# NATIONAL STRATEGIC FRAMEWORK FOR TECHNICAL VOCATIONAL EDUCATION AND TRAINING IN LEBANON

2018-2022

















#### **PREFACE**

The Ministry of Education and Higher Education (MEHE) is pleased to present the National Strategic Framework for Technical and Vocational Education and Training (TVET) 2018-2022. This framework is the culmination of year-long deliberations led by the Government of Lebanon, with the support of the United Nations Children's Fund (UNICEF) and the International Labour Organization (ILO). These consultations involved a wide array of stakeholders, including the MEHE, the Ministry of Labour (MOL), the Ministry of Agriculture (MOA), the Ministry of Social Affairs (MOSA), National Employment Office (NEO), National Vocational Training Centre (NVTC), private sector representatives and non-governmental organizations (NGOs).

A total of six working groups representing the key national TVET stakeholder groups established their own strategic goals and priorities for reforming the TVET sector (see Appendix II). The TVET Strategic Framework 2018–2022 presents the common roadmap reached through working group deliberations for the reform of the TVET system.

The Strategic Framework confirms the Government of Lebanon's renewed commitment to promote a TVET system that provides youth and workers with the competencies and skills required to access decent work and allows businesses to recruit the workforce they need for growth. This commitment is articulated in the Strategic Framework, which outlines three main strategic axes: (i) expanded access and service delivery; (ii) enhanced quality and relevance of TVET provision; and (iii) improved TVET governance and systems. These three axes are realized through eight building blocks.

In line with the UN Sustainable Development Goals, the TVET Strategic Framework prioritizes equitable access to TVET for all, with a focus on leaving no one behind. Lifelong learning and life skills are prioritized as workers adapt to the needs of a changing labour market and become more active citizens.

The Strategic Framework will form a basis for improved collaboration between government institutions and stronger partnerships with the private sector. It will serve as the main national reference for institution-specific action plans that will include strong partnerships with employers' and workers' organizations. Specific key performance indicators and targets will be included in each action plan to monitor progress.

I want to express my gratitude to UNICEF and the ILO for supporting the development of this framework. I would also like to thank the European Union (EU), the European Training Foundation (ETF), the German Agency for International Cooperation (GIZ) and the European Institute for Cooperation and Development (IECD) for their valuable contributions and inputs throughout this process. I look forward to further collaboration with these organizations and others as the framework is successfully implemented.

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#### **ABBREVIATIONS**

ASCO Arab Standard Classification of Occupations

APL Accreditation of prior learning

BP Brevet Professionnel
BT Technical Baccalaureate

CAP Certificat d'Aptitude Professionelle – a vocational training certificate

CBET Competency-based education and training

CEDEFOP European Centre for the Development of Vocational Training

CERD Centre for Educational Research and Development

DACUM Designing a curriculum

DGHE Directorate General of Higher Education

DGTVE Directorate General of Vocational and Technical Education

DS Dual system

ETF European Training Foundation

EU European Union

FAO Food and Agriculture Organization

GIZ German Agency for International Cooperation

IECD European Institute for Cooperation and Development

ICT Information and communication technology

ILO International Labour Organization LCRP Lebanon Crisis Response Plan

LSFI Lebanese Syndicate of Food Industry

LT Technical license

MBST Market-based skills training

MEHE Ministry of Education and Higher Education

MOA Ministry of Agriculture
MOL Ministry of Labour
MOSA Ministry of Social Affair

MOSA Ministry of Social Affairs

NCVT National Centre for Vocational Training

NEO National Employment Office
NGO Non-governmental organization
NQF National Qualifications Framework
NQS National Qualification System
OSH Occupational safety and health

ProVET Practice-oriented VET

PS-TIT Pre-service teacher and instructor training

PWD Person(s) with disabilities

QA Quality assurance

RPL Recognition of prior learning SBM School-based management

TS Technique Superieur

TVE Technical and vocational education

TVET Technical and vocational education and training

UNDP United Nations Development Programme

UNESCO United Nations Educational, Scientific and Cultural Organization

VET Vocational education and training

VT Vocational training

UNESCO The United Nations Educational, Scientific and Cultural Organization

UNESCO-UIS UNESCO Institute for Statistics

UNHCR Office of the United Nations High Commissioner for Refugees

UNICEF United Nations Children's Fund

UNRWA United Nations Relief and Works Agency for Palestine Refugees in the Near East

#### INTRODUCTION

Despite rapid expansion in the provision of technical and vocational education and training (TVET) in Lebanon, the current TVET system does not meet the personal aspirations of youth<sup>1</sup> or the needs of local and regional labour markets. In the absence of a national TVET policy to systematically engage social partners,<sup>2</sup> communication of the competencies and skills required in various economic sectors has remained weak, and TVET provision has remained delinked from the actual skill requirements of employers. In light of the evident mismatch between TVET supply and labour market demand, many youth have been reluctant to pursue a vocational pathway.

Recent educational reforms, including the 2010 National Education Strategy Framework, have not sufficiently addressed the TVET sector. The Higher Council for TVET, which is mandated to ensure the systematic involvement of social partners in TVET policy design and strategic planning, last met in the year 2000. The Directorate General for Technical and Vocational Education and Training (DGTVE), on the other hand, lacks sufficient financial and human resources to fully deliver on its TVET mandate at the national level. As a result, the number of TVET providers has expanded without a clear vision for the sector as a whole.

Even though Lebanon established its first National Qualifications Framework (NQF) in 2011, outlining eight levels of qualifications, the framework was never formally endorsed.3 The 2011 Action Plan, which called for the creation of a TVET quality assurance agency, was also never operationalized. As a result, monitoring and evaluation of the TVET system has been weak, providing employers with little assurance regarding the quality of education or type of skills acquired.

Aged 15–24 years.
 Employers' and workers' representatives.
 Neither by MEHE nor by the Lebanese Government.

Responding to these challenges, the Government of Lebanon, with the support of UNICEF and the ILO, has developed the 2018-2022 National Strategic Framework for TVET in Lebanon. This proposed strategy is a key outcome of the Government's TVET initiative in partnership with UNICEF and the ILO (see Appendix I),4 which seeks to widen access and improve the quality of TVET provision. The TVET initiative brings together the MEHE (represented by the DGTVE), MOSA, the NCVT, the NEO and the MOL, as well as NGOs. The initiative also involves technical and vocational institutes, schools, and official and private training centres. Participating international organizations include the United Nations Organization for Education, Science and Culture (UNESCO), the United Nations Development Programme (UNDP), the delegation of the EU to Lebanon, ETF, the United Nations Relief and Works Agency (UNRWA), the United Nations High Commissioner for Refugees (UNHCR), the United Nations Industrial Development Organization (UNIDO), the World Bank, and the Food and Agriculture Organization (FAO). Social partners who participated in this process include the Association of Lebanese Industrialists, the Syndicate of Lebanese Contractors, the Association of Crafts, the Chamber of Commerce, Industry and Agriculture, and the General Confederation of Lebanese Workers. Other international and local NGOs include, inter alia, GIZ, the Association of Volunteers in International Service (AVSI), Mouvement Social, Caritas, IECD, the Arab Near East Refugee Aid (ANERA), Makhzoumi Foundation, YMCA, Safadi Foundation, LOST, René Moawad Foundation, WARD association, SHIELD, and the Lebanese Physically Handicapped Union. Other stakeholders were briefed and consulted throughout the process including the Ministry of Industry, the Office of the Minister of State for Displaced Affairs, the Office of the Prime Minister, and members of the livelihood core working group at the national level.

Within the framework of the ILO-UNICEF initiative, several working groups were formed in 2017 to systematize consultations with key TVET stakeholders. These included working groups for:

- MEHE, represented by the DGTVE;
- the MOL, including the NEO and the NVTC;
- the MOA;
- · the MOL;
- MOSA;
- NGOs.

Each of these working groups identified their own strategic goals and priorities for 2018–2022 (see Appendix II). The 2018–2022 Framework synthesises a wide range of consultations that were carried out in 2017, paving the way for developing a roadmap to reform the TVET sector as a whole.

## I. SITUATION AND TRENDS

## 1.1 Background

Lebanon's total population has increased by more than 25 per cent, from 4.3 million in 2010 to just over 6 million in 2016.5 The influx of an estimated 1.5 million Syrian refugees since 2011, in addition to the presence of Palestinian refugees caught in a protracted refugee situation (estimates vary between 174,4226 and 469,3317), has strained public finances, infrastructure and service delivery.

An average of 44.2 per cent of the working-age population was estimated to be economically active in 2017 (ILO KILM), with female labour force participation rates just over 21 per cent compared with 66.9 per cent among males aged over 15. The unemployment rate was estimated at 6.3 per cent in 2017, with youth (aged 15-24) unemployment estimated at 16.5 per cent.

Driven by real estate, financial services, tourism and other services, the Lebanese economy does not generate a sufficient number of high-skill jobs to absorb university graduates. As a result, despite relatively high completion rates among graduates, university education has not led to better labour market outcomes. This growing mismatch between education supply and labour market demand has fuelled high youth unemployment rates. Young Lebanese, particularly high-skilled youth, have consequently been "discouraged" from seeking employment in Lebanon, with as many as 37 per cent expressing an aspiration to permanently work abroad.8

Instead of TVET being perceived as an alternative pathway to productive and decent work, young Lebanese generally associate TVET with academic failure and poor-quality provision. The association of TVET-level jobs with low wages, poor working conditions and lack of career prospects has

<sup>5</sup> Lebanon Country Profile, World Bank World Development Indicators.
6 According to the government's Lebanese-Palestinian Dialogue Committee census figure covering 12 refugee camps and about 150 informal Palestinian communities released in December 2017.

<sup>7</sup> UNRWA figures. 8 ILO, 2015c.

discouraged youth from enrolling in TVET courses at secondary and post-secondary levels. As a result, just over 26 per cent of students enrolled in secondary education opted for a vocational track in 2015.9 By contrast, at least half the population in countries like Austria, Germany and Poland have vocational upper secondary degrees as their highest educational level achieved, and the average among OECD countries is at least a third of the population (OECD, 2013).

The protracted Syrian crisis, now in its seventh year, has heightened the Government of Lebanon's preoccupation with education and various labour market policy options for youth. Against this backdrop, the Government has prioritized expanding educational opportunities for all children and adolescents through the Reaching all Children with Education (RACEII) Programme, which includes Syrian and Palestinian refugees coming from Syria. In 2012, MEHE opened all its public schools to host Syrian and Palestinian refugees from Syria, adding a second afternoon shift in 2013 to expand participation. As a result, around 70 per cent of refugee children (6-14) were enrolled in school in 2017 compared to just 52 per cent the year before. 10 These efforts formed part of MEHE's RACE II programme, which aims to expand educational access for children and adolescents, 11 including over 200,000 refugee children.

They are also part of the "No Lost Generation" (NLG) initiative, which aims to ensure that this generation of children and youth affected by the Syrian crisis won't be lost due to the impact of violence and displacement.

In terms of refugee labour market outcomes, the MOL has formally permitted Syrian nationals in Lebanon to work in the agriculture, construction and environment sectors, where there are labour shortages. 12 However, due to the high cost and difficulties associated with obtaining a work permit, the majority of Syrians work in the informal economy.<sup>13</sup> Approximately 47 per cent of Syrian refugee youth<sup>14</sup> are estimated to be economically active.<sup>15</sup> However, the World Bank estimates that around 200,000 Lebanese have been pushed into poverty, and another 250,000-300,000, mostly unskilled youth, have become unemployed as a direct consequence of the refugee crisis.<sup>17</sup>

The Government has requested support from the international community to help meet the challenges of the current situation, 18 emphasizing the importance of addressing youth aspirations and enhancing equality of opportunity. Both the Lebanon Crisis Response Plan (LCRP) 2017-2020 and the Government's presentation at the Brussels Conferences in April 2017 and 2018 emphasized the importance of broadening educational opportunities for refugees and displaced persons. 19 To this end, the LCRP supports the development of competency-based technical vocational training and apprenticeships in non-formal settings. The LCRP also prioritises modernizing TVET curricula and enhancing linkages with the private sector. In parallel, the Government is also developing a youth strategy that includes a vocational training component, targeting 500,000 at-risk youth.

Recognizing the benefits of TVET to individuals, enterprises, the economy and society at large, the UNICEF Lebanon country programme for 2017–2020 and the ILO's programme of cooperation with the Government both set out to reform and strengthen the provision of TVET.

<sup>10</sup> Vulnerability Assessment of Syrian Refugees in Lebanon 2017.

<sup>11</sup> General education, higher education and TVET
12 As per Decree 197 of the Ministry of Labour (December 2014)
13 In 2013, only 1.1 per cent of the total number of first-time work permits were granted to Syrian nationals and less than 1 per cent of existing permit renewals were given for Syrian nationals

<sup>14</sup> Situation analysis of youth affected by the Syrian crisis, 2014.

<sup>15</sup> Employed or unemployed

<sup>17</sup> http://www.worldbank.org/en/country/lebanon/overview.

<sup>18</sup> London and Brussels Conferences.

19 Since the London Conference in 2016, the Government has revoked the "pledge not to work" allowing Syrian employment in specific sectors of the labour market. The Government of Lebanon has also waived the residency fees for a large number of Syrian refugees. The Brussels Conference emphasized the importance of education, particularly TVET, not only for the social inclusion of the displaced in the Lebanese labour market, but also in preparation for the subsequent return of Syrian refugees and their participation in the reconstruction in Syria.

#### 1.2 TVET pathways

There are 162 public and 398 private vocational and technical schools in Lebanon offering TVET, and approximately 83,168 students were registered in such programmes in the 2016–2017 academic year.

There are several pathways from general education to the vocational stream. Students may opt to join the technical/vocational stream in lower secondary school. Students who choose the vocational track attain the Certificat d'Aptitude Professionnel (CAP) at the end of their intermediate schooling, which is a prerequisite for the Brevet Professionnel (BP).

