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EXAMINING LEBANESE STAKEHOLDERS'  
FRAMES IN THE FIELDS OF AGRICULTURE,  
WATER AND RURAL DEVELOPMENT WITH  
REGARDS TO THE EFFECTIVENESS AND  
POTENTIAL OF EUROPEAN TRADE AND  
ASSISTANCE POLICIES IN LEBANON

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## EXAMINING LEBANESE STAKEHOLDERS' FRAMES IN THE FIELDS OF AGRICULTURE, WATER AND RURAL DEVELOPMENT WITH REGARDS TO THE EFFECTIVENESS AND POTENTIAL OF EUROPEAN TRADE AND ASSISTANCE POLICIES IN LEBANON

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### ABSTRACT

This paper is part of a series of working papers that evaluate the effectiveness of existing European Union policies in the Southern and Eastern Mediterranean countries from a bottom-up perspective as part of the MEDRESET project. The focus will be on the policies applied in the agriculture and water sectors in Lebanon. The methods used include literature review and qualitative assessment. Based on the latter, the paper explores the assessments of EU policies and recommendations given by key stakeholders in the fields of agriculture and water through a series of interviews and content analysis of their various publications. Special consideration is given to the problems of international trade, impoverished infrastructure and resources protection. Finally, the paper will attempt to pinpoint the most prominent policy issues and devise accordingly a cohesive strategy that could be used to support and guide Lebanon in the development and implementation of national policies in the fields of agriculture, water and rural development.

### INTRODUCTION

The MEDRESET project aims to evaluate the effectiveness of existing European Union trade and assistance policies from a bottom-up perspective in the fields of Water and Agriculture, Migration and Mobility, and Industry and Energy, and to propose an improved version when deemed suitable. It strives to inspect existing EU policies in the Mediterranean area and determine how they align with the social, demographic, political and economic changes the region has witnessed in the past two decades. The overall resolve is to adjust the EU's policies in the region to become more flexible towards the destitute nature of developing sectors. Although the Mediterranean encompasses countries from three different continents, MEDRESET focuses on the Southern and Eastern Mediterranean countries (SEM) that include North Africa and some of the countries in the Middle East. This approach was taken to ensure that EU policies, which are often modelled after the northern Mediterranean countries, are well suited for the southern countries as well. Accordingly, four countries were selected for the purpose of this project: Egypt, Lebanon, Tunisia and Morocco. Another defining feature of the project is its bottom-up approach in processing all possible stakeholders' input. The opinions and expectations of local and grassroots actors of the respective countries will be

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given priority, after which international agencies will be approached to integrate both the national and the international stakeholders.

This paper is concerned with water and agriculture in Lebanon. In particular, it will tackle the following: (i) the EU policies in this specific area and how they may be improved or replaced according to the needs of the sector, (ii) a clear assessment of the problems and obstacles that are currently affecting the performance of the water and agriculture sectors, (iii) an outline for the landscape of the national actions and institutions to grasp the mechanisms of the sectors, and lastly (iv) the implications of the international policies and stakeholders' actions in this environment.

Since agriculture is the largest consumer of water, this paper will tackle both these sectors as they go hand in hand in policy making. Other indicators such as food security, international trade and rural development are affected as well by the performance of the agriculture sector. Thus, the aim of the project becomes more discernible as the EU is interested in moderating and sponsoring policies that will sustain the agriculture sector in the region, through commencing initiatives such as the Euro-Mediterranean Partnership (EMP), and related programme assistance such as the European Neighbourhood Instrument (ENI) and the European Neighbouring Programme for Agriculture and Rural Development (ENPARD).

In the SEM countries, a large percentage of the labour force is employed by the agriculture sector; however, in both developing and developed countries, the agriculture sector has seen its share in GDP diminishing especially compared to the industrial sector.

The bottom-up approach in this research is particularly suitable for the agriculture sector since, as mentioned before, agriculture greatly contributes to employment. Because there are various stratifications in the actors that contribute to this sector, in order to get accurate information special attention has been given to the local actors, starting with small agents such as farmers. The latter undeniably occupy the largest base among the contributing actors; they also have a unique perspective and a more realistic approach given the nature of their work and direct contact with the means of production. This paper is interested in how these actors perceive the political policies imposed nationally and internationally in the agriculture and water sectors, and the extent to which these policies provide equal opportunities to small-scale farmers to expand their network and increase the quality of their crops. Additionally, the project takes into consideration gender roles in the region, and how the hard nature of working on farms may have contributed to limiting the likelihood of women participating in this work. Moreover, since there is segmentation in the agricultural sector, there is no coherent categorization of the labour force; thus, moving up the scale of actors, we will find an array of small-scale to large-scale farmers with different property rights: those who became landlords with the nationalization movements (mid 1950s), and those who struggled after the economic liberalization movements to own their own land, making them landless farmers. This issue persists until the level of large organizations and national ownership of land is reached.

Our methods of collecting data from small and big actors include but are not limited to literature reviews, and face-to-face interviews with key experts and stakeholders, for a total of 26 interviews carried out in two different rounds, namely in November 2017 and April 2018 (for details on the methodology, see Section 2.1). Agents that could possibly affect or be affected by the EU policies in the agriculture and water sectors were included, such as governmental

institutions, the private sector, non-governmental organizations (NGOs), and trade unions. International actors such as global NGOs and international organizations were also included; moreover, their relevant inputs were integrated to examine how much the existent policies converge or diverge from their expectations (for more detail on the stakeholders, see annexes 1, 2). This paper also reviews the content of various publications by said stakeholders (about 40 documents) that could help grasp the fluctuating circumstances of the agriculture and water sectors in the past decades.

This paper is both analytical and critical of the EU's policies and actions in the agriculture and water sectors in the SEM countries as there has been an increasing criticism of the EU's approach towards the region and the extent to which its policies are evidence-based. Moreover, there has been a noticeable lack of publications and data that put the EU's policies under examination. Thus, the MEDRESET project strives to shed a new light on the EU's policies by integrating the prospects and recommendations of the SEM countries, which may have not been previously articulated.

## 1. BACKGROUND INFORMATION ON LEBANON'S AGRICULTURE AND WATER SECTORS

### 1.1 AGRICULTURE AND WATER PROFILE

Agriculture in Lebanon contributes roughly 5 per cent to Lebanon's GDP and 6 per cent to employment. According to the Council for Development and Reconstruction (CDR), the agricultural sector in Lebanon is composed of two types of agriculture: the first being commercial agriculture, which depends on financial resources and investments and aims for optimal profit, and the second type – performed by the majority of rural farmers – being the agriculture “devoted to the preservation of cultural and family heritage”, which is practiced for extra income and subsistence (CDR 2017: 112). The agricultural jobs are classified as higher skilled jobs, lower skilled jobs or seasonal jobs. The Lebanese are more attracted to the higher skilled jobs such as tree pruning and apple picking (ILO 2017: 42). The lower skilled and seasonal jobs are mainly occupied by Syrians who are willing to work in unpleasant conditions and with lower wages, thus reducing the employability of Lebanese workers in the agricultural sector (ILO 2017: 42). The economic contribution of the agriculture sector extends to include about 30 per cent of the population whose income is directly or indirectly supported by the sector. Nevertheless, the agriculture sector has the highest rate of poverty where approximately 20 per cent of the households in the sector are extremely poor, particularly in the North governorate (World Bank 2010a: 3). Evidently, the community of farmers is afflicted by unfair conditions such as restricted access to infrastructure and land ownership inequality. Rural women in particular, have further limited access and their labour is widely subjected to exploitation (European Commission 2014: 4). In fact, the share of females in the total economically active population increased in Lebanon from 19.8 per cent in 1980 to 26 per cent in 2010, while the agricultural share of economically active women decreased significantly over time – from 20 per cent in 1980 to 7.1 per cent in 1995, reaching 2.2 per cent in 2010, indicating that women have not been enticed to engage in the agriculture sector in Lebanon (FAO 2011: 107). In 2010, only 32.1 per cent of the economically active population in the agricultural sector (1.8 per cent of the total population) were females. A more recent estimate by the ILO shows that the agricultural sector

employed 3 per cent of the population in the labour force.<sup>2</sup> This represents an increase from 2010, however the proportion of women engaging in agriculture has declined significantly – only 200 women were estimated to be employed in the Lebanese agriculture sector in 2017 as compared to 66,200 males according to the ILO.<sup>3</sup> As for their farming presence, rural women make up 9 per cent of the total farm owners and are mainly responsible for the production of dairy products, food preserves and subsistence farming (Abou Jaoude 2015: 5).

The agricultural land area in Lebanon is around 332,000 hectares (ha) while only 231,000 ha are cultivated (MoA 2014: 11). The area of Bekaa along with the coastal strip have the most fertile lands and thus are considered the main agricultural regions; while Akkar and Baalbeck represent 36 per cent of the usable agricultural area. These lands are home to a diverse agricultural and livestock production (Salman et al. 2016, ECODIT 2015). The agriculture production in the cultivated lands has shifted in the direction of specialized production of fruits and vegetables rather than cereals production; hence this has led to an increased production per hectare due to the added value of the crops (European Commission 2014: 4). Nonetheless, the local production satisfies only 20 per cent of the local demand, thus forcing the country to depend heavily on food imports (MoA 2014: 12).

One of the reasons for the reliance of the country on food imports rather than focusing on land expansion is water scarcity. Developed irrigation systems are unaffordable for small farmers, instigating the desertion of small arable lands. Changing climate, low production and the inability to achieve competitive market prices, set other limitations to small-scale farmers (European Commission 2014: 4). Moreover, regarding the agriculture and food exports, the Syrian crisis has led the Ministry of Agriculture (MoA) to open shipment lines to the Gulf countries, spiking an increase in its exports (MoA 2014: 12). Yet, the farmers are still impaired by the lower production costs in neighbouring countries where there is further support from their governments in the form of subsidies, a sufficient accreditation and certification system, and accessible marketing channels to the EU market (UNEP 2006: 8).

Upon realizing the declining agriculture sector with respect to the neighbouring countries, MoA has employed multiple strategies, such as "Development of the Agriculture Sector Strategy 2010–2014", to further develop the sector, especially after joining international free-trade agreements such as the Euro-Mediterranean Partnership Initiative in 2002 (including the EU–Lebanon Association Agreement which entered into force in 2006) and the Free Trade Agreement with the European Free Trade Association in 2004 (European Commission 2014). On a tangent, the food industry exportation in Lebanon has been experiencing food safety problems. The government under-invests in food safety and quality when compared to eastern European countries; for instance, in 2007, Lebanon invested around 1.1 million US dollars in food safety programmes, which corresponded to only 4 per cent of MoA budget (World Bank 2010a: 11).

Another reason hindering land expansion is the issue of land policy. According to MoA, agricultural lands in Lebanon "suffer from small and fragmented holdings, high cost of land,

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<sup>2</sup> World Bank Data: Employment in agriculture (% of total employment) (modeled ILO estimate), <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=LB>.

<sup>3</sup> See ILO's set of estimates: World Employment and Social Outlook, <https://www.ilo.org/wesodata>.

