habitats of flora and fauna (*inter alia* pollution, solid waste)
- Increasing conflicts over natural resources between the Lebanese and refugees
- Discouragement of farmers to invest/apply good practices (due to high production costs and insecurity)
- Poor public sector capacity for crisis monitoring, preparedness and mitigation

3. FAO Strategy and Approach to Resilient Livelihoods

In order to sustain adequate standards of living, combat poverty and substantially increase and maintain food security in the geographical areas affected by the influx of Syrian refugees and returnees into Lebanon, it is important to strengthen and enhance the sector of the local economy that currently provides livelihoods for the vast majority of the local population. As indicated earlier, it is estimated that the livelihoods of the great majority of the rural population in the main affected areas in the north of Lebanon and Bekaa Valley depend directly or indirectly on agriculture and its sector environment. The populations in these rural communities mostly affected by the direct and indirect impact of the Syria crisis and refugee influx are however already amongst the poorest communities of Lebanon and most of them live below the poverty line.

Mostly applying low or underexploited input/output production systems, the most affected areas in the North and Bekaa governorates have however a substantial potential for agriculture development. Experience from other countries around the world has shown that GDP growth from agriculture has been twice as effective at reducing poverty, thereby contributing to social stability, compared to GDP growth originating from other sectors. Increased agricultural production will also increase demand for related sectors, such as rural services, agro processing, agribusiness and the transport and communication sector, and is thereby a catalyst for

employment creation in a series of related domains. Therefore, fund mobilization for assistance should be geared towards enabling crisis-affected crop and livestock farmers, not only to cover their minimum needs to sustain food production, but also to facilitate the desperately needed additional income and employment generating capacity of the sector, in particular for the Lebanese host communities. This is necessary in order for these communities to be able to cope with the pressure, feed themselves and strengthen their potential to assist the refugees. Equally, creating income-generating opportunities for refugees will help them meet their basic needs of food and other necessities and will minimize pressure on local communities.

Support to the resource-poor and crisis-affected communities should not simply be punctual in response to a crisis but should – where feasible – comprise actions oriented towards socio-economic development of the agriculture sector. Equally important and critical in such a complex and protracted crisis situation, is **strengthening the resilience of livelihood systems (including individuals, households, communities, institutions and agro-ecosystems) to absorb (or cope with) and recover in a sustainable way from the impacts of the Syria crisis, reduce risks and mitigate future effects on their food and nutrition security and agro-ecosystems.** When households, communities and networks for goods and services are resilient, people realize positive livelihood outcomes (sufficient income, food security, safety, proper nutrition and good health etc.), and ecosystems are preserved and protected for current and future generations. Strengthening resilience at all levels will contribute to increased levels of food security, reduced poverty, enhanced social cohesion and peaceful coexistence.

In order to achieve this overarching resilience goal in the geographical areas most affected by the influx of Syrian refugees, the current Plan of Action for *food security response and stabilization of rural livelihoods* should aim at:

- optimizing the utilization of resource endowments (sustainable natural resources management – water, land, forest) for increased productivity in agriculture (crops, livestock, fisheries) and related income and employment on a cost-effective and sustainable basis;
- overcoming the status of stagnating production levels; the farming communities should be given the means to increase production volumes in order to benefit from existing and new markets inside and outside of their region (taking advantage of a value chain approach); and
- ensuring that emergency/short-term initiatives and medium-term rehabilitation/stabilization efforts are rationally combined in order to form a sound basis for the long-term development of the sector; in this respect, *simultaneous institutional building and human resources development will be fundamental for creating the needed implementation capacity and lasting sustainability of public sector services provision*– for crisis prevention, preparedness and mitigation.

4. Technical Areas of Assistance

This Assistance Plan incorporates short- to medium- and long-term interventions that, while protecting the vital natural and economic resources such as water and land, would ensure increased agriculture production and productivity aimed at reducing vulnerability to food insecurity, restoring sustainable livelihoods, building resilience of the most vulnerable crisis-affected communities and enhancing development of the agriculture sector. The below presented initiatives are intended to address:

- the immediate/short-term needs of targeted beneficiary communities ensuring appropriate, rapid and effective response to (i) regain and/or sustain household food security; (ii) create employment opportunities; and (iii) initiate reversing the depletion of vital natural resources in the most crisis-affected areas; and
- medium- to longer-term needs to be implemented in parallel to sustain sector rehabilitation/stabilization, *inter alia*, by (i) ensuring production and commercialization of quality and safe food products for the population; and (ii) capacitating the regulatory and institutional setting to ensure preparedness and mitigation ability of the public sector to effectively anticipate (information monitoring and analysis) and manage crisis-related pressures in the long run.

Programme (not in priority ranking):		USD
Short term (<i>humanitarian relief and policy development</i>)		
Medium term (<i>agricultural livelihoods recovery</i>)		
Long term (<i>agricultural and rural development</i>)		
L.1 Strengthening resilience through improved livestock productivity		9 119 400
L.1.1	Emergency vaccination and targeted feeding of livestock grazing in areas along the Syria–Lebanon border (<i>20 months</i>)	3 000 000
L.1.2	Increased income generation through sustainable improvements in livestock production of vulnerable smallholders affected by the Syria crisis (<i>36 months</i>)	6 119 400
L.2 Capacity development of the Ministry of Agriculture and other stakeholders of the agriculture sector in disaster management and related regulatory frameworks		9 531 800
L.2.1	Coordination and monitoring for food security and agricultural livelihoods emergency and recovery in rural areas affected by the Syria crisis (<i>24 months</i>)	1 165 400
L.2.2	Strengthening disaster and crisis management capacity of agriculture sector stakeholders (<i>36 months</i>)	1 866 400
L.2.3	Upgrading input supply regulatory systems for agriculture emergency and recovery (<i>36 months</i>)	3 900 000
L.2.4	Policy and strategy development for improved domestic and export marketing of key commodities from areas affected by the Syria crisis (<i>36 months</i>)	2 600 000
L.3 Reinforcing the resilience of resource-poor Lebanese farming communities affected by the Syria crisis		23 436 500
L.3.1	Relieving the suffering of Lebanese returnees and host communities through the recovery of smallholder agricultural production (<i>12 months</i>)	3 900 000
L.3.2	Rehabilitation of the dairy subsector to improve food security and nutrition of Syrian refugees and Lebanese host communities (<i>12 months</i>)	3 000 000
L.3.3	Strengthening the resilience of resource-poor farm families and returnees through improved crop production, agro processing and marketing (<i>36 months</i>)	4 036 500
L.3.4	Reinforcing the resilience of Lebanese farming communities affected by the Syria crisis through value chain development (<i>jointly with ILO, 48 months</i>)	12 500 000
L.4 Food safety and phytosanitary control in Syrian border areas of Lebanon		2 715 700
L.4.1	Improved food quality control services along the Syria border in Lebanon (<i>30 months</i>)	2 715 700
L.5 Natural resource management in areas seriously affected by the impact of the Syria crisis		4 081 800
L.5.1	Protection and recovery of vital natural resources seriously affected by the Syria crisis in Akkar, North Lebanon, Baalbek-Hermel and Bekaa governorates (<i>36 months</i>)	4 081 800
L.6 Enhanced food nutrition for vulnerable rural families affected by the Syria crisis		1 519 300
L.6.1	Improving food security and nutritional value at community and household levels for resource-poor rural families of eastern and northern Lebanon affected by the Syria crisis (<i>18 months</i>)	1 519 300
Total		50 404 500

1 CONTEXT AND RATIONALE

Almost three years of conflict in Syria has resulted in massive influxes of refugees into Lebanon and across the region at large. As part of the group of neighbouring countries that are most affected –Iraq, Jordan, Lebanon and Turkey – Lebanon is the one where unprecedented numbers of refugees might have the most destabilizing consequences. As of November 2013 (when the formulation mission for this document started), over 1.5 million people were estimated to have crossed the border between Lebanon and Syria because of the Syrian conflict–of which more than 824000 are refugees already registered or awaiting registration with the United Nations High Commissioner for Refugees (UNHCR). The difference between the UNHCR number and the total number is accounted for by: (1) Syrian refugees who are not willing to register with UNHCR; (2) Lebanese returning from Syria; and (3) Palestinian refugees from Syria. However, Lebanon hosts the largest number of Syrian refugees in both absolute terms and relative to population shares– these 1.5 million people represent 34per cent of Lebanon’s pre-crisis population. These individuals and groups of people are competing with Lebanese citizens for jobs and for access to public services and infrastructure, and in particular for the available and already scarce and fragile natural resources (land, water, forests). Such increase in the number of refugees in Lebanon is also endangering the country’s delicate sectarian balance and constitutes a threat to its institutional and political stability and to regional peace and security.

The international community, through UNHCR and United Nations (UN) partner agencies, acted promptly to help Lebanon cope with the humanitarian dimension of these flows of refugees. The United Nations Syria Regional Response Plan (RRP) –and its various revisions– identified the following priority areas of intervention: (i) the provision of food assistance, non-food items and/or financial assistance; (ii) access to healthcare and education; and (iii) quick impact projects in host communities struggling to cope with the additional strain on their infrastructure. Registration centres were established, first and immediate assistance was provided and efforts were launched to gather support and mobilize financial resources. However, as the situation on the ground in Syria becomes more intricate and unpredictable, there is a realization that the crisis and its impact on the region are likely to be protracted, even in the event that hostilities were to stop rapidly in Syria. Given the extent of the damage that Syria has suffered to date, refugees are likely to only gradually and very slowly return to Syria. As international experience with large refugee displacement reveals, a large number of refugees are likely to remain in Lebanon over several years, with grave consequences on the Lebanese social fabric and the economy. ***It is thus essential that the resilience of Lebanese communities be strengthened so that they can weather the stress caused by the increase in population and demand for basic services and jobs, and ease the pressure on Lebanon’s natural resources.***

At the request of the Government of Lebanon, in September 2013, the World Bank, in collaboration with the UN, the European Union (EU), and the International Monetary Fund(IMF),undertook a rapid Economic and Social Impact and Stabilization Assessment (ESIA) of the Syrian conflict on Lebanon for the 2012–2014 period. The ESIA findings confirm that the impact of the crisis on Lebanon is multidimensional and, to contain its adverse effects on Lebanese host communities, what is needed is to work on building their resilience to shocks so they can withstand the stress caused by the increase in population and in the demand for basic services and jobs, and to strengthen the capacity of the Lebanese Government to deal with the added pressure on an already fragile macroeconomic framework.

Following the presentation of the ESIA report showing the social and economic impacts and needs in Lebanon arising from the Syria crisis, through a macro and sector-by-sector approach, a second phase of this World Bank-led process started. This second phase (the Stabilization Plan), which will build on the findings of the impacts and needs assessment (ESIA), will outline key priorities for programmatic interventions at the national and regional levels. It will focus on identification of policy recommendations, programmes and projects to mitigate the impact of the Syrian conflict. The objective is to propose a credible framework which will underpin donors' confidence in financing specific projects as identified jointly by the Government of Lebanon, UN agencies and other donors and partners.

It is against the above background that a Food and Agriculture Organization of the United Nations (FAO) mission was fielded to Lebanon in November/December 2013 with the objective to formulate an FAO-led agriculture and food security programme that can, *inter alia*, feed into the Stabilization Plan led by the World Bank. Nevertheless, in addition, it has been ensured that the proposed Plan of Action becomes an integrated part also of the Regional Comprehensive Strategy (UN) and complements the RRP accordingly.

2 SITUATION AND IMPACT ANALYSIS– STATUS QUO

2.1 Importance of the Agriculture Sector

2.1.1 Economic Relevance

Although the role of agriculture in the national economy of Lebanon is declining in relative terms, it still plays an important role in the rural economy and has a significant impact on rural livelihoods. In 2011, agriculture accounted for 4 percent of Lebanon's Gross Domestic Product (GDP), employed 6 percent of the labor force (2009), with wide regional variations (up to 25 percent), and accounted for 15 percent of total exports and imports in 2012. However, as far as the geographical areas most affected by the Syria crisis are concerned – i.e. northern Lebanon and the Bekaa – agriculture is contributing up to 80 percent of the local GDP. Together with its directly related sub-sectors of input supply, processing, marketing and transport of farming produce, agriculture represents by far the most important livelihoods opportunity, especially in the poorest districts such as Akkar and Baalbek-Hermel. Agriculture is thus the primary source of income and employment, particularly for the poor.

Although many farms use permanent family labor, a large proportion of farms employ additional labor on short-term or daily basis. According to the latest agricultural census (2010), almost 37 percent of the total agriculture labor force (full-time equivalent) is provided by hired laborers, many of whom are foreigners (Syrian migrant workers). An International Fund for Agricultural Development (IFAD) study on livelihood and gender analysis of the 2006 war damage in rural areas of Lebanon revealed that, in nine agricultural zones surveyed, direct income from agriculture accounts for more than half of total income, varying between 26 to 75 percent (highest in low-income households). Based on figures of the agriculture census, almost 50 percent of agriculture holders have also other sources of income (35 percent in the private sector, 15 percent in the public sector). Although agriculture represents an important economic sector in the most affected governorates of Bekaa and North Lebanon, agricultural activities cannot ensure an adequate income for the rural population. Monthly wages in the agriculture sector are among the lowest by profession. Overall, agriculture-based households have the lowest income – over 20 percent of them are considered very poor.

Agriculture, together with the agro-processing sector, accounts for around 14 percent of total exports and 15 percent of total imports (2012). The agrifood trade balance has indicated steady deficits exceeding USD 2 billion yearly (more than USD 2.6 billion in 2012) in spite of a 40 percent increase in agricultural exports value over the past period (2009–2012). Lebanon is still a major food importer, with local production satisfying only 20 percent of local consumption. In 2012, Lebanon agricultural and food imports amounted to USD 3.3 billion while agricultural exports were valued at USD 614 million. Lebanon imports cereals (11 percent), dairy products (10 percent), fruits and vegetables (10 percent) and meat (8 percent) primarily from Ukraine, Turkey, the EU, the United States of America, Egypt, Russia and Saudi Arabia. Major exported food commodities include fruits and vegetables (37 percent) including potatoes, tomatoes, apples, grapes, banana and citrus. Saudi Arabia and Syria are the two largest importers of agricultural and food products (accounting for 15 percent each of the total imports) in addition to other Gulf Cooperation Council countries (Kuwait, United Arab Emirates and Qatar), Jordan, Iraq and the United States of America. Exports to Europe are very limited with less than 10 percent of total agricultural exports.

2.1.2 Agricultural Characteristics

Farming systems zones

Lebanon is situated on the eastern shores of the Mediterranean Sea with a total area of 10 452 km². The country is composed of two parallel mountain ranges separated by the Bekaa Valley. This variation in topography results in diversified farming system zones. Four major zones are distinguished, as indicated below.

Intensive farming systems in the fertile coastal plain up to 200m: Close to the northwestern border with Syria lies the Akkar plain. It hosts a wide range of irrigated agriculture crops, including potato, cereals, citrus, grapevine and vegetables in open fields or in greenhouses. Animal production is gaining importance, especially in mixed farming systems where dairy/livestock is combined with crop production. Fishing activities are also pertinent. The few natural ecosystems spared from croplands and urban areas are coastal, marine and riparian ecosystems.