Students must hold the BP to pursue TVET at the secondary level. BP and Brevet d'Etudes (general education) graduates between the ages of 15 and 18 are eligible for the Baccalauréat Technique (BT). For enrolment in the BT, students must provide the candidacy card to the Brevet examinations or an official certified document confirming that they have passed ninth grade.<sup>20</sup> If students have pursued the Dual System (DS), they are only eligible for the BT certificate once they have sat for additional examinations in general subjects. Students may also sit for the BT if they have completed the Certificat Professionnel de Maîtrise, which is a vocational certificate that involves practical training in the workplace.

After obtaining a three-year BT,21 technical students have the opportunity to pursue higher education at university level or technical education. BT graduates who pursue two years of post-secondary technical education are awarded the title of Technicien Supérieur (TS). An additional year after TS qualifies them for the Licence Technique (LT), upon successful completion of official examination.

Students who decide on vocational instead of technical education can opt for the DS,22 for which enrolment requirements are exactly the same as those for BT. DS students choose between eight different occupations in industries, trades and tourism services. Students who have completed the first year of BT could also transition to the DS, joining those in their second year of the Dual System programme in their chosen specialization (see table 2). Compared to BT, the DS combines apprenticeships and vocational education in one course.

<sup>20</sup> For students exempted from taking the official examination.

<sup>21</sup> A 3-year programme for all professions, except beauty.
22 DS was first implemented in Lebanon during the academic year 1996–1997 (ETF 1999).

**Table 1. Technical education** 

Degree	Duration	Prerequisites
Baccalaureate Technique	3 years	Brevet (general education); Brevet Professionnel; Candidacy card to the Brevet examinations; Official certified document confirming student has passed 9th grade (for students exempted from taking the Brevet) Dual system students obtain the BT certificate by passing an additional examination on general subjects.
Superior Technician	2 years	Holding the BT Certificate; or Holding the Lebanese Baccalaureate
Technical Educational Bachelor Certificate (LET)	4 years (see note)	General Education diploma (Brevet d'Etudes) BT certificate TS certificate Engineering diploma
Licence Technique	1 year	TS certificate

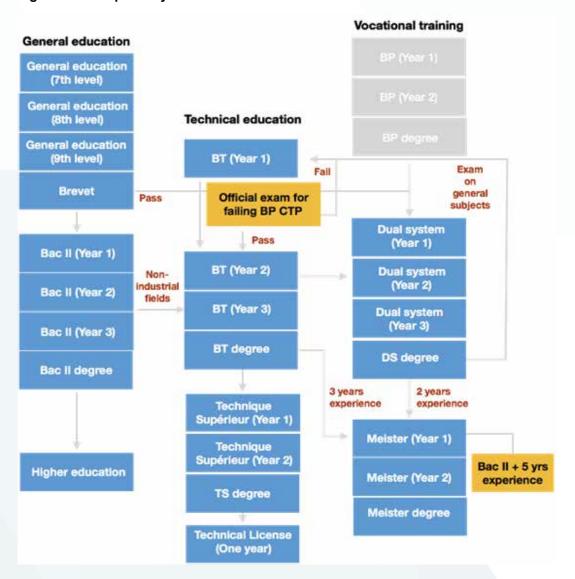
note: for general education and BT graduates. TS graduates require 2 years and those with an engineering diploma around 1 year.

After completing the DS, students may then advance into the two-year Meister degree, which is the highest level in the vocational education stream. In addition to graduates of the DS, graduates of BT and those with a General Secondary Diploma (Baccalauréat) with at least five years of practical experience are also eligible to apply for the Meister degree (see table 2).

**Table 2. Vocational education** 

Degree	Duration	Prerequisites
Brevet Professionnel	2 years	EB 7 (basic education) completed
Dual System	3 years	Brevet d'Etudes (general education); Brevet Professionnel; Candidacy card to the Brevet examinations; Official certified document confirming student has passed the ninth grade (for students exempted from taking the Brevet).
Meister Degree	2 years	The DS certificate level alongside two years practical experience; The BT certificate alongside three years practical experience; or The General Secondary diploma (Baccalauréat) alongside five years practical experience.

Figure 1. TVET pathways



As it currently stands, the formal TVET system only offers long programmes, without the option of shorter modules. Consequently, students who drop out of the education system risk entering the labour market without having acquired those competencies necessary to practise their occupation. Making provisions for competency-based education, and introducing modular courses that are geared to meeting labour market demands, allows students to enter the labour market with clear credentials and a specific set of skills.

A decree concerning the Fields, Levels and Certificates of Technical and Vocational Education (No. 8590) was issued in 2012. This decree regulates vertical and horizontal progression within the qualification system and delineates the prerequisites for each level. However, Decree 8590 does not determine the recognition and equivalence of academic and TVET qualifications, nor does it specify the competencies required at each level.

#### 1.3 TVET training providers in Lebanon

The DGTVE at the MEHE administers TVET provision in Lebanon.<sup>23</sup> Even though the provision of technical education is centralized at the DGVTE, the provision of vocational education and training is fragmented, with several providers and little coordination between them. In addition to the DGTVE, the MOA also provides technical education. Other providers of short-term vocational education include MOSA, the NCVT, the NEO, local and international NGOs and the private sector.

The Higher TVET Council was established<sup>24</sup> to serve as an advisory board to the DGTVE and lead on strategic planning and policy-making. The Council, however, has not met since 2000. As a result, coordination mechanisms between TVET providers, as well as systematic collaboration with social partners, remain weak.

#### A. The Directorate General of vocational and technical education

The development and modernization of the TVET sector as a whole is under the aegis of the Directorate General of Vocational and Technical Education at MEHE, which oversees the TVET system in Lebanon. In addition to managing the public provision of TVET, the DGTVE also supervises the performance of private educational institutes and training providers, including NGOs. The DGTVE organizes public TVET examinations, issues diplomas and certificates and coordinates with line ministries and other bodies that provide different types of TVET. These include the MOA, the NEO, the MOSA and the NCVT. The DGTVE currently supervises approximately 398 private training providers<sup>25</sup> and administers 158 public training institutes.<sup>26</sup>

#### Overview of the DGTVE schools and students

Among the 83,168 students registered in public programmes, this number includes those registered for short-term vocational courses,<sup>27</sup> which are provided in non-formal education settings. Almost 59 per cent of students were enrolled in public TVET. As illustrated in table 3, Beirut and Mount Lebanon are the only geographic areas in Lebanon where more students are enrolled in private than public TVET programmes.

<sup>23</sup> With the exception of the seven schools at the Ministry of Agriculture, at which approximately 250 students are registered. 24 Established by Decree No. 5768 of 23 December 1960. 25 As of 2 October 2017. See http://edu-lb.net/schoolrasmelist.php. 26 According to DGTVE estimates provided on 5 November 2017. 27 Between 3 and 9 months.

Table 3. Distribution of TVET students (2016–2017)

Governorate	Public TVET students	Private TVET students
Mount Lebanon	11 530	14 617
South and Nabatiyeh	9 561	7 412
North	17 835	7 408
Bekaa	9 998	2 920
Beirut	0	1 887
Total	48 924	34 244

Source: DGTVE

Students who opt for the vocational track can choose between technical and vocational education. During the academic year 2016–2017, almost half of TVET students were registered in the Baccalauréat Technique,<sup>28</sup> followed by Technique Superieur<sup>29</sup> and the Brevet Professionnel.<sup>30</sup> On the other hand, participation in the DS, introduced in 1996 with the support of the German International Cooperation (GIZ), has remained relatively low because of the limited number of targeted occupations. The most popular TVET occupations include business, accounting, administrative and secretarial work, informational technology (IT), nursing and industrial occupations. 31 32

Table 4. Distribution of TVET students by degree programmes 2016–2017

Award	Number of students	Percentage
Licence Technique (LT)	3 105	6.3
Technicien Superieur (TS)	11 268	23.0
Technical Baccalaureate (BT)	24 189	49.4
Dual System	889	1.8
Meister	33	0.1
General education certificate1	557	1.1
Brevet Professionnel (BP) – vocational certificate	8 772	17.9
Certificat d'Aptitude Professionelle (CAP) –vocational training certificate	111	0.2
Total	48 924	100.00

Source: DGTVE

In addition to public TVET providers, the DGTVE currently accredits and oversees approximately 398 private training providers.<sup>33</sup> During the 2016–2017 academic year, a total of 27 schools implemented

<sup>28</sup> Three years after the intermediate cycle.

<sup>29</sup> Three years after the Breamble date cycle.
29 Three years after the secondary cycle.
30 Three years after the secondary cycle.
31 Including electricity, car mechanics, air conditioning, hydraulics, and mechatronics.
32 Based on estimates provided by the DGTVE to the ILO in an interview on 3 November 2017. In the absence of an Education Management Information System (EMIS) at the DGTVE, no exact figures are available to confirm these estimates.
33 As of 2 October 2017 http://edu-lb.net/schoolrasmelist.php.

the DS. Another 29 schools administered joint programmes with private sector companies,<sup>34</sup> in which approximately 11,672 students were registered in 2016–2017.

#### **DGTVE** administration

The administrative structure of the DGTVE was established by successive laws and decrees, the latest of which, Decree No. 8349,35 outlines its main functions.36 Even though its organizational structure was established in 1996, the DGTVE remains heavily understaffed. As many as 223 out of 274 positions at the DGTVE were vacant in 2017, with only 51 staff recruited as civil servants on permanent contracts. Although these civil servants are assigned various roles and functions, they do not have job descriptions, and may not have the necessary training to perform their jobs.<sup>37</sup> This lack of capacity constrains the ability of the DGTVE to plan, design, implement, monitor or evaluate policies, programmes and plans.

In addition, the regulatory framework of the DGTVE does not allow for the kind of administrative decentralization provided for in the Constitution. Such centralization hampers the capacity of schools to adapt their curricula to local labour market demands, develop partnerships with industry or manage their own resource mobilization.

#### The Directorate General of Higher Education (DGHE)

The DGHE administers higher education provision, including technical tertiary education. The DGHE regulates private higher education providers, supervising all higher education institutions operating in the country. The Lebanese University is the only public university; it is autonomous and maintains its own system of governance.

The DGHE regulates the transition of TVET students into tertiary education. Students have the option of enrolling in academic programmes or continuing with technical education at tertiary level. According to Decree No. 8950, any TVET graduate with an average of 12/20 is eligible to pursue higher education after being awarded the TS. However, universities may set their own entrance requirements, including for TVET graduates. As a result, many admission requirements for some universities, including the Lebanese University, may prove too "restrictive" for TVET graduates who often perform poorly in entrance exams, particularly in languages.<sup>38</sup> Tertiary technical education options include the LT and LET degrees (see figure 1).

#### The National Employment Office under the Ministry of Labour

The NEO is a public institution with financial and administrative autonomy under the tutorship of the MOL. It is primarily responsible for employment-related policy-making, job matching and placement through its Employment offices. The NEO has supported over 40 NGOs to provide accelerated VT programmes across the country,<sup>39</sup> registering between 800 and 1,200 trainees in the 2016–2017 academic year. The NEO provides financial incentives to all NGOs to provide short-term programmes, usually 3,40 6,41 or 9 months.42 Upon successful completion of these short-term courses, graduates receive certificates stamped by the NEO. Most certificates, though, are not officially recognized by the MEHE. The selection

<sup>34</sup> Bilateral projects between the DGTVE and NGOs

<sup>35 2</sup> May 1996.
36 A ministry of TVE was set up in 1996 and lasted for four years. In 2000, the ministries of Education, HE and TVE became one ministry. This Decree should be reviewed as it organized the Ministry of Technical and Vocational Education before it was merged with the Ministry of Education and Higher Education.
37 Only staff of the second and third category or heads of departments receive training from the National Institute of Management, an institute to train staff of all official departments. Such training does not tackle TVET.

<sup>38</sup> ETF, 2016. 39 The NEO funds approximately LBP 600,000 per student per year to NGOs

<sup>40 120</sup> hours.

<sup>41 240</sup> hours 42 450 hours

process of partner NGOs is also not systematized, and tracer studies on the employment outcomes of graduates have yet to be conducted.

#### The National Centre for Vocational Training

The NCVT is responsible for accelerated VT programmes, normally 3–9 months long, with less than 100 trainees enrolled during the academic year 2016-2017. An independent board of directors heads the NCVT, leading its strategic planning and supervising implementation. All students who enrol in NCVTsponsored courses receive a certificate from the NCVT upon completion.

However, with funding shortfalls, the NCVT is working at less than half its capacity in Beirut and has few activities in regional areas, where it provides vocational training at the community level through its mobile trucks.<sup>43</sup> The NCVT also suffers from a low number of teachers and trainers, outdated curricula, and poor infrastructure and equipment. UNICEF will help to modernize the NCVT in 2018-2019 and increase the number of trainees. UNHCR, in partnership with IECD, is also organizing a number of competency-based short-term courses with NCVT.

Both the NCVT and the NEO have tripartite boards of directors, which include representatives of employers and workers' organizations, with the idea of promoting greater responsiveness of their programmes to labour market needs. Despite their tripartite structures, however, the engagement of employers in TVET provision has remained a challenge.

#### The Ministry of Social Affairs

MOSA offers short informal vocational training courses through NGOs or through the social development centres affiliated to it. These 220 social development centres allow the Ministry to establish a local presence, facilitating local development projects. Since 2011, MOSA has been working to revitalize the traditional crafts industry, having identified a total of 24 crafts in Lebanon. In 2015-2016, approximately 351 trainees were enrolled in short, informal, craft training courses, making mostly kilims, soap and wax products, and sewing. With its limited budget, MOSA does not offer courses on wood, brass, glass or pottery due to the relatively high costs of equipment for these crafts. Like the NCVT, MOSA also provides its own certification of graduates upon successful completion of VT courses.