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urban sprawl and land use competition, contributing to the reduction of the agricultural area” (MoA 2014: 23). Additionally:

Land in Lebanon is a scarce means of production as well as a strong social symbol of belonging to a specific spatial and cultural identity – partly because most of the land area is highly arid and not well suited for intensive agriculture. Furthermore, the category of the landless agricultural workers and small farmers, that constitute much more than 50% of the farming population, holds under a quarter of the cultivated area. The natural growth of population within this category has put additional pressure on land, resulting frequently in the increased subdivision, over-use and degradation of land. Also, there are fewer prospects for assessing new land by these people given elevated prices, high rental values of land and other productive assets and low wages. (Markou and Stavri 2005: 18)

The energy and water sector, by contrast, has a negative effect on the GDP (around 3 per cent), due to the cost of restructuring and modernizing the water distribution in Lebanon, which is estimated at 1 billion US dollars. Rivers are the main water supply source in Lebanon, followed by springs and wells, and lastly dams. Springs and wells are heavily relied on for domestic water consumption, while dams have the potential to become a major water supply if more projects focused on dams are adopted (ECODIT 2015: 65). Consequently, Lebanon – which has a total land area of 10,452 km<sup>2</sup> – has around 2,080 km<sup>3</sup> of estimated water resources<sup>4</sup> and a good recharge of water supply through rainfall and rivers; however, due to the mismanaged water network, up to 50 per cent of the water supply is lost due to leaks, leading to an irregular supply of water to many areas specifically during the summer period. Access to potable water through the public water network is a privilege reaching just 80 per cent of the population, and even then only occasionally during specific times of the year: areas such as the Bekaa valley and the North. Furthermore, those two areas are significantly affected by water inaccessibility due to their location, and rely on artesian wells and delivery trucks for water supply (ECODIT 2015, Salman et al. 2016, UNHCR 2013). Another factor affecting the country’s water supply is that 61 per cent of total water consumption in Lebanon is dedicated to irrigation (Government of Lebanon and UN 2018: 180). Lebanon’s irrigation techniques consist mainly of irrigation by gravity, with intermittent usage of modern sprinklers and drip irrigation technology (Salman et al. 2016: 1).

## 1.2 MAIN POLICY AND LEGISLATIVE ISSUES AND DEVELOPMENTS IN THE AGRICULTURE AND WATER SECTORS IN LEBANON

### 1.2.1 NATIONAL LEVEL

The laws regulating the water sector in Lebanon date back to the Ottoman Empire and were later modified by the French mandate, followed by further additions after the country’s independence. The most iconic regulatory set of laws was passed by the Lebanese government in 2000: Laws 221/2000, 241/2000, 228/2000, and 337/2000; these laws have been the main mechanisms regulating the water sector ever since (Farajalla et al. 2015: 8). Before the issuing of Law 221, water was not only regulated by the government, it was under the jurisdiction

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4 FAO Aquastat (2009), Lebanon, [http://www.fao.org/nr/water/aquastat/countries\\_regions/LBN/index.stm](http://www.fao.org/nr/water/aquastat/countries_regions/LBN/index.stm).

of 21 water authorities and around 200 water committees, which led to the constant shift of responsibilities and lack of coordination between the authorities. Law 221 merged the water authorities under the jurisdiction of four Regional Water Establishments (RWEs) and the Litani River Authority (LRA), assigning them the task of managing all the rivers in Lebanon. Furthermore, Law 221 granted the Ministry of Electricity and Water Resources (MoEW) the exclusive authority on a national level over the water sector. Those institutions are identified as primary stakeholders while the secondary stakeholders, such as Ministry of Agriculture (MoA) and Ministry of Environment (MoE), still have a role in the governance of water resources as well (El Amine 2016: 6). However, the ambiguity of Law 221 does not grant a certain institution the duty to issue policies; rather it allows different institutions to draft policies and proposals with recommended regulations.

Additionally, although Law 221 does not allow municipalities and water committees to manage water resources, it still grants them the authority to collect wastewater and apply irrigation schemes. In some cases, water committees can manage water resources due to the incompetence of water establishments in fulfilling their duties. As per Law 221 and its amendments, RWEs were supposed to benefit from both financial and administrative autonomy in terms of water service provision. However, according to the Director Generals of the Bekaa and the North Lebanon Water Establishments, major obstacles have impeded the application and proper functioning of RWEs. The main obstacle is caused by an overlap of functions and responsibilities related to service provision, project-planning and capital expenditure among and within various entities in the water sector. Additionally, reforms to distinguish the functions of different entities have been initiated but not completed. Furthermore, the absence of a regulatory entity for the enforcement of regulations and follow-up of violations and corruption has impeded the proper functioning of RWEs (El Amine 2016: 9).

Other obstacles that have hindered the full application of Law 221 include the lack of financial and administrative autonomy among RWEs. This mainly results in considerable shortages in staff (some of which are at the managerial levels, namely heads of irrigation and wastewater units) and compels RWEs to hire 50 per cent of their staff on a contractual basis due to lack of funds. Moreover, the majority of RWEs' permanent staff are close to retirement age and lack necessary technical skills to enable the autonomous management of RWEs. Accordingly, RWEs have failed to perform some of their duties such as "rehabilitating and restoring water networks in designated areas" (El Amine 2016: 9). RWEs also suffer financial losses (between 20 and 40 per cent), exacerbated by the prevalence of unpaid water bills and illegal access to water services (El Amine 2016: 9). On that premise, Law 228/2000 is a national privatization law that puts forth an initiative to work closely with the private sector, while encouraging further investment and participation of the private sector in the fields of water and electricity (Farajalla et al. 2015: 31). A public-private partnership was piloted on a large scale in Tripoli between 2003 and 2007. The French private company Ondeo was contracted for four years to manage the water network. The company was able to meet water quality criteria and ensure 24 hours of daily supply to the entire urban area of Tripoli, and was able to improve the billing system and increase collection of fees from 30 to 50 per cent. However, Ondeo was not able to increase collection rates further, causing the company financial distress. As a result, and in addition to the absence of a legal framework to facilitate Ondeo's management of the water network independently, Ondeo's contract was not renewed. Overall, political and institutional problems were the primary reasons for the failure of this public-private partnership (World Bank 2012: 19).

Due to the nature of Lebanon's underground water, most families in non-reachable areas resort to digging their own wells, therefore MoEW has set forth a series of guidelines to follow during the digging and cleaning processes (MoEW 2014). Moreover, with respect to the new projects facilitating access to water supply, MoEW has taken action to allow the largest possible group of contractors to have an opportunity to participate. Thus, MoEW by Decree No. 3688 of 25 January 1966, which states the conditions to partake in a public proposal for implementation of work on dams, tunnels and hill lakes, followed by additions to the Decree in 2009, has kept the respondents who were qualified as prequalified; whereas new respondents and contractors, both local and foreign, are required to submit new qualifications to be placed in one of the three categories: the first category includes qualified contractors able to participate in all invitations to tenders pertaining to the projects of dams, tunnels and hill-lakes regardless of their storage volume, provided that they meet certain criteria in addition to the essential conditions. The second category includes qualified contractors able to participate in all invitations to tenders pertaining to the projects of dams, tunnels, and hill lakes, in which storage volume does not exceed 20 million cubic metres. The third category includes qualified contractors that may participate in all tenders for projects of dams, tunnels, and hill-lakes, in which storage volume does not exceed two million cubic metres (MoEW 2009: 4). In the agriculture sector, trade regulations are emphasized; MoA has administered and enforced certain trade measures in the plant resources directorate. These include, first, the prohibition of importation of an array of pesticides to follow the international guidelines imposed by the UN's Food and Agriculture Organization (FAO), the World Health Organization and the EU, ensuring the production of high quality products that are subject to the international food safety standards. The prohibition also includes the importation of cedar seeds and seedlings in a gesture to preserve the Lebanese cedar species. Second, the prohibition of exportation of a certain selection of Lebanese products that originate from plants (due to the risk of extinction that continuously threatens forest species), such as coal, timber and wood. Third, the requirement of a license to import and export an assortment of plant products due to health risk they may impose. Fourth, the requirement to submit a certification of origin for all imported plants and plant products as a health-safety measure and as an assurance of natural resources conservation. Fifth, the requirement of phyto-sanitary certification submission for all imported plants and plant products. Lastly, the requirement of certification of specialization for all imported seeds and seedlings (MoET 2008: 4).

Moreover, arable land in Lebanon has been shrinking – it decreased from 18 per cent to 12 per cent between 1998 and 2015.<sup>5</sup> According to a study conducted by UN Habitat and UNHCR in 2014, private state properties can be of two kinds, state-owned properties located in the cities, or agricultural lands. Decree No. 275 differentiates between these and indicates that agricultural lands may be leased to farmers for agricultural use only. If farmers wish to sub-lease the land, they have to obtain authorization from the relevant administration. State-owned properties, however, may be leased via auction or mutual agreement with tenants (Fawaz et al. 2014: 24). Sixty-seven per cent of the Lebanese agricultural lands are managed by commercial farms and are located in the Bekaa and the North, whereas the southern agricultural lands are mostly comprised of small farms (MoA 2014: 13).

<sup>5</sup> World Bank Data: *Arable land (% of land area)*, <https://data.worldbank.org/indicator/AG.LND.ARBL.ZS?locations=LB>.



MoA created the 2004 Agriculture Strategy, which was organized with the help of FAO and the World Bank, and then the 2006 Agricultural Strategy, which was unfortunately not successful due to the 2006 war. It wasn't until 2010 that MoA developed another agriculture-related programme, the Strategic Plan 2010–2014, which was initiated with the support of the International Fund for Agricultural Development (IFAD). Another action was taken in 2010 to increase cereal and legume production, followed by a programme to further develop the dairy sector in 2012, and lastly a programme to increase agricultural exports in the same year (MoE et al. 2015: 7). Additionally, MoA, with the help of the EU, worked on the Agriculture and Rural Development Programme (ARDP) in 2010 and succeeded in (i) improving agricultural statistics and research methodologies, (ii) establishing the KAFALAT programme to provide agricultural credit, and (iii) improving agricultural infrastructures (i.e., working with the Green Plan to construct hill lakes). More recently, in light of the challenges and economic repercussions of existing agricultural conditions, in addition to the impact of the refugee crisis on the agricultural sector, MoA formulated its 2015–2019 strategy under the framework of the EU-funded ARDP. MoA's overall strategy aims: (i) to provide safe and quality food; (ii) to improve the contribution of agriculture to the economic and social development of the country; (iii) to promote the sustainable management of natural and genetic resources (MoA 2014: 8).<sup>6</sup>

The purpose of the strategy is to address expected agricultural challenges by increasing farmers' capacities, promoting agriculture livelihood and enhancing the capacities of involved institutions such as the Lebanese Agricultural Research Institute (LARI), the Green Plan, technical agriculture schools and agricultural cooperatives among others. In order to increase the agricultural sector's contribution to Lebanon's GDP to 6 per cent (3 billion US dollars) in 2019, MoA strives to increase the share of the labour force in agriculture as well as to prevent further decrease in farmers' income from agriculture (MoA 2014: 30–1).