Rainfed extensive cropping systems: On mountain terraces, rainfed cultivation is dominant mostly below 1200 m altitude on the western slopes of Akkar and North Lebanon and the eastern slopes of Mount Lebanon (the foothills of Central Bekaa) as well as in the higher altitudes in Baalbek-Hermel (Aarsal, Barqa) and the Bekaa (Rachaya, Qaa al Rim areas). Cherry is predominant in higher altitudes of Baalbek-Hermel (Aarsal, Barqa) and the Bekaa (Rachaya, Qaa Al Rim areas). In the plains of Bekaa and Baalbek-Hermel, cereals are predominant, along with extensive grazing of small ruminants.

Irrigated fruit tree orchards on mountain slopes: The abundance of water springs in this zone enables the cultivation of irrigated fruit orchards on agriculture terraces. Apple, pear, peach and cherry are the dominant crops. Summer vegetables and other fruit trees are of second importance. Animal husbandry is traditional and on a small scale in general. This zone is a natural pathway for small ruminants towards the summer pastures of the higher altitudes. Natural ecosystems include diverse and unique forest ecosystems combining oaks, pines, cedar, fir and junipers either in pure or in mixed forest stands.

Intensive irrigated cropping systems in the Bekaa Valley: This plain constitutes the major agriculture area and irrigated scheme of the country. It comprises a mosaic of farming systems including irrigated annual and perennial crops, livestock production and fisheries. Cereals, legumes, industrial grapevine and winter vegetables are rainfed or benefit from complementary irrigation. Fruit trees, table grapevine, potato and summer vegetables are irrigated from the Litani River or from underground water. Assi River, which is the major water resource in northern Bekaa, runs to Syria, with limited exploitation apart from fisheries. Livestock production is important as well in the Bekaa; poultry and dairy farms are prevailing, mainly in central Bekaa. Sheep and goats are dominant in the northern and eastern parts. The natural ecosystems include degraded grasslands and scrubland steppes where grazing is practiced – riparian ecosystems are also found.

In terms of livestock, small ruminants, semi-extensive nomadic transhumant systems are dominant in Baalbek-Hermel, whereas the semi-extensive system is practiced in the Bekaa, Akkar and North. Intensive dairy cattle systems and to some degree poultry operations are found in all the above farming systems at different intensities (see also Annex 2, Farming Systems map).

Crop production and processing features

According to the agriculture census (FAO/Ministry of Agriculture, 2010), the total agricultural area of Lebanon is 231 000 ha, half of which is irrigated. The northern (Akkar and North Lebanon) and eastern parts (Baalbek-Hermel and Bekaa) of the country are extended over all of the above agro-ecological zones, with 69 percent of the cultivated area and 76 percent of the irrigated land – these are also the areas most affected by the Syria crisis. In 2010, the total population of rural households involved in the

agriculture sector reached 817 513 persons; with an average of five persons per household. The number of farmers is 169 512 – one-third are located in Akkar and North Lebanon, and 20 percent in Baalbek-Hermel and the Bekaa, accounting together for almost 70 percent of the total agricultural area in Lebanon. Farm holdings are mainly characterized by fragmentation of agricultural holdings (with an average farm size of 1 ha in North governorate, 3 ha in the Bekaa). Farmers exploiting farm size less than 1 ha constitute 68 percent of the total number of farmers. The major crops grown in these areas include wheat, potato, apple, grapevine, olive and orange. Wheat production in 2009 was 111 400 metric tons – the related cultivated area was 29 840 ha with 44 percent in the Bekaa, 22 percent in Akkar and 14 percent in Baalbek-Hermel. Potato production in 2009 was 425 000 metric tons – cultivated on 11 130 ha, distributed mostly between the Bekaa (51 percent), Akkar (27 percent) and Baalbek-Hermel (19 percent). Apple produced 138 100 metric tons over 12 424 ha, mostly distributed between North Lebanon (23 percent), Baalbek-Hermel (22 percent), Akkar (13 percent) and the Bekaa (12 percent). Table grapevine yielded 91 000 metric tons – with vineyards covering 7 548 ha, of which 39 percent were in Baalbek-Hermel, 33 percent in the Bekaa, 9 percent in Akkar and 3 percent in North Lebanon. Olive production reached 85 200 metric tons over an area of 53 647 ha, 23 percent of which were found in North Lebanon, 18 percent in Akkar, 8 percent in Baalbek-Hermel and 5 percent in the Bekaa. Orange produced 177 000 metric tons on 5 518 ha, with one-third of it located in Akkar.

Both extensive and intensive agriculture production systems are found. Extensive systems are common in rainfed and organic farming – with cereals, legumes, olive tree, almond and tobacco being the most relevant crop commodities. Improved seeds and seedlings are utilized but crops under this system receive minimal amounts of fertilizers and pesticides. Weed control is conducted mainly through tillage or herbicide treatment, and crop rotation is minimal. Harvesting is mechanized in medium and large cereal exploitations, and partially mechanized in olive groves. Intensive systems are common in irrigated schemes. Even if surface irrigation is still predominant in North Lebanon and Akkar, drip and sprinkler irrigation are widespread in the Bekaa and Baalbek-Hermel. Plant material of higher quality is imported or produced locally. Farmers rely on heavy fertilizer application and pesticide spraying. Vegetables are either under greenhouses or in open fields, while fruit orchards and vineyards are mostly found on agriculture terraces. Good Agricultural Practices (GAP), Integrated Pest Management (IPM), early warning systems, as well as Conservation Agriculture and other sustainable agriculture production systems are currently being promoted by the Ministry of Agriculture and the Lebanese Agricultural Research Institute (LARI), along with different research institutions, development organizations and non-governmental organizations (NGOs). However, conventional agriculture practices are predominantly prevailing.

Post harvesting practices are rudimentary, with some initial grading taking place in the field. Packaging units are small to medium sized, handling mostly exportable products. Cool storage units are almost exclusive to apple, pear, potato and grapes, and require upgrading to meet international standards. The bulk of the production of fruits and vegetables is sold in wholesale markets. Gross market operations are neither transparent nor equitable; middlemen and retailers seize most of the profit. Food processing units rely on imports rather than on the local production, except for certain commodities like wine, olive oil, pickles and some jams and juices. Large factories meet international standards of food safety for export for parts of their products, whereas traditional olive oil mills need substantial upgrading. Artisanal food processing is trendy and relies on a wide range of local products which are later sold in the local market. While they are not subject to any quality control system, many processing units do not meet food safety standards.

Livestock production and processing features

According to latest statistics conducted by FAO in Lebanon and recently released, production of cattle, sheep, goats, and pigs is being practiced by 15 800 farmers across the country; 19 percent of these are landless and, consequently, they do not practice any land cultivation. Animal production (small-scale dairy production, poultry and meat-producing animals) is a major activity, especially in the two governorates of North and Bekaa that are most affected by the Syria crisis, with over 46 percent of the livestock farmers in the North (32 percent in Akkar and 14 percent in the rest of the North) and 31

percent in the Bekaa (19 percent in Baalbek-Hermel and 12 percent in the rest of the Bekaa). Most of the low-income families in these districts rely on livestock for food security and nutritional and economic status. Almost 70 percent of the dairy herds, 87 percent of sheep and 67 percent of the goat flocks are found in the four sub-governorates that are most affected by the Syria crisis: Bekaa, Baalbek-Hermel, North Lebanon and Akkar which are all adjacent to the Syrian border. Semi-nomadic or transhumant systems are being practiced mainly in the Baalbek-Hermel areas where animals move between semi-arid grazing areas and cropping areas. In this system, they depend partially on natural grazing and partially on crop by-products, and spend winter mostly around the homesteads. The semi-extensive (settled) production system is practiced basically in the Bekaa area and in the other regions of the country where sheep and goats graze natural pasture during the day, return to the barns each day and feed on crop by-products, while supplementary feeds are provided as required.

A total of 10 400 livestock growers raise 69 000 *dairy* heads, predominantly of the Holstein breed (40 000 are lactating cows) where 75 percent of these farmers are smallholders keeping less than 15 heads. Dairy cattle are raised in mostly intensive or semi-intensive systems where grazing is practiced only during the spring season for a couple of months and when applicable. Natural mount had been practiced in most of these small farms until the FAO interventions introduced artificial insemination gradually since 2003. The average milk production in these farms is around 6 000 kg/cow per lactation. Male calves are raised in fattening units until a desirable market weight is obtained.

The *small ruminant* population in Lebanon is around 404 000 and 265 000 for goats (predominantly local breed) and Awassi sheep, respectively. Sheep and goats are the main species of livestock adapted to a range of climate variability and dryness of the region. Awassi is perhaps one of the few breeds able to survive the fluctuating feed availability resulting from desertification and recurrent droughts; its fat tail provides a reserve of nutrients for periods of feed shortage. Average milk production of Awassi ewe and local doe is 90 and 180 kg/animal per lactation, respectively. After weaning, kids and lambs are fattened in an intensive production system and sold after 3 to 4 months. Around 7 percent of the goat population is reported to belong to the pure Shami (Damascus) breed but the majority of these are hybrids having more than 50 percent of the Shami phenotypes. These hybrids inherited the rusticity and adaptability of the local breed and the high milk production of the Shami goat. It is worth mentioning that Damascus goat is called the 'cow of the poor family' since it produces up to 600 kg of milk per lactation and is raised in a similar way to the dairy cattle in intensive or semi-intensive systems. Mixed farming is being practiced by 2 170 small ruminant farmers for the majority of sheep and goat flocks. Around 70 percent of the small ruminant farmers (sheep, goat and mixed) are smallholders and own less than 50 heads.

Traditional *poultry* production consists of raising 412 000 chickens mainly of local breeds in backyard operations that mostly lack biosecurity measures. Industrial poultry operations, however, consist of raising highly advanced strains for the production of 45 million broilers for meat consumption, 3.8 million laying hens for table eggs and 400 000 broiler and layer breeders to produce fertilized eggs. Industrial operations are owned totally by private companies and take place in conventional poultry houses (open houses with windows) and environmentally or semi-environmentally controlled houses. Consequently, the poultry production systems are mainly of two types: (1) industrial integrated system where the farms are part of an integrated poultry production enterprise with clearly defined and implemented standard operating procedures for biosecurity; and (2) commercial poultry production systems with moderate to high biosecurity, in which farms have birds that are kept continuously indoors to prevent contact with other poultry or wildlife. In addition, and in order to meet a special niche market demand for both eggs and meat, limited numbers of small farms apply the free range system with low to minimal biosecurity, in which birds grown in an open house spend some time outside the sheds. Although the poultry industry has flourished in the whole country, *broiler and table egg production constitutes 63 and 81 percent, respectively, in the above-mentioned Syrian bordered governorates. Also, more than 50 percent of the 170 000 beehives are found in these very same areas.*

As far as *livestock production inputs* are concerned, dairy animals feed traditionally on locally produced roughages such as cereals (wheat and barley) and legume straw (vetch or ervil). In addition, corn silage

and hay from alfalfa, barley-vetch, or barley-oats have been also introduced by joint efforts made mainly by Ministry of Agriculture-FAO interventions. Concentrate rations are also fed with main ingredients, except for limestone and sodium chloride, being imported at international market price. Small ruminant graze most of their time on grasslands and scrublands, but are supplied with roughages and concentrates during the rainy seasons. Drinking water is made available through pumping from underground water, rivers and springs running in the grazing areas (when applicable) and rarely from municipality waters. Dairy farmers and forage growers have recently enjoyed a 20 percent governmental subsidy allocated last year for the first time to this sector. The Ministry of Agriculture has also provided vaccines for foot-and-mouth disease (FMD) and enterotoxaemia for both dairy and small ruminants in addition to veterinary drugs against internal and external parasites along with some detergents and disinfectants. Other FAO interventions in the above-mentioned Syria-bordered governorates resulted in improved milk quantity, quality and price (40 percent) through the creation of several dairy cooperatives and setting a definite network of primary milk collection and cooling centres. Although the Ministry of Agriculture has hired several veterinarians and created several extension bureaus across the country, veterinary services are still below the requirements in the rural areas in general and in the four sub-governorates bordering Syria in particular.

Animal processing is under the supervision of the municipality veterinary authority, but very few slaughterhouses in the large cities across the country meet the standard hygienic guidelines for the processing of large animals.

2.2 Influx of Syrian Refugees into the Rural and Agricultural Setting

The Syrian crisis has resulted in massive inflows of displaced persons and refugees within Lebanon and across the region (Jordan, Turkey, Iraq and Egypt). Lebanon hosts the largest number of Syrian refugees (37 percent of the total Syrian refugees) making up already more than one-third of the total population. Based on government estimates (November 2013), nearly 1.5 million Syrians have reportedly entered Lebanon since the onset of the crisis in March 2011. As of November 2013, the number of Syrian refugees stood at 824 288 (169 597 households) already registered or awaiting registration with UNHCR. As mentioned earlier, the difference between the UNHCR number and the total number is accounted for by: (1) Syrian refugees who are not willing to register with UNHCR; (2) Lebanese returning from Syria; and (3) Palestinian refugees from Syria. Since July 2012, there has been a major increase in the flow of refugees: over 80 percent of the refugees have registered since the beginning of 2013. In addition, Lebanese returnees were estimated at 41 000 and Palestinian refugees from Syria account for 92 000 as of August 2013.

Syrian refugees are predominantly located in the governorate of Bekaa (33 percent), followed by North (29 percent), Beirut and Mount Lebanon (25 percent) and South (12 percent). In Bekaa, Syrian refugees are spread primarily in the districts of Hermel, Baalbek, Zahle and West Bekaa, with the highest concentrations (around 5 000–20 000 refugees) in Bar Elias, Aarsal, Qab Elias, Majdel Anjar, city of Baalbek, Saadnayel, Qaa, Hermel, Britel and Zahle. In the North, Syrian refugees are mostly located in Akkar with the highest concentrations (5 000–10 000 refugees) in the towns of Amayer, Halba, Mhamaret and MazraaJabalAkroum. In Beirut and Mount Lebanon, Syrian refugees are concentrated in the southern suburbs of Beirut. In the South, they are mainly located in the districts of Saida and Sour, with the highest numbers (3 000–5 000 refugees) in the villages of Ghazieh and Bissariye and the city of Sour (*see also above, Annex 2, Map 1 – Syrian Refugee Influx*).

Most Syrian refugees are concentrated in the poorest areas of Lebanon, such as the governorates of Bekaa and North, and are now present in more than 1 400 municipalities across the country; they account for over 30 percent of the local population in more than 133 locations (predominantly in north and northeast Bekaa). While the majority of refugees are renting accommodations or are hosted by Lebanese families (less than 7 percent), there are now already over 1 400 informal settlements across the country – the majority are located in north and east Bekaa. More than 57 percent of the refugees are below the age of 25; around 62 percent are of working age. Almost half of the working-age populations of

refugees have only completed primary education. Although centralized estimates indicate that about 10 percent of the refugees have previous experience in farming, field inspections revealed that in the rural areas and in closer vicinity to the Syrian border this percentage is substantially higher with up to over 50 percent.