#### The Ministry of Agriculture

The MOA is responsible for the management of agricultural schools and for training on agriculture and animal husbandry. The Extension and Agricultural Education division within the General Directorate of Agriculture runs 28 agricultural centres, including seven agricultural technical schools44 and three agricultural service centres across Lebanon. Its mission is to deliver agricultural education and training.<sup>45</sup>

Students specializing in agriculture choose between the BT in agriculture and accelerated vocational training programmes in the MOA's centres and schools. Approximately 252 students were registered in seven agricultural schools<sup>46</sup> during the 2016–2017 academic year, more than half of whom were women.

<sup>43</sup> Currenty not operational.
44 Four more schools have been established but are not yet operational.
45 Several projects support the MOA to improve vocational training, including the EU-funded project "Peaceful and Comprehensive Education in Seven Districts of Lebanon", launched in 2014 to strengthen agricultural technical education – more specifically to support the seven MOA vocational schools. UNICEF also supports the MOA to rehabilitate the seven TVET schools. Further, the FAO project "Upgrading the technical agriculture education system in Lebanon", supported by the MoA, ILO and AVSI, aims at supporting the seven agriculture technical schools so that they are managed in a sustainable manner providing adequate high-quality agricultural technical training to young male and female Lebanese and Syrians to respond to labour market demands. The project will focus primarily on the Baccalauréat Technique in the Agriculture (BTA) system and, by default, it will look into the way the BTA as well as the agriculture schools are administered/coordinated by EES.
46 Al Abdeh, Al Batroun, Nasriyeh-Rizk, Al Fanar, Baakline, Al Nabatieh, Al Khiyam.

Public agricultural technical education suffers from several weaknesses, including a declining interest in agriculture and insufficient funding.<sup>47</sup> The budget of the MOA does not have any provisions for technical education or other specialized short-term training courses.<sup>48</sup>. As a result, many schools are understaffed, and curricula are not updated to meet the emerging demand for skills in agribusiness and farm management.<sup>49</sup>

Recent initiatives undertaken by the ILO in the agriculture sector and the agro-food industry have identified potential employment and entrepreneurial opportunities within this sector. AVSI also works to fill this gap, supporting youth employment in the agro-food industry.

#### The United Nations Relief and Works Agency (UNRWA)

UNRWA provides TVET for Palestinian refugees in two vocational and technical training centres. It also provides career counselling and employment placement through its four employment service centres, first established in partnership with the ILO. The UNRWA Siblin Training Centre (North Campus) graduated 102 TVET students in 2017. The majority of these students specialized in business administration, secretarial, civil engineering and general electrical installations. UNRWA training is not officially recognized by the DGTVE.

#### Private training providers

Unlike public providers, private TVET providers are independent, both in terms of their funding and management. Some private providers are operated by NGOs, whereas others operate for profit. Despite their relative independence, however, private providers must still obtain DGTVE accreditation before they can provide TVET services. Non-formal providers must be in a school certified by the Government, and officially registered with the DGTVE. They must also have their students sit for one official examination organized by the central administration at the end of each academic year. Upon successful completion of the course, students are provided with a certificate from the institution authenticated by the Directorate General. Generally, private technical and vocational schools focus on non-industrial disciplines such as business, commerce and IT that do not require heavy equipment, factories or laboratories.

The DGTVE is mandated to oversee the work of private institutes and schools. Once they receive accreditation from the DGTVE, private schools are required to submit an annual report covering general activities and highlighting pending needs. Schools also draft their own qualitative and subjective self-evaluation on their pedagogical methods, which they attach to their annual reports. However, because of staff shortages, the DGTVE has no follow-up mechanisms to assure the quality of private schools.

#### Short-term training providers

Both public and private TVET providers offer accelerated training courses ranging 3–9 months. Private and non-governmental organizations are not bound by official curricula, and design their own courses without supervision from the DGTVE. Students who complete such courses receive a certificate of attendance from the DGTVE only if the school is officially recognized. Graduates of accelerated training programmes offered by the NCVT receive certificates directly from the NCVT.

47 Linked to a need to improve the administrative structure for the department in charge of TVET at the MOA.
48 Ministry of Agriculture, November 2014, Ministry of Agriculture Strategy 2015–2019, pp. 28-29, which refers to the SWOT analysis carried out by the Working Group dealing with agricultural extension, education and research, one of the ten working groups contributing to the elaboration of the MOA Strategy.
49 A recent ILO labour market study (2015) revealed there is shortage in agribusiness and farm management skills in North Lebanon.

Non-formal market-based skills training (MBST) is a key component of the Lebanon Crisis Response Plan. MBST includes short-term accelerated courses, offered outside the formal technical education system to promote employability and fill skills gaps in the labour market. In 2014, over 14,600 individuals were registered in MBST compared with only 4,300 students by 2015. Around 90 per cent of MBST courses are either free or only charge a nominal fee.<sup>50</sup> An agreement on standard operating procedures for these training courses is currently being developed.

Accelerated programmes and MBST courses can range between 15 and 144 hours over a 3-month period. Usually more than two-thirds of the total programme is dedicated to on-the-job training (24 hours per week), but most MBST providers do not provide job placement. The remaining time involves classroom-based theory. In the absence of tracer studies, the share of MBST graduates placed in jobs and other labour market outcomes is unknown.

#### 1.4 Key challenges facing TVET in Lebanon

As outlined above, the UNICEF–ILO partnership with the Government of Lebanon included a wide range of consultations held in 2017 with relevant ministries, social partners, international organizations, as well as public and private TVET providers to establish a common roadmap for reforming the TVET system. A total of six working groups were formed to establish their own strategic goals and reform priorities for the period 2018–2022 (see Appendix II).

The working groups identified three main deficits, namely: (i) access and service delivery; (ii) quality and relevance; and (iii) governance and systems.

#### I. Access and service delivery

Main challenges	Clarification/root causes
Reluctance of students and families to enrol in technical education and training	<ul> <li>Lack of decent job opportunities for TVET graduates.</li> <li>High competition for low-skilled jobs due to the influx of refugees and other migrants willing to accept lower wages.</li> <li>Mismatch between youth expectations and the salaries and working conditions of TVET-level jobs.</li> <li>Lack of clarity in the competencies acquired by graduates through TVET programmes, accentuating the need for improved testing and certification mechanisms.</li> <li>Failure to adopt horizontal and vertical pathways and modular courses to allow students and workers to progress in their education and careers as part of a lifelong learning process.</li> <li>Absence of career guidance in most VET schools.</li> </ul>
Programmes are not inclusive	<ul> <li>Failure of TVET providers to challenge the gender division in labour market specializations.</li> <li>Many programmes are inaccessible to persons with a disability (PWDs).</li> </ul>

Weak infrastructure	Weak infrastructure of TVET institutions in need of refurbishment and equipment to keep up with the requirements of employers and the changing needs of the labour market.
	Insufficient allocation of materials to allow trainees to learn through trial and error.

## II. Quality and relevance

Main challenges	Clarification/root causes
Weak relevance of TVET training to labour market demand	Outdated curricula not based on competencies. Lack of unified qualification standards for the competencies, curricula and impact assessment tools. Lack of systematic participation of the social partners in the design, implementation and evaluation of TVET programmes. Lack of accurate and reliable information on current and future needs of the market. Absence of implementation of a national qualification system or sector qualifications systems to allow for multiple pathways. Inadequate accreditation system and quality assurance mechanisms. Life skills not adequately addressed by existing TVET programmes.
Shortage of qualified trainers, staff and supervisors	Lack of trainers who have: (a) the knowledge and pedagogical competencies to adopt modern training methods; (b) current and relevant industry/technical experience for training on competencies in demand in the labour market. Lack of meaningful supervision of TVET and an insufficient number of education supervisors and inspectors for sufficient guidance.

## III. Governance and systems

Main challenges	Clarification/root causes
No common priorities for TVET	Lack of inter-institutional coordination mechanisms to harmonize practices, define priorities and learn from progress.
Centralized financing system not based on evidence of cost- effective approaches	Centralisation in the management of TVET constraining the capacities of TVET providers to introduce innovative practices and multiple financing mechanisms.  Lack of cost efficiency due to a large network of underutilized centres that have been established without any study examining the number of providers per geographic area relative to the number of students and labour market demand.
Insufficient partnerships with the private sector	Low trust in the efficiency and relevance of public sector training providers and limited interest among the private sector to partner with public institutions on TVET programmes. Such partnerships would ensure stronger and more adequate provision of employability skills for TVET graduates, along with the acquisition of practical experience.  Lack of mechanisms for the systematic inclusion of private sector representatives in the shaping of policies and priorities, as well as in the design, implementation and evaluation of training programmes.

#### 1.5 TVET policies and frameworks

Many of the main deficits identified by the working groups that were convened as part of this initiative have also been echoed in key reports and forums on TVET provision in Lebanon,<sup>51</sup> as well as in national TVET policies and frameworks.

The Lebanese TVET system has so far operated without a unified vision to ensure coherent programming. When MEHE developed the National Education Strategy Framework in 2010, it did not address the TVET system. In a step towards TVET modernization and reform, MEHE approved the Strategic Multi-Annual Action Plan for the TVET system in 2011–2014. However, this action plan was never operationalized.

Drawing on the 2010 Torino Process,<sup>52</sup> the Multi-Annual Action Plan identified four key strategic focus areas, calling for:

- reviewing available programmes and specializations in TVET (includes adopting a credit hour system, reviewing curricula and enhancing the evaluation of TVET programmes);
- reviewing the academic and administrative structure of TVET (includes the organization of the Technical Educational Institute, the creation of a TVET quality assurance agency and the revitalization of the Higher Council for TVET);
- expanding human, physical and financial resources (includes the recruitment of TVET educational staff, staffing of the DGTVE, rehabilitation of schools and provision of equipment);
- strengthening cooperation in the field of TVET (includes enhancing the partnership with the private sector and civil society to enhance the public perception of TVET).

The 2016–2017 Torino Process report for Lebanon also emphasized the need to reactivate the Higher TVET Council and enhance coordination mechanisms between the various public TVET providers. The report called for stronger cooperation between the private sector and social partners, further investment to develop a labour market information system, and to expand employment career guidance centres in public and private TVET schools. The report also recommended investment to enhance the capacities of the business sector in an effort to improve the efficiency of work-based learning and ensure alignment with labour market demand.

The 2016 UNICEF-ILO regional consultation on TVET in the Middle East and North Africa similarly set the following priorities:

- I. Increasing access to TVET opportunities. This includes strengthening evidence-based programming, improving the financing of TVET systems, reviewing teacher/facilitator training and deployment systems, facilitating coordination between line ministries and private providers in order to ensure complementarity of TVET programmes and increasing youth engagement.
- II. Enhancing the quality and relevance of TVET. This includes mainstreaming life skills and citizenship education, incorporating employability skills into primary education curricula, ensuring professional development of TVET instructors and making TVET provision more demand-driven and conducting tracer studies and employer satisfaction surveys.
- III. Strengthening partnerships with the private sector and other stakeholders. This involves facilitating collaborative frameworks between public and private providers of training, and including employers in the design of training standards and curriculum reviews. Employers should be involved in the

<sup>51</sup> Including the 2016 ETF report, the UNICEF/ILO Regional Consultation on Technical Vocational Education and Training in the Middle East and North Africa (31–31 May

<sup>2016)</sup> and other TVET reports and forums.

52 The Torino Process is a system-wide policy analysis of VET and monitoring progress exercise implemented by the ETF on a periodic basis (every two years). It serves to reinforce countries' policy analyses and monitoring capabilities, and to demonstrate the benefits of consultation, participation and strategic dialogue for better evidence-based

implementation and evaluation of training programmes through structured apprenticeships, as well as the design and implementation of tests to ensure broader recognition of certifications.

IV. Ensuring the transition of graduates to decent work. This includes systematizing work-based learning, enhancing career guidance, establishing the recognition of prior learning (RPL) mechanisms and supporting the transition to decent employment through the use of social protection measures, such as cash-to-work and employment guarantee schemes.

# II. NATIONAL STRATEGIC FRAMEWORK FOR TVET IN LEBANON 2018–2022

#### 2.1 Vision and mission

Underpinning the 2018–2022 National Strategic Framework was a wide range of consultations, which were conducted with key TVET stakeholders in 2017 as part of the UNICEF–ILO initiative. These consultations paved the path for a common roadmap for the TVET sector in Lebanon for the coming four years.

#### **Vision**

Recognizing that TVET produces individual and social benefits encompassing the individual, the economy, and society at large, a high-quality TVET system in Lebanon will seek to:

- For individuals Promote the employability of all residents of working age and improve their competencies and qualifications.<sup>53</sup> The TVET system will positively contribute to the empowerment of individuals in their future careers as they contribute to Lebanese society in general. An inclusive TVET system will provide equal opportunities for all, welcoming marginalized populations, women, youth, minorities and PWDs.
- For businesses Ensure the availability of a competent workforce for the development of businesses in Lebanon. The quality of TVET provision will act as an incentive for foreign investment.
- For the country Contribute to inclusive and sustainable development, leaving no one behind. The TVET system will promote the principles of good citizenship, democracy and human rights, serving as a place for constructive dialogue between individuals and communities, and fostering social cohesion.

#### **Mission**

To implement this vision, the TVET system in Lebanon will be tripartite-led, fit for purpose and inclusive. It will provide competencies and life skills to meet the skills demand in the labour market, forming part of a larger education system with multiple pathways to encourage lifelong learning.