Moreover, support is being provided to the Lebanese agricultural sector through the Lebanese Crisis Response Plan (LCRP) 2017–2020. The LCRP focuses on the reduction of food insecurity by 2020 and the improvement of the resilience of the agricultural sector. This is achieved by providing food assistance along with the promotion of sustainable agricultural production by increasing food production and rural livelihood opportunities. Taking into consideration the current food security situation among refugees, and among the Lebanese, the priority of the LCRP is to provide life-saving food assistance to the most vulnerable population. The LCRP then focuses on the development of durable solutions through the creation of agricultural livelihood opportunities in collaboration with relevant partners. The provision of durable solutions entails providing support to the agricultural labour market and promoting agricultural investment (Government of Lebanon and UN 2018).

### 1.2.2 INTERNATIONAL LEVEL

The Euro-Mediterranean Agreement, in which Lebanon became an active member upon signing in 2002, was designed to develop and improve the member countries' trade, agriculture and industry sectors. In the decision No. 1/2016 of the EU–Lebanon Association Council under

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<sup>6</sup> MoA has devised a ten-point action plan: 1) promoting food safety and quality; 2) agricultural health and production; 3) animal health and production; 4) irrigation and rural infrastructure; 5) post-production and marketing; 6) fishing and fisheries; 7) forests, rangelands and medical plants; 8) cooperatives and mutual funds; 9) extension, education and research; and 10) development of MoA capacities (MoA 2014: 19).

the guidance of the agreement, Lebanon and the EU took measures to improve their trade relationship (EU–Lebanon Association Council 2016). This included regulations reducing non-tariff barriers for goods, while increasing the competitiveness of the agro-food sector by enhancing the quality of agricultural products. The strategy implemented to increase exports of Lebanese agricultural products is fulfilling agricultural tariff-rate quotas. The impact of the Syrian crisis on Lebanon has been tackled as well, where the EU–Lebanon Association Council believes that agriculture can serve as a source of employment for refugees as it is among the labour-intensive sectors. A special focus of the Association Agreement was to facilitate the access of Lebanese products to the EU market and to the global market. To this end, technical assistance is to be provided to both the public and private sectors to ensure that Lebanese products match the international sanitary and phytosanitary standards. The EU will also support Lebanon in its objective to join the World Trade Organization (WTO).

The European Neighbourhood Policy EU–Lebanon Action Plan states a set of goals to be completed by the Lebanese government with the help of the EU. The first goal is to formulate a strategy for the agriculture sector that maximizes the employment benefits, empowers private stakeholders and enforces the implementation of existing legislation in the agriculture sector while enhancing trade liberalization. The second is to shed light on reforestation activities while protecting the current ones. The third is to draft a policy framework that ensures the quality of production through supporting organic farming. The policy should also guarantee that food products match the international and EU standards for food safety. Fourth, develop the infrastructure to increase production quota, while increasing the local capacities of producer groups to create more jobs. Fifth, establish a facility that gives credit and loans to small farmers for further rural development. Sixth, enhance the credibility of agricultural products by acquiring international certification. The European Neighbourhood Policy (ENP) action plan also seeks to promote gender equality by encouraging women's participation in politics and the labour force, decreasing all forms of female discrimination and protecting women's rights. Moreover, job creation is considered another priority to improve business conditions and decrease unemployment (European Commission 2007: 11). The Action Plan for 2013–15 aimed to promote employment by ensuring equal opportunities, development of skills and motivation through:

- (i) Formulation of a comprehensive Social Development and Employment Strategy as a basis document; (ii) Continuous social dialogue, including within the Economic and Social Council and through tripartite dialogue, in order to develop opportunities for partnerships between the private sector and civil society, with special focus on the area of vocational training; (iii) Promotion of the participation of women and youth in the labour market by reducing obstacles for entering the labour market, introducing specific technical and vocational training programmes, and adopting a market-driven approach to increase their employability; (iv) Modernization of the National Employment Authority; (v) Motivational benefits policy geared toward encouraging active job-seeking and requalification in line with the needs of the labour market. (European Commission and EEAS 2013: 31–2)

Later, the EU and Lebanon decided upon partnership priorities that were adopted by the EU–Lebanon Association Council in 2016. These priorities also included job creation with a concentration on women and youth (EU–Lebanon Association Council 2016).

Furthermore, indicators were set to measure the extent of achievement of the ENP goals; these included establishing a food safety authority, credit facilities, and agricultural establishments that cover the implementation of relative legislations. Other measures were taken to help enforce the plan, such as (i) implementation of the National Reforestation plan, (ii) tailoring policies for Lebanese circumstances, (iii) creating an initiative to encourage private stakeholders to take actions on their own and (iv) creating a registry for crops and producers.

The action plan includes the improvement of water resources management, and proposes several actions to be taken: drafting plans that improve the quality of water supply from surface and ground sources, developing environmental protection projects and supervising the management of water demand from municipal, touristic, industrial and agricultural sectors. Furthermore, it called for taking more severe actions against surface and ground water pollution, through establishing a network that would monitor the quality of surface and ground water while controlling who has access to such sources. The overall tone of the action plan was leaning towards a cooperative plan between the EU and Lebanon to address urgent issues pertaining to regional and transboundary water resource management and desertification issues in the scope of possible intervention on the part of neighbouring governments (European Commission 2007: 25–6).

Another significant agreement was the Euro-Mediterranean Agreement between the European Community and the Lebanese Republic, established in 2002, which included the following articles:

Article 13: The Community and Lebanon shall progressively establish a greater liberalisation of their trade in agricultural, fisheries and processed agricultural products, of interest to both parties. [...] Article 16(1): In the event of specific rules being introduced as a result of the implementation of its agricultural policy or of any alteration of the current rules or in the event of any alteration or extension of the provisions relating to the implementation of its agricultural policy, the Party concerned may amend the arrangements resulting from this Agreement in respect of the products concerned. (European Community and Lebanon 2002)

The Economic and Social Fund for Development (ESFD) is a semi-autonomous programme initiated by the EU in Lebanon in 2002 as part of the EU-Med partnership established between the EU Commission and the Lebanese government in 2000. Its goal is to improve the living conditions of poor communities by focusing on two aspects of providing support: creating more jobs through financing SMEs and medium-scale projects, and providing technical support and funding to local projects through intermediaries (NGOs, banks, municipalities, etc.) while working on developing the socio-economic conditions of the community (UNDP 2010). One of the ESFD's strategy assessment papers reports on water mismanagement and the potential for water shortage in Lebanon despite its water-rich environment (ESFD 2005). Moreover, the paper attributes this possibility to the fact that (i) most underground water resources are at risk of pollution; (ii) surface water undergoes a heavy process of evaporation due to rising temperature; (iii) there is water leakage due to old infrastructure; and (iv) there is a lack of water sanitation networks. The paper also sheds light on the problem of deforestation and desertification that Lebanon has faced since 2005 due to the increasing urbanization and road

construction.<sup>7</sup> More recently, the ESFD has taken initiatives to reform the agricultural sector through utilizing EU grants in agricultural support. In line with this approach, the Recovery of Local Economies in Lebanon programme was instigated in 2015 to finance small-scale projects in order to improve the economic situation of areas with high influx of Syrian refugees. The project targets the agricultural sector in particular since it can provide job opportunities to these refugees through sustainable small-scale agriculture (ESFD 2015).

## 2. A QUALITATIVE ANALYSIS OF STAKEHOLDERS' FRAMES IN THE AREA OF AGRICULTURE AND WATER

### 2.1 METHODOLOGY

As per the guidelines set by MEDRESET project, the fieldwork consisted of identifying and interviewing 20 to 30 main stakeholders in the agriculture and water fields to ensure a heterogeneous sample that would capture the diverse angles of both sectors (see Annex 1 for an overview of the stakeholders). In total, 26 interviews were conducted with only 21 different stakeholders due to the unresponsiveness of many stakeholders, despite the extensive efforts exerted in subsequent follow-up. As a first step, stakeholders were contacted through email, followed by a phone call if a response was not received. When requested, the project flyer was sent to stakeholders. Subsequently, stakeholders were contacted by phone repeatedly to schedule an interview.

Two rounds of interviews were undertaken, in November 2017 (17 interviews) and April 2018 (9 interviews) respectively. Stakeholders interviewed included: (i) public institutions and governmental organizations; (ii) international organizations; (iii) local non-governmental organizations; (iv) research centres; (v) private companies; (vi) syndicates; and (vii) a farmer-based association (see Annex 2 for the list of interviewed stakeholders).

During the fieldwork stage, two main challenges were faced. First, often the point of contact, usually assistants, failed to get our message across to the designated persons, which impeded our efforts in getting hold of them. Second, many stakeholders claimed to be too busy to schedule an interview.

Despite the limited number of interviews conducted, our sample comprises key players in the sector with diverse backgrounds and experiences with the EU, including actors who have been excluded by EU interventions and Euro-Mediterranean dialogue. The latter did not generally have any experience working with the EU or any knowledge about EU policies implemented in Lebanon, thus interviews conducted with them focused on the challenges faced and recommendations to improve the sector.

The questions posed to the selected stakeholders were organized around collecting information on how, in relation to agriculture and water, these actors frame (i) the broad policy context and (ii) major challenges and priorities; and (iii) they assess the effectiveness and potential of EU trade and assistance policies (see Annex 3 for the questionnaire).

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7 In 2005, woodland and forest areas represented 13 per cent of Lebanon's total surface area (ESFD 2005).

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## 2.2 FRAMING AGRICULTURE AND WATER WITHIN A BROADER POLICY CONTEXT

There is a consensus among stakeholders in several local and international organizations on the distressing nature of both agriculture and water sectors in Lebanon. In reference to the events of the past decade for the agriculture sector, private businesses, namely Antagro and Al Zoghbi respondents, reported the Syrian crisis to have had a negative effect on the agriculture sector due to the border closure, which stopped the transportation of agricultural products by land. An alternative transport solution was adopted via shipping Lebanese goods by sea; however, the damage had already been done to the export market. In addition, sea transportation is impractical where the lump-sum shipping of goods drives the prices down and sea transportation costs more in comparison, thereby affecting stakeholders' profits, an opinion shared by MoA and FAO respondents. The sector has not changed, reported the Lebanese Agricultural Research Institute (LARI) respondent who saw this stagnant state as a reflection of the situation in Lebanon in general, where due to the constant change in cabinets, the sector resets its strategy with every new cabinet, leading to a break in continuity in the work of ministries. This arbitrary change in the cabinets reflects on the ministry's policy intervention, and as a result the farmers cannot cope. The interviewed farmer engineer added that the last change the sector has witnessed was forty years ago. The respondent from the National Union of Cooperatives in Lebanon (UCL) confirmed that the agriculture sector will not be undergoing any changes if the government does not apply a coherent progressive strategy.