According to official estimates, more than 35 percent of the Syrian refugees are considered vulnerable including women (49 percent), children under the age of 12 (40 percent) and elderly (3 percent). The vast majority of the refugee population is poor with low educational level, few assets and limited employment opportunities. Many Syrian refugees with farming background have brought their livestock into the country – as one of the few kinds of valuable assets. Based on a vulnerability assessment of Syrian refugees in Lebanon conducted by the World Food Programme (WFP) in 2013, where more than 1 400 Syrian refugee households were interviewed over the period May–June 2013, almost 57 percent relied on employment/temporary labor as their main source of income. Another *30 percent of the interviewed refugees depend primarily on assistance (food vouchers)*. Of those very few who had some access to land, only a small percentage had cultivated plots (mainly with vegetables) due to limited access to inputs, irrigation water, small tools and equipment, and technical know-how. The same study revealed that *nearly 70 percent of the households were food insecure*. Almost 12 percent experienced moderate to severe food insecurity. An additional 50 percent have limited food and non-food related coping strategies (such as having more dependence on less expensive food, reduction in number of meals/portions per day, spending savings, buying food on credit basis, reducing non-food expenditures), thus negatively affecting their living conditions and food security in the medium to long run. The immediate response to the Syria crisis from the Lebanese Government and the international community focused primarily on humanitarian assistance programmes. Syrian refugee households have been receiving assistance in terms of food vouchers, food in kind, hygiene kits, health care or drugs, education support, furniture and clothing, and fuel subsidies.

2.3 Impact of the Syria Crisis on the Agriculture Sector and Rural Livelihoods

The conflict in Syria – a country that is closely linked, through historical, social and economic ties to Lebanon – is severely and negatively impacting the Lebanese economy. Related spillovers onto Lebanon have rapidly moved beyond the humanitarian to the economic and social spheres where large, negative, and growing repercussions are occurring. The ESIA report of September 2013 finds that during the 2012–2014 period, the conflict may (1) cut real GDP growth by 2.9 percentage points each year, entailing large losses in terms of wages, profits, taxes or private consumption and investment; (2) push approximately 170 000 Lebanese people into poverty (over and above the 1 million currently living below the poverty line) and double the unemployment rate to above 20 per cent, most of them unskilled youth; and (3) depress government revenue collection by USD 1.5 billion while simultaneously increasing government expenditure by USD 1.1 billion due to the surge in demand for public services, bringing the total fiscal impact to USD 2.6 billion. The largest impact arises through the insecurity and uncertainty spillovers which profoundly and negatively affect investor and consumer confidence. The resulting lower economic activity is putting downward pressure on government revenues which, combined with rising demand for public services stemming from the large refugee influx, is damaging Lebanon's structurally weak public finances. Across all key public services, the surge in demand is currently being partly met through a decline in both the access to and the quality of public service delivery.

The economic repercussions and the unstable security situation have particularly impacted the agriculture economy and its food production capacities, especially in the most affected geographical areas of northern and eastern Lebanon –and even more in the border areas of Hermel, Baalbek and Akkar where farmers can to a great extent not even access their agricultural land. Farmers which have traditionally relied on agricultural inputs and services at subsidized/cheaper rates from Syria today face a sky-rocketing increase in input/production costs and are struggling in keeping up production. Furthermore, farmers and pastoralists are increasingly abandoning their livestock as they are unable to cope with the escalating feed prices and decreasing prices of their animal and animal products. Farmers'

income is also affected by the disruption of trade routes (closure of border points) and increase in transportation costs. The section below highlights the impact of the Syria crisis on the Lebanese agricultural and rural setting in a sub-sector and thematic approach.

Labour force and wages

The Syrian spillovers are further exacerbating the already difficult labour market conditions and are expected to result in additional unemployment and informality. Prior to the Syria crisis, labour market conditions in Lebanon were already dire. High unemployment rates coexisted with mismatches in the labour market and a high prevalence of low-quality and low-productivity jobs. The massive and continuous influx of Syrian refugees is expected to further increase labour supply by between 30 and 50 per cent– with the largest impacts on women, youth and unskilled workers. Such a massive increase in the number of individuals looking for jobs at a time when economic activity is subdued is expected to have major effects on labour market outcomes. In this context, it is important to highlight that for the last three decades, the agriculture sector in Lebanon has been relying to a great extent on Syrian labour force. However, after the crisis started, these labourers (in addition to ordinary refugees) brought their families and relatives to work with them. Officials confirmed that about 200 000 of such persons have entered the Bekaa during the crisis, adding to the pre-existing 260 000 Syrian labourers. Employment of skilled workers has been affected, especially in agro-industries and women working in the agriculture sector, where the Syrian non-skilled labourers are gradually replacing the skilled Lebanese labour force. According to the emergency market mapping and analysis (EMMA) of the agricultural labour system in North and Bekaa (March 2013), the increasing competition between the Lebanese workforce and the Syrian workforce (migrant workers and refugees) led to the decrease in agricultural wages of Lebanese workers (from LBP 35 000 to 25 000 per day) and of Syrian seasonal workers (from LBP 3 000 to 2 000 per hour for men and from LBP 2 000 to 1 500 per hour for women). In some villages of the Bekaa, daily wages of labourers have dropped by up to 60 per cent– this was also confirmed by actors working in agro-industries.

Most of the labour force is unskilled and conduct agriculture activities such as planting, pruning, thinning or harvesting in an inappropriate way. The absorption of the newcomers into the agriculture labour force requires additional efforts to improve their skills, especially as the extension or advisory services provided by the Ministry of Agriculture and NGOs present in the affected areas have limited capacity and usually target only the Lebanese farmers, and not necessarily the Syrian labourers.

2.3.1 Impact on Crop Production

The negative impact of the crisis in Syria on crop production in Lebanon is variable according to crop and distance between the area of production and the hostility zones across the border. Impact is either direct or indirect, as described below. Crop production and yield are directly affected, especially near the border. In some areas (a few kilometres away from the borderline) farmers can at times not access their fields to irrigate or harvest their crops. Their production and consequently their revenue are minimal if not nil. Abandoned orchards die and trees are cut, as confirmed, *inter alia*, by farmers in the northern Bekaa region.

Agriculture inputs and cost of production

In bordering areas, farmers used to import most of their agricultural inputs at low prices from Syria, where agriculture production inputs were largely subsidized by the government. These inputs include pesticides, herbicides, seeds of local varieties of white cucumber and eggplant, forage seeds and fodder, fertilizer such as urea and ammonium nitrate, diesel for pumping water for irrigation and for transporting

goods, as well as machinery spare parts and equipment. Products entered formally or informally across the border. Because of the conflict in Syria, most of these items are now difficult to find on the market, and if they exist, their prices have increased dramatically.

Actors interviewed in the Bekaa reported that alfalfa seed prices rose from USD 2.5 to 8 per kg and eggplant seeds from USD 10 to 35 per kg. In the Qaa region, the costs of some vegetable seeds have increased threefold in the past two years (white cucumber from USD 7 to 30 per kg; squash from USD 10 to 33 per kg). The price of agriculture sulfur products (used as fertilizers) has also increased from USD 5 per bag of 25 kg (previously imported from Syria) to USD 25–30 (imported from France). Sulphur used for pest control rose from USD 4.5 per bag of 25 kg to USD 25. Machinery spare parts prices increased threefold and the diesel 20 litre tank price increased from USD 10 to 18. In the latter case, diesel smuggling is not cost-effective anymore as the prices are now similar to those in Lebanon. Cheaper imports of inputs have been substituted by imports from more expensive foreign sources. There have been shortages in some other inputs such as urea fertilizers primarily brought from Syria and whose prices skyrocketed from USD 290 to 650–675 per metric ton.

Furthermore, some processing manufacturers who rely on imported raw material from Syria are facing shortages due to import disruption (i.e. pistachio, apricot, milk, bags, etc.). Factories are obliged to find alternative sources for their raw agriculture products. In summary, there has been a dramatic increase in the cost of production of most agricultural commodities. Adding to this is the fact that due to the various factors described, Lebanese farmers are increasingly discouraged to invest and thereby to improve their agriculture practices.

Agriculture trade and commodity/food prices

The Syria crisis has had a direct impact on marketing of agricultural products in domestic and foreign markets. Changes in market conditions in border locations are directly observed due to disruption of cross-border trade. Agricultural trade with Syria and other trading partners (mainly neighboring countries) has been partially disrupted as Syria is a major destination for agricultural and food products and a transit route for a large number of agricultural exports (fresh fruits and vegetables including potato, citrus, banana and apple). Intermittent closure of the borders had a direct impact on export. The Qaa border crossing has been closed, while two other crossing points of Al Masnaa and Al Arida have been disrupted. Some agricultural exporters shifted from road to sea transportation coupled with a substantial increase in transportation costs, while land freight costs have also increased.

At the same time, the food supply gaps in Syria have resulted in an increase of the Lebanese agricultural and food exports into Syria (wheat flour, citrus, other fruits). In 2012, flour exports increased to USD 7.2 million compared to USD 1.3 million in 2011. While Lebanon was a net food importer from Syria, a surplus in agricultural trade with Syria has been recorded for the first time in 2012. There has been a sharp decrease in agricultural and food exports from Syria into Lebanon (USD 266 million in 2012; nearly 49 percent decrease between 2010 and 2012), whereas agricultural imports into Syria increased by almost 12 percent over the same period.

The contribution of the agriculture sector to the national economy is expected to further decline due to the Syria crisis, causing losses in terms of agricultural outputs, wages, profits and investment. The fiscal deficit is expected to rise with the substantial fall in the imports of food products from Syria and the increase in government expenditure on food subsidies. Lebanon maintains wheat/wheat flour subsidies in order to keep the price of Lebanese bread fixed at USD 1 (900 g). The increase in the number of Syrian refugees has additionally resulted in an increase in the fiscal burden for food subsidies.

Food commodities prices and trade can be analysed according to major fluxes of agriculture commodities, as presented below.

Crops produced and sold locally: The negative impact of the Syria crisis on the marketing and prices of local products is indirect, and variable among regions and commodities. For instance, in Akkar and North Lebanon, fruits and vegetables are facing the competition of the Syria products. In the Bekaa many crops have the same fate; forage crops, with prices dropping from USD 350 to 220 per metric ton while watermelon prices went from USD 200 to 80 per metric ton. Syrian olive oil is dumped onto the local market, competing with the local production that is already facing marketing difficulties. The difficulties of transporting Syrian products to major Syrian markets resulted in the divergence of the production from some Syrian areas to Lebanon.

Crops exported to Jordan and Gulf countries (apple, pear, citrus, potato, grapes, forage, ornamentals, and processed food): These crops are normally exported through land route across Syria. Consequently the unstable security within Syria has made this route more risky. According to exporters in the Bekaa, transportation costs have increased from USD 20 to 60 per metric ton. Commodities like forage crops which originally had a low benefit margin are negatively affected and no more cost-effective for export. Vegetable or fruit crops with limited shelf-life were also at stake; during hostilities the borders close which hinders the exportation of such commodities.

Crops exported to Syria (banana, ornamentals, processed food): For the same conflict-related reasons mentioned above, as well as the reduction of the purchasing power for Syrian citizens, exports to Syria experienced serious disruptions, with more impact on non-essential commodities (ornamentals, wine, banana).

Crops and processed food imported from Syria (pistachio, barley and other fodder crops, olive oil, apricot, vegetables): Several products like barley, apricot and pistachio are not imported anymore. Alternative sources to these products have a higher cost. Moreover, food commodities are brought by the Syrian refugees not only for self-consumption, but also to be sold on the local market. These goods usually include non-perishable products (sugar, rice, oil, etc.), and also fresh seasonal vegetables whenever security conditions are favourable for transport – such informal imports however depress local market prices.

Fresh and processed products in Syria informally sold in Lebanon do not follow any food handling standards during processing or transport with the related negative impact on *food safety*. Inspection and quality control that should take place at the border is not performed – either because the products have entered with the refugees informally, or because the quarantine service staff abandoned their location during threatening hostilities across the border.

On the other hand, the increased demand for staple products in Lebanon (by Syrian refugees) as well as in Syria, coupled with the inability to import cheaper foods from Syria (a significant fall in Syrian food and agricultural imports into Lebanon), have pushed prices upward resulting in a needed increase of household food expenditures.

Plant health and diseases

Plant health is affected through increased pest and disease outbreaks or eventual dissemination of new pests and diseases, especially as the Lebanese quarantine and inspection control at the border is under capacitated and absent when hostilities are close and threatening. The risk is higher for citrus and stone fruit, as they are vulnerable hosts of viruses and phytoplasma which affect not only the production but also may result in plant death. Vegetable seeds and seedlings also carry unidentified diseases. The limited capacity to inspect plant imports and to secure the production of healthy plant material locally at competitive prices will increase the risk of pest and disease transfer from Syria, and consequently have a negative impact on agriculture crops on the medium and long term through the dissemination of diseases affecting crop yield and quality.

2.3.2 Impact on Livestock Production

As mentioned above, the four sub-governorates bordering Syria in the north and east of Lebanon are also major sites for the animal sector in the country. The proximity of the Bekaa Valley and northern Lebanon with the Syrian borders along with the fact that people on both sides of the border have been tightly related over decades and centuries, explain why most agricultural inputs used to be imported from Syria at low/subsidized prices. These include veterinary services, pesticides, seeds, fertilizers, forage, medications for beekeeping, diesel for transportation and other production inputs. Due to the conflict within Syria and the border insecurity, the flow of these agricultural inputs has been disrupted. This has resulted in significant shortages in areas like Akkar and Hermel districts, forcing farmers to look for alternative sources of *inputs at much higher prices*. Prices of animal feed, for instance, which were previously bought at subsidized prices from Syria, have almost doubled. Due to the lack of winter grazing lands, the price of barley has also risen from USD 200 to 300 per metric ton.

Accurate figures on the *numbers of livestock that crossed the Syrian border* are not available, but according to FAO estimates (September 2013), the number of animals having crossed the border since the start of the Syria crisis represent roughly 10 and 30 percent of the total population of dairy cattle and small ruminants in Lebanon, respectively. This would be translated into some 7 000, 120 000 and 80 000 heads of cattle, sheep and goats, respectively (a total of over 200 000 animals). However, movements of animal herds occur continuously. Estimates indicate that 250 to 300 sheep, goat and cattle cross into Lebanon from Syria every day. For example, during the third week of November 2013 alone, some 20 000 sheep and goat heads were reported by farmers from Brital area to have entered the Lebanese territory fearing upcoming hostilities in the Syrian Kalamoun area on the opposite side of the border. Field investigations with groups of small livestock farmers in Akkar and Hermel areas confirmed the magnitude of the Syria crisis on the ruminant sector. Another example, 160 families with an average size of six members per family (90 percent are Lebanese and Lebanese returnees from Syria and 10 percent are of Syrian origin) had fled their villages in Syria (almost 18 months ago) with their dairy animals (averaging 2.5 heads per family) and sought refuge in Mashareeh Al kaa (Hermel area). The manager of the milk collection centre in that area indicated that during the pre-Syria crisis he used to receive 5 metric tons of milk per day, which was increased to 8 metric tons due to the influx of these families. He stated that the production remained high for 3–4 months and declined afterwards to become 3.5 metric tons per day as the majority of these animals were (or better had to be) sold/liquidated due to several factors explained below. Similar situations were reported also from other locations.

In addition, the influx of the small ruminant flocks has exacerbated the already vulnerable and *fragile rangelands* situation due to the late rainfall this year in both the Bekaa Valley and Akkar areas. Small ruminant grazing density has increased especially in the Hermel area leading to *depletion of natural resources* in the semi-arid grasslands which becomes apparent while inspecting respective areas throughout the Bekaa Valley. Moreover, in a meeting with representatives of small ruminant farmers in Hermel area, mostly Lebanese and Lebanese returnees from Syrian villages – most of them are landless smallholders – indicated that the influx of sheep and goat flocks has *increased the grazing cost* in grasslands and scrublands by at least 50 percent since the start of Syria crisis. Moreover, they stated that the small ruminant flocks that recently entered Lebanon will be facing sheltering problems during this winter as the animal barns in the area are saturated and cannot cope with the 50 percent increase in the number of small ruminants. Both dairy and small ruminant farmers indicated that the *cost of roughages and concentrate feeds has increased by at least by 25 percent and that of veterinary drugs* in Lebanon is twice as much as what they used to purchase from the pre-war Syria.