The Strategic Framework will apply the following cross-cutting principles to the TVET system:

#### Tripartite-led:

- Operationalize the tripartite governance of the TVET system through the revitalization of the Higher Council for TVET and the establishment of advisory councils in TVET schools and institutes.
- Systematically include the private sector in training provision, counselling, testing, certification and evaluation of programmes.
- Expand training opportunities inside enterprises as part of a National Apprenticeship Framework
  that combines on-the-job training with academic training. Develop partnerships with the business
  sector to better support the development of curricula tailored to competency requirements in the
  private sector. Promote continuous training for job seekers and employees to continue to upgrade
  their skills through lifelong learning.

#### • Fit for purpose:

- Provide high quality TVET that meets the needs of the labour market in the country and the region.
- Introduce competency-based recruitment mechanisms for public administrators, teachers, supervisors
  and inspectors based on competencies. Provide all newly-recruited officials with induction training,
  as well as the opportunity for continuous training. Design an effective pay for performance
  compensation system.
- Enhance and promote common quality assurance mechanisms for public and private training providers.
- Provide funding to training providers who demonstrate positive labour market outcomes among their graduates.

#### • Inclusive:

- Make the adaptations necessary to schools, curricula and staff/peer attitudes to encourage the participation of PWDs, women, youth and other marginalized populations and minority groups.
- Promote champions who choose non-traditional occupations and training courses (e.g. women becoming electricians).

#### · Builds skills for work and life:

- Provide high quality technical and vocational education and training to young men and women, taking into account equality of opportunity, sustainable human development, and principles of active citizenship, democracy and human rights.
- Integrate and provide training on life skills and citizenship education. This kind of training focuses on self-management, communication, critical thinking, creativity, decision-making, empathy, negotiation, participation, problem solving, flexibility and respect for diversity.<sup>54</sup>

#### • Permeable:

- Provide a flexible system with open pathways between general education and TVET and between jobs and training that is supportive of lifelong learning.
- Develop an integrated National Qualification Framework that clearly outlines the relationship between different levels of learning and certification, as well as the pathways of attainment.
- Adopt flexible modular systems that allow students and trainees to pursue their studies and training, vertically and horizontally, without losing the value of their knowledge, skills and competencies.
- Expand access to further educational opportunities for young graduates based on qualifications, paving the path for lifelong learning.

#### Valued:

- Provide a system where more youth are encouraged to pursue a vocational track as a valued alternative educational pathway to decent employment. In such a system, parents value the educational achievements of their TVET graduates, and companies value the practical skills and competencies they have acquired.

#### 2.2 Building blocks

The vision and mission are operationalized through eight building blocks, which are equally important for the achievement of the three main strategic axes: (i) expanded access to TVET; (ii) enhanced quality and relevance of TVET provision; and (iii) improved TVET governance. These building blocks, which are not listed by order of priority, are explained in the following table.

Building blocks	Key performance indicators
The TVET system ensures access to all and everybody benefits equally from the training provided.	Share of youth involved in TVET programmes (by age, sex, nationality and disability status).
2. An improved HR management system for the TVET sector is the main contributor to the quality	Share of instructors certified on pedagogical skills.
of training.	Share of instructors having been trained in industry on technical skills over the past two years.
3. A National Qualification System (NQS) centred on a competency-based approach to training and testing allows for better signalling of graduate skills to employers.	Share of accredited programmes that are competency-based.
4. A functional quality assurance system allows for evidence-based planning and budget allocation.	Share of training providers providing data on the employment status of their graduates.
5. Mainstreaming life skills and entrepreneurship education to improve the school-to-work transition of TVET graduates.	Share of programmes that have mainstreamed life skills and entrepreneurship education.
6. The provision of updated job-related equipment and materials to allow trainees to acquire practical skills in safe conditions that resemble the workplace.	Annual planning for allocating equipment, taking into account the likelihood of the selected programmes leading to employment.
7. The involvement of employers' and workers' representatives will improve the market relevance of training programmes.	Share of programmes that benefit from inputs from sector skills councils for the design, implementation, testing and evaluation phases.

8. A diversified financing framework based on multiple partnerships allows training providers to make the most of available opportunities.

Share of public training providers that benefit from private sector funding or in-kind support.

#### 2.3 Core actions (outputs)

Core actions are described for each of the eight building blocks. The rationale for the selection of each building block is explained, followed by a description of the core actions or outputs that need to be put in place for its achievement.

#### 1. The TVET system ensures access to all and everybody benefits equally from the training provided

The fourth Sustainable Development Goal (SDG) on education urges member States to "ensure inclusive and quality education for all and promote lifelong learning." SDG 4.3 calls for "equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university," and SDG 4.4 specifically calls for a "substantial increase in the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship."

The ILO Human Resources Development Recommendation, 1975 (No. 195), also advocates equitable access to education and training, including for women and men, PWDs, self-employed persons and casual workers in the informal economy, youth, migrants, older workers, indigenous peoples and any other socially excluded groups. The UN Convention on the Rights of Persons with Disabilities (CRPD) similarly emphasizes the right of PWDs to access TVET programmes and, subsequently, the labour market.

An inclusive TVET system promotes social inclusion, including for marginalized groups, refugees, disadvantaged people, and PWDs. In Lebanon, the right of PWDs to education is reiterated in Law 220/2000 and the National Education Strategy (2007). The 2012 National Educational Plan for Persons with Disabilities also seeks to promote the integration of PWDs in regular schools and classes. Decree No. 9533 of 17 December 2012 stipulates that examination centres should be equipped to host students with various disabilities.

However, despite such advancements at the policy level, the majority of public TVET providers do not make provisions for PWDs.<sup>55</sup> Some NGOs and private providers do receive support from MEHE and MOSA for the inclusion of PWDs in training programmes.<sup>56</sup> However, apart from those, most training centres remain inaccessible to PWDs. The lack of modular courses also poses a barrier to access.

The participation of young women in TVET is still low, with women comprising 44 per cent of the student population registered in private TVET during the 2016–2017 academic year, and 42 per cent of those registered in the BT. In addition, an important occupational gender segregation persists due to social norms that render some occupations highly dominated by either men or women. Innovative approaches of international organizations and NGOs have shown, however, that the participation of women in male-dominated occupations is possible (see Appendix III). One such example is Lebanon's first female electrician from South Lebanon who pioneered female participation in an all-male occupation after an ILO-supported skills training programme. She subsequently opened the first electrical appliances repair shop in Southern Lebanon, challenging prevailing gender stereotypes.

Mechanisms also have to be put in place in order to ensure the inclusion of refugees in TVET. Syrian refugees are offered short-term training courses without any restriction on the specialization offered to them. Only three occupations, however, are open to Syrian refugees in Lebanon, namely agriculture, construction and environmental services.

Thus, this building block will be achieved through the following core actions:

- · review the legal, technical, and infrastructure barriers to currently constrain the inclusion of marginalized groups;
- actively promote the increased participation of women, PWDs and refugees in TVET, including in non-traditional occupations, through awareness campaigns, and a reasonable accommodation of their needs;
- improve the physical accessibility of training centres, adapt training methodologies to PWDs, and raise awareness of instructors and peers for greater social acceptance.

#### 2. An improved human resource management system for the TVET sector is the main contributor to the quality of the training

Most school directors in public TVET were originally teachers in the Civil Service. Directors of TVET institutes and schools must, in principle, take an education leadership course in the Faculty of Education and Pedagogy at the Lebanese University. However, even though this is a requirement, appointments are often made without TVET directors completing the required training.

The National Pedagogic Institute for Technical Education (Institut Pédagogique National de l'Enseignement Technique – IPNET)<sup>57</sup> is designated to provide pre-service teacher and instructor training (PS-TIT). IPNET prepares TVET teachers for subsequent employment in TVET schools and provides continuous development for teachers. IPNET also specifies the qualifications required for TVET teachers based on specializations and levels. A lack of necessary human and financial resources, however, has undermined IPNET's role. Lebanon subsequently suspended PS-TIT, because of the increased reliance on fixed-term hires.

The World Bank System Assessment and Benchmarking of Education Results (SABER) rated the provision of support to teachers (to enhance their teaching and instruction methods) as particularly weak. SABER identified the provision of performance incentives to teachers as the weakest among seven Arab countries surveyed.58

Even though (under Decree No. 7262 of 4 August 1961) teachers are required to participate in summer schools as part of their compulsory continuous training, this decree was never put into practice.<sup>59</sup> Due to limited financial capacity, TVET schools also do not invest in upgrading teaching methodologies or developing teachers' and trainers' capacities.

Given the diverse number of specializations and subjects offered in TVET schools, 60 over 80 per cent of teachers and trainers work on hourly contracts. 61 Women comprise almost half of the TVET workforce, though their participation varies by occupation. 62 As a result, out of 13,800 TVET teachers, only 1,800 are civil servants working on a permanent contract basis.

<sup>57</sup> Established under Decree no. 16983 of 27 July 1964.

<sup>58</sup> UNESCO, 2014.
59 ETF, 1999.
60 Especially that the IPNET predominantly focused on industrial specializations and did not diversify the disciplines for a long time.

The Director of DGTVE assigns hourly teachers, with the approval of the Technical Department within the DGTVE. Teachers who are hired on hourly contracts are not subject to the same public examinations set by the Civil Service Council that public teachers undergo. 63 The idea behind recruiting hourly teachers was that they should come from industry, bringing with them workplace knowledge and industrial experience. However, their recruitment has not always been based on merit.

Several teachers' unions represent TVET teachers in Lebanon and defend their interests. TVET professional associations focus more on quality and training, but their activities are limited.64

The specific objective will be achieved through the following actions:

- Systematize competency-based recruitment and training for all instructors, confirming those already enrolled after a certification process, and providing targeted capacity building to those who fail the test.
- Design or upgrade job descriptions for all TVET staff, institute a pedagogical training and certificate for all instructors.
- Ensure instructors benefit from in company training at least every two years through public private partnerships.
- Link performance measurement with financial rewards.
- Ensure that directors have acquired the leadership certificate before they assume their positions.

### 3. A National Qualification System centred on a competency-based approach to training and testing and on a National Qualification Framework allows for better signalling of graduate skills to employers

Lebanon still follows the traditional TVET system based on the academic school year. The Department of Curriculum and Education Techniques in the Technical Department of the DGTVE is responsible for the preparation and development of educational curricula in technical and vocational education. It specifies books and teaching aids, determines the methods of teaching and also develops model questions for official examinations, which are provided to the Examinations Committee at the DGTVE. It also supervises TVET providers in order to ensure conformity with the curricula.

Some curricula are out-dated, and most are not based on competency standards. In the absence of collaboration with social partners,65 curricula are often developed without clear linkages to the kinds of competencies required in the workplace.

Some reforms were introduced in 2014 for the TS and the LT, and in 2016 for the BP and BT.66 As part of these reforms, soft skills were incorporated into the curricula as they were identified as one of the key impediments to the employability of TVET graduates. New TVET specializations have also been introduced in response to labour market demands and industry trends. New specializations include electro-mechanics, sustainable and renewable energy development, IT (smartphone application development), and air conditioning service repair.<sup>67</sup>

Even these new curricula did not systematically adopt a competency-based approach with clear occupational standards. When competencies were clearly identified, assessments remained largely theoretical with insufficient practical testing. There are, however, exemplary initiatives of employer engagement in

63 ETF, 2010.
64 UNESCO, 2014.
65 Employers' and workers' organizations.
66 Including the BT in électrotechnique and the new BT in maintenance.

developing occupational standards and curricula (outlined in Appendix III) that can be scaled up to the entire system.

The National Qualification Framework Working Group<sup>68</sup> first established a Lebanese NQF in 2011. The 2011 framework outlined eight levels of qualifications, which were hierarchically ranked by level of complexity. Each level of qualifications has its own descriptors for specific diplomas and certificates. In 2012 the NQF was piloted in selected sectors, including education, agro-food, health, electrical works, and hospitality.

According to the text of the rules of procedure for vocational and technical education schools (No. 134, dated 24/6/1996), regular students in vocational and technical education schools are accepted based on performance on a unified examination system held annually. In practice, however, each school designs its own entrance exam given that it is not possible to conduct a unified exam in the current circumstances. Today, many schools do not administer entrance exams at all, due to the low number of students. Priority is normally given to Lebanese students if the number of candidates for admission exceeds the capacity of the training provider.

Public schools administer summative assessments twice a year (40 per cent each), whereas continuous formative assessments conducted by teachers constitute the remaining 20 per cent of students' grades. Even though private technical and vocational providers are not required to follow the same examination and grade distribution system as public schools, the majority of them do follow the same format. The Examination Department in the Department of Supervision and Examinations at the DGTVE monitors the administration of school exams in private and private schools.

The DGTVE is also responsible for administering official examinations. It announces the dates of official examinations and supervises their administration, correction and the subsequent issuance of certificates. It also administers a second round of official examinations for students who have not been successful in the first round. Official exams predominantly test theoretical knowledge, <sup>69</sup> with the sole exception of *Électrotechnique* [electrical engineering], where students are tested based on real-life situations through a practical exam and a written exam. In other subjects, there are few, if any, practical exams to test competencies against occupational standards. Employers are also seldomly engaged in the assessment design and evaluation process.

The specific objective will be achieved through the following actions:

- Adopt the NQF with eight levels of qualifications in order to grade the various certificates and diplomas and establish additional pathways between them.
- Grant additional autonomy and build the capacity of the Department of Curriculum and Education
   Techniques in the Technical Department of the DGTVE to:
  - source occupation and qualification standards from other countries in the region, as well as considering international standards and international best practices;
  - adapt standards to the Lebanon context, in partnership with sector councils, to identify the skills needs by each economic sector;
  - design curricula, training materials, formative and summative assessment centred on the competency-based approach.
- Establish sector skills councils to:
  - participate in the activities of the Department of Curriculum and Education Techniques in the Technical Department of the DGTVE;

- appoint assessors for the assessment and certification of competencies; and
- facilitate access of the most competent graduates to job interviews.
- Establish school boards that make decisions on the planning and implementation of activities with the participation of representatives of local employers, parents, students, and staff (teachers and administrative personnel).