By contrast, the respondent from ICARDA (International Center for Agricultural Research in Dry Areas) believes there have been negative changes in the agriculture sector materializing in (i) an increase in agriculture intensity and production, (ii) an intensive use of fertilizers and pesticides and (iii) shrinkage in water resources. Congruently, the EU programme ESFD and Sada Al Bekaa respondents see a greater potential in the sector whereby production and marketing could be improved if difficulties in the value chain are conquered, including quality control and production. This sentiment was shared by the FAO respondent, who also mentioned that the country can invest in producing niche products such as high-quality fruits and vegetables. The UCL respondent saw a change in the cooperatives field as well, as there are currently 1,300 established cooperatives from all sectors (fisheries, animal production and beekeeping). In the water sector, the EU respondent reported a change in the MoEW approach as they are currently pushing for the centralization of donor-funded projects. The UCL respondent commended the fishermen's recent adherence to the practice guidelines enhanced by the ministry's regulations prohibiting fishing in areas of overharvesting, to allow for growth of marine life. On the other hand, the Antagro respondent warned of two issues that if untreated might affect the future of the sector. In the first of these issues, not supporting local crop production may lead to food security crises since there is a large reliance on locally produced crops. Second, absence of a governmental policy and the Minister of Agriculture's lack of knowledge will lead to a serious deterioration in the sector. Such foreshadowing was shared by the Al Zoghbi respondent who warned of increased internal and external migration due to agricultural problems. However, MoA respondent announced that the Association Agreement with the EU will promote some changes at different levels. The expected impact will encompass the following: producing new varieties (fruits), increasing organic production, incorporating integrated pest management, adopting good agricultural practices, implementing vaccination programmes for livestock, and strengthening control on borders. Furthermore, the FAO respondent described an ongoing move towards "protected agriculture" such as greenhouses and hydroponics. In fact, in some cases, farmers are replacing their citrus plantations with greenhouses which increase the

return per lot.

The respondents were asked to define *food security*. The Civic Influence Hub (CIH), LARI and MoA respondents agreed to elucidate this term as the guarantee that citizens have access to the basic foods. Other respondents added additional factors: (i) the Lebanese Association for Urban Agriculture (LAUA) respondent stated that it could be measured using the daily food basket necessary for citizens, (ii) the ICARDA respondent specified that the basket should be easily accessible and affordable, (iii) the Green Plan respondent stressed the long-term and sustainability factors and (iv) the FAO respondent introduced the quality factor, where the food should be hygienic and culturally acceptable. In regard to *food sovereignty*, there was a consensus on defining it as a minimum level of self-sustainability in food production featuring a decreased dependency on imports and imposed agreements paralleled with more dependence on local produce. The FAO respondent added that maintaining and promoting knowledge is a key factor in food sovereignty.

Concerning the water sector, the respondent from the Notre Dame University (NDU) research centre described it as a disaster where water resources are diminishing at an alarming rate due to lack of infrastructure and management despite Lebanon being in possession of more water relative to other countries, as remarked by the CIH respondent. However, the UCL respondent commended MoEW's stricter control over the Litani River area where perpetrators of polluting activities are being charged with large fines. There has been improvement in the infrastructure of certain areas as well, accompanied by slight improvements in distribution, nevertheless, these improvements are not significant enough due to the excessive water loss. Both the CIH and NDU respondents reported a decrease in precipitation, an increase in surface water evaporation and a simultaneous mismanagement of underground water. Moreover, the EU respondent expressed the difficulty of making progress in the absence of a code for water. Ultimately, two alarming statements were given by the NDU and GIZ respondents respectively: first, the existence of a discussion on decreasing the provision of water for refugee camp sites pushed for by some parties; second, the inevitable intrusion into the natural landscape and ecosystem if the water problem persists in the future.

## 2.3 FRAMING AGRICULTURE AND WATER-RELATED POLICY CHALLENGES AND PRIORITIES

Within the agriculture sector, the respondents reported multiple challenges that could be addressed through compelling policies. The first challenge is *governance problems*, along with a lack of action plan, described by the Antagro respondent as inexplicable. Firstly, MoA has a low budget compared to its responsibility level, leading to its minimal presence and slow policy responses. MoA, UCL and ICARDA respondents expressed their frustration at the assigned agriculture budget which represents 1–1.5 per cent of the country's budget. The UCL respondent added that the agriculture sector is usually subsidized in most countries given the fact that it employs the poorer portion of the population; however, there is less subsidization in the agriculture sector in Lebanon. Arbitrary measures were emphasized as well, where MoA's response to an issue usually leads to other issues.<sup>8</sup> Secondly, a lack of governing policies

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<sup>8</sup> For example, MoA's response to the issue of pine trees contracting a disease was to use a pesticide that caused the death of bees, raising a question of the ministry's integrity in addressing fertilizers and pesticides.

was reported by the ICARDA respondent as well as the ESFD respondent, who attributed the inefficient interventions by civil society and the private sector to the absence of enabling policies. Additionally, the sector has neither the strength nor the funding to pressure policy-makers into action, and it lacks an authoritative planning figure to promote coordination between the different groups dealing with agriculture – an opinion shared by the LAUA respondent who stated that the 26 agriculture guidance centres in Lebanon cannot operate properly due to the lack of qualified human resources and experienced staff. On that matter, the LAUA respondent expressed frustration at the facilities provided by the government including the agricultural loans, claiming that their conditions are not convenient for small farmers and typically only benefit large-scale farmers. The ICARDA respondent added that the agriculture extension<sup>9</sup> applied by the government is weak. Indeed, to be successful, farmers need to be incentivized to respond to guidance on what, where and when to plan, an opinion shared by the Sada Al Bekaa respondent who explained that the farmers are not well-informed on the topics of harvest diversification and less intensive agriculture.<sup>10</sup> Another problem reported by the LARI respondent is the fact that the government is forcing a global agenda on the local context.<sup>11</sup>

The second challenge is the *private sector and NGOs incompetence*, where the private business respondents from Antagro and Al Zoghbi reported ineffective work by agricultural cooperatives in (i) advancing farming and breeding, (ii) producing improved crops and (iii) cooperating with other stakeholders in achieving their common agenda. Similarly, the Green Plan and Sada Al Bekaa respondents reported cooperatives to be unsuccessful and inefficient in their decision-making due to the individualistic agendas that overwhelm the collective environment of the cooperative. This was also expressed by the LAUA representative, who claims that cooperatives in Lebanon are governed by politics more than farmers' interests. Another problem is the unsustainability of cooperatives since they were established to address certain facilities and then ceased to function upon accomplishing their mission, which is disadvantageous for sustaining the advancement they have contributed to. However, both respondents acknowledged how cooperatives facilitate farming, work on traditional processing projects and lower costs for small farmers through sharing resources. Moreover, the LAUA respondent accused the private sector firms of marketing inefficient agricultural material and equipment and advising farmers to use them without disclosing full information, in order to increase their sales. Another allegation made by the LAUA respondent is the emergence of a monopolizing NGO that disempowers independent NGOs. Furthermore, the EU respondent shed light on an issue faced by NGOs implementing EU-funded projects: the struggle to identify which institution to submit the project to once it is finished, since there is no clearly responsible body and an overlapping jurisdiction on common EU policies.

The third challenge is *irrigation problems*, which are a major hindrance to maintaining and expanding arable lands according to the ESFD respondent who complained about water shortages and pollution affecting crop quantity, an opinion also shared by the LAUA respondent.

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9 Agriculture extension is the process of identifying and delivering the results of research to the farmers.

10 Intensive agriculture is the increase of the land's output through extensive use of labour and capital, namely fertilizers and pesticides (Grantham Centre 2015).

11 An example given by the respondent is governmental compensation given to farmers whose crops were afflicted by a natural crisis; however, another crop that was affected by market dynamics might get compensation as well, since different crops are concentrated in different areas that also have different religious majorities, leading the compensations to be decided on the basis of sectarian equity.

The Antagro respondent added that some irrigation methods are becoming problematic such as water pumping, which has been increasing in cost due to rising diesel fuel prices. The Sada Al Bekaa respondent illustrated further that farmers are resorting to the polluted water of Litani River and Qaraoun Lake for irrigation to avoid having to drill for water at high cost. However, according to the Al Zoghbi respondent, the Litani River contaminated water is used for only 4 per cent of agricultural produce in Bekaa, and not all produce as claimed by media sources. Additionally, the LAUA respondent described the challenges facing efficient harvesting of precipitation crops and utilizing natural dams and hill lakes in irrigation. On that matter, MoA respondent reported several water-source-related issues that could affect agriculture negatively in the future, such as: (i) a decrease in precipitation, (ii) excessive drilling of wells and (iii) water pollution, as in the case of the Litani River.

The fourth challenge is *land problems*, where both Antagro and MoA respondents stated that there is a limited land area for cultivation, resulting in higher land leases that farmers cannot afford, while the ICARDA respondent added that there is no land planning for the already limited land base. Moreover, despite the persisting problem of limited land area for cultivation, the UCL respondent reported that MoA is taking no actions for land reclamation. The LAUA respondent explained further that there is a ploy applied by the private sector to encourage farmers to mortgage their land to firms. The government has implemented an agriculture extension process to provide farmers with information on alternative methods; however, the farmers are locked into a relationship with the private firms, and cannot leave without dire costs. Furthermore, land ownership poses another problem as it is unorganized and fragmented due to high title transfer fees, an opinion shared by the FAO respondent. All these problems, according to the ICARDA respondent, have been contributing to an increased rural migration where farmers are abandoning arable lands for the city life; however, this has led to an increase in investing in olive farming, which is a great absentee agriculture as reported by the FAO respondent.

The fifth challenge is *agricultural practice issues*, mainly reported by the ESFD respondent who condemned the practice of planting bad seeds and excessive use of nitrate-based fertilizers and pesticides instead of organic ones. One reason for this could be private firms' supply forecasts where the firms would flood the market with low-priced fertilizers when their sale quota is not met. This extensive use of inorganic fertilizers reduces the quality of produce, resulting in the EU and Gulf countries rejecting Lebanese goods on the grounds of low quality. MoA and Sada Al Bekaa respondents shared a similar opinion as the quality of the produce has been dropping, accompanied by the infection of crops and soil pollution due to the extreme use of fertilizers as a result of the lack of control on importing pesticides and fertilizers. Moreover, MoA respondent instructed the farmers to focus on reducing the residue and lowering production costs; however, the FAO and UCL respondents reported that high production costs, such as land rent, water cost (energy, pumping) and labour costs, cannot be avoided by the farmers. ICARDA respondent added that seed multiplication is an issue and there should be more investment to produce more seeds for farmers, while the Green Plan respondent expressed a concern about the lack of quality standards and production norms that may be sacrificed by the farmers in favour of cheaper prices. The FAO respondent hypothesized that the cause of malpractice is the inability of farmers to access credit since banks do not have the incentive to finance small-scale agriculture projects.