Veterinary services inside Syria (e.g. animal disease surveillance, vaccination programmes, quarantine facilities) collapsed early in 2012. The first, and most important, impact is the increased uncontrolled movement of livestock across borders. This is particularly important because Syrian livestock have not been vaccinated against *transboundary animal diseases* (TADs) and zoonoses for at least 12 to 18 months. Consequently, Syrian refugees (and Lebanese returnees) have brought unvaccinated sheep, goats and cattle to Lebanon. This threatens the health of livestock and of the people in those regions. As

mentioned above, veterinary services in Lebanon are not able to cope with the increased threat of TADs coming from Syria. Therefore, with the collapse of animal protection services in Syria and weak sanitary and controls at border crossings, the risk of diseases such as FMD, *peste des petits ruminants* (PPR) and lumpy skin disease (LSD) breaking out in Syria and spreading across the region is heightened.

Some informal information about livestock slaughtering points, right after crossing the many porous passage roads at the Lebanon–Syrian border could not be confirmed. However, incidences on livestock slaughtering in refugee camps/tents *lacking hygienic conditions* have been heard from several sources. Although milk in most areas of governorates bordering Syria is taken to certified processing plants through dairy cooperatives and a definite network of primary milk collection and cooling centers, it was reported that sporadic milk processing takes place in refugee camps without applying hygienic conditions.

In summary, the increasing cost of production of dairy and small ruminants has become too high a burden for smallholder herders/farmers because of the following reasons: 1) dwindling of feed supplies and higher market price (more than 25 percent) of both roughages and concentrates; 2) higher cost of grazing rent in rangelands; 3) shortages in veterinary services and high cost of veterinary visits and drug supplies; and 4) as artificial insemination has not been practiced in dairy animals and as smallholders cannot afford the cost of raising breeding bulls, some cows remain empty and are sold for meats.

In addition to the above reasons, the deterioration in the financial status of these smallholder farmers have made them obviously obliged to sell parts of their animals, in most of the cases at about 40–50 percent of their normal market price in order to support their own living expenses and buy feed and drugs for the remaining animals. Thus, these animals have been sold at a very cheap price either for meats as stated previously (USD 3 versus 5 per kg live weight of lamb pre-war) or to farmers (USD 125 versus 260 per pregnant ewe pre-crisis) having the means to raise them, in most of the cases in areas far from the Syrian borders. Dairy cows were sold at USD 2 000 as opposed to USD 3 250 per cow and a Shami goat was sold for instance at USD 150 as compared to 400 before the start of the crisis. The price of beef fell by 15–20 percent compared to 2011 and lamb meat prices are almost half of their pre-crisis prices (from USD 6 to 3 per kg) due to the increase in the influx of Syrian livestock into Lebanon over the past two years. Another example is the white cheese that used to be imported from Syria. It is now imported from Egypt at a much higher cost; thus resulting in higher prices on the Lebanese market for this most popular dairy product.

2.3.3 Impact on Natural Resources

Especially in those areas where large refugee settlements/camps are established, like along the northern coast of Akkar, *depletion of natural resources*, alteration of habitats of fauna and flora as well as *pollution* are evident. The flux of the refugees and their search for water points is resulting in a dramatic increase of *solid waste* along the rivers and coastline causing higher pollution levels of these ecosystems. An additional environmental impact resides in water pollution by leakage from sewage tanks or dumping into rivers, affecting directly natural ecosystems and food security. The deterioration of water quality is affecting not only potable water but also *water used for irrigation*. Solid wastes dumped in channels also result in obstruction of drainage systems which increases flood risks along rivers during winter – an example is Nahr el Joz in north Lebanon where refugees are settling in the Kfar Hilda area.

The conflict in Syria resulted in the flux of refugees and their herds to range lands in relatively calm and secure zones. In northern Bekaa, for example, refugees came across the border with their livestock. Although some of the animals are sold and liquidated, some herds remain (about 50 per cent of the livestock). These, in addition to the local small ruminant herds, are depleting the already degraded rangelands of northern Bekaa. This area rarely receives some precipitation and does not have a substantial carrying capacity. Consequently *overgrazing occurs and vegetation cover is degraded*. In the Anti-Lebanonchain (Eastern Lebanon Mountain Range), in areas close to the border where hostilities are

frequent, grazing is not practiced anymore and transhumance is disrupted. However, the total absence of grazing increases the regeneration of non-palatable woody plants, and reduces the value of the pasture.

During hostilities, some woodlands close to the border were subject to Syrian fires which induced forest fires (like in Noura area in Akkar). Furthermore, the presence of refugees stimulates a higher demand for fuel wood, in particular with winter approaching. Consequently, the Lebanese rural communities are over-exploiting their wood resources to sell fuel wood to the refugees (1 metric ton of wood is sold at USD 200). This is resulting in a *depletion of wood resources and forest degradation*, and adds to the decrease of forest cover in Lebanon. Akkar and DanniyeH areas which have dense forest cover are the most vulnerable, especially that rural communities in these regions are poor, and rely on forest ecosystems for their livelihoods. Adding to this, orchards abandoned due to hostilities and refuge-seeking are increasingly subject to indiscriminate cuttings for sale to poor refugees and Lebanese as fuel wood. The increasing number of refugees in different parts of Lebanon results also in an additional stress on *edible plants and other non-wood forest products* that are found in forest and other woodland ecosystems (oregano, thyme, sage, watercress, etc.). Refugees compete with the local poor communities on these resources, which increases not only the vulnerability of local communities relying on these resources, but also creates conflicts among users of these resources especially in Akkar area (see also Annex 2, map on Environmental Pressure and Poverty)

The influx of refugees in large numbers will definitely result in accelerated *degradation of water resources*, for domestic use. Moreover, potato and vegetable growers in the Bekaa have increased their planted surface in order to cover the increasing local demand for food commodities. Such increase in agriculture land cultivated for irrigated crops as well as the increase in domestic use has accentuated the depletion of underground water. Farmers in Al Qaa area confirmed that the water table – which usually at winter start is situated at 150 m – has dropped by 10 to 20 m. However, in years with extended dry periods, like in 2013, the water table might get deeper, as long as snowmelt and rain have not refilled the underground aquifers. Besides the environmental impact of depleted water resources, economic impact is resumed in the additional costs for energy to pump water from deeper aquifers and related transportation (increased by a minimum of 10 per cent). Farmers in the Hermel area indicated that the cost of pumping water from Assi River or underground wells depends on the price for diesel which they used to buy (pre-crisis) from Syria at least 20 percent less than its price today in Lebanon.

Many refugees rent land to settle, mainly in the bordering villages. In other places, refugees are simply occupying the land, and preventing farmers from accessing their plots, as confirmed, *inter alia*, by farmers in Al Qaa area in northern Bekaa. This has a negative economic impact leading at times to land abandonment by their owners and change in land use – and furthermore creates *conflicts between land owners and refugees*.

2.3.4 Poverty and Vulnerability

Based on a UNDP study in 2007, around 30 percent of the Lebanese population is considered to live below the upper poverty line (USD 4 per capita per day) of which 8 percent (nearly 300 000) are under the lower poverty line (USD 2.5 per capita per day). Findings of the same study revealed large regional disparities with very high poverty rates, for example in Akkar. Poverty rates were the highest in the North (53 percent) and Bekaa (40 percent). The poor are highly concentrated among the unemployed and the unskilled workers mainly engaged in the agriculture and construction sectors. Rural areas witness higher incidence of extreme poverty correlated with low-income potential from agriculture. The agriculture component of income is particularly subject to climatic risks particularly in dry land areas, such as Akkar, Hermel and north Baalbek– areas hardest hit by the Syria crisis. Agriculture is however the main source of livelihoods for the majority of those rural communities hosting Syrian refugees.

According to the ESIA report (World Bank 2013), the Syrian conflict is negatively impacting poverty, which is expected to increase by an additional 170 000 Lebanese individuals at the end of 2014 (over the present 1 million below the poverty line); and the already impoverished population will be pushed further into

poverty. More than half of these approximate 1.2 million of the affected Lebanese are considered as being particularly vulnerable. Small-scale farmers and herders across Lebanon and particularly in the directorates of North and Bekaa are among these most vulnerable groups due to their high poverty rates. It is estimated that 86 percent of registered refugees and 65 percent of poor Lebanese are concentrated in 215 villages across the country, primarily in the poorest districts of Akkar, Hermel and Baalbek. The absence of effective social safety nets contributes to the vulnerability of these groups in the affected areas. The large number of Syrian refugees has indeed exacerbated the limited access of the host communities to social services and scarce resources, and increased competition for jobs. This has resulted in social tensions and fragile intercommunal relations between refugees and Lebanese communities – which are on the rise (mainly in Akkar and Bekaa).

The unstable security situation has affected food production capacities, increased agricultural input prices and affected agricultural and food trade. Agriculture-based livelihoods have suffered both from loss of income and increase in food expenditures. Rising food prices had indeed a considerable effect on food security of the low-income households resulting in an increase in the share of food expenses from total household expenditures making them even more vulnerable to accelerating food prices. Alternative coping mechanisms of host communities just include reduced savings, increasing debt or cutting number of meals.

2.3.5 Key Challenges

The below highlights the main impact areas which simultaneously represent key challenges that need to be addressed either directly or indirectly in the short to medium and long term (1–5 years) in order to safeguard and stabilize the livelihoods of the poorest and most vulnerable farming communities in those geographical areas hardest hit by the repercussions of the Syria crisis. The below does not refer to the generic constraints of the sector –present even before the onset of the Syria crisis –but the focus is put on those constraints which emerged and unfolded/accentuated due to the Syria crisis. However, as some of the aforementioned shortcomings are directly related to pre-existing and now even accentuated sector deficiencies, a respective systemic approach is taken to create sustainability and lasting effects of any intervention proposed.

Data Availability

Probably the most serious shortcoming with regards to proper planning for emergency and recovery interventions is the ***de facto absence of comprehensively reliable information and especially quantitative data to assess the exact impact*** of the various facets of the unfolding Syria crisis on the Lebanese agriculture and rural settings. Two and a half years into the crisis, the quality and quantity of credible, timely and decision-focused food security and natural resource use information related to the Syria crisis remains extremely low. To date, ***it has not been possible to gain a detailed picture of food security and natural resource use in the affected areas*** and this presents a major problem for informed decision-making. Furthermore and directly related to it is the absence of food security, agriculture and natural resources information and analysis network/system to continuously monitor and assess related situations and thereby, *inter alia*, anticipate potential accentuation of threats and crisis requiring appropriate action. Both of these critical issues are being addressed further in this document.

Key challenges:

- Reduction in household income from agriculture and increased poverty levels
 - Reduction of jobs and wages in agriculture and increased competition
 - Reduction in household food and nutrition security
- Temporary/permanently abandonment of farmland in bordering areas (due to hostilities and insecurity)
 - Reduction of agriculture productivity and profitability(input/output constellation)
 - Increased cost of production (for production inputs and services, for both crop and livestock systems)
- Inadequate handling, processing, storage, and marketing (affecting quality, shelf-life and prices)
 - Increased cost of processing, storage and transportation
 - Reduced food safety and weak phytosanitary control (poor handling/processing, border/trade inspection)
- Increased risk of pests and disease outbreak (weak border/trade inspections, inadequate crop practices)
 - Weak or absent crop advisory/extension systems
- Increasing numbers of livestock being moved into Lebanon
 - Large numbers of animals (loss of assets) being sold/liquidated (due to financial constraints of owners)
 - Weak or absent veterinarian services – increased risk of outbreaks of transboundary diseases
- Depletion of rangelands and grazing areas (overgrazing)
 - Depletion and degradation of wood and forest resources (incursion for illegal cutting, fires)
 - Increased depletion of water resources (contamination of irrigation water, lowering of water tables, drought)
 - Affected water management practices (inadequate irrigation, increasing costs for pumping, pollution)
 - Degradation of natural resources – alteration of habitats of flora and fauna (*inter alia* pollution, solid waste)
 - Increasing conflicts over natural resources between Lebanese and refugees
 - Discouragement of farmers to invest/apply good practices (due to high production costs and insecurity)
 - Poor public sector capacity for crisis monitoring, preparedness and mitigation

3 STRATEGY

3.1 FAO's Approach to Resilient Livelihoods

3.1.1 FAO's Strategic Objective 5

In order to achieve the Vision of FAO and the Global Goals of its Members, the Organization has defined five Strategic Objectives (SOs), via: (SO1) eradicate hunger, food insecurity and malnutrition; (SO2) increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner; (SO3) livelihoods of rural populations, in particular for women and youth, are improved through enhanced employment opportunities and conditions, and increased access to productive resources and rural services; (SO4) enable more inclusive and efficient food and agricultural systems at local, national and international levels; and (SO5) increase the resilience of livelihoods to threats and crises. The focus of this FAO Action Plan for Lebanon is therefore in areas of direct relevance to FAO's SO5, while supporting the other four SOs in addressing resilience to longer-term stresses.

For FAO, "resilience to shocks" is the ability to prevent and mitigate disasters and crises as well as to anticipate, absorb, accommodate or recover and adapt from them in a timely, efficient and sustainable manner. This includes protecting, restoring and improving rural livelihood systems in the face of threats that impact agriculture, food and nutrition (and related public health) in situations such as the protracted Syria crisis.

Resilience reflects strengths and capacities of a system and its parts to manage risks and crises, while vulnerability is the degree of susceptibility to shocks. The resilience of communities is particularly important when institutions are challenged, for example, in protracted crises, violent conflicts and post-crisis transitions. Resilient livelihood systems withstand threats or adapt to new pathways in times of crisis. This resilience is the first – and sometimes only – line of defence for vulnerable smallholders when threats become crises. Those who have limited capacity to buffer crisis impacts risk life-long, intergenerational consequences when the marginally food secure slip into malnutrition and the impoverished fall into destitution.

Capacities to absorb and manage shocks have been depleted by the frequency and magnitude of crises and their cumulative effects. Recurrent, multi-faceted crises have eroded livelihoods and triggered unsustainable natural resource use, with deleterious consequences for millions of poor and marginalised rural people. This is compounded by inadequate institutional environments that otherwise should protect, preserve and promote the resilience of agricultural livelihoods.

Public and private systems that provide support and protect livelihoods and rights are often inadequate, especially in low-income, disaster-prone and protracted crisis countries such as Syria and its neighbours. The poor in rural and urban areas are disproportionately affected, with poverty serving as both a driver and a consequence of inadequate livelihoods. Malnutrition is both an impact of crises and of the related coping strategies that households are compelled to adopt as well as a driving factor threatening the resilience of livelihoods. Moreover, crises tend to perpetuate and reinforce existing social (including gender) and economic inequalities, hampering processes of sustainable and equitable recovery and development.

The inability of families, communities and institutions to anticipate, absorb, accommodate or recover and adapt from crises and disasters in a timely, efficient and sustainable manner is at the crux of FAO's strategic objective. This weakness in resilience triggers a downward spiral – household livelihoods and national development gains that have taken years to build are compromised or at times shattered.