#### 4. A functional quality assurance system allows for evidence-based planning and budget allocation

The number of public TVET providers has more than doubled from under 60 public TVET providers in 2001-2002 to over 162 public providers today. This proliferation has occurred without a review of the demographics and economy in the selected areas, and with no quality assurance mechanisms in place to ensure that TVET provision is of "a consistent standard". O As a result, there is an underutilization of some schools,<sup>71</sup> and the overall quality of training has been affected by this expansion.

The 2011–2014 Action Plan for TVET called for the establishment of a Quality Assurance Agency. The Lebanon Crisis Response Plan 2017–2020 also identified the enhancement of the quality of education services as one of its key priorities. Despite this continued emphasis, however, the DGTVE only has a few QA mechanisms in place to ensure quality as the DGTVE lacks the necessary staff and institutional structures.

The General Educational Inspectorate of the Central Inspection at the DGTVE reviews the efficiency of public training providers, curricula, student attendance and examinations. However, this department is understaffed, with only five inspectors for 162 public TVET providers. Inspectors conduct only about one visit per school per year, depending on their workload. The work of education inspectors, on the other hand, is limited to ensuring the regularity of the administrative work in the technical institutes and schools and reviewing complaints submitted.72

Technical and vocational schools provide an annual report prepared by the school principal and assistants. However, this self-assessment is not comprehensive and does not reflect the relevance of programmes to the labour market. Tracer studies and employer satisfaction surveys are scant.

The Department of Educational Monitoring and Guidance, part of the Monitoring and Examinations Unit at the DGTVE, examines applications for licenses to open new private TVET schools. The Department of Educational Monitoring and Guidance also dispatches education supervisors who monitor education provision.

The education supervisor at the DGTVE conducts regular visits to the schools based on an annual work plan, and drafts individual school reports, which are then submitted to the central administration. Supervisions entail meetings with the principal, teachers and students to assess curriculum implementation, teaching methods, theoretical and practical lessons, examinations and examination results. However, due to the shortage of educational supervisors, with only two supervisors overseeing all private TVET providers, this work has been limited to ensuring the regularity of administrative work in the technical institutes and schools, and to responding to complaints.

The collection of statistics related to the number of students, teachers, trainers, specialties and divisions is limited in the absence of an education management information system (EMIS) within DGTVE. Without

71 Over 50 public TVET providers have less than 200 students enrolled (UNESCO, 2014). 72 Reported in an ILO interview with DGTVE on 3 November 2017.

an automated central formal system to manage and monitor TVET provision and inform decision-making any analysis and reporting of TVET data has been limited. The provision of timely access to education data through the establishment of an EMIS at the DGTVE will improve the planning, design and monitoring of TVET provision. This will in turn allow for evidence-based policy-making.

The specific objective will be achieved through the following actions:

- design and implement an EMIS for systematic and consistent data collection at the DGTVE, to inform evidence-based policy-making and strategic planning;
- design and implement a monitoring and evaluation framework in line with the European Quality Assurance in Vocational and Training (EQAVET) criteria for a yearly self-assessment of schools, to be validated by inspectors;<sup>73</sup>
- administer systematic tracer studies and employer-satisfaction surveys on a representative sample
  of graduates and companies, using findings to inform budget allocation based on performance
  benchmarked per region and training programme;
- establish an Intranet platform for the timely dissemination of decisions and for online reporting;
- establish an accreditation body and restrict the accreditation of training providers to a three-year period, to be renewed based on compliance with established benchmarks.

# 5. Mainstreaming life skills and entrepreneurship education to improve the school-to-work transition of TVET graduates

Companies often complain about the lack of soft skills among TVET graduates.<sup>74</sup> Life skills, with their focus on critical thinking, problem solving and other personal and interpersonal skills, facilitate the school-to-work transition and also aid in future labour mobility. Life skills also contribute to positive citizenship values, human rights and social cohesion, empowering trainees to know and defend their rights and entitlements.

Life skills have the potential to change the pedagogical model towards experiential learning. Despite demonstrated impact, life skills have not yet been mainstreamed into TVET programmes. Furthermore, even when life skills interventions are available, they are usually designed and implemented as ad-hoc NGO programmes, mostly focusing on remediation after graduation.<sup>75</sup> To address these challenges, UNICEF has launched a regional framework on life skills in the MENA region,<sup>76</sup> which aims to mainstream life skills in all learning settings, including TVET.

In addition to life skills, entrepreneurial skills are largely missing from TVET curricula. Reflecting on the limited size of most companies in Lebanon, and the lack of structured employment relationships in many sectors, it is likely that many TVET graduates may, in fact, opt for self-employment. Entrepreneurship education is not merely useful for future entrepreneurs but also for future employees, who are likely to take a more entrepreneurial attitude in the workplace and towards their careers.

<sup>73</sup> The European Quality Assurance in Vocational and Training (EQAVET) devised a list of ten indicators to evaluate the quality of VET education. These include participation and completion rates of VET graduates and their subsequent placement in jobs or further education. When VET graduates are in employment, the utilization of their skills on the job is another indicator of quality. Conversely, VET graduate unemployment rates are also another indicator of quality, other indicators of quality, include the mechanisms used to ensure the relevance of VET programmes to the changing training needs of the labour market, and investment in human resources including trainers and teachers. Access to VET and inclusiveness of vulnerable groups were additional quality indicators. Last but not least, the relevance of QA systems for VET providers was itself an indicator of quality (UNESCO).

The specific objective will be achieved through the following actions:

- Mainstream life skills into TVET programmes through curricular and extra-curricular approaches, and measure their impact on labour market outcomes.
- Review various existing training packages/interventions on life skills and evaluate the impact of such interventions on employment and self-employment outcomes to ensure that successful pilots can be scaled up for all TVET graduates.
- Train relevant instructors on life skills, providing dedicated teaching materials to guide the mainstreaming of life skills in TVET curricula.

# 6. Providing updated job-related equipment and materials to allow trainees to acquire practical skills in safe conditions that resemble the workplace

Poor infrastructure and equipment negatively affect the quality of training. Most public TVET schools in Lebanon suffer from poor facilities, out-dated equipment and learning materials, which are no longer in use in the specific trade. DGTVE funding for equipment is very low, averaging around \$150,000<sup>77</sup> per year for an estimated 162 public TVET providers in 2017. This equates to less than \$950 per year per training provider.

In the future the allocation of equipment will need to be based on the labour market outcomes of graduates, considering their employability and the relevance of training programmes to local labour market demands. More specifically, the use of competency-based curricula developed with the private sector will be a prerequisite for appropriately equipping TVET providers. Past achievements of training providers in terms of share of graduates employed will also be taken into account.

Efforts should also be made to adopt cost efficient equipment solutions in TVET schools. A car engine simulator that is part of the existing DGTVE curricula in car maintenance, for example, currently costs almost 30 times more than a real engine upon which students can practice job-related activities.

Insufficient provision of fungible materials often prevents trainees from learning through trial and error. Issues of safety in training workshops, including raising awareness around issues of occupational safety and health (OSH) in the workplace among students, are sometimes disregarded. Insufficient safety rules with little enforcement of them puts trainees at additional risk.

The specific objective will be achieved through the following actions:

- For the allocation of new equipment, prioritise schools in terms of employment prospects and labour market outcomes of their graduates.
- Increase budget allocations for the maintenance of existing equipment and the procurement of jobrelated tools and materials for competency-based programmes that have been revised in line with labour market demand.
- Build strong public-private partnerships within a decentralized system to allow for increased onthe-job training and for donation of job-related equipment (including second-hand equipment) to training centres.
- Design and enforce strong rules for OSH in workshops with all training programmes having an OSH component, the workshop floors being clear of clutter and protective gear used on a systematic basis.
- Put in place minimum standards for infrastructure and equipment in order to ensure the job relevance of TVET provision.

• Promote the use of information and communication technology (ICT), when possible, to reduce costs and enhance the learning process.

# 7. The involvement of employers' and workers' representatives in skills development governance and training processes will improve the market relevance of training programmes

The success of any TVET system is contingent on its responsiveness to the needs of the labour market, through the systematic involvement of employers<sup>78</sup> and workers' organizations in the design, implementation, and evaluation of TVET provision as part of a tripartite governance system. As the primary recipients of its outputs, employers' involvement in the TVET system is particularly important for the correct identification of the skills needed by the labour market.

Currently, the participation of employers in curricula development, apprenticeships, financing, testing and certification, and the overall evaluation of programmes remains weak and ad hoc. As a result, employers often complain that the skills and competencies of TVET graduates do not correspond to the skills and competencies they need. Illustrating this lack of dialogue between training providers and private companies, the Dual System had limited outreach, to a network of only 790 companies between 2007 and 2014.

There is an urgent need for employers' representatives to clearly articulate the skills requirements for the sectors they represent and get meaningfully involved in skills development. Trade unions should also play an important role in skills development, by providing an independent oversight of the system, and flagging issues related to trainees' status, the quality of services and skills utilization within companies.

The Higher Council for TVET, presided by the Minister of Education and Higher Education, is officially mandated to design TVET policies and strategies. The Council, however, has not convened since 2000. As a result, no systematic mechanisms are in place to ensure the participation of employers and workers' organizations, even though these social partners have an important role to play in policy-making, strategic planning and evaluating the outputs of the TVET system.

The participation of social partners is also not systematic at the DGTVE, even though social partners include the Chambers of Commerce and the Association for Lebanese Industrialists welcome collaboration. The Curriculum Committee at the DGTVE now rarely includes social partners. The Examination Committee at the DGTVE, with the exception of the Supreme Examinations Committee, also does not include the participation of employers. Even though public TVET providers are also mandated by a ministerial decision (2000) to establish consultative committees, these committees are not operational in the majority of schools.

The specific objective will be achieved through the following main actions:

- reactivate the Higher Council for TVET and systematize the participation of social partners in the Curriculum Committee and the Examination Committee at the DGTVE;
- make it mandatory for every training provider to have a tripartite consultative board and require evidence of its involvement in every step of the training process;
- build the capacity of sector organizations in skills anticipation in order to better establish sectoral skills demand;
- expand practice-oriented TVET designed to meet sector needs, including through the replication of the DS in other sectors where a DS approach is relevant;

<sup>78</sup> The Government is also an employer

<sup>79</sup> The Chamber of Commerce, Industry and Agriculture participated in a Steering Committee at the DGTVE between 2012 and 2015 to develop and update curricula.

· build the capacity of trade unions as an independent voice to evaluate the results of the system for workers and to improve occupational safety and health in the workplace in an effort to promote decent work.

#### 8. A diversified financing framework based on multiple partnerships allows training providers to make the most of available opportunities

The Government spent only 2.6 per cent of GDP on education in 2013, allocating approximately 8.6 per cent of total government expenditure to education at all levels.81 Public spending on education includes spending on schools, universities and TVET.

The directors of public TVET providers submit their budget needs to the finance Department at the Directorate General, which finalizes the budget for submission to MEHE. A consolidated budget is then submitted to the Minister of Finance, the Council of Ministers and subsequently to Parliament for approval.82

The funding for public TVET providers is through the budget allocated from the DGTVE and through tuition fees. The lion's share of tuition fees is used to cover running expenses of schools, leaving little room for upgrading equipment and infrastructure, integrating digital learning or updating teaching methodologies. The DGTVE's budget covers staff salaries, with less than 7 per cent available for equipment, training and maintenance needs.83 The DGTVE does not provide funding to any private sector institution, but the NEO and MOSA provide incentives to some NGOs.

The provision of quality TVET cannot be achieved without securing adequate funding for the TVET system, while rationalizing spending and devising new mechanisms to reduce costs and ensure efficiency in spending. These mechanisms include expanding partnerships with employers. Except for the Dual System, no mechanism is currently in place for employers' financial contribution to the TVET system. A stronger partnership with the private sector could potentially reduce the dependence of TVET providers on the public budget, allowing educational institutions to support themselves.

The specific objective will be achieved through the following actions:

- · diversify financing of the TVET system, by giving more autonomy to TVET providers and allowing them to take more responsibility for their own financing;
- encourage public training providers to partner with private sector companies, who can subsidize part of the training costs;
- · transition to performance-based financing, establishing benchmarks and making conditional a share of the public budget allocation on agreed results (see the specific objective on quality assurance);
- establish a training fund to be financed by international partners, the diaspora and local private sector resources on a voluntary basis.

#### CONCLUSION

The Strategic Framework presents the overall priorities for the reform of the TVET sector over the coming four years and will be implemented under the responsibility of the Higher TVET Council, which will meet on a quarterly basis to review progress.

Each of the key TVET institutions consulted will finalize their own action plan for the reform of the TVET sector, delineating timelines, key performance indicators, costs and roles and responsibilities. Each institution will report to the Higher Council on a bi-annual basis on the implementation of the Strategic Framework. Institutions will reflect on their achievements against targets for each key performance indicator, and report on progress in the implementation of action plans, flagging challenges and lessons learnt during the reporting period.

The Higher Council will commission reviews and peer evaluations of achievements to ensure that participating institutions are held mutually accountable for the implementation of the Strategic Framework. Whenever required, the Higher Council will commission an independent evaluation on certain aspects of the Strategic Framework that can be supported by relevant international agencies.

Representatives of employers' and workers' organisations will play an important role in monitoring the effectiveness of the Strategic Framework and its impact on the labour market.

This Strategic Framework will also be used by the Government of Lebanon to prioritize the directions of donors who wish to contribute to the TVET system, improve coherence and maximize impact.

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## APPENDIX I: UNICEF-ILO INITIATIVE

#### **Background**

Between October 2016 and October 2017, the Government of Lebanon, in partnership with UNICEF and the ILO, led a joint TVET initiative entitled "Support of Technical and Vocational Education systems in Lebanon". This initiative falls within the framework of the UNICEF 2017–2020 country programme documents (CPD), the ILO country programme with the Government, and the national programme "Reaching All Children with Education" (RACE II).