The sixth challenge is *marketing and export-related issues*, where the private business respondents from Antagro and Al Zoghbi describe the increasing competition in the Arab markets that are the biggest outlet for Lebanese produce. This competition, reported the ESFD respondent, needs to be addressed with a marketing strategy to open other foreign markets for Lebanese goods, adding that upgrading the types of crop for added value could be the solution. This opinion was endorsed by the farmer engineer who reported that the lack of marketing of Lebanese produce is leading to less competitiveness in the Gulf markets.<sup>12</sup> Consequently, there is a need to forge an export path to Russia and the EU through attempting to lift the restriction on potato exports, among other actions. The LAUA respondent attributed Lebanon's lack of competitive capacity to the failure of the agriculture sector to adapt to market changes due to the emerging feudal type of agriculture, whereby the big farmers have locked the smaller farmers into their system of marketing and agricultural practice. In this regard, both MoA and UCL respondents expressed the need to increase exports, since the sector heavily relies on export, and expressed concern over decreasing citrus fruit exports, a large constituent of the export crops. A similar remark was made by the interviewed private business respondents, who described the recurrent issue of crop discharge,<sup>13</sup> which used to involve one crop per year but now there is a struggle with discharging several crops, leading to a decrease in produce price. On another issue, the FAO respondent reported a poor practice of import subsidization that exceeds the cost of importing the good in the first place, an example being tobacco. The UCL respondent added that Lebanon cannot afford to monitor the quality of imports at the country of origin, thus leading in some cases to importing flawed goods. Moreover, according to the FAO respondent, the local market lacks restrictive regulations on wholesale markets that do not assume risks in buying from farmers while increasing their profits by adding up to 500 per cent on the original price, leading to a substantial loss on the farmers' side. The FAO respondent accused the Ministry of Agriculture (MoA) and the Ministry of Economy and Trade (MoET) of being the institutions responsible for these occurrences.

The last challenge is *climate change*, a pressing danger threatening natural resources through wildfires, droughts and floods, reported the EU and the MoA respondents who expressed an urgent need for the preservation of Lebanon's natural ecosystem, an opinion also shared by the CIH respondent. The Green Plan respondent added that adaptation to climate change is the most plausible option.

Going off on a tangent, the water sector is experiencing an array of urgent threats. Firstly, *agricultural practices*, where GIZ and NDU respondents reported that similarly to how water is posing a problem to the agriculture sector, agriculture is causing several issues in the water sector including (i) heavy water consumption as thousands of unlicensed wells are constructed for irrigation purposes and a large portion of the agricultural sector still relies on flooding in irrigation; and (ii) water contamination caused by nitrate residue from fertilizers and pesticides.

Secondly, *unlicensed wells* was a problem communicated by GIZ, ICARDA and LARI respondents. The NDU respondent explained that there is an uncontrolled proliferation of unlicensed wells, resulting in the government experiencing difficulties in identifying the

12 The farmer gave the example of how Egyptian and Pakistani potatoes are competing with Lebanon over Gulf markets, even though the quality of Lebanese potatoes is quite high.

13 Finding an international outlet for exporting a crop.

number and the location of wells and the types of pollution they may represent. Additionally, the respondent reported a problem of over-pumping of water from these wells since they are undetectable and thus unregulated.

Thirdly, *water pollution* was recounted by ICARDA and Antagro respondents, where the former remarked that domestic and industrial waste is polluting the rivers, while the NDU respondent noted that there exist no regulations controlling the industrial discharge of hazardous waste into the surface water, nor any disciplinary actions against usage of surface water in the manufacturing process. The UCL respondent remarked that in some cases large quantities of water are discharged into the sea without being used, due to mismanagement. In addition, there are multiple causes for decreasing water quality including septic tanks, wild garbage dumps, gas station tank leakage and faulty networks for waste water. In this regard, the GIZ respondent informed of the existence of bacteriological contamination and warned about potential salt-water intrusion that might threaten the underground water.

Fourthly, *governance problems* were voiced by the ICARDA respondent, who reported a lack of inter-ministerial coordination, an opinion also shared by the CIH respondent who claimed the inability of water departments to handle the extensive responsibilities. In addition, the country is institutionally divided with no unified strategy on the operation of projects, as expressed by the EU respondent. Furthermore, the government does not reduce some of its red tape measures, leading to a difficulty on the technical level for project implementation. The situation is exacerbated due to dysfunctional political financing, where the capital expenditure in the budget is less than 2 per cent, as stated by the CIH respondent. Additionally, the NDU respondent reported an unregulated recreational consumption resulting in poor practices, such as in the car wash industry and the irrigation of grass lawns. Moreover, the government equivocates finding alternate water resources by relying heavily on the ground water, which is being depleted and increasingly difficult to pump due to the expense involved.

Lastly, *infrastructure* is an issue highlighted by the CIH and NDU respondents, and reported to be the root of the water leakage problem and the loss of significant amounts of water. The GIZ respondent attributed the problem to property issues that hinder the construction of important infrastructure.

## 2.4 EVALUATING THE EFFECTIVENESS OF AGRICULTURE- AND WATER-RELATED EU TRADE AND ASSISTANCE POLICIES

When respondents were asked to assess the EU's intervention in the region, there were negative and positive evaluations. On the positive aspects, the LAUA respondent commended the EU on projects in the region such as the installation of irrigation systems and canals. The ESFD respondent shared a similar opinion, where the EU's interventions were described as equitable and fair since the EU takes a wide range of parameters into consideration when implementing its projects. The Green Plan respondent added that due to the restrictions applied by the EU on potato exports, the EU proposed to help with resolving the issue of rotting potatoes; however, Lebanon appears to be unqualified to effectively respond, an opinion shared by the FAO respondent. In general, the EU invests in food safety and quality and accordingly places quality standard barriers since there are consumer-based requirements. Therefore, the FAO respondent believes that the EU's import requirements are fair. The FAO

respondent commended the EU's intervention through the Agriculture and Rural Development Programme (ARDP) which helped build capacities of MoA and other relevant institutions. Finally, the Association of Lebanese Farmers (ALF) has praised former EU Ambassador to Lebanon, Patrick Laurent, who organized the Economic and Social Forum, had great relations with civil society and was eager to achieve results. Before and after Laurent's term, the ALF accused the EU of practicing Lebanese diplomacy – in other words, of being centred on public relations without conducting any real policy work.

On the negative aspects, the EU was reported by the ESFD respondent to be avoiding addressing important issues such as crop improvement and market liberalization. Moreover, the LAUA respondent implied that the EU might be contributing to the monopolization of civil society due its competitive proposals with respect to those of local NGOs; for instance, one NGO seems to be dominating all relations with international NGOs and international governmental organizations (IGOs) in the Bekaa/Baalbeck area. Additionally, the EU's interventions lack sustainability and do not synchronize with their objectives; consequently, the EU projects will fail as sustainability is crucial for their success. Additionally, the EU is reproached for (i) not completing baseline assessments, (ii) having imprecise criteria for funding, (iii) not having proper implementation plans and (iv) not hiring experts to take charge of designing and implementing projects. Indeed, SOILS, a permaculture association, claims that not enough evaluations or needs assessments are being conducted to determine Lebanon's needs and gaps, to enable the design and implementation of effective projects. For example, the EU has been providing capacity-building to cooperatives which are not currently addressing beneficiaries' needs; in fact, beneficiaries need support in finding markets for their products – not trainings – as per SOILS, because when their products don't sell, production is discontinued leading to rusting factories. Farmers are able to cooperate with implementing partners when the interventions have a clear vision, strategy and policy framework, according to the LAUA respondent. MoA respondent added that the EU lacks flexibility and clarity when implementing its projects, particularly those not involving MoA, and gave the ENPARD as an example. The EU's lack of flexibility in its interventions and policies was implied by Green Plan and SOILS as well, and was attributed to the EU's inflexible policies that fail to adapt to the local context and needs of the community. Another issue emphasized by Sada Al Bekaa is the tendency of the EU to respond to the political agenda by complying with political parties' needs in the sector, which are not in line with Lebanon's specific needs and resources. The EU respondent attributed the failure of some EU infrastructure projects to (i) the urgent nature of the Syrian crisis, (ii) the commitment of money into the project without prior comprehensive feasibility assessments and (iii) the discrepancy between the recipient's end and the EU in mobilizing the funding as quickly as possible according to the EU's directive. Moreover, there is no coordination with other donors such as USAID to avoid duplication of studies, and with implementing partners to ensure that actual needs are being addressed, an opinion shared by the GIZ and Sada Al Bekaa respondents.

Similarly, the lack of sustainability of EU interventions was discussed by the LARI respondent, who attributed the problem to corrupt networks in Lebanon which mislead the international community, and added that this is an issue that concerns Lebanon rather than the EU. The UCL respondent implied that the EU as a collective is biased towards supporting Christian areas and areas where there are prior engagements with the residents. Evidently, the EU never approached the UCL although they have more than 100 cooperatives in the south of Lebanon; instead, the UCL has working relations with separate EU countries. Sada Al Bekaa described a

similar pattern where EU funding is not well distributed and does not serve the communities equally;<sup>14</sup> however, the respondent reasoned that this is due to the mismanagement of funds by the formal institutions such as governmental institutions and IGOs that the EU works with – the EU is claimed to comply with the direction of the government, which intersects with local politics. Evidently, there were discrepancies in the implantation of EU-funded canal projects.<sup>15</sup> Furthermore, MoA respondent found the EU's contractual procedures to be complicated and contradicting with governmental procedures at times, while the ICARDA respondent found the EU's financing procedures perplexing; a similar remark was made by the Green Plan respondent on complicated EU procedures.

On a tangent, the GIZ respondent deemed the tariff structure to be the main obstacle Lebanon faces in the EU market, and expressed concern over the value of external support, while the Green Plan respondent further explained that Lebanon did not benefit from the facilities that the EU provided in the context of trade and agricultural agreements, especially the green corridor.<sup>16</sup> The LARI respondent added that it will be difficult to cooperate with a conglomerate Europe due to the difficulty of negotiations with farmer-based organizations.

According to the CIH respondent, EU intervention is diminishing and lacks a clear strategy; as compared to UNDP and USAID, it was deemed less supportive to institutions and to the community, and not as impactful and visible on the ground. This can be explained by the fact that USAID has established a strong profile in its areas of intervention whereas the EU has not focused on any specific areas. Antagro concurs with this perspective, claiming that USAID implements more projects and is more present on the ground. Moreover, as per the Global Environment Facility (GEF), most beneficiaries associate all support received with the UN – commonly referred as "The Nations" (or *Al-Umam* in Arabic), thus implying that support provided by the EU goes unnoticed – an occurrence known as "invisible support". Concerning implementation, Emkan, an NGO that has worked with USAID and the World Bank, has claimed that EU interventions are less output-driven as compared to other institutions' agendas, which are based on deliverables and more innovative in terms of implementation. However, from the perspective of the SOILS representative EU projects are slightly better than USAID projects, as the EU covers a wider range of topics in more areas as compared to USAID, and the former works with local organizations whereas the latter deals with contractors. Furthermore, the Sada Al Bekaa respondent reported that the EU investment patterns are more inclined towards studies rather than providing recommendations for alternative solutions.

Moreover, the EU along with other international institutions such as USAID and the World Bank are not well regarded by several stakeholders, as their strategy with regard to their involvement in Lebanon is not clear. Stakeholders claim significant amounts of money have been spent in Lebanon (over 2 billion US dollars in the past 20 years) with no impact on the ground. Additionally, studies conducted over the years have not been used, as organizations such as the EU do not build on them or get involved in implementation – unlike USAID which participates in the implementation of projects in certain cases, as claimed by Sada Al Bekaa. Also, the EU's bureaucracy and requirements are believed to have negative implications on

14 There is a trend to over-invest in poultry and beekeeping, and less interest in more sustainable farming types.

15 In the case of the EU water canal project in Majdal Anjar, the network headed in the opposite direction from the villages' water tank.