FAO's resilience agenda encompasses strategic partnerships and direct action in four key, mutually reinforcing areas for agriculture, food and nutrition (including crops, livestock, fish, forests and other natural resources) at local, national, regional and global levels:

- **GOVERN RISKS AND CRISES:** Countries and regions adopt and implement legal, policy and institutional systems and regulatory frameworks for risk reduction and crisis management (e.g. agricultural policies which incorporate disaster risk management [DRM] in mainstream development and national DRM strategies that promote community-based Disaster Risk Reduction actions)¹.
- **WATCH TO SAFEGUARD:** Countries and regions provide regular information and early warning against potential, known and emerging threats (e.g. FAO-supported Integrated Food Security Phase Classification System [IPC], Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases [EMPRES] and Global Information and Early Warning System [GIEWS]).
- **APPLY RISK AND VULNERABILITY REDUCTION MEASURES:** Countries reduce risks and vulnerability at household and community level (e.g. natural resource management, livelihood diversification and risk-proof infrastructure and plantation such as rainwater harvesting, agroforestry, soil conservation, riverbank protection, flood control and landslide stabilisation)
- **PREPARE AND RESPOND:** Countries and regions affected by disasters and crises prepare for and manage effective responses (e.g. seed reserves, storage facilities, livestock shelters, issuing of mitigation and preparedness best-practice guidelines for cyclones, droughts, fires, floods, tsunamis, etc.).

3.1.2 FAO's Sub-regional Approach to Building Resilience to the Syria Crisis through Support to Food and Agriculture

Under the complex, multi-dimensional scenario of the Syria crisis, with expected long-lasting impacts on both Syria and its neighbouring countries, FAO places "resilience" at the heart of its interventions, addressing both the short-term humanitarian needs and the longer term underlying causes of vulnerability. With the final aim to protect, restore and strengthen livelihoods and the agro-ecosystems on which livelihoods depend, short-, medium- and longer-term actions are tailor-made to address the specific needs of the main groups affected by the crisis (Syrian internally displaced people and affected populations, refugees, returnees, host communities and national and local authorities). This entails interrelated and mutually supporting actions at all levels, i.e. households and communities at national and regional levels.

The present FAO Plan of Action for Lebanon is a key element of FAO's Subregional Strategy and Action Plan for "Resilient Livelihoods for Agriculture and Food and Nutrition Security in Areas Affected by the Syria Crisis", which is currently being finalized. The Strategy, which reflects FAO's corporate and regional frameworks (with the Syria crisis as its source and core), is articulated around four main mutually reinforcing pillars, as follows:

- i. Support vulnerable and affected people coping with the impact of the crisis and protect their livelihood asset base for future self-reliance – "*Prepare and respond*".
- ii. Promote prevention and impact mitigation measures – "*Apply risk and vulnerability reduction measures*".
- iii. Support information, monitoring and analysis networks on food and nutrition security – "*Watch to safeguard*".
- iv. Institutional strengthening for building regional, national and local capacities, as well as related policy frameworks to scale up and sustain the risk management and crisis recovery efforts – "*Govern risk and crisis*".

In order to operationalize the Strategy, FAO's Sub regional Action Plan encompasses key emergency response, agricultural restoration, livelihood recovery, risk-sensitive agricultural development and policy and capacity development interventions aimed at humanitarian relief for IDPs, refugees and returnees; stabilization and recovery of the national agriculture sectors; and strengthening resilience of Egyptian, Iraqi, Jordanian, Lebanese and Turkish host communities to help them withstand the impact of the Syria crisis.

3.1.3 Strategic Approach for Lebanon's Plan of Action

In order to sustain adequate standards of living, combat poverty and substantially increase and maintain food security in the geographical areas affected by the influx of Syrian refugees and returnees into Lebanon, it is important to strengthen and enhance the sector of the local economy that currently provides livelihoods for the vast majority of the local population. As indicated earlier, it is estimated that the livelihoods of the great majority of the rural population in the main affected areas in the North of Lebanon and in the Bekaa Valley depend directly or indirectly on agriculture and its sector environment. The population in these rural communities mostly affected by the direct and indirect impact of the Syria crisis and refugee influx are however already amongst the poorest communities of Lebanon and most of them live below the upper poverty line of USD 4 per day and with around 20 per cent being considered very poor and 8% food insecure.

Mostly applying low or underexploited input/output production systems, the most affected areas in the North and Bekaa have however a substantial potential for agriculture development, comprising crop production, livestock, fisheries and forestry. Experience from other countries around the world has shown that GDP growth from agriculture has been twice as effective at reducing poverty, thereby contributing to social stability, compared to GDP growth originating from other sectors. Increased agricultural production will also increase demand for related sectors, such as rural services, agroprocessing, agribusiness, the transport and communication sector, and is thereby a catalyst for employment creation in a series of related domains.

Therefore, fund mobilization for assistance should be geared towards enabling crisis-affected farmers and livestock-keepers, not only to cover their minimum needs to sustain food production but also to facilitate the desperately needed additional income and employment generating capacity of the sector, in particular for the Lebanese host communities. (In rural areas, savings of Syrian refugees and Lebanese returnees are running out quickly, increasing the economic and psycho-social pressure to find alternative means of livelihoods, while maintaining social peace with their hosting Lebanese communities.) This is necessary in order for these communities to be able to cope with the pressure, feed themselves and strengthen their potential to assist the refugees. Equally, creating income-generating opportunities for refugees will help them meet their basic needs of food and other necessities and will minimize pressure on local communities.

In this context, it becomes pivotal to apply efficient measures to sustainably reduce the steadily increasing cost of production (due to the factors explained above and interrelated with the Syria crisis). Many of the affected vulnerable rural households will remain burdened by asset/harvest/income losses over the medium term, while also suffering from the loss of other sources of income due to the state of disrepair and the generic economic downturn. For these most vulnerable farming households, *assistance should therefore target the lack of working capital which poses the greatest threat to safeguarding remaining production assets and to the recovery of the agriculture sector in the affected communities.* Farmers and input suppliers are unable to appropriately (pre-) finance agriculture production due to crisis-related losses and increasing poverty. Therefore, some of the below recommended initiatives are designed to address the critical situation of accumulated debt and unavailability of needed working capital amongst the most vulnerable farming communities in northern Lebanon and in the Bekaa, through appropriate (emergency) supply of indispensable production inputs – working capital in kind – crucial to sustain food production in host communities and kick-start the revitalization of the sub-sector.

Direct support to the resource-poor and crisis-affected communities should not simply be punctual in response to a crisis but should – where feasible – comprise actions oriented towards socio-economic development of the agriculture sector. Equally important and critical in such a complex and protracted crisis situation is **strengthening the resilience of livelihood systems** (*including individuals, households, communities, institutions and agro-ecosystems*) **to absorb (or cope) and recover in a sustainable way from the impacts of the Syria crisis, reduce risks and mitigate future effects of their food and nutrition security and agro-ecosystems.** When households, communities and networks for goods and services are resilient, people realize positive livelihood outcomes (sufficient income, food security, safety, proper nutrition, good health, etc.) and ecosystems are preserved and protected for current and future generations.

Strengthening resilience at all levels will contribute to increased levels of food security, reduced poverty, enhanced social cohesion and peaceful coexistence. This is particularly important in view of the above findings and considering that the seriously affected communities in northern Lebanon and in the Bekaa Valley are already amongst the poorest in the country.

In order to achieve this overarching resilience goal in the geographical areas most affected by the influx of Syrian refugees, the current Plan of Action for *food security response and stabilization of rural livelihoods* should aim at:

- optimizing the utilization of resource endowments (sustainable natural resources management – water, land, forests) for increased productivity in agriculture (crops, livestock, and fisheries) and related income and employment on a cost-effective and sustainable basis;
- overcoming the status of stagnating production levels; the farming communities should be given the means to increase production volumes in order to benefit from existing and new markets inside and outside of their region (taking advantage of a value chain approach); and
- ensuring that emergency/short-term initiatives and medium-term rehabilitation/stabilization efforts are rationally combined in order to form a sound basis for the long-term development of the sector; in this respect, simultaneous *institutional building and human resources development will be fundamental for creating the needed implementation capacity and lasting sustainability of public sector services provision*– for crisis prevention, preparedness and mitigation.

The geographical target area and main beneficiary groups of this assistance Plan of Action are:

- ***small-scale and food insecure farming (host) communities in the geographical areas most affected by massive influx of Syrian refugees and returnees in northern Lebanon and Bekaa regions;***
- ***Lebanese returnees with no significant alternative income-earning or employment alternatives seeking employment and income-generating opportunities in the rural setting of the North and Bekaa regions;***
- ***public sector and governmental entities having to address the impact of the Syria crisis in the related agricultural and rural setting;***
- ***Syrian refugees with no significant alternative income-earning or employment alternatives seeking temporary employment opportunities in the agricultural and rural setting of the North and Bekaa regions; and***
- ***resource-less Syrian herders trying to save minimum assets.***

The scale and scope of the assistance Plan of Action recommended has been based, *inter alia*, on the following considerations:

- a realistic dimension of achievable objectives (especially regarding the number of beneficiaries), given the five-year duration;
- the currently limited and overstretched government and local implementation capacity for the execution of emergency and rehabilitation projects;
- overly ambitious lines of action entail high risk of under-delivery and suboptimal achievement of objectives reducing potential for successive donor support;
- similarly, existing localized crop calendar needs have to be respected within any input-related project, and therefore represent, *per se*, a limitation in terms of speediness and number of initiatives to be implemented within a given period of time.

Overall, when it comes to the formulation of recovery needs within a defined *timeframe* and with limited levels of local implementation capacity, it is of paramount importance to focus on a realistic perception of the given circumstances listed above. However, **these proposals should only be seen as a first stepping stone to launch and kick-start a process that will hopefully culminate in the elaboration of further recovery and development projects needed for the rehabilitation and stabilization of the sector in the affected areas.** At the same time, support in other sectors (*inter alia* housing, feeder roads, power supply, and social services) will simultaneously assist families to sustain food production and farming income, and thereby sustain resilience capacity.

The Special Focus on Affected Lebanese (Host) Communities

The communities highly affected by the massive influx of Syrian refugees and interrelated socio-economic repercussions may both benefit and suffer from the availability of Syrians as cheaper labour, as well as the cheaper agricultural products coming with those who cross from Syria. The coping strategies of host communities and refugees in all border areas however are being seriously eroded as time passes; food prices are unstable and rental prices in some host communities increase drastically while wages plunge. In general, affected communities can be classified into four categories— in most cases; affected communities are actually a mix of one or more of these four categories:

- **Communities hosting Syrian refugees and returnees:** affected by increasing rents, increased pressure on household and natural resources and access to food, increased competition and availability of labour, etc.
- **Communities neighbouring informal refugee settlements:** affected mostly by the availability of surplus labour and competition with local labour, possible changes in food prices and shortages in energy and other services as a result of the growing demand from informal settlements, possible market opportunities for local farm produce and possible loss of agricultural land (through squatting).
- **Communities in close proximity to the border affected by violence and insecurity:** directly affected by the security situation and border conflict, cannot access their farmland or move freely, and may need to relocate internally.
- **Communities where livelihoods are highly engaged and interacting with communities in Syria:** including traders, seasonal labourers, cross-border relatives or farmers who used to obtain their subsidized agricultural inputs and services from Syria and now face loss of income and degraded livelihoods as a result of higher input costs and loss of markets for their products, increased competition and availability of labour, etc.
- It has become apparent that host communities are increasingly showing signs of fatigue and resignation towards the fact that Syrian refugees are often receiving substantial livelihoods support from UN agencies and charity organizations while their Lebanese host families are increasingly struggling to cope with the mere basic needs. It is therefore fundamental to support the resident population as well as refugee populations in order to reduce social tension and strengthen social cohesion.

The elaborated sub-programmes interventions (Chapter 6) are not definitive in nature, i.e., once donor interest is confirmed, working sessions between the donor, Government of Lebanon line ministries and FAO will review and fine-tune the proposals in order to reach a common agreement prior to signature, including scale of financial assistance and support duration, geographical and beneficiaries targeting and implementing partners. Therefore, there is still sufficient flexibility for justified modifications even at a later stage.

In Anticipation

In addition to the beneficiaries defined above, there should be a psychological and strategic entry point for **Syrian refugee households willing to return to their places of origin** to resume social and economic activities in Syria. Implicitly, this would become operational only if and when political and security circumstances in Syria should allow. Such an initiative would implicitly be implemented in direct collaboration with the respective Syrian authorities and FAO Syria. Although a realistic dimension of such an intervention seems remote at the time of writing this report (December 2013), it was however felt not only pertinent but strategically and conceptually fundamental to prepare the programmatic and strategic foundation for when the ground realities should grant such opportunity. This consideration was also highly appreciated by both the Government of Lebanon and the donor community met by the mission.

Assuming an acceptable political and security situation is provided – even on a limited (geographical) scale – an emergency and recovery programme should arrange for the respective approach of needed support, not only for Internally Displaced Person (IDPs) in their place of displacement (inside Syria), but also for returning families (returning from neighbouring countries back to Syria). While FAO would support (input, equipment, technical assistance and training) kick-starting agricultural activities in the areas of return, WFP would, in coordination, ensure adequate food supply to returning farming families through Food for Work project components over a period of up to six months. This would not only attract resource-less IDPs to return to their places of origin – security provided – but would ensure the needed dedication of the farm family to agricultural tasks, while providing adequate food security for the returnee households. For obvious reasons, Syrian refugees currently located in neighbouring countries would have to be made aware (by respective information campaigns) of such return assistance opportunities offered by the UN, FAO and WFP in particular.

4 COHERENCE AND COMPLEMENTARITY

The above strategic approach and its programmatic chapters are complementary with and in full strategic and pragmatic coherence to the principals of the below exercises and frameworks.

4.1 Government of Lebanon -World Bank/UN-led *Stabilization Plan*

Specifically, based on the impact and needs identified and quantified in the Economic and Social Impact Assessment ESIA (*see above, Chapter 1*), the Government of Lebanon, with the support of the ESIA partners, has articulated a goal to stabilize and consolidate from the adverse impact of the Syrian conflict on Lebanon and its citizens which it plans to achieve through the following key Strategic Objectives:

- restore and expand economic and livelihood opportunities, particularly to vulnerable groups, and create an enabling environment for private sector investment;
- restore and build resiliency in access to and quality of sustainable basic public services; and
- strengthen social cohesion.

In order to achieve these Strategic Objectives, a roadmap of a preliminary set of prioritized immediate and short- to medium-term recommendations has been developed. The majority of these recommended interventions focus on alleviating the impact on the government's budget and deteriorating public services to host communities. The roadmap prioritizes certain sectors over others, keeping in view the impact that the Syrian refugees are having on Lebanon and its citizens, and taking into consideration that the Syrian refugees will return home once the crisis has eased.

The initiatives proposed in this FAO-Plan of Action will all be inserted into the Stabilization Plan. These respective building blocks of the Stabilization Plan would then in parallel be integrated into the framework of the Regional Comprehensive Strategy (see below).

4.2 Regional Comprehensive Strategy (UN OCHA)

The overall objective of this strategy is to ensure that access to people in need in Syria is strengthened, refugees are protected and assisted, host communities and nations are supported and reinforced, i.e. the needs of all affected populations are addressed. This should be achieved by:

- Ensuring that, in host countries, *the needs of all vulnerable groups impacted by the Syria crisis are met* within the limited envelope of both government budgets and international financing.
- *Enabling and empowering host countries to cope with the crisis* for host countries to be able to continue to host current and additional refugees.
- *Equitable burden sharing*: The regional comprehensive strategy will provide a financing and modality framework that enables the international community to share the burden of the crisis with host countries.