The aim of the TVET initiative is to strengthen the TVET system, ensuring better linkages with labour market demand and youth aspirations. The initiative builds on and complements parallel interventions to improve the TVET system in Lebanon and mitigate the negative impact of the Syrian crisis. In the education sector, the programme has focused on supporting formal and non-formal TVET as a catalyst to lifelong learning and sustainable development for Lebanese and non-Lebanese youth. The UNICEF-ILO initiative addresses certain social and economic national needs and priorities, as identified by the Government.

The UNICEF–ILO initiative, which consists of a mapping of TVET programmes in Lebanon, a strategic paper and a road map, has drawn on an inclusive consultative process involving collaboration with the DGTVE (MEHE),<sup>84</sup> the MOA, MOSA, the National Vocational Training Centre and the NEO. Consultations also benefited from the participation of a selected group of national and international NGOs, representatives from the private sector (including employers, trade unions, private educational institutes) and UN agencies working on TVET.

The initiative sought to provide an overview of the TVET system in Lebanon, providing a strategic road map to improve formal and non-formal TVET provision. More specifically, the initiative contributed to:

- identifying the strategic directions for TVET in Lebanon;
- enhancing the quality of TVET including a shift to a competency-based qualification system;
- improving the HR capacities of vocational training providers at the managerial, technical, monitoring and supervisory levels;
- increasing the enrolment capacity of TVET institutions and improving their infrastructures in order to ensure inclusive education;
- facilitating school-to-work transition for graduates and trainees and access to decent employment opportunities.

## Characteristics of the Government of Lebanon initiative in partnership with UNICEF and the ILO

The TVET initiative drew on consultations with various actors involved in TVET in the formal, social and private sectors. Data and recommendations collected through established task forces and meetings held with various stakeholders were reflected accordingly in this strategic paper to support and enhance TVET.

The main characteristics resulting from this initiative are:

### 1. involvement of and high interest among all governmental, private and international stakeholders:

- inclusive of all official and private TVET institutions in Lebanon, targeting males and females within the 12 to 21 years age group;
- ready for a wider collaboration in decision-making and service delivery;
- with approval and acknowledgment from concerned governmental and non-governmental bodies as a pathway to better employment prospects and labour market outcomes for youth;

## 2. building on existing national strategies and local plans approved by each line ministry, including:

- the Government of Lebanon's five-year programme on education and economic opportunities and jobs as outlined in the Lebanon Statement of Intent (2016);
- the Government's commitments as presented at the Brussels and London conferences;
- line ministries' foreseen and assessed plans for substantive interventions that support TVET over the next three to four years;
- LCRP, No Lost Generation and RACE II for Lebanon's plan to respond to the Syrian crisis;
- the new decent work country programme under review for enhanced productive employment opportunities for youth;

## 3. use and adaptation of international, regional, and/or national standards and tools, including emerging good practices as a reference, including:

- UN and EU tools and standards on vocational guidance and training, technical education, core
  work and life skills, skills development, competency-based training, qualifications systems and
  lifelong learning, recognition of prior-learning, and market-based skills training, etc.;
- previous and current interventions and practices in the TVET sector in Lebanon, extensive experience in TVET and collected lessons learned from the region;
- the latest learning methods and technologies suitable to the Lebanese context;

#### 4. engagement of employers' and workers' organizations in the TVET system, relying on:

- a belief in structured partnerships between the public and private sectors to establish a quality system and a take a holistic approach that links economic development to education and employment;
- a willingness to assume social responsibilities and take part in decision-making, implementation, monitoring and evaluation processes.

The key principles and international guidelines adopted throughout the process were:

- the participation of private sector employers in the guiding framework for training policies, the
  design of training standards and curriculum reviews, the implementation of training programmes
  through structured apprenticeships, the evaluation of training programmes, and testing and
  certification processes.
- the existence of coordination mechanisms between the relevant governmental agencies, the
  private sector and workers, and private providers to ensure coherence and complementarity of all
  technical and vocational education and training activities, design possible pathways, and ensure
  continuous commitment to a collaborative framework focusing on equity and targeting marginalized
  people;
- the existence of an independent accreditation body in which employers participate to develop standards of education and qualification, and which will be responsible to ensure the compliance of TVET providers with the requirements of quality assurance;
- the availability of equipment, tools and training supplies in educational and training institutions compatible with those available in the progressive scientific and technological market;
- integration of life skills into curricula, educational and training programmes;
- the design and implementation of processes and tools for evaluating TVET outputs, highlighting the skills and competencies acquired by learners and trainees;
- the development of a national qualification system for all learning levels, diplomas and certificates, which identifies educational tracks, learning levels, knowledge, skills and competencies and which facilitates the transition from one level to another while supporting lifelong learning;
- matching the qualification system above, the existence of strong administrative and educational bodies that have the knowledge, skills, scientific and practical competencies, including the establishment of a system of salaries and incentives for these bodies that value employees' skills and competencies;
- the existence of a national framework for training in the workplace (apprenticeship), which specifies the criteria for application, and preserves the rights of trainees,
- **diversification of the financing of TVET programmes**, with the main focus on disbursing public funds to programmes that lead to enhanced graduate labour market outcomes.

## APPENDIX II: KEY RECOMMENDATIONS FOR REFORM FROM CONSULTATIONS

As part of the Government of Lebanon's TVET initiative led in partnership with the ILO and UNICEF, each working group has developed its own priorities for TVET reform. The following recommendations and roadmaps are the product of the working groups.

Recommendationsert TVET under the Directorate General of Vocational and Technical Education and promote enrolment

Objective 1: Access and service delivery
1.1 Infrastructure and equipment of public education
institutions

- Draft an objective plan for the rehabilitation of the infrastructure of existing TVET institutions, including providing them with equipment, tools and learning materials. To inform this process, a study will be conducted to examine the distribution of specializations across Lebanon so as not to duplicate specializations in neighbouring regions and to reduce equipment costs.
- Rehabilitate technical institutes and colleges in terms of their buildings and infrastructure, providing them with laboratories, libraries and IT facilities. Take all necessary measures to improve the education level in these institutes and colleges and attract students according to a well-designed plan to be implemented in stages and linked to the development of curricula and the training of teachers.
- Promote education and training institutions so as to draw young men and women to TVET institutes, colleges and centres.
- Meet the needs of education and training institutions in terms of drinking water, sanitation, electricity, heating and annual maintenance, providing for a safe and healthy environment within these institutions.

- Promote the introduction of modern technological equipment and teaching tools, training teachers and equipping classrooms.
- Promote workplace training in coordination with employers so that students are trained on modern equipment used in the workplace.
- Expand the principle of partnering with public and private enterprises to train students on equipment that is not available in colleges.
- Some examples include partnering with Middle East airlines for aviation specializations and with mobile phone companies for telephony.
- Develop new low-cost training methods.

#### 1.2 Admission, evaluation and examination of students

- Establish modern admission policies allowing for a comprehensive evaluation of students before they are admitted in TVET institutions.
- Establish an up-to-date system for evaluations and examinations underpinned by competency-based curricula, so as to evaluate the skills and competencies that students have acquired according to specific learning outcomes outlined in curricula.
- Train students and apprentices on theoretical and practical questions so that they are prepared for exams.
- Insist on evaluating students in terms of skills they have acquired in the areas of safety, environmental protection, dispute settlement, teamwork, estimation of production costs, observation of standards, specifications and rules, good behaviour, hygiene and other relevant topics, without limiting evaluation to job-relevant knowledge only.
- Adopt modern methods for evaluation based on relevant software and train students on this type of evaluation.
- Revise the methods of evaluation adopted in official exams and set new foundations for such evaluations.
- Study and analyse the results of school and official exams and extrapolate education indicators to adjust courses accordingly.
- Involve the private sector in organizing school and official exams so as to ensure that the skills and competencies acquired by students match their requirements.

#### 1.3 Awareness raising, counselling and orientation

- · Develop a communications strategy to raise awareness about the importance of TVET.
- Conduct an objective study on the importance of enrolling in TVET in order to identify and mobilize active public and local players in this field.
- Organize information and awareness campaigns about TVET and its importance.

#### **Objective 2: Quality and relevance**

#### 2.1 The national framework for qualifications and curricula

- Cooperate with the National Employment Office to adopt national occupational standards and determine education and qualification benchmarks for each specialization while taking into consideration the Lebanese classification of occupations, as well as the Arab and international classifications. Adopt the International Standard Classification of Occupations.
- Develop and adopt a national qualifications framework for TVET. Such a framework would identify
  education levels, certificates and the knowledge, skills and competencies associated with each
  educational level.

- Adopt a modern competency-based qualifications system based on the principle of modules for occupations needed in the labour market and conduct a pilot test of the new system before it is disseminated.
- Set a comprehensive plan linked to the development of curricula for training trainers on appropriate teaching methods in order to apply those curricula after they are developed.
- Put life skills at the heart of curricula while identifying ways for students and trainees to acquire those skills.
- Allow students and trainees to pursue their studies, as well as their education and performance attainment, according to set and considered conditions.
- Involve the private sector and employers in curriculum development processes, notably with respect to identifying knowledge, skills and competencies required for each specialization according to related needs, including languages, IT and other skills.

#### 2.2 Training of administrative staff in the central administration

- Implement plans for the training of administrative staff on the basis of a training needs assessment. The DGTVE unit responsible for human will lead in the development of this training plan.
- Train employees on fulfilling their duties with reference to clear job descriptions so they could assume their responsibilities and fully assume the roles assigned to them.
- Link education and training to employment in order to allow those in planning, leadership and decision-making roles to contribute to setting strategies, programmes and implementation plans, as well as to monitor and evaluate them.
- · Train employees on administrative matters, management structures and IT.
- Prepare and train staff who work in information analysis about TVET data and education indicators.
- Train officials on developing competency-based curricula, including competency-based evaluation and assessment, and monitoring and evaluation.

#### 2.3 Training of administrative staff in education institutions

- Train administrative staff in technical institutes and colleges, especially directors, heads of theoretical and applied courses and their peers on fulfilling their duties. Develop their capacities in order to allow them to deal with students, particularly adolescent students.
- Train officials in education institutions on monitoring and evaluation processes on the basis of educational and objective indicators.
- Train officials and teachers in TVET schools on conducting an internal evaluation of their education and training institutions and draft relevant professional reports.
- Increase the capacity of human resources and train officials in the administration of educational institutions so as to allow them to adequately perform their duties.

#### 2.4 Training of teachers and trainers

- Set an integrated programme and a mechanism to be used in training teachers on:
- New techniques that have emerged in specializations and courses they teach;
- New teaching methods, including the preparation of courses and adoption of competency-based teaching methods and life skills, using modern techniques and information technology in teaching;
- Linking teaching to standards, costs, clean production, ability to compete, protection of environment, safety and use of national products;
- Addressing the concerns of adolescent students and helping them overcome their psychological and social problems;
- · Conducting cumulative and summative evaluations establishing clear criteria to identify students

- and apprentices who acquired the required skills;
- Techniques to teach students life skills.
- Set a permanent mechanism to train teachers and trainers on a continuous basis on emerging techniques and on modern education and evaluation methods.
- Subject new teachers and trainers who have not graduated from education faculties or technical colleges to educational training before they commence their teaching duties.
- Promote the introduction of modern teaching methods, training teachers and trainers after equipping classrooms with all the necessary equipment, especially computers and related projection materials.
- Set a comprehensive plan for a gradual transition from rote learning to the application of modern teaching methods to train teachers and trainers. Provide the necessary equipment for this purpose, connect to the internet, and use videos, simulation programmes and other such teaching methods.
- Train teachers and trainers on methods for the evaluation of students who are seeking to obtain
  official certificates, especially those who are not their students, and on establishing qualification
  standards.

#### 2.5 Training vocational advisers, counsellors and education inspectors

- Organize training courses for educational supervisors, advisers and inspectors to increase their capacities and allow them to conduct their supervision, counselling and orientation tasks. Such courses would tackle main concepts like competency-based teaching, teaching methods, life skills, evaluation and other educational concepts.
- Organize training courses to train people working in the fields of inspection, control, supervision
  and orientation on how to undertake an objective external evaluation of education institutions. The
  evaluation will focus on issues pertaining to the concerned institution and will not be limited to the
  results of students in school or from official exams.

#### 2.6 The Teachers Training College and the Lebanese University (Faculty of Education)

- Reactivate the Teachers Training College so it can fulfil its educational role with regard to preparing
  and continuously training teachers in service. Develop a strategic plan focused on identifying and
  projecting the actual and expected needs of technical colleges.
- Train DGTVE employees at the Faculty of Education and the National Institute for Administration, prioritizing the specialization areas of these institutions.

#### 2.7 Internal and external evaluations of technical education and training institutions

- Establish criteria for internal and external evaluations of vocational and technical education colleges and training centres.
- Train school administrations and teachers on self-evaluation, engaging students in the evaluation process.
- Conduct a standard internal evaluation of TVET institutions and consolidate results through an objective study undertaken for this purpose.
- Conduct (through the Central Administration and the Education Inspectorate) a standard external evaluation of the various educational institutions.

#### 2.8 The education management information system (EMIS), databases and indicators

• Put in place information-gathering mechanisms, capture the indicators, classify them and communicate them to officials to inform decision-making.