16 The gradual lifting of tariffs on agricultural products.

projects and partners working with them, as per the GEF and Sada Al Bekaa respondents. The René Moawad Foundation (RMF) declares that EU projects should better evaluate projects before going through with them, as the majority of projects implemented do not address local needs and exhibit a lack of knowledge of the local context.

Furthermore, when asked whether EU agricultural producers are perceived as competitors in certain markets, all respondents approached in the second round of interviews affirmed that this is indeed the case. In fact, as per ALF, EU apple producers are major competitors in Lebanon and the Gulf, exporting large quantities with better value in terms of quality/price ratio. Since the Gulf countries impose high quality standards and restrict the entry of produce with high residue level, the EU has gained the upper hand in competition over Lebanese producers, as claimed by SOILS, in addition to the Turks and Chinese as claimed by GEF. Lebanese producers are not knowledgeable and informed about the residue issue as much as EU producers, thus shops and dealers in agricultural products are suspected of exploiting farmers' lack of knowledge when selling their products. It is therefore recommended by SOILS to raise awareness among these shops about the negative implications of their practices. Sada Al Bekaa, GEF and CIH attribute the EU's competitiveness to its high-quality products, which Lebanese produce does not match up to. However, Lebanese agricultural products are in high demand by Gulf importers, claims GEF. The SOILS and GEF representatives seemed to be the only ones aware of the EU farm lobby (among stakeholders interviewed in the second round). SOILS identifies their monopoly of seed production as the most concerning aspect of their practice, whereas GEF claims that EU farmers do not perceive Lebanese farmers as a threat, since the EU market can accommodate Lebanese products without affecting the market price due to limited quantities.

Finally, there is consensus among stakeholders with regard to the existence of gender mainstreaming in EU programmes. However, in terms of accountability procedures, GEF and RMF have conflicting opinions. The latter claims that the EU is strict in promoting gender equality, whereas the former claims that although the EU requests partners to comply with gender mainstreaming procedures, it does not ensure that these procedures are being enforced – an opinion shared by SOILS. On that note, Sada Al Bekaa claims that the EU supports gender mainstreaming only in social cohesion projects, stating that the EU does not seem to be concerned with the lack of gender equality in agricultural projects.

As partners in Lebanon comply with standards set by the EU with regard to gender mainstreaming, they have become more aware and understanding of the gender equality agenda, as claimed by Sada Al Bekaa. By contrast, the GEF claims that the EU was not successful in changing the mindset of partners on gender equality as local partners have been prompted to integrate a gender component in their projects solely to maximize their chances of getting funding. Equally, the SOILS representative declared that local partners do not comply with EU standards on the ground; conducting a needs assessment for women is suggested to determine new ideas to apply gender mainstreaming. Furthermore, projects targeting women, particularly projects that support cooperatives, have enabled women in rural settings to become more independent, as per the SOILS representative. Moreover, EU projects targeting women have had a larger impact on society, as women tend to be more open and accepting of learning and gaining knowledge from peers, unlike most men, and this newly acquired knowledge tends to trickle down.

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## 2.5 EVALUATING THE POTENTIAL OF AGRICULTURE- AND WATER-RELATED EU TRADE AND ASSISTANCE POLICIES

Stakeholders in the agriculture sector (private companies, NGOs, syndicates and farmer-based associations) affirm the importance of accessing the EU market. However, penetrating the EU market is challenging as producers face several issues such as quality standards and lack of competitiveness. Antagro claims that Lebanese produce is not very competitive, thereby making it challenging to compete with more resourceful countries. Resolving the irrigation problems would reduce production costs thereby boosting the competitiveness of Lebanese produce. Another key problem, namely quality standards set by the EU which are not met, was mentioned by Sada Al Bekaa, CIH and SOILS. The SOILS respondent discussed that the EU should empower MoA to enforce compliance with EU quality standards, raise awareness in cooperatives and schools, and incentivize producers that comply with the standards. Indeed, quality of Lebanese produce must be improved and maintained in order to benefit from the trade agreements with the EU.

However, the RMF respondent stated that, despite what it claims in the media, in reality the EU is not promoting trade with Lebanon. This was exemplified with several arguments: the regulations specified in the trade agreements with the EU do not facilitate the access of Lebanese producers to the EU market; additionally, it is impossible to connect with the Centre for the Promotion of Imports from developing countries, established by the EU, a dynamic which could be deliberate and not a bureaucratic problem after all.

Furthermore, GEF, Emkan, ALF and LAUA affirmed the importance of gaining access to the EU market and accordingly made a number of recommendations to facilitate entry, such as focusing on the right products, producing new varieties of products, moderating agricultural production, identifying faster modes of transportation and working on branding. Emkan specified that access to the EU market can be achieved gradually by addressing the gaps in extension services, and increasing guidance and awareness (as farmers need extensive follow-up and support to change their practice) to improve standards of production and quality of Lebanese produce. The RMF also suggested establishing direct relations with EU importers, as the standards imposed by the EU are difficult and Lebanon lacks a lobbying strategy to facilitate entry into EU markets. For instance, Lebanon could have negotiated to have the EU make compromises, given the role of Lebanon and the consequences it endured due to the Syrian crisis.

In light of the aforementioned issues, the respondent organizations made multiple recommendations in the framework of policy-making and field intervention. The majority of these recommendations were directed at the government, where the Antagro respondent and the farming engineer urged MoA to (i) design a holistic agriculture policy, (ii) find markets for exportable crops and (iii) support exports by providing loan schemes for exporters and pushing the trade agenda, particularly to the EU, where imports of Lebanese produce have been decreasing. However, this could only be achieved through collaboration between the government and the private sector<sup>17</sup> in raising the crop quality. Old apple varieties are an

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17 A case of the USAID intervention was given where that organization provided the owners of an old olive press with a new one, within an olive cooperative, on the condition that the farmers' olive oil would be stored in the tanks

example given by the ESFD respondent, who called for innovation in crop varieties.

The Green Plan respondent pinpointed the fact that the local market and consumption are equally as important as exporting, and accordingly the government should prevent subsidized imports from entering the local market. To support the local market further, the Al Zoghbi respondent emphasized the need for stricter border control measures with Syria to prevent illegal entry of produce from Syria that fiercely competes with local produce due to the deterioration of the local currency in Syria. Additionally, the government should impose a ceiling on the rental rates for farmland, since land rent and water combined contribute 50 per cent to agricultural cost, which is double the international average of 25 per cent.

MoA respondent expressed an urgent need for (i) improvements in the infrastructure to build capacity for a wider range of exports, (ii) activation of the agricultural stations in the districts and (iii) the establishment of prevention programmes monitoring the polluters in livestock and produce. In this regard, the ICARDA respondent emphasized the improvements needed in veterinary schools where teacher training should be conducted to deliver better quality education. Furthermore, MoA should work on motivating farmers to respond to guidance on what, where and when to plant through an upgraded agriculture extension. The Green Plan respondent expressed a similar opinion, where MoA should provide farmers with a production manual whilst employing an accountability mechanism to monitor the produce quality.

In the water sector, the Antagro respondent urged the government to provide solutions for water such as creating dams to preserve rain water, an opinion also held by the ESFD respondent, who shared the results of a roundtable discussion with the American University of Beirut where there was agreement on the need to improve the management of irrigation water.

Other recommendations directed at the EU included defining the areas of intervention between the EU and other donors to avoid overlapping work, where one or more donors could be allocated geographically to each water establishment, a statement delivered by the GIZ and NDU respondents. However, the Green Plan respondent reported that the problem is not in complementary actions among donors but in the local coordination machines (i.e., the state institutions). The ESFD respondent called for a more strategic focus by the EU on responding to local needs, an opinion shared by the GIZ respondent, who stressed redefining the EU's priorities in terms of impact and value. The GIZ respondent added that the EU's support may be counterproductive if no attempt is made to promote national initiative and ownership of the problem, before providing the solution. Another recommendation made by the farming engineer is for the EU to provide financing facilities for exporters as this will boost export levels. Furthermore, Emkan encourages the EU to cooperate with new organizations.

On the other hand, general recommendations were made by the CIH, UCL and LAUA respondents including (i) revising the water structure, (ii) compensating for the public sector's lack of management through integrating the private sector using a clear guiding frame, (iii)

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that were also provided to the owners of the olive press. ICARDA and LARI respondents gave another example of a collaboration between civil society and the government where a biannual scientific day is organized by the government, LARI and ICARDA.

establishing a public or private Higher Council for Water and (iv) investing in utilizing natural dams and hill lakes for agricultural purposes. The Sada Al Bekaa respondent expressed the need for more research and study on farming diversification and orientation. There should be agricultural labour support for Syrian and small Lebanese farmers to help emancipate them from the control of camp leaders and the few “big” farmers respectively. However, the SOILS representative declared that supporting the agriculture sector should not be linked to conflict resolution between Syrians and host communities. The EU should consult with local community-based organizations before setting selection criteria and designing interventions, to determine what would benefit the sector in a particular area.

Additionally, the Green Plan respondent advocated for shifting land reclamation priorities towards agriculture in higher altitude areas, where there is access to renewable ground water. The respondent also proposed the replacement of cooperatives with private companies or a comprehensive and participatory policy such as the “*Groupement d'intérêts économiques*”<sup>18</sup> model, as it is more flexible and efficient with the decision-making process – in contrast to the UCL respondent who called for a reformed law for cooperatives. There was a direct demand by the Al Zoghbi respondent to increase financial support from the Investment Development Authority of Lebanon (IDAL) in the exporting process, which will in turn help the farmers as well, an opinion endorsed by the engineering farmer who added that the IDAL should improve its payment schedules.<sup>19</sup>

## CONCLUSION

The agriculture and water sectors have different policy and governance issues to be addressed. All the interviewed stakeholders in the agriculture sector (from private companies, NGOs, syndicates and farmer-based associations) affirmed the importance of accessing EU markets for Lebanese agriculture products. This will require both improving the quality of Lebanese products and ameliorating trade agreements that do not facilitate such access. At the same time, the local market and consumption should not be neglected.

According to correspondents representing a diverse stakeholder sample, the EU is a crucial actor that has the capacity to contribute to the development and strengthening of the water and agriculture sectors through the major recommendations below:

- i) *Coordinate with different donors*, namely USAID, to geographically assign each water establishment to one or multiple donors, avoiding repetitive or overlapping work.
- ii) *Coordinate with relevant local NGOs* that have been suffering from the EU's competitive proposals – instance, jointly formulate a common policy proposal panel integrating local NGOs and actively work on building their capacities in terms of proposal drafting. This will ensure that the effect of EU projects extends beyond the project end date, and will improve the sustainability of achieved results. It will also improve the national framework for policy drafting.

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<sup>18</sup> The Economic Interest Grouping model is a coalition of businesses sharing the same objective and working together to achieve it.