4.3 Resilience-based Development Response to the Syria Crisis (UNDP)

The working draft of the UNDP-led Resilience-based Development Response aims to: (i) provide national and international development partners with a set of parameters and guidelines for the preparation of the proposed Resilience-based Development Response for each host country; (ii) define common areas within and across countries to facilitate coordination of humanitarian and development responses to the Syria crisis; and (iii) optimise partnerships and funding mechanisms to support resilience-based development responses. The proposed UNDP/UNDG response aims to achieve three (interrelated) strategic objectives, via: (a) **coping**– the resilience of local governance, housing supply mechanisms,

infrastructures and basic services are bolstered to respond to increased demand; (b) **recovery**—vulnerable households (both refugees and affected communities) recover from the socio-economic impact of the conflict and consequent dislocation (in particular, stabilisation of livelihoods and employment, supporting local economic revitalisation and addressing needs for food and water); (c) **sustainability** – macro-economic, social and political institutions are strengthened in all host countries for sustainability (in particular, natural resource management).

The UNDP-led Resilience-based Development Response acknowledges the importance of achieving coherence in the two mutually reinforcing responses, i.e. “humanitarian” and “development” and, in doing so, proposes a resilience-based framework of eight indicative elements – two of which are relevant to FAO’s role in an agricultural and food approach to building resilience, as follows :

- *Food and nutrition security, control of transboundary threats, sustainable livelihoods, and economic recovery complement the provision of food aid, agricultural inputs and assets and non-food items.*
- *Natural resources management and innovative solutions that save water, land and forests are cornerstones of a resilience-based approach to development.*

4.4 Government of Lebanon - FAO Country Programming Framework (CPF) 2012-2015

The CPF is centred around three major priority areas:

Priority Area A—Ensuring availability of safe and nutritious food and strengthening national capacities for improved food security:

FAO will provide technical support to improve food safety, quality management and nutrition and strengthen national capacities to achieve food security. FAO will continue to support Lebanon to develop its national food control systems and infrastructure. National capacities of the Ministry of Agriculture will be strengthened for the development of an agricultural information system for policy development, planning and monitoring for improved food security and better nutrition.

Priority Area B—Fostering agricultural production, increasing competitiveness and improving food systems and livelihoods:

FAO will provide high quality assistance and capacity development to transfer best practices to develop agriculture/value chains involving small-scale farmers, using innovative approaches. FAO will assist in developing agricultural production through improved practices and the introduction of new technologies with a special focus on young farmers and women. FAO will work to develop innovative approaches with the Government, NGOs and private sector partners in agriculture and rural development.

Priority Area C—Sustainable management and use of natural resources, fisheries and aquaculture resources for food security:

FAO will work to support research and development activities for sustainable use and management of natural resources, fisheries and aquaculture in coordination with the main actors currently engaged in the sector. FAO will work to develop plans and policy for sustainable management of forests in the context of climate change and support in the implementation of reforestation programmes. FAO will implement a number of initiatives to improve land and water management.

4.5 FAO Strategic Framework 2010–2019

FAO’s Strategic Framework for the period 2010 to 2019 has a vision that by 2020, we will be living in a *world free of hunger and malnutrition where food and agriculture contribute to improving the living standards of all, especially the poorest, in an economically, socially and environmentally sustainable manner*”. This would be achieved through the active pursuit of *three global goals*:

- Reduction in the number of people suffering from hunger, progressively ensuring a world in which all people at all times have sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.
- Elimination of poverty and the driving forward of economic and social progress for all, with increased food production, enhanced rural development and sustainable livelihoods.
- Sustainable management and utilization of natural resources, including land, water, air, climate and genetic resources, for the benefit of present and future generations.

In order to achieve the Vision of FAO and the Global Goals of its Members, the Organization has defined five Strategic Objectives (SOs). They focus on where FAO can best assist Member States to achieve sustainable impacts in addressing the challenges and opportunities facing food, agriculture and rural development. The SOs represent a combination of interlinked and cross-sectoral impacts, addressing the areas of crops, livestock, fisheries, food safety, forestry, natural resources, enabling environments, food security, gender, emergencies and investment. The five SOs are: SO1 (Eradicate hunger, food insecurity and malnutrition); SO2 (Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner); SO3 (Livelihoods of rural populations, in particular for women and youth, are improved through enhanced employment opportunities and conditions, increased access to productive resources and rural services); SO4 (Enable more inclusive and efficient food and agricultural systems at local, national and international levels); SO5 (Increase the resilience of livelihoods to threats and crises).

The focus of the herewith formulated interim assistance programme to address the impact of the Syria crisis on Lebanon is situated in direct relevance to FAO's SO5, while supporting the other four SOs in addressing resilience to longer term stresses.

FAO's comparative advantage can be summarized as follows:

- Building on FAO's unique expertise and mandate on issues related to transboundary animal and crop diseases and pests– through its global EMPRES, Global Framework for Transboundary Animal Diseases (GF-TADs), ECTAD, International Plant Protection Convention, Wheat Rust Disease Global Programme, Fire management Voluntary guidelines and regional IPM networks.
- Using FAO's expertise on food processing, sanitary and phytosanitary measures – through its global leadership of the Codex Alimentarius Commission, International Network of Food Data Systems and Food for the Cities Network.
- Unfolding FAO's mandate on food security and agriculture-based livelihoods programming in conflict- and disaster-affected regions and countries of the world (e.g. the Democratic Republic of the Congo, West Bank and Gaza Strip, Iraq, Pakistan, South Sudan, the Sudan and Yemen).
- Building on FAO's country programmes and privilege partnerships with Ministries of Agriculture, and the use of recently completed and ongoing agricultural food security projects, from which lessons can be drawn and emergency and recovery responses can be launched.

5 PLAN OF ACTION - MAIN TECHNICAL AREAS OF ASSISTANCE

This assistance plan incorporates short-, medium- and long-term interventions that— while protecting the vital natural and economic resources such as water and land— would ensure increased agriculture production and productivity, which will eventually reduce vulnerability to food insecurity, restore sustainable livelihoods, strengthen **resilience of the most vulnerable of the crisis-affected communities** and enhance economic development of the agriculture sector. The below presented initiatives have been prepared across three overlapping/interlocking tracks/timeframes.

(i) Short-term Rapid Delivery and Immediate Impact Food and Agriculture Emergency Relief and Stakeholder Agricultural Policy Development (0 to 12 months)

This track includes food and nutrition security and agriculture-based livelihoods sub-programmes and projects, which would have an immediate impact on families and communities directly affected by the Syria crisis. This track would seek to support “quick win” interventions that mitigate some of the critical impacts of the crisis and existing programmes and projects that can be modified to respond to strategic objectives of regional and national comprehensive strategies, resilience plans and roadmaps, and scaled up and/or implemented speedily and for which funding resources can be made available.

This track also includes capacity development of the Ministry of Agriculture and stakeholders of the agriculture sector in food security; agricultural livelihoods and natural resource information gathering, analysis and knowledge sharing; DRM approaches; and policy and strategy development that would enable effective preparation and implementation of programmes and projects under the medium- and partly long-term tracks, which would complement and extend some resilience-orientated interventions in humanitarian and food and agriculture emergency relief responses and would be closely coordinated to ensure effective targeting of gaps and needs and prevent relapse.

(ii) Medium-term Delivery and Impact for the Recovery of Agricultural Livelihoods and Agro-ecosystems (1 to 3 years)

This track would include medium-sized sub-programmes and projects that need longer preparation and implementation time as well as short-term track interventions that are further scaled up in areas affected by the Syria crisis. These should be simple and lean interventions adapted to the specific circumstances of national governments and affected areas – according to agreed parameters and mechanisms for pooling grants from government budgets and interested development partners to finance well-targeted and sustainable agriculture, food and nutrition, income generation/employment and natural resources interventions.

(iii) Long-term Delivery and Impact for Risk-sensitive Development of the Agriculture and Rural Sectors (2 to 5 years)

This track includes sub-programmes and projects aimed at mitigating the impact of the Syria conflict at governorate/provincial and national levels – such as extensive use and depletion of physical assets – strengthening livelihood resilience and institutional capacities that are nested within national governments’ development strategies¹. These interventions would have a sustained development impact and the potential to carry out agriculture sector policy reforms prepared under the “short-term track”, e.g. agricultural diversification and intensification through the adoption of climate-smart agricultural technologies and practices, value chain development of key agricultural commodities and community-based forestry and range management in degraded areas.

⁵ For example, those long-term host community value chain development interventions listed under Track 3 of the World Bank-led “Lebanon Roadmap of Priority Interventions for Stabilization from the Syrian Crisis”

These interventions could be funded by international financing institutions and possibly blended with grant financing from multilateral and bilateral donors. The finalisation of these programmes and projects will hinge on individual country's institutional capacity and political will to enter into sector policy reform programmes while also managing and reducing multi-hazard risks. This track, although large and ambitious in terms of financial contributions, could be the most promising in terms of overcoming the current crisis and building national multi-dimensional livelihood resilience and agricultural development programmes. Further details of programmes and short-, medium- and long-term sub-programmes/projects proposed under FAO's Action Plan for Lebanon are provided in Chapter 6.

Plan of Action - Main Technical Areas of Assistance

1. Strengthening resilience through improved livestock productivity
2. Capacity development of the Ministry of Agriculture and other stakeholders of the agriculture sector in disaster and crisis management
3. Reinforcing the resilience of resource-poor Lebanese farming communities to the Syria crisis
4. Food safety and phytosanitary control in Syrian border areas of Lebanon
5. Natural resource management in areas seriously affected by the impact of the Syria crisis
6. Enhanced food nutrition for vulnerable rural families affected by the Syria crisis

As highlighted in Chapter 3, ***strengthening the resilience of affected individuals, households, host communities and national authorities is at the very heart of this proposed Plan of Action***. This is implicit in all of the six elaborated programmes and their related sub-programme initiatives (13) and explicitly indicated for each of the technical proposals.

Table 1 shows how the short-, medium- and long-term interventions proposed under this **FAO Action Plan for Lebanon** falls under the four “pillars” of FAO’s “Resilience Objective” (SO5; Section 3.1.2). Chapter 6 provides details of programmes and sub-programmes/projects proposed under the Action Plan.

Table 1: Coherence between the FAO Action Plan for Lebanon and FAO Resilience Pillars

FAO Resilience Pillars	FAO Action Plan Interventions (by Sub-programme)
1. Govern risks and crises (<i>enable the environment</i>)	<ul style="list-style-type: none"> • Upgrade phytosanitary food safety and quality systems, including certification; review/update related regulations for food safety; • Strengthen capacities for DRM and preparedness, including DRM institutional analysis, policy frameworks adjustment and review of DRM coordination/management arrangements. • Strengthening district/regional coordination for food security and agriculture
2. Watch to safeguard	<ul style="list-style-type: none"> • National surveillance and reporting of TADs • Rapid needs assessment for forests resources profiling and on water resources, treatment and pollution • Rapid needs assessment to identify vulnerable smallholders of sheep and goats at risk and available feed resources • Development of a risk-based national system for domestic as well as import/export; implement inspection monitoring processes of contaminants and residues; strengthen early warning system of transboundary pests and diseases • Food security analysis and natural resources information monitoring (including comprehensive impact assessment study of the Syria crisis on the agriculture sector) • Generate district/regional level food security and agricultural related information (to also feed in the national food security network).
3. Apply risk and vulnerability reduction measures (protect and build livelihoods)	<ul style="list-style-type: none"> • Improved livestock production through better animal husbandry • Good practices for the protection and recovery of natural resources (water, rangelands and forests) • Good practices for nutrition and food safety as well as for packaging • Support to post harvest techniques (processing, packaging, storage and marketing), good nutrition and food safety practices for improved food security and income generation. • Technology transfer of new and improved technologies and practices through farmers/herders field schools (FFSs)
4. Prepare and respond	<ul style="list-style-type: none"> • Emergency control of TADs in Syrian border areas • Support to nutrition sensitive, quick impact production activities (home/backyard/urban micro-gardens, schools/hospital gardening, community kitchens) • Emergency inputs distribution for agriculture production and income generation • Establishment of feed distribution centres, procurement of good quality animal feeds and sheep/goats distribution through smallholder dairy production model; poultry distribution • Control of transboundary crop diseases/pests

As a basic understanding, the Plan of Action ensures that ***strategic partnerships and alliances*** are created for each of the proposed technical initiatives of the Plan of Action at local, national and regional levels in order to share the burden of and encompass the intervention of the widest possible partnerships and knowledge sharing for strengthening the resilience of those most vulnerable rural populations in Lebanon affected by the Syria crisis. The Plan of Action represents an essential component (for agriculture and food/nutrition security, and recovery and stabilization of rural livelihoods) as contribution to all partners supporting resilience in the country. It is acknowledged by all actors that no sectoral intervention alone would build resilience for sustainable development, which could only be achieved through complementary actions, in relation with the respective mandates and comparative advantages that each actor brings in addressing resilience from different angles.

In addition, and as mentioned earlier, it is worth noting that the present action plan not only feed into the Stabilization Plan (Government of Lebanon/World Bank) and the Comprehensive Regional Strategy (UN) but will also complement important humanitarian assistance aimed at addressing the life-saving needs of the refugees. In this regard, apart from creating job opportunities in the rural communities (Lebanese and non-Lebanese), the Lebanon Plan of Action would support, *inter alia*, RRP through programme proposals L.1.1 (Emergency Vaccination and Targeted Feeding of Livestock Grazing in Areas along the Syria-Lebanon Border), L.3.1 (Relieving the Suffering of Lebanese Returnees and Host Communities through the Recovery of Smallholder Agricultural Production), L.3.2 (Rehabilitation of the Dairy Sub-Sector to Improve Food and Nutrition Security of the Syrian Refugees and Lebanese Host Communities) and L.3.3 (Strengthening the Resilience of Resource-poor Farmers and Returnees through Improved Crop Production, Agro-processing and Marketing).