- Seek to establish comprehensive databases for all aspects of TVET, update them on a continuous basis and make them available to the public by establishing an educational management information system.
- Adopt mechanisms to ensure the accuracy of information and credibility of sources.
- Develop the use of modern technology in archiving processes.
- Procure modern hardware and software, as well as connection networks, in the Central Administration and in TVET institutions so they can work vertically on the online education management information system.
- Set a programme to raise the awareness of employees on the importance of using telecommunications in order to facilitate the work and make it more efficient, alleviating employee concerns regarding the adoption of new techniques.
- Use emails to notify employees regarding decisions, circulars and exchanges of letters, and train employees on IT.
- Organize closed video conferences among administrative leaders, such as the Minister and Directorate General and progressively expand their use so they cover educational institutions in the governorates.

#### 2.9 Establish partnerships with international organizations

- Open up to relevant international organizations, cooperate with them and benefit from their expertise.
- Cooperate with international organizations to implement standard programmes funded by donors in order to achieve the objectives of the TVET sector.
- Refer to international organizations and cooperation programmes whenever possible in order to ensure technical and vocational training to employees, particularly training of trainers, both locally and abroad.

#### **Objective 3: Governance and systems**

#### 3.1 Cooperation and coordination among various ministries and institutions

- Issue texts that identify coordination and cooperation mechanisms between the Ministry
  of Education and Higher Education (DGTVE) and other ministries and public institutions that
  provide TVET. Such coordination will cover the identification of education and training needs, the
  development and adoption of education and training curricula, education pathways, certificate
  recognition, awareness-raising, career orientation and guidance, and other common issues.
- Promote collaboration and synergies among stakeholders in the public sector, including ministries
  and public institutions, in the implementation of government education policy, each according to
  their own mandate.

#### 3.2 The public administration

- Enforce texts related to the drafting of TVET policies. Amend these texts when necessary to grant the competent authority executive powers that allow it to monitor implementation. Assess results and rectify the courses of action accordingly.
- Issue texts for establishing practical mechanisms to involve productive and economic sectors, along with employers, employees, NGOs and other stakeholders in drafting education policies and implementing reform plans. This will enable the latter to take part in decision-making processes and in the implementation and evaluation of reforms and development plans.
- Conduct a study on the organizational structure of the DGTVE since the Ministry of Vocational and

Technical Education was cancelled and the DGTVE was subsumed under MEHE. Distribute tasks and powers among the various units, set a job description for each function and train employees on their tasks.

• Review legal texts that establish the procedures, rules and regulations, including good governance, transparency, integrity and equal opportunities.

#### 3.3 Education institutions

- Issue the appropriate texts for education institutions so they can enjoy reasonable financial and administrative powers in line with a decentralized administration. These institutions would then assume their responsibilities and be held accountable under the procedures, rules, systems and standards put in place.
- Issue texts that determine mechanisms for resorting to private sector enterprises with regard to industry, hotel management, trade and health sectors for training of teachers and trainers.
- Operationalize consultative councils that help education institutions in identifying specializations appropriate for the geographical region where the concerned institution is situated. Facilitate field training, participate in evaluations, provide equipment and material and ensure technology transfer.
- Consider the introduction of the school-based management principle a global strategy to apply decentralization and give the educational or training institution powers to make decisions.

#### 3.4 Drafting of policies and strategies and decision-making

- Segment the market to sectors and conduct labour market surveys to identify future labour market demands, both in terms of quantity and quality, in close cooperation with the NEO, so that educational institutions can make decisions accordingly.
- Submit objective and comprehensive periodic reports based on reliable and impartial information, and on objective standards that can be used when drafting TVET policies and establishing the relevant strategic and executive plans.
- Formulate educational policy in line with economic and social strategic plans.
- Establish policies and strategies for TVET with a long-term vision, underpinned by a realistic analysis of the socio-economic context that takes into consideration the geographical situation of Lebanon, its Arab neighbours, and its openness to the world. This will serve to ensure that these policies are not affected by administrative changes.
- Set a strategy for developing employees' capacities based on the principles of competency-based and lifelong learning, in order to meet the needs of the central administration, as well as public education and training institutions. Such training could also encompass private institutions.
- Revive the Higher Council of TVET and expand its membership if necessary.
- Strengthen the DGTVE units with respect to statistics, information, studies, planning, and monitoring and evaluation, and increase their capacities in terms of staff training, performance, and equipment.
- Cooperate with international organizations and engage productive and economic sectors, dividing
  the activities of such cooperation among various administrative and educational entities in order to
  prevent any duplication of effort.
- Organize campaigns and promotional seminars to motivate public opinion and civil society to lobby the Government and Parliament on the importance of providing sufficient funds to develop the TVET sector in line with its importance to the national economy and the goals of reducing poverty.

#### 3.5 Establish partnerships with employers, workers and the private sector

- Involve unions, federations, chambers of commerce, industry and agriculture, and employers' and teachers' associations in finding solutions to the kinds of problems that TVET providers encounter and strive to apply these solutions.
- Involve the private sector in comprehensive evaluation processes of the TVET sector.
- Encourage the private sector, including NGOs, to provide premises and funding to technical
  colleges and training centres under the supervision of the DGTVE or through joint projects in order
  to increase enrolment rates and reduce the burden on public schools and training centres.
- Expand the principle of partnering public and private enterprises to train students on using technical equipment that is unavailable in educational establishments due to the high costs of such equipment.

#### **Recommendations to support TVET under the Ministry of Agriculture**

#### 1. Agricultural education

#### Objective 1: Access and service delivery

- Improve the conditions of agricultural technical schools through upgrading their infrastructure and providing them with the necessary equipment so as to enable them to fulfil their tasks based on the results of external and internal evaluations.
- Provide schools with the necessary teaching equipment, setup and tools for them to apply modern learning techniques, including multimedia and visual aids, reinforcing applied work in the field and in the workplace, in cooperation with relevant productive and industrial sectors.
- Strengthen functional ties between technical agricultural schools, extension services, the farming community, and agro-industry.
- Set up a modern system of supervision and evaluation, including school and official exams and training of executive and administrative staff, as well as teachers.
- Once the main reforms are undertaken and education and training curricula are developed, promote
  agricultural schools so as to attract young men and women. Allow Syrian refugees to enrol and
  establish vocational guidance centres in those schools.

#### **Objective 2: Quality and relevance**

- Set up a comprehensive information system to provide information, data and indicators to decision-makers for evidence-based policy-making.
- Conduct internal and external evaluations of agricultural technical schools so as to identify their needs in terms of restoration, rehabilitation and equipment, as well as physical and human resources.
- Develop education and training curricula and adopt new specializations and training based on modern scientific techniques relying on a general education framework, a job description profile, skills and attainment paths allowing students to acquire the necessary knowledge, skills and competencies to work in their specializations.
- Coordinate with MEHE through the DGTVE and involve the private sector in standards-based curricula development.
- Set up mechanisms for the provision of TVET to employees, managers, executive officers and teachers. Organize training sessions on technical and educational issues, building capacity in areas such as IT, hardware and software, organization, planning and monitoring and evaluation.
- Strengthen teachers' participation in practical training and follow up their students in fieldwork.
- Establish a strong network between agricultural schools and private-sector institutions to increase students' awareness. Follow up students by providing them with training and job opportunities after they graduate.

- Cooperate with relevant international organizations so as to benefit from their experience and implement joint pilot projects.
- Once the main reforms are undertaken and education and training curricula are developed, promote agricultural schools so as to attract young men and women, allow Syrian refugees to enrol and establish vocational guidance centres in those schools.

#### **Objective 3: Governance and system**

- Develop the capacities of the MOA regarding the drafting of policies and strategic plans, together with the private sector and other stakeholders, and identify potential partners.
- Take into consideration the Lebanese education system when planning agricultural education knowing that it is an integral part of this system.
- Draft a policy and action plan to develop public technical agricultural education through enhancing central and school administrations and updating relevant laws.
- Foster cooperation and coordination between different relevant public and private bodies, especially those involved in TVET.
- Revise existing laws, as well as rules, procedures and regulations used in the central administration and in technical agricultural schools.
- Reconsider the duties of the Extension and Education Service Department so they encompass all requirements for the Department to adequately fulfil its administrative and education tasks.
- Assess labour market needs and focus on the opinion of employers who are well aware of their weaknesses and needs.
- Guide agricultural technical and vocational education and training towards labour market demand in order to meet these needs with relevant outputs.
- Reinforce cooperation between agricultural education and training, the Department of Agricultural Research, agriculture faculties in different universities in Lebanon and with other agricultural institutions.
- Initiate a fruitful dialogue among the MOA and all public and private stakeholders in order to ensure complementarity between agricultural vocational and technical education and training programmes and define students' learning paths.

#### 2. Agricultural extension

- Enhance communication between the regional agricultural centres, reactivate the extension newsletter and commission a task force to define the principle and the guidelines of the newsletter.
- Reactivate and revive the "Communication and Knowledge" network between the Department
  of Agricultural Education and Extension and agricultural centres to facilitate the exchange of
  information between the centres and the central administration.
- Strengthen the role of agricultural centres in order to better regulate the delivery and distribution process of inputs provided by the Ministry to the centres according to their needs.
- Standardize extension materials for main cultivations, disseminate them to all agricultural centres and produce new materials when necessary.
- Communicate with the Department of Scientific Agricultural Research, especially with the areas that conduct extension activities.
- · Respond to the needs of agricultural centres in terms of extension tools and materials.
- Assign roles and responsibilities among technical staff within every centre in order for each technician to be in charge of a given culture or sector.
- Activate work in the laboratories at some centres according to the potential value of the services to farmers.
- · Set up a committee for agricultural extension to communicate with extension service providers and

- coordinate with all regional departments, agricultural research and study centres, as well as with public and private universities to identify ways to relay extension information.
- Establish a system for the evaluation and follow-up of extension activities, training staff of the Education and Extension Department on conducting evaluations and follow-up (IT system).
- Reinforce the supervision of extension services through enhancing the role of the Education and Extension Department.
- Train agricultural engineers and extension workers on all emerging issues that fall under the scientific and extension bureau mandate of the centres.
- Provide the necessary human and consumption resources to undertake extension activities in the regional offices

#### **Recommendations to support TVET under the Ministry of Social Affairs**

#### **Objective 1: Enrolment and provision of services**

- Set a mechanism for the evaluation of certificates in partnership with the DGTVE to evaluate TVET programmes and deliver certificates accordingly.
- Establish training centres on some crafts, and provide specific facilities and equipment. Spread out these centres in all regions so that the highest number of people benefit.
- Organize training sessions on some crafts in cooperation with the development and training centres affiliated to the Ministry.
- Organize training sessions inside and outside prisons for minors and the targeted age category.
- Combine TVET with literacy training initiatives in cases where beneficiaries are illiterate.
- Target the programme to undeclared persons within the concept of comprehensive education and training.
- Participate in awareness-raising and orientation campaigns organized to support TVET, including in crafts
- Organize permanent and travelling exhibitions to introduce crafts and their various products and marketing methods.

#### **Objective 2: Quality and relevance**

- Organize local study tours and tours to other countries known for their crafts to learn about the latest developments and marketing strategies in the crafts industry.
- Develop training curricula for selected crafts in cooperation with the DGTVE and the Syndicate
  of Craftsmen according to the specifications and standards of each craft. When necessary, refer
  to foreign experts in order to develop curricula and define craft specifications and basic concepts
  and methods.
- Communicate with the Standards Association to develop the standards and specifications for final crafts products. This will ensure that technical training curricula are developed following specific guidelines and provide trainees with export opportunities at a later stage.
- Refer to national or foreign experts for help in developing training curricula and in training trainers on the basics of crafts, craft development and marketing strategies.
- Implement workshops within the Ministry to introduce departments to the importance of the crafts industry and the ways in which the Ministry may support the industry and specific projects.
- Train trainers on life skills and the values of MOSA, including on non-violence, non-discrimination, acceptance of others and equality.
- Train trainers for outreach in prisons.

#### **Objective 3: Governance and systems**

- Conduct research to determine the regional distribution of classified crafts and training needs in each region so that young men and women between the ages of 15 and 25 are targeted in this study.
- Conduct a survey of crafts, and identify crafts with potential for growth within each Lebanese region, with a view to prioritizing specific crafts for training and marketing
- Involve the ministries of Interior and Justice (the entities in charge of prison management) in atraining project for minors.

#### **Recommendations to support TVET under the National Employment Office**

In order for the NEO to fulfil its mandate, its focus will be to:

- · Conduct studies and surveys aimed at identifying labour market needs;
- Strengthen the role of the NEO in vocational orientation and career guidance;
- · Reinforce administrative work and coordination with relevant stakeholders;
- Support a vocational training sector that meets the needs of the labour market, as identified by the NEO and based on labour market information collected through the employment service centres;
- · Activate and support the work of employment service centres;
- Strengthen the information role of the NEO.

#### 1. Studies about labour market demand

- Conduct research on labour market demand in specific sectors according to specific criteria, most
  importantly the need for the sector to encompass various occupations at different levels. For example,
  the construction sector includes a number of trades that require both semi-skilled workers and high-skilled
  engineers and specialists. The sector should also provide job opportunities to young men and
  women, including youth between the ages of 15 and 21.
- Update job classifications in Lebanon in line with the International Standard Classification of Occupations (ISCO 08), using the coding followed by ISCO as a priority and in preference to any locally derived systems.
- Establish a mechanism for the follow-up of vocational training graduates in Lebanon and coordinate with various public and private sector stakeholders.
- Develop occupational standards for some specializations identified in close consultation with the DGTVE and the MOA, as well as other ministries and institutions involved in drafting curricula, and in line with the national TVET framework.
- · Develop a labour market information system in partnership with stakeholders.

#### 2. Strengthen the role of the NEO in vocational orientation

- Conduct a study on how to undertake vocational orientation and career guidance.
- Activate the department for vocational orientation and career guidance (staff training, software and equipment).

#### 3. Reinforce administrative work and coordination with relevant stakeholders

- Promote collaboration between agencies involved in vocational training and employment through staff training and development of specific software.
- · Initiate cooperation and coordination between the NEO and the DGTVE in various areas, to identify

labour market demand, determine training levels, adopt standardized training curricula, and other common issues of interest to both parties.