<sup>19</sup> Both Al Zoghbi and farmer respondents reported the need for the IDAL to raise the exporting support from 40 to 70 US dollars.



iii) *Integrate MoA into the EU's decision-making process in the country*, a proposition that could spare both parties the headaches often faced when implementing projects. On one hand, MoA believes that its involvement in decision-making and implementation design could add some flexibility to the EU's intervention, and could serve to increase the efficiency of their projects by resolving possible governmental contradictions. On the other hand, this cooperation would alleviate the red-tape measures applied by the government during the implementation of projects, facilitating the EU's actions in areas in need of urgent intervention such as refugee camps.

iv) *Provide comprehensive crop-quality improvement programmes*, where training on good agricultural practice could be delivered to farming communities in order to persuade farmers to replace nitrous-based fertilizers and pesticides with organic ones, thereby increasing crop quality; or suggest more water-efficient techniques such as drip irrigation or conservation agriculture, depending on the crop type. More funding should be directed towards the replacement of old agricultural equipment with advanced machinery that could create room for high-quality niche products. Additionally, the EU can provide an incentive for small-scale farmers to leave the private firm cycle through providing them with an outlet to the EU market where their high-quality produce has a guaranteed demand.

v) *Adopt an equitable support plan*, where the EU should consider terminating its work with local organizations that have proven inefficient and biased in their project implementation. The EU should aim to include significant contributors to the agriculture sector, such as the UCL, to ensure an equal representation of all areas.

vi) *Elaborate policies that prioritize the needs of local communities* rather than the agenda of political parties in the sector. So, the EU may need to revise the information network it shares with Lebanese political parties, as this practice may lead to a heavily politicized strategy rather than one that responds to local needs.

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## ANNEX 1: OVERVIEW OF MAIN STAKEHOLDERS INVOLVED IN POLICY-MAKING IN THE AGRICULTURE AND WATER SECTORS IN LEBANON

### INSTITUTIONAL FRAMEWORK AND GOVERNMENTAL STAKEHOLDERS

*Green Plan:* The Green Plan started as a project and then was transformed into a public establishment in 1963 by Decree No. 13335. The Green Plan budget is noted in the national budget. Its objectives include land reclamation, construction of agricultural roads, and creating an infrastructure for small farmers. The Green Plan acts on demand where farmers have to apply for assistance in accordance with the Green Box principle.<sup>20</sup> The assistance is exclusive to individual farmers who need support in financing infrastructure projects, accordingly a criterion of slope, forestation level, and ground structure has to be met. A subsidy of 35-40 percent of actual work value is paid once the work is done and verified by inspectors. See official website: <http://www.greenplan.gov.lb>

*Lebanese Agricultural Research Institute (LARI):* LARI is a governmental organization, working under the jurisdiction of MoA, which conducts scientific research to develop the agricultural sector. Furthermore, the organization reaches out to farmers to help in solving any problems they might face by conducting research on possible solutions. It is made up of the following sections: Irrigation and Meteorology, Biotechnology (tissue culture), Open field crops, Plant breeding, and Plant protecting.<sup>21</sup> One of the institute's research projects was conducted on citrus production in Lebanon. Their research attributed Lebanon's various vegetation and agricultural products to its topography complexity. The diversity of the weather in Lebanon creates the perfect conditions for growing citrus along the coastal area, apple and stone fruit trees in Mount Lebanon, while vegetables, potatoes and grapes are more suited to be grown in the Bekaa area. Citrus is the number one export in Lebanon and that makes it a very important crop. However, citrus crops face several hindrances that might negatively affect their production, such as high cost of production, overuse of pesticides and fertilizers, no quarantine control, and bad agricultural practices in the postharvest stage. The research done on citrus production by LARI attributes such problems to the low budget that the government devotes to the agriculture sector, and the insufficient support to the farmers to help them develop their production methods (Moussa and El Hajj 2010). See official website: <http://www.lari.gov.lb>

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20 The World Trade Organization design boxes for different categories of subsidies. In agriculture, there is an Amber Box, a Blue Box, and a Green Box. Blue Box is an alteration of Amber Box where it includes subsidies supporting prices or directly affecting the production quantity; however, the Blue Box has a condition of limiting farmers' production (WTO 2004).

21 The Irrigation and Meteorology section employs meteorological researches to identify crop water needs and extending the results on irrigation efficiency to the farmers. The section informs farmers on climate dynamics as related to their farming activity. The Biotechnology section works on the production of genetically modified plants that are resistant to diseases. The Open field crops section specializes in wheat, potato, and barley, as strategic crops. The Plant breeding section has a similar function to the Biotechnology section where they employ the work of ICARDA to produce more resilient plant breeds. The Plant protection section and is working closely with the meteorology section to create a smartphone application to inform farmers of the latest research results

*Ministry of Agriculture (MoA):* Lebanon's MoA is the institution that has the authority to frame and implement policies in the agricultural sector, in addition to, developing projects and strategies to enhance the agricultural production and trade.

See official website: <http://www.agriculture.gov.lb/English/aboutus/Pages/default.aspx>

## LOCAL NGOS, CIVIL SOCIETY AND GRASSROOTS ORGANIZATIONS, TRADE UNIONS AND EMPLOYERS' ASSOCIATIONS

### NGOs

*Emkan:* Emkan, a Lebanese NGO established in 2008, aims to fuel Lebanon's economic development and strengthen the agricultural sector by supporting rural communities and farmers. The NGO founded a trading market of fruits and vegetables in 2014 known as Souk Akkar to benefit both farmers and traders' incomes and reduce post-harvest losses. Emkan also runs the Akkar Agricultural Center (AAC), which was funded by the Kuwaiti Fund for Arab Economic Development. In July 2015, Emkan initiated phase 1 of AAC which aimed to provide farmers, retailers and exporters with: cold storage, storage and packaging, and cold transportation. As for phase 2, they aim to: (a) convert the exhibition area to a postharvest functionality; (b) use the restaurant space for a complementary agro-food industrial approach; (c) provide technical training in good agricultural practices, accounting, English language and computer skills to community members.

See official website: <http://www.emkan.org>

*René Moawad Foundation (RMF):* RMF was founded in 1991 in the memory of former Lebanese President René Moawad's assassination. RMF had started as a grassroot organization that grew to be a nationally recognized NGO. Their field of interest is promoting economic, social, and rural development in Lebanon, while collaborating with national and international institutions with the same goal of promoting more stable socio-economic conditions in the country. One of RMF's projects was "Enhancing the Dairy Sector in North Lebanon" that was completed in Akkar with the help funds from the EU. The project was based on the distribution of advanced milking storage units that could preserve the dairy products with better quality. The aim was to empower the farmer and animal production cooperatives in Northern Lebanon to increase their dairy production and to increase their quality. The end goal was for the farmers to gain new skills that could increase their production's quality and quantity helping them in selling their products at a better price (RMF 2017).

See official website: <http://www.rmfmf.org.lb/agriculture>

*Sada Al Bekaa:* Sada Al Bekaa is an NGO working mainly in West Bekaa and Rashaya to improve agricultural practices. It provides orientation seminars on agriculture and farming improvement. Some of its previous work included poultry and beekeeping development in collaboration with American Near East Refugee Aid (ANERA) and funding from UNICEF.

See official Facebook page: <https://www.facebook.com/Sadaalbeqaa>

### SYNDICATES

*Civic Influence Hub (CIH):* CIH is, as its name indicates, a hub of the civil society members from different fields whose aim is creating a new vision for Lebanon. Their work ethic is based

on the philosophy of the “federative economy”, where all members can be equally part of the framework by contributing relatively. Their goal is to affect the decision-making process on a national level and drafting policy proposals that could help develop further the water, electricity, transportation, and gas and oil sectors. In the water sector, CIH has initiated a plan under the name of “Blue Gold” a five-year plan for the management of the water sector in Lebanon. Taking into consideration the national water strategy, Blue Gold aims to enhance the government’s existing plan by introducing wastewater treatment solutions for river basins by coordinating with water users. The initiative will reach out to water associations located along the river basin as well as small and medium enterprises to introduce them to the new wastewater treatment technology, which is used in some countries and is patented by Jules Hatem, a Lebanese scientist. Additionally, the initiative will encourage said actors to develop other projects for wastewater treatment within the IWRM context while using policy-making proposals (CIH 2013).

See official website: <http://www.thecihlebanon.org>

#### PRIVATE ORGANIZATIONS

*Antagro*: Antagro is a privately-owned company that was established in 2000. It works in the agricultural sector as an importer and exporter of agricultural products, equipment, and materials. It supplies the market with the necessary pesticides and fertilizers while advising farmers on the international standards, and utilizing a team of engineers as a sales force. However, Antagro cannot afford to conduct awareness campaigns since providing such advice at a large scale is costly and farmers will not pay for agricultural advice. Moreover, it provides farmers with an exportation route for their fruits and vegetables produce through commercializing their end products. It currently has offices in Dbayeh (Mount Lebanon), Ghazieh (South Lebanon), and Tripoli (North Lebanon).

See official website: <http://www.antagro.com/co.asp>

*Al Zoghbi General Trading Company*: The company was established 40 years ago and became one of the formidable businesses in the agriculture sector in Lebanon. The company is involved in the trade of fertilizer, pesticides, plant seeds, and irrigation equipment and its work is based on direct trade with farmers and distributors. An important feature of the company’s services is that it provides engineers to guide their clients free of charge.

#### ASSOCIATIONS AND UNIONS

*Association of Lebanese Farmers (ALF)*: The association aims to protect farmers, provide guidance to farmers, facilitate their access to health and insurance, and develop the agricultural sector in Lebanon.

See the Lebanon Knowledge Development Gateway (LKDG) website: *Lebanese Farmers Association* (in Arabic), <http://www.lkdg.org/node/1186>

*Lebanese Association for Urban Agriculture (LAUA)*: This association is a link between the Lebanese society and the international organizations on the topic of urban agriculture. It strives to promote the possibility of using small areas in cities to restore environmental balance, increase the productivity and revenue of the agricultural sector, and raise awareness of the sector among people.

*SOILS Permaculture Association Lebanon:* SOILS is an organization that aims to spread sustainability and practices that preserve the environment. An internationally known Permaculture Design Certificate course was designed between 2014 and 2016, for farmers, engineers, consultants, and social workers. The purpose of this course is to impart the principles of sustainable design in agriculture, building, waste management, community building and energy conservation. After creating micro-gardens in six Bekaa refugee camps during 2016, SOILS collected the needed data and published a guide for vegetable micro-gardens in refugee camps, available for other refugees (Dagher 2016).

See official website: <https://www.soils-permaculture-lebanon.com>

*Union of Cooperatives in Lebanon (UCL):* The Union was established in 1972 and aims to help cooperatives reach their goals through the implementation of projects and feasibility studies. Moreover, the Union's objective is to build a public understanding, particularly among farmers and cooperatives, about the principles of development work, at the individual and group levels, with a focus on rural areas. All cooperatives are automatically members of the union. The Union organizes thematic training workshops and administration trainings, in coordination with the Department of Cooperatives at MoA.

#### RESEARCH CENTRES

*Notre Dame University (NDU):* Within NDU, the Department of Civil and Environmental Engineering (DCEE) works on sustainable development projects related to water resources through research and laboratory work. DCEE worked closely with Water, Energy and Environment Research Centre (WEERC) at NDU to investigate issues related to water through establishing a database for water resources. WEERC consisted of an engineering section, management section, water information section (WIS). However, WEERC was terminated and replaced by CROS-D which is a multi-disciplinary centre researching sustainable development and is set to incorporate different types of engineering projects.