6 PROGRAMME AND SUBPROGRAMME PROFILES

Programme (not in priority ranking):	
	Short term (<i>humanitarian relief and policy development</i>)
	Medium term (<i>agricultural livelihoods recovery</i>)
	Long term (<i>agricultural and rural development</i>)
L.1 Strengthening resilience through improved livestock productivity	
	L.1.1 Emergency vaccination and targeted feeding of livestock grazing in areas along the Syria-Lebanon border (<i>20 months</i>)
	L.1.2 Increased income generation through sustainable improvements in livestock production of vulnerable smallholders affected by the Syria crisis (<i>36 months</i>)
L.2 Capacity development of the Ministry of Agriculture and other stakeholders of the agriculture sector in disaster and crisis management	
	L.2.1 Coordination and monitoring for food security and agricultural livelihoods emergency and recovery in rural areas affected by the Syria crisis (<i>24 months</i>)
	L.2.2 Strengthening disaster and crisis management capacity of agriculture sector stakeholders (<i>36 months</i>)
	L.2.3 Upgrading input supply regulatory systems for agriculture recovery and development (<i>36 months</i>)
	L.2.4 Policy and strategy development for improved domestic and export marketing of key commodities from areas affected by the Syria crisis (<i>36 months</i>)
L.3 Reinforcing the resilience of resource-poor Lebanese farming communities to the Syria crisis	
	L.3.1 Relieving the suffering of Lebanese returnees and host communities through the recovery of smallholder agricultural production (<i>12 months</i>)
	L.3.2 Rehabilitation of the dairy subsector to improve food security and nutrition of Syrian refugees and Lebanese host communities (<i>12 months</i>)
	L.3.3 Strengthening the resilience of resource-poor farm families and returnees through improved crop production, agroprocessing and marketing (<i>36 months</i>)
	L.3.4 Reinforcing the resilience of Lebanese farming communities affected by the Syria crisis through value chain development (<i>jointly with ILO, 48 months</i>)
L.4 Food safety and phytosanitary control in Syrian border areas of Lebanon	
	L.4.1 Improved food quality control services along the Syria border in Lebanon (<i>30 months</i>)
L.5 Natural resource management in areas seriously affected by the impact of the Syria crisis	
	L.5.1 Protection and recovery of vital natural resources seriously affected by the Syria crisis in Akkar, North Lebanon, Baalbek-Hermel and Bekaa Governorates (<i>36 months</i>)
L.6 Enhanced food nutrition for vulnerable rural families affected by the Syria crisis	
	L.6.1 Improving food security and nutritional values at community and household levels for resource-poor rural families of eastern and northern Lebanon affected by the Syria crisis (<i>18 months</i>)

Programme name				L.1 Strengthening resilience through improved livestock productivity			
Objective				To improve livestock production and sustain the livelihoods of the poorest and most vulnerable herders, returnees and refugees located in north Lebanon and Bekaa.			
Rationale and justification (Sections 3.3.1, 3.3.2, 3.8 and 3.9)				There is now a high threat of TADs due to the collapse of Syria's field veterinary services and increased uncontrolled movements of unvaccinated livestock across borders. Moreover, and due to financial shortages, Lebanese smallholder farmers' in border areas, Lebanese returnees' and Syrian refugees' livestock keepers have been obliged to sell over 50 per cent of their animals (with some keepers going out of business) at between 40 and 50 per cent of their normal market price in order to support their families and buy feed and drugs for the remaining animals. Consequently, those smallholder households have exhausted their little reserves and have become impoverished.			
Subprogrammes							
Short term (1 to 12 months)		Medium-term livelihood recovery (1 to 3 years)		Long-term agricultural development (2 to 5 years)			
January-June 2014 July-December 2014		2015		2016		2017 2018	
L.1.1 Emergency vaccination and targeted feeding of livestock grazing in areas along the Syria-Lebanon border (20 months)				The short-term intervention could be up-scaled to a medium- and/or long-term project on cessation of the crisis, but with additional capacity development of Government and private sector veterinary and livestock extension services and community-based animal health services to establish a mechanism for the national and regional control of TADs.			
<p>Outcome: Reduced risk of TADs and improved livestock production, benefiting 27 340 livestock keeping households (i.e. refugees and host communities)</p> <p>Outputs:</p> <ul style="list-style-type: none"> (i) Reduced number of TADs outbreaks due to improved surveillance and control strategies. (ii) Increased number of sheep, goats and cattle vaccinated against important TADs. (iii) Increased animal wealth/weight gain due to improved feeding interventions. (iv) Community-based animal resources development workers trained and functioning. 							
L.1.2 Increased income generation through sustainable improvements in livestock production of vulnerable smallholders affected by the Syria crisis (36 months)							
				<p>Outcome: Small livestock keepers able to retain animals and recover their livelihoods by reducing the costs of production and improving productivity, while restoring grazing areas.</p> <p>Outputs:</p> <ul style="list-style-type: none"> (i) Improved delivery of veterinary and animal production/pasture management extension services. (ii) Establishment of and support to animal feed distribution centres. (iii) Establishment of distribution centres and restocking of improved sheep, goats and poultry. (iv) Implement FFS to demonstrate improved animal husbandry practices. 			
Beneficiaries				Cost estimate			
<ul style="list-style-type: none"> • Crisis-affected Lebanese smallholder, Lebanese returnee and Syrian refugee livestock keepers from northern and eastern Lebanon • Staff of Government and private sector veterinary and livestock extension services • Community-based animal health workers 				FAO cost categories			
Partners							
<ul style="list-style-type: none"> • Government of Lebanon Ministry of Agriculture (Department of Livestock) and Ministry of Social Affairs • Local NGOs, community-based organizations (CBOs) and cooperatives (e.g. village dairy associations) • FAO ECTAD 				Personnel and travel		484 000	
				Contracts		143 300	
				Training		297 000	
				Expendable and non-expendable procurement		1 597 000	
				Technical support services		75 000	
				General operating expenses		131 000	
				Support costs		272 700	
Total				3 000 000		6 119 400	

L.2 Capacity development of the Ministry of Agriculture and other stakeholders of the agriculture sector in disaster and crisis management			
Programme name	L.2 Capacity development of the Ministry of Agriculture and other stakeholders of the agriculture sector in disaster and crisis management		
Objective	To build national capacities for strengthening crisis prevention, preparedness and mitigation, and ensure well-coordinated food security, agricultural livelihoods and natural resources recovery responses.		
Rationale and justification (Section 3.1)	The quality and quantity of credible, timely and decision-focused food security and natural resource use information related to the Syria crisis remains extremely variable in terms of coverage and frequency. While some useful studies have been undertaken, these have generally focused on specific areas and/or population groups and are of widely varying quality. In order to address these challenges, this programme aims at establishing a food security and natural resources information system and policy development mechanism for the crisis-affected rural areas of Lebanon, which would link up with an envisaged overall subregional system for Syria and all affected areas in neighbouring states, including Lebanon, as well as Iraq, Jordan and Turkey (i.e. <i>Near East Regional Programme R.2</i>) ² . With the gradually increasing number of related activities by a series of related actors, there is also an urgent need for strengthened coordination within/between the parties involved in the food and agriculture recovery and stabilization effort in northern and eastern Lebanon, i.e. public entities, UN agencies, bilateral cooperation, NGOs and other partners and stakeholders.		
Subprogrammes			
Short term (1 to 12 months)		Medium-term livelihood recovery (1 to 3 years)	Long-term agricultural development (2 to 5 years)
<i>January-June 2014</i>	<i>July-December 2014</i>	<i>2015</i>	<i>2016</i>
L.2.1 Strengthening disaster and crisis management capacity of agriculture sector stakeholders (36 months)			
Outcome: Timely and informed response capacity and decision-making on crisis prevention, preparedness and mitigation by agriculture sector stakeholders through institutional and technical strengthening for crisis anticipation and management.			
Outputs:			
<ul style="list-style-type: none"> (i) National food security and natural resources information and analysis system established and operational. (ii) National capacities in analysing, designing and monitoring food security and trade policies developed. (iii) National capacities in agricultural livelihood policy analysis/programming strengthened. (iv) Crop and livestock monitoring and forecasting information systems developed. (v) Early warning system developed and delivery of information for decision makers improved. (vi) Crisis and disaster management committee established for food security, agricultural livelihoods and natural resources. (vii) Prevention/preparedness improved through policy framework adjustments (including trade regulations and agreements). 			
L.2.2 Coordination and monitoring for food security and agricultural livelihoods recovery in rural areas affected by the Syria crisis (24 months)			
Outcome: A well-coordinated food security and livelihoods recovery response based on continuous data monitoring and analysis, and supporting recovery and stabilization initiatives by optimizing impact and utilization of donor funding.			
Outputs: Establish and support a Field Coordination and Monitoring Unit with two hubs at Zahle (Bekaa Valley) and El Qobaiyat (Akkar) to: (i) strengthen contacts with stakeholders in the field and create a forum for regular exchange of information; (ii) collect and centralize pertinent data and information; (iii) facilitate the implementation and updating of a comprehensive Syria crisis impact study; (iv) provide technical support to municipalities and humanitarian/development partners; (v) verify ongoing and planned interventions and formulate project proposals; and (vi) streamline and coordinate all food and agriculture emergency and recovery initiatives/projects.			
			Continued

²In the Subregional Strategy and Action Plan for “Resilient Livelihoods for Agriculture and Food and Nutrition Security in Areas Affected by the Syria Crisis”, which is currently being finalized (2014)

L-3 Reinforcing the resilience of resource-poor Lebanese farming communities to the Syria crisis			
Programme name	L-3 Reinforcing the resilience of resource-poor Lebanese farming communities to the Syria crisis		
Objective	To restore agricultural livelihoods and improve the resilience of smallholder and poor Lebanese farming communities affected by the Syria crisis through enhanced crop and livestock production, post-harvest management and produce marketing.		
Rationale and justification (Sections 3.3.2 and 3.8)	Highly vulnerable Lebanese returnees are now hosted in rural villages of districts bordering Syria, most of which represent the poorest population pockets of the country (e.g. Akkar, Baalbek and Hermel). Furthermore, farmlands close to the borders are at times not accessible during hostilities. As a result, farms are either directly damaged by shelling or indirectly by crop failure due to temporary abandonment. In desperate cases, orchards are cut and sold for fuel wood. In addition to the serious constraints in terms of production, improper handling of fresh fruits and vegetables after harvest are resulting in quality deterioration and related economic loss. Due also to the grave repercussions of the Syria crisis, post-harvest losses of fresh fruit, vegetable, meat and dairy produce are currently estimated to have increased by between 20 and 50 per cent. The main problems prevailing include: harvesting at improper maturity; rough handling; use of unsuitable containers; harvesting during the hot hours of the day; the absence of harvesting tools; improper stacking and overfilling of containers; poor maintenance or absence of cold storage facilities; expensive or/and unavailability of transportation; and an absence of food safety and sanitary measures. Post-harvest handling of fruit and vegetables is a labour intensive process. However, most of the Lebanese returnees and Syrian refugees have limited appreciation for post-harvest handling and marketing, and the need to maintain the quality of products. Bordering and remote areas suffer particularly from limited shelf-life of local fresh products and the higher cost of transportation to gross markets, where Syrian products are intermittently dumped, leading to depressed fruit and vegetable prices. Moreover, most farmers are distressed and are unequally treated by service providers (transporters and inputs providers) and traders (middlemen and gross market traders). Consequently, crop profitability has dropped mostly by over 50 per cent due to the increase in cost of production and fall of commodity market prices. In a desperate measure to sustain their income and reduce their costs of production, farmers tend to minimize investments and expenses related to agriculture practices, which has a negative impact on crop productivity and quality.		
Subprogrammes			
Short term (1 to 12 months)		Medium-term livelihood recovery (1 to 3 years)	
<i>January-June 2014</i>	<i>July-December 2014</i>	<i>2015</i>	<i>2016</i>
Long-term agricultural development (2 to 5 years)		<i>2017</i>	<i>2018</i>
L.3.1 Relieving the suffering of Lebanese returnees and host communities through the recovery of smallholder agricultural production (12 months)			
<p>Outcome: Reduced food and nutrition insecurity and enhanced income generation of 6 000 impoverished landless and marginal farming families from the Syrian border areas of Lebanon through the restoration of crop production and food processing.</p> <p>Outputs:</p> <ul style="list-style-type: none"> (i) Beneficiary selection committees established and functioning for the identification of impoverished and vulnerable farming households. (ii) Procurement and distribution of agricultural inputs, food handling, processing and storage equipment/materials and “cash-for-work” transfers to poor/destitute farming families affected by the current crisis. (iii) Improved quality and hygiene of food handling and processing, and improved household food nutrition. 			
		<i>Continued</i>	

L.3 Subprogrammes continued

L.3.4 Reinforcing the resilience of Lebanese farming communities affected by the Syria crisis through value chain development (48 months)

Outcome: The resilience of 10 000 poor and small-scale farming families affected by the Syria crisis is improved through strengthening weak linkages of value chains and adding value to agricultural products by enhancing post-harvest management.

Outputs:

- (i) The quality of potatoes is enhanced through improved production materials and practices to meet market demands.
- (ii) Greenhouse vegetables are improved in view of quality, product safety and system sustainability.
- (iii) Added value for selected products (including potatoes and vegetables) is enhanced through improved community-based post-harvesting processing, packaging, storage, transportation and marketing practices and market intelligence services.
- (iv) The productivity, biosafety and disease serosurveillance and control for small-scale poultry farms are improved.
- (v) Subprogramme interventions supported by FFS and FBS to adapt and promote GAP, leading to the establishment/strengthening of farmers' associations and cooperatives.

Beneficiaries		Cost estimate			
		FAO cost categories	Short term (USD)	Medium term (USD)	Long term (USD)
<ul style="list-style-type: none"> • Lebanese returnees and marginal and small-scale Lebanese farming families hosting returnees and Syrian refugees (as well as members of farmers' groups, associations and cooperatives) • Government staff, NGO and private agricultural service providers (e.g. extension workers, input suppliers, buyers and local food and agroprocessors) 	Partners				
	<ul style="list-style-type: none"> • Government of Lebanon's Ministry of Agriculture (extension services) • Local NGOs • CBOs and farmers' groups, associations and cooperatives • Private sector organizations (e.g. chambers of commerce and commodity boards) 	Personnel and travel Contracts Training Expendable and non-expendable procurement Technical support services General operating expenses Support costs	850 000 150 000 487 300 4 319 500 150 000 325 000 618 200	628 500 200 000 202 500 2 334 000 90 000 214 500 367 000	3 010 000 860 000 570 000 6102000 280000 240000 1438000
Total			6 900 000	4 036 500	12500000

L.4 Food safety and phytosanitary control in Syrian border areas of Lebanon			
Programme name	L.4 Food safety and phytosanitary control in Syrian border areas of Lebanon		
Objective	Strengthening border food control measures to assure adequate consumer protection and to support agricultural exports by ensuring compliance with internationally recognized standards and procedures		
Rationale and justification (Sections 3.7 and 3.10)	Syrian phytosanitary and food safety control services have collapsed over the past two years. There has been an increasing informal trade of food and agricultural commodities across borders with Syria in Iraq, Jordan and Lebanon following the crisis in Syria. There have also been significant changes in agricultural trading routes throughout the region. All of these developments have increased the risks of trading food at substandard quality and the threat of the plant transboundary diseases and pests accompanying the moving commodities, given the weak food safety and phytosanitary inspection systems in Lebanon, particularly at existing border crossings and especially so at the new border crossings.		
Subprogrammes			
Short term (1 to 12 months)	Medium-term livelihood recovery (1 to 3 years)	Long-term agricultural development (2 to 5 years)	
<i>January-June 2014</i>	<i>July-December 2014</i>	<i>2015</i>	<i>2017</i> <i>2018</i>
	L.4.1 Improved food quality control services along the Syria border in Lebanon (30 months)		
	<p>Outcome: The import/export food inspection and certification systems strengthened in Lebanon to manage the threat of transboundary crop diseases and pests and contaminated and unsafe foodstuffs.</p> <p>Outputs:</p> <ul style="list-style-type: none"> (i) Handling of food import control in countries is based on food risk analysis. (ii) Risk-based food control is reinforced. (iii) Border food inspectors trained on the risk-based control systems. (iv) Phytosanitary capacity and infrastructure for inspection and control of transboundary crop diseases and pests are strengthened. (v) Phytosanitary capacity for post-entry regulation measures and treatments improved. (vi) Laboratory facilities strengthened and staff associated with border food control and phytosanitary control trained. (vii) Leaders of farmers' associations and cooperatives trained in GMP and GHP. 		
Beneficiaries			
	<ul style="list-style-type: none"> • Consumers of food products in Lebanon • Small-scale agricultural producers/members of farmers' associations and cooperatives • Staff of Government and private sector border food inspectorates and food laboratories 		
Partners			
	<ul style="list-style-type: none"> • Government of Jordan's Ministries of Agriculture, of Economy and Trade, and of Industry, as well as the Lebanese Agricultural Research Institute • Chambers of Commerce, Industry and Agriculture • Private sector organizations and food-based companies • FAO and WHO 		
Cost estimate		FAO cost categories	Short/medium (USD)
		Personnel and travel	695 000
		Contracts	350 000
		Training	301 000
		Expendable and non-expendable procurement	942 800
		Technical supporting services	40 000
		General operating expenses	140 000
		Support costs	246 900
		Total	2 715 700