 Activate coordination with all agencies involved in vocational training (national, regional and international).

#### 4. Support vocational training activities undertaken by NGOs

- Set criteria for selecting NGOs to conduct vocational training.
- Develop training software, to be supervised by the NEO.
- Set a coordination mechanism between the NEO and the DGTVE, allowing the NEO to access technicians and specialists during periodic supervision processes and final exams.
- Train officials in the NEO on supervising and following up on vocational training conducted by NGOs, especially with regard to the implementation of new curricula, including life skills.
- Launch a joint model vocational training project between the NEO, employers and some NGOs and measure the outcome of on-the-job vocational training in terms of training costs. Such training should use modern equipment and draw on the expertise of employers.
- Establish a training system that supports employee transition from one occupation to another, taking into consideration labour market demand.

#### 5. Activate and support the work of the employment offices

- Update software in order to link job offers with job seekers.
- Establish an incentive mechanism that supports employment.

#### 6. Strengthen the information role of the NEO

- Draft a communication and information policy in concert with the private sector.
- Promote the NEO, its services, achievements and projects.
- · Update the NEO website.

#### Recommendations to support TVET under the National Vocational Training Centre

#### **Objective 1: Access and service delivery**

- Conduct a study on the requirements to rehabilitate the NVTC and increase its capacity by adding classrooms, organizing more training courses and providing the necessary equipment, tools and training materials, including modern technology. This would also allow the NVTC to make use of available videos that introduce different vocations.
- Identify the specializations required by the labour market, in coordination with the NEO.
- Increase the capacity of the Centre, introduce new classrooms and workshops, furbish the Centre with equipment and optimize the use of available space.
- Sign MOUs with employers, notably industrialists and contractors, to train new workers for major companies and improve the performance of those already employed, with employers bearing part of the relevant training costs.
- Maintain, prepare and increase the number of itinerant training courses, set their programmes and announce them beforehand to allow people to register in advance.
- Conduct a feasibility study for the establishment of a specialized vocational training centre that would start with vocational training in construction and infrastructure and then gradually expanded to other specializations. This centre would specifically target trainees living in remote areas.
- Enhance the visibility of VT courses so as to attract new trainees, organize media and advertisement

- campaigns, and launch a comprehensive website for announcing training courses at the Centre.
- Organize model training courses in the Centre and in different regions, in cooperation with the industrialists, employers, unions of municipalities and NGOs.
- Regulate the certification process on the basis of exams, reflecting the competencies acquired by trainees during training courses.

#### **Objective 2: Quality and relevance**

- Adopt competency-based curricula catering to different levels (three at least) within the framework
  of revising and standardizing curricula with relevant stakeholders, particularly the DGTVE and other
  NGOs.
- Train trainers on how to implement competency-based curricula and teach life skills, as well as on evaluation and practical examinations.
- Train administrative staff on administrative tasks, especially with regard to supervising the implementation of training curricula, including life skills, monitoring and evaluation, examinations, following up graduates, and other administrative and financial matters.

#### **Objective 3: Governance and systems**

- Conduct a comprehensive evaluation of the situation of the NVTC at all administrative and structural levels and assess its ability to deliver high-quality training in line with labour market demands.
- Revise the structure of the Centre and the regulations governing its operation, and propose a new structure while filling current vacancies.

#### **Recommendations to support TVET under NGOs**

#### **Objective 1: Access and service delivery**

- Launch local labour market studies across different geographic areas in Lebanon to identify vocational training needs and target groups, including Syrian refugees and other refugees in Lebanon;
- Publish leaflets specifying the criteria for NGO collaboration with public TVET providers;
- Launch a study on the inclusion of people with disabilities, and train TVET teachers on inclusiveness and the integration of PwDs into the education system
- Support out-of-school children between the ages of 12 and 14 who are unable to transition into the public school system, providing for their social, providing them with alternative vocational pathways

#### **Objective 2: Quality and relevance**

- Work in partnership with the DGTVE on the development and standardization of curricula for a selected number of VT courses most in demand in the labour market;
- Train NGO staff and providers of VET on competency-based education and life skills;
- · Launch tracer studies to follow up on labour market outcomes of VT graduates;
- Map the different providers of vocation training

#### **Objective 3: Governance and systems**

- Conduct a legislative review of the laws that regulate NGO provision of VT, proposing the necessary amendments to reform the TVET system;
- Establish a joint committee including the governmental institutions that provide TVET and NGOs to provide standards for TVET, and guidelines for supervision and certification

# APPENDIX III: POSITIVE EXPERIENCES OF COMPETENCY-BASED CURRICULA IN LEBANON

#### **BT** in Maintenance

The BT in Maintenance was officially launched in October 2017, with the aim of closing the gap between labour market demand and TVET supply. IECD and Semeurs d'Avenir conducted a survey of 50 industrial enterprises, which revealed a clear labour market demand for maintenance technicians able to handle equipment. In light of this growing need, the DGTVE collaborated with IECD and Semeurs d'Avenir, who worked with the Academy of Paris, to develop a new competency-based course in maintenance, adapted to current technology.

#### **Agro-food**

Lebanese industrialists in the agro-food industry have invested in bridging the gap between the skills that learners acquire in education and training and their labour market needs. Through an EU-funded project, which ran 2007-2011, the Lebanese Syndicate of Food Industry (LSFI) adapted the French competency-based approach and adapted occupational standards to the Lebanese context. Once competencies for that job were identified, a school in the Bekaa (Qab Elias) was equipped to become a workshop space in which students could learn these competencies. To this end, Qab Elias school received small-scale industrial equipment, allowing it to establish a bakery, a butchery, a dairy plant and a production line for vegetables and fruits. Those were put at the disposal of students, in order to mirror working conditions in the agro-food industry. Students practiced food-processing techniques in workshops at school, after which they took part in subsequent internships at food-processing enterprises to further develop their skills. The close involvement of LSFI ensured that students were trained in the competencies demanded by the labour market.

However, the project did not prove sustainable due to different expectations about roles and responsibilities between the key stakeholders involved in this initiative.

#### **DACUM for cooks and car mechatronics**

The Federation of Chambers of Commerce, Industry and Agriculture in Lebanon collaborated with the DGTVE to elaborate new occupational profiles for the professions of cook and car mechatronics in 2013. The Federation used the DACUM method to guide its occupational analysis of these professions, developing a detailed list of the duties and tasks for each profession to identify the competencies required, which in turn informed curriculum development. Deliberations for the car mechatronics profession included prominent private-sector representatives, including experts from T. Gargour & Fils (Mercedes-Benz) and Kettaneh (Volkswagen, Audi), as well as from smaller car repair workshops. Discussions around the occupational analysis for professional cooks included the Diet Center, Phoenicia Hotel, Printania Palace Hotel, Sofil Catering, Khalaf Catering, Shater Hassan Palace, Shams Restaurant, Royal Bite Restaurant, Mounla Hospital, Lido Café and Bureau Veritas.

The extension of this kind of collaboration to other professions and the continued strong involvement of the private sector in elaborating the competencies they require is necessary for the successful transition into Competency-based Education and Training (CBET) in Lebanon.

#### Électrotechnique and elevators

The BT in électrotechnique, which was introduced by IECD and officially recognized in 2010, is a new BT built on the competency-based approach. It was the result of a market study that determined the skills needed for jobs in the electricity, energy and maintenance sectors. It also includes summer internships in order to ensure that students acquire the skills required in real working situations. Testing for the BT is competency-based, where real life applications of knowledge are assessed. Students are evaluated on their practical application of competencies (24 per cent) in the areas of organization, execution, commissioning, maintenance and client company relations. Student acquisition of competencies is also tested through a written exam (48 per cent). Students are further tested on their knowledge of general subjects (28 per cent), including maths, physics, labour law, management and a foreign language.

IECD led the development of a specialized curriculum for the training of qualified elevator technicians in Lebanon, in partnership with Mitsulift, a leading Lebanese company in elevators, and the Academie de Paris. The one-year training course was integrated in the electrotechnical engineering programme of the Institut des Sciences Appliquées et Économiques – CNAM Liban, and includes a mandatory internship for six months in Mitsulift.

#### Recognition and accreditation of prior learning

The competency-based approach in teaching and learning allows for the bridging of competencies specified in the occupational standards with the assessment, validation and certification of the competencies acquired in the learning process. Competency-based assessments test for specific competencies against a set of occupational standards. Such assessments also allow for the recognition of competencies acquired through informal and non-formal learning. The recognition and accreditation of prior learning (RPL and APL) of competencies in CBET systems are made against a list of formal qualifications accredited in the NQF that, in turn, inform the identification of standards against which

a person with prior learning is assessed. In this way, RPL contributes to lifelong learning and helps workers transition to the formal economy.

However, in the absence of any CBET systems, occupational standards or NQF, it is not currently possible to recognize prior informal and non-formal learning in Lebanon.

#### **Modular system**

Once a CBET system is in place, introducing a credit or modular system further enables students to accumulate credits from assessed specific units of competence, which are independently recognized in the labour market (CEDEFOP). Together these credits can lead to a vocational qualification.

Provisions for modularization have been made at the BT level for the programme in beauty, where students have the option of receiving a certification at the completion of each year. This provides students with the flexibility to complete all three years, or complete one or two years, after which they can directly enter the labour market with a certificate. Outside of the BT in beauty, however, the Lebanese TVET system has no provisions for modularization.

Because modularization is based on an output-oriented system, in which individuals are certified for every module completed, introducing modules in the absence of CBET and NQF is a challenge. In the late 1980s, there was an advanced attempt to adopt the modular system in secondary vocational and technical education with the support of UNESCO. Curricula were prepared and teachers were trained. However, the security situation at the time prevented any formal transition into CBET. More recently, Practice oriented VET (ProVET) is piloting a modular system, which will first be implemented in the construction sector during the academic year 2017–2018, to be followed by other sectors.

One of the advantages of a modular system includes the flexibility for students to learn skills of interest to them, thus increasing the attractiveness of the TVET system more generally and reducing dropout rates. Modules also allow TVET providers to be more responsive to labour market trends, and offer those modules most in demand.

## APPENDIX IV: GLOSSARY OF TECHNICAL TERMS

**Accreditation**: A quality assurance process that formally recognizes a training programme as having met certain predetermined standards.

Apprenticeship/Dual System: A system by which a learner (the apprentice) acquires skills for a trade or craft at an enterprise, learning and working side-by-side experienced craft workers and artisans, usually complemented by classroom-based instruction. Apprentices, master craft workers, employers and the training provider conclude a training agreement that is regulated by formal laws and acts. Costs of training are shared between apprentice, master craft worker/employer, and the Government.

Assessment and certification: All procedures used for obtaining information to issue a judgment related to the learner's competencies. Assessments can be conducted internally by the administration of the training programme and/or by a third party (external assessment).

Competency-based training (CBT): A structured system of curricula development, training, and assessment based on specific learning outcomes. CBT assists learners to acquire the competencies (clusters of knowledge, skills, and attitudes) that enable them to perform tasks independently according to certain performance criteria and conditions of authentic workplaces. CBT allows learners to progress as they demonstrate mastery of learning outcomes, regardless of time, place, or pace of learning.

**DACUM**: An acronym for "developing a curriculum", it is a very effective method of job, and/or occupational analysis. The DACUM analysis workshop involves a trained DACUM facilitator and a committee of expert workers. The profile chart that results from the workshop is a detailed and graphic portrayal of the duties and tasks performed by the workers involved.

**Educational Management Information System (EMIS)**: An institutional service system to produce, manage and disseminate educational data and information, including information on schools, students, teachers and staff.

**Employability skills**: Skills that enable individuals to progress towards or gain employment, stay in employment, and progress through their careers (e.g. teamwork, problem solving, ICT and communication skills, language skills, etc.).

**Learning outcomes**: A statement of a learning achievement expressed in terms of what the trainee is expected to know, understand and be able to do on completion of learning.

**Lifelong learning**: All learning activities undertaken throughout life, which result in improving knowledge, skills, behaviours and/or qualifications for personal, social and/or professional reasons.

**Life skills**: Psychosocial abilities for adaptive and positive behaviours that enable individuals to deal effectively with the demands and challenges of everyday life. They are loosely grouped into three broad categories: (1) cognitive skills for analysing and using information; (2) personal skills for developing personal agency and managing oneself; and (3) interpersonal skills for communicating and interacting effectively with others.

**Modular system**: A system based on dividing training into separate modules or units, each of which are certified independently.

Occupational (competency) standard: A statement of industry requirements for a given occupation, including competencies required in the workplace and performance criteria by which such competencies are judged.

**Qualification framework**: A tool that helps to compare different qualification systems and recognize learning outcomes. Ideally it will include mechanisms that link education and training to the labour market and civil society. Its reference levels are normally described in terms of learning outcomes (knowledge, skills and attitudes). A National Qualifications Framework (NQF) defines the relationship between levels of learning and certification, as well as pathways of attainment.

**Qualification standard**: A description of work activities that is translated into statements of what learners should gain from education/training. These statements are grouped into units for the purposes of assessment.

**Training/education standard**: A plan for teaching, learning and assessment activities that specify in detail how learning outcomes will be achieved. The characteristics of teachers, resources, materials, tools, etc. are detailed. This document may be produced at school level, or may be shared.

**Recognition/accreditation of prior learning (RPL)**: A process of assessment and certification that proves a person's competency, based on occupational standards, regardless of how such competencies were acquired (formal/informal training, work experience).

**Technical and Vocational Education and Training (TVET)**: An education or training process that involves, in addition to general education subjects, the study of technologies and related sciences, and the acquisition of practical skills related to occupations in various sectors of the economy. It includes formal TVET programmes (organized as part of the education system) and non-formal courses (organized outside the education system).