See official website: <http://www.ndu.edu.lb>

#### LOCAL BRANCHES/OFFICES OF EUROPEAN/GLOBAL NGOs AND INTERNATIONAL ORGANIZATIONS

*Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ):* GIZ is a non-profit private company owned by the government of Germany, therefore, it has little flexibility in choosing projects since it implements the German government support policies in accordance with partner governments. Its work in the field of international cooperation for sustainable development is an embodiment of the German and European values. Through their work they create a connection between the developed policies and implementing actors such as businesses, civil society organizations, and research institutions. In 2006 GIZ was commissioned to conduct technical cooperation with Lebanon but was terminated in 2013 due to the evaluation conducted by the German Federal Ministry for Economic Cooperation and Development. Such an evaluation resulted in an overall reduction of partner countries including Lebanon. Nonetheless, upon the escalation in the Syrian crisis between 2014 and 2015, the cooperation was reinstated. Currently, GIZ is working on a project in collaboration with the MoEW under the name "Provision of basic water and sanitation services for Syrian refugee families and host communities in Lebanon project". It was initiated in September 2015 and is scheduled to

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finish in August 2019 with the aim of improving and providing better access to water for Syrian Refugees as well as developing an infrastructure for sanitation and wastewater management. See official website: <https://www.giz.de/en/aboutgiz/profile.html>

*EU Delegation to Lebanon:* The delegation acts as a representative of the European Union in Lebanon engaging in different sectors whether political, developmental, or trade related. Through academic institutions and the civil society agencies, it promotes a strong cooperative relation between the EU and Lebanon according to the Agreement signed in 2002 by both parties. In Lebanon, the EU delegation works in the Water sector to preserve water as a natural resource and as an economic actor. The Syrian crisis halted the work on ground water conservation and shifted EU's priorities as the intervention started to address the scarcity of water by drilling for water and building water tanks. Currently EU is working on two projects with the help of CSOs, the MEW, and UNICEF: first, rehabilitation of the current water network to stop the leakage, second, waste water treatment where the European Investment Bank is providing loans for coastal waste water treatment plants.

See official website: [https://eeas.europa.eu/delegations/lebanon\\_en](https://eeas.europa.eu/delegations/lebanon_en)

*Food and Agricultural Organization (FAO):* FAO is an inter-governmental organization that has 194 Member Nations and one member organization, the EU. FAO engages in different fields that provide support and guidelines for governments to achieve a sustainable agricultural system and an up to demand food supply. Its objective is to reach a level of global agricultural development that could combat food insecurity and malnutrition. Other objectives include striving to achieve the reduction of rural poverty and to include a sufficient agricultural and food system. In Lebanon, FAO provides technical support to the agriculture sector through working primarily with the Ministry of Agriculture and other ministries to implement projects such as (i) land reclamation project in collaboration with Green Plan, (ii) agricultural and vocational school's rehabilitation programme to improve the seven veterinary schools, (iii) an EU funded project supporting backyard poultry production in vulnerable communities through conducting trainings on management and bio-safety, and (iv) a reforestation program funded by the Global Environment Facility (GEF) and implemented with the help of MoA to increase the reforested area from 13 per cent to 20 per cent of the total surface area of Lebanon by 2030.

See official website: <http://www.fao.org/about/who-we-are/en>

*International Centre for Agricultural Research in the Dry Areas (ICARDA):* ICARDA is a global research-for-development organization that was established in 1977 as an NGO. Their vision is based on the likelihoods of having a sustainable agriculture sector in countries that suffer from drylands. They aim to develop such countries to withstand and combat possible low income, food insecurity, and health problems that could arise from having dryland. ICARDA's main work includes conducting research in said countries and applying development programs in more than 50 countries in the world's dry areas, it includes countries in North Africa and South Asia. Their research is based on scientific methods of collecting data and on providing solutions and strategies that are supported scientifically to help improve the conditions of dry areas. Accordingly, their main goal for countries with dry lands is having food and water security while sustaining their natural resources. In Lebanon, ICARDA works with LARI. Lebanon has one of ICARDA's three gene banks where over 155,000 accessions of land races and wild relatives of the plants that ICARDA works on.

See official website: <https://www.icarda.org/mission-and-vision>

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## ANNEX 2: LIST OF INTERVIEWED STAKEHOLDERS

### FIRST ROUND OF INTERVIEWS (FACE TO FACE, NOVEMBER 2017)

A006001. Interview with a male representative of a private company [Al Zoghbi General Trading Company]

A006002-1. Interview with a female representative of a private company [Antagro]

A006003-1. Interview with a male representative of a syndicate [Civic Influence Hub]

A006004. Interview with a male representative of a research center [CROS-D at Notre Dame University (NDU)]

A006005. Interview with a male representative of a private company [engineer/farmer/exporter]

A006006. Interview with a male representative of an IGO [EU Delegation]

A006007. Interview with a female representative of an IGO [Economic and Social Fund for Development (ESFD)]

A006008. Interview with a male representative of an IGO [Food and Agricultural Organization of the United Nations (FAO)]

A006009. Interview with a male representative of an IGO [GIZ]

A006010-1. Interview with a male representative of an IGO [Global Environment Facility (GEF)]

A006011. Interview with a male representative of a local public institution [Green Plan]

A006012. Interview with a male representative of an IGO [International Center for Agricultural Research in the Dry Areas (ICARDA)]

A006013. Interview with a male representative of a local public institution [Lebanese Agricultural Research Institute (LARI)]

A006014-1. Interview with a male representative of a farmers-based association [Lebanese Association for Urban Agriculture (LAUA)]

A006015. Interview with a female representative of a governmental organization [Ministry of Agriculture - Head of Economic Studies & Statistics]

A006016. Interview with a male representative of a farmers-based cooperative [National Union of Cooperative in Lebanon (UCL)]

A006017-1. Interview with a male representative of a NGO [SADA Al Bekaa]

## SECOND ROUND OF INTERVIEWS (PHONE, APRIL 2018)

- A006002-2. Interview with a female representative of a private company [Antagro]
- A006003-2. Interview with a male representative of a syndicate [Civic Influence Hub]
- A006010-2. Interview with a male representative of an IGO [Global Environment Facility (GEF)]
- A006014-2. Interview with a male representative of a farmers-based association [Lebanese Association for Urban Agriculture (LAUA)]
- A006017-2. Interview with a male representative of a NGO [SADA Al Bekaa]
- A006049. Interview with a male representative of a farmers-based association [Association of Lebanese Farmers]
- A006050. Interview with a female representative of a NGO [Emkan]
- A006051. Interview with a male representative of a NGO [Rene Moawad Foundation]
- A006052. Interview with a female representative of a farmers-based association [SOILS Permaculture Association]

**Table 1** | Summary of Stakeholders Contacted and Interviewed

Type of stakeholder	Contacted	Interviewed
Governmental organizations/Public institutions	6	3
IGOs	8	6
NGOs	9	3
Research centres	4	1
Private companies	12	3
Syndicates	3	1
Farmers-based associations, cooperatives, and societies	6	4



## ANNEX 3: QUESTIONNAIRES

### FIRST ROUND OF INTERVIEWS

#### CONTEXT

- 1) How long have you been working in the agriculture/agro-food/agro-industrial/water sector?
- 2) If you work within an institution, can you tell us more about the work of this institution in this sector (i.e. its objectives and activities)?
- 3) How would you describe the current situation of the sector?
- 4) How has this sector changed since you first started working in it?
  - a) Can you tell us which year was the best year for this sector? (Why? What was different? Did you expand your work because of the positive change that this year brought?)
  - b) Can you tell us which year was the worst year for this sector? (Why? What changed? What did you do to solve the problems faced?)
- 5) What are your expectations for the coming years for the agriculture and water sectors?
- 6) Who are the main stakeholders in the field of agriculture and water in Lebanon? (e.g. trade unions, associations of growers and producers, cooperatives of farmers, NGOs targeted in EU-funded projects and so on).

#### CHALLENGES

- 7) What do you think are the major problems in relation to the agriculture/water sector in Lebanon?
- 8) What are the factors that can explain such problems?  
What are your institution's objectives, guiding socio-economic models, and views regarding local agricultural needs and problems?
- 9) How do you or your institution define food security and food sovereignty?
  - a) How do these issues (referred to above) interact in the field of rural development and agriculture on the domestic, regional, and international levels?
- 10) On what institutional/policy change has your institution been working on in the past years?
  - a) What institutional reforms and policies do you think need to be made for improving the sectors?
  - b) What national policies are needed for the improvement of the sectors?
- 11) Has your institution proposed or implemented policies/strategies/projects to address problems in the sectors?
  - a) If so, how have the policies/strategies/projects benefitted the sectors and the stakeholders in these sectors?
  - b) If your institution has not proposed such strategies, or if you feel that there is still work that needs to be done, what policies or strategies should be done to address these problems?
- 12) Has your institution collaborated with other institutions/ local or international donors to propose and implement projects in support of the sectors?

#### EFFECTIVENESS AND POTENTIAL OF EU POLICIES IN THE AGRICULTURE AND WATER SECTORS IN LEBANON

- 13) How do you assess European policies in the Mediterranean and in Lebanon in the field of agricultural trade liberalization and cooperation and water with regard to (1) the major problems and needs in the agriculture and water sectors, (2) the issues the EU has focused on, (3) the actors involved (i.e. who was included and who was excluded), and (4) the methods used?

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- a) Among the stakeholders in these fields, who has benefitted and who has been negatively affected?
  - b) Which actors, methods, and issues would you consider most relevant, necessary, and appropriate?
  - c) What do you think is the impact of these policies from the perspective of people's welfare and local economies' needs (e.g., job creation, labour rights, small farmers versus big farmers, marginalized regions versus wealthy regions)?
- 14) How do you assess the potential of EU policies in light of the policies which other important regional and external powers are driving in terms of rural and agricultural development in their country (including the US, Turkey, Saudi Arabia, Iran, China, and Russia as well as international institutions such as the World Bank, the Gulf development funds, and so on)?
- a) Are their policies conflicting, competing, or converging with the EU's? What should be the EU's policies in this respect?
- 15) Have EU-funded development projects been allocated equitably across regions and actors (i.e. the most deprived region receiving the largest funds? the needy and small farmers being targeted)?
- a) Were these projects associated with generating good quality jobs?

## SECOND ROUND OF INTERVIEWS

- 1) What is your general image of the EU?
- 2) How important is EU market access for you? What should be improved?
- 3) Do you have any knowledge of/ opinion on specific EU projects and programs (e.g. ENPARD for rural development)?
- 4) Do you perceive EU agricultural producers as competitors in certain markets (e.g. the Gulf)? What is your opinion about the EU farm lobby?
- 5) How do you rate EU programs and projects in comparison to those of other institutions (e.g. USAID, World Bank)?
- 6) Is there gender mainstreaming in the EU programs with corresponding accountability procedures?
- 7) How have these projects impacted women? Have they been among the beneficiaries and has their power and discretion to make decisions improved?
- 8) Have EU policies and projects prompted local partners to push toward more gender equality?

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