Programme name			
L-5 Natural resource management in areas seriously affected by the impact of the Syria crisis			
Objective			
To protect and recover natural resources (i.e. rangelands, bush lands, forests and water sources) from severe depletion and degradation caused by the influx of Syrian refugees and their livestock herds.			
Rationale and justification (Section 3.11): Due to the accelerating demand for fuel, woodlands and forests (by illegal cutting) by increasingly resource-poor Syrian refugees and the Lebanese host communities, natural resources are being overexploited – non-wood forest products are also exploited for daily subsistence by both Lebanese communities and refugees. In addition, the arrival of additional livestock from Syria is gradually causing overgrazing and degradation of vegetation cover on vulnerable rangelands. To meet the increasing demand of Lebanese host communities and Syrian refugees, water pumping and depletion of aquifers is approaching critical levels for both domestic and agricultural use. The influx of the refugees and their search for water points is resulting in a dramatic increase of solid waste along the rivers and coastline, causing higher pollution levels in these ecosystems. The deterioration of water quality is affecting not only potable water, but also water used for irrigation. Furthermore, conflicts over the use of natural resources, between host communities and refugees, has become more and more severe, putting peace and security at risk.			
Subprogrammes			
Short term (1 to 12 months)		Medium-term livelihood recovery (1 to 3 years)	
<i>January-June 2014</i>	<i>July-December 2014</i>	<i>2015</i>	<i>2016</i>
		Long-term agricultural development (2 to 5 years)	
		<i>2017</i>	<i>2018</i>
L-5.1 Protection and recovery of vital natural resources seriously affected by the Syria crisis in Akkar, North Lebanon, Baalbek-Hermel and Bekaa Governorates (36 months)			
Outcome: Regenerated and protected forests and rangelands, and sustainable management of wood and non-wood forest products, bush-lands and pastures and irrigation water supplies, directly benefiting some 6 000 rural households (i.e. resource-poor landless and marginal farmers and Lebanese returnees) and indirectly benefiting some 600 Syrian refugees.			
Outputs:			
(i) Establishment of small and privately owned tree nurseries producing medicinal, edible and forest species for distribution to reforestation areas, creating income generating enterprises for local rural communities.			
(ii) Reforestation and protection of afforested areas through “cash-for-work”, targeting resource-poor forest users.			
(iii) Establishment of pilot initiatives on communal and state land for sustainable forest and rangeland management, enabling sustainable use of wood and fodder resources through elaborated community management plans.			
(iv) Establishment of pilot household and community-based schemes for the demonstration of water resources management, water quality improvement and efficient water use for agriculture purposes.			
Beneficiaries			
<ul style="list-style-type: none"> • Poorest rural communities in crisis-affected areas and Lebanese returnees, as well as Syrian refugees (indirectly through “cash-for-work” interventions) • Extension staff of the Ministry of Agriculture’s Directorate of Rural Development and Natural Resources 			
Partners			
<ul style="list-style-type: none"> • Government of Lebanon’s Ministries of Agriculture (Directorate of Rural Development and Natural Resources) and of Environment • Local NGOs • CBOs • <i>FAO (in synergy with related ADELNORD, GIZ, IFAD Hilly Areas Sustainable Agricultural Development Project (HASAD), UNDP and USAID-supported initiatives)</i> 			
Cost estimate		FAO cost categories	
		Personnel and travel	862 800
		Contracts	1 828 800
		Training	55 500
		Expendable and non-expendable procurement	639 600
		Technical support services	100 500
		General operating expenses	223 500
		Support costs	371 100
Total			4 081 800

Programme name L.6 Enhanced food nutrition for vulnerable rural families affected by the Syria crisis			
Objective Reduce food insecurity and improve nutritional food value for the most vulnerable rural communities affected by the impact of the Syria crisis.			
Rationale and justification (Sections 3.3.2 and 3.6.3): The massive influx of Syrian refugees into Lebanon has put tremendous pressure on the coping capacity of refugees and their Lebanese hosts. Competition over scarce resources, food availability and employment is generating increasing levels of tension and despair. The higher demand and increasing prices of food commodities resulted in reduced access of the poorest categories of rural populations to adequate nutrition. As a result, malnutrition is mounting as these households now rely almost solely on carbohydrates for their diets (UNICEF and WFP are particularly concerned about the nutrition status of refugee children with limited access to fresh fruits and vegetables). The project aims at immediately increasing local production and supply of safe and nutritious food in areas where food deficit prevails as a result of high concentration of refugees and limited production capacity. This may include areas surrounding or adjacent to refugee hosting families, transit centres, camps or areas with a high concentration of refugees and limited food production capacity.			
Subprogrammes			
Short term (1 to 12 months)		Long-term agricultural development (2 to 5 years)	
<i>January-June 2014</i>	<i>July-December 2014</i>	<i>2015</i>	<i>2017</i>
Medium-term livelihood recovery (1 to 3 years)		2016	
2015		2018	
L.6.1 Improving food security and nutritional value at community and household levels for resource-poor rural families of eastern and northern Lebanon affected by the Syria crisis (18 months)			
<p>Outcome: Significant reduction in food insecurity and improvement of nutrition and livelihood conditions for 3 750 impoverished landless families of vulnerable rural communities, as well as improved social cohesion among the host communities, Lebanese returnees and Syrian refugees in Akkar, North Lebanon, Baalbek-Hermel and Bekaa Governorates.</p> <p>Outputs:</p> <ul style="list-style-type: none"> (i) Establishment of school/hospital/orphanage and home gardens as a means to promote healthy and diversified food intake among vulnerable Lebanese and Syrian school children and their families in areas with high risks of malnutrition. (ii) Establishment of community kitchens and backyard and urban gardens, allowing beneficiaries to produce together and cater for higher quality and nutritious food commodities. (iii) Increased production capacity of Lebanese landless farmers and returnees for local horticultural production through provision of appropriate agricultural inputs and cash transfers. (iv) Improved nutrition among rural communities with more equilibrated/diversified meals through the production of vegetables and provision of protein sources and related training activities. (v) Knowledge and skills of teachers/master trainers in food nutrition/diversified diets enhanced. 			
Beneficiaries		Cost estimate	
<ul style="list-style-type: none"> • Landless families of the most vulnerable rural host communities (in particular women and children) • Extension staff and teachers of the Ministries of Agriculture, of Education and of Health 		FAO cost categories Personnel and travel Contracts Training Expendable and non-expendable procurement Technical support services General operating expenses Support costs	
Partners		Short term (USD)	
<ul style="list-style-type: none"> • Government of Lebanon's Ministries of Agriculture, of Education, of Health and of Social Affairs • Local humanitarian NGOs • CBOs, local clinics, hospitals, orphanages, religious institutions, schools, etc. • FAO, UNICEF and WFP 		600 900 177 000 52 500 373 200 55 500 115 500 144 700 Total	
		1 519 300	

Annex 1: FAO – Worldwide Experience in Emergencies, Recovery and Rehabilitation

Emergencies and rehabilitation needs arise either from natural causes - such as hurricanes, floods or earthquakes - or be human-induced, such as **civil conflicts and war**. Every year, complex emergencies, conflicts and natural disasters force millions of people from their homes. *In 2012, the UN recorded 42 million refugees and IDPs worldwide* - principally as a result of disasters and conflicts. **Conflict is the most common cause of acute food insecurity**. Repeated food emergencies are concentrated in sub-Saharan Africa, where almost two-thirds of affected countries face civil conflict. Forty per cent of countries emerging from conflict slide back into conflict; in Africa, this figure rises to 60 per cent.

2013:

- 70 situations of conflict or potential conflict currently in the world
- 842 million people suffering from chronic hunger
- 384 natural disasters affecting over 130 million people worldwide
- 1 400 animal disease events reported in the last 6 months (November 2013)

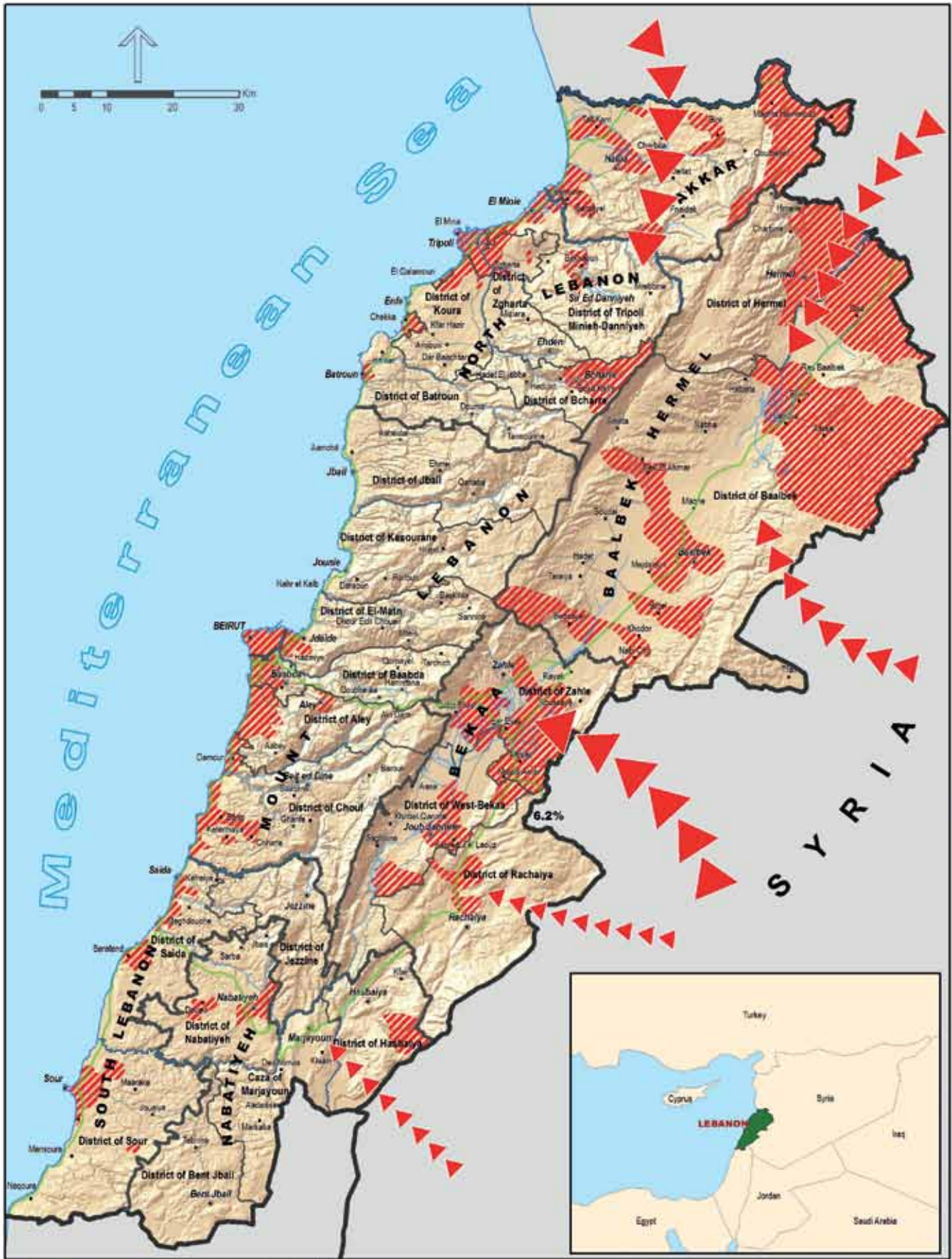
Rural populations in the developing world are among the most vulnerable people. With **most of these communities dependent on agriculture and related enterprises for their food security and livelihoods**, FAO's expertise in farming, livestock, fisheries and forestry is crucial in emergency response and rehabilitation efforts. In responding to emergency and rehabilitation that requires exceptional external assistance, FAO collaborates with many partners, including governments, other UN organizations and humanitarian groups. FAO works closely with the UN Office for the Coordination of Humanitarian Affairs, which mobilizes and coordinates the UN system's response. NGOs have a particularly important role to play as partners in interventions to protect and restore agriculture-based livelihoods. They often facilitate the distribution to affected farmers of essential inputs procured by FAO such as seeds, tools and fertilizers. FAO plays an advisory role, ensuring inter alia that relief supplies are suited to the region's climate and planting season.

Responding to assessed needs FAO provides rapid assistance to rural households around the world that have **lost agricultural assets as a result of conflict, displacement** and natural disasters. Poor smallholder farmers who depend on agriculture for their livelihoods are disproportionately affected by such situations and, as a result, become even more vulnerable. FAO works to restore local **food production** and **income generation** through the distribution of seeds, planting materials, tools and training, providing affected households with the means to produce food. The main goal of FAO's emergency and recovery interventions is to prevent the situation in rural areas from deteriorating further. FAO works to restore agricultural production, strengthen the livelihoods strategies of those affected, and enable people to reduce their dependence on food aid as soon as possible. Because the Organization has a development mandate and the institutional ability to pass seamlessly from post-emergency rehabilitation to long-term development assistance, FAO emergency and recovery interventions are designed to help communities to upgrade their skills and improve their farms on a sustainable basis.

With decades of experience in responding to food and agricultural emergencies, broad technical expertise and offices in over 90 countries, *FAO provides leadership and timely assistance* in:

- **Prevention, preparedness, early warning:** FAO's Global Information and Early Warning System (GIEWS) highlights potential emergencies, while disaster prevention and contingency planning programmes help countries to minimize the impact of disasters on the food and livelihood security of affected populations. Likewise, EMPRES promotes international cooperation to contain and control the most serious trans boundary animal diseases and migratory plant pests, and food safety hazards.
- **Assessing and responding to needs:** FAO assesses emergency and rehabilitation needs, monitors the food security situation, formulates rehabilitation strategies and implements recovery programmes.
- **Coordination and technical assistance:** As the lead UN agency in agriculture, FAO provides technical advice and coordination for agricultural interventions undertaken by all development partners, including NGOs, civil society and other UN agencies, thereby optimizing their impact - *over 40 emergency coordination units*. FAO is the lead for agriculture or co-leader of food security or livelihoods clusters in all related countries affected.
- **Linking relief to rehabilitation and development:** FAO taps its deep technical expertise and development experience to help countries and people affected by emergencies successfully make the transition from short-term relief to longer-term rehabilitation and development.

Annex 2: Maps - Lebanon – Syrian Refugee Influx



Map no. 1:
SYRIAN REFUGEES INFLUX
Addressing the Impact
of the Syrian Crisis

Boundaries	Roads	Water Bodies	Syrian influx (UNHCR - Nov. 28, 2013)
<ul style="list-style-type: none"> International boundaries Shoreline Governorate boundaries District boundaries 	<ul style="list-style-type: none"> Highway Primary road 	<ul style="list-style-type: none"> Lake River 	<ul style="list-style-type: none"> High concentration of refugees (More than 1,000 refugees per village) Syrian Refugees Influx

Annex 2: Maps - Lebanon – Poverty and Environmental Pressure in Target Areas

