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Evaluation Report:

UNDP Project:

Technical Support to the Ministry of Education and Higher Education for the Implementation of the Education Sector Development Plan, Lebanon

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List of Abbreviations (By Alphabetic Order)

ECRD:	Education Center for Research and Development
EDP:	Education Development Project
EMIS:	Education Management Information System
ESDP:	Education Sector Development Plan
ESDS:	Education Sector Development Secretariat
EU:	European Union
ICT:	Information Communication Technology
IT:	Information Technology
MEHE:	Ministry of Education and Higher Education
OMSAR:	Office of Minister of State for Administrative Reform
PM:	Project Manager
PMO:	Project Management Office
SIMS:	School Information Management System
UNDP:	United Nations Development Program
UNHCR:	United Nations High Commissioner for Refugees
UNICEF:	United Nations Children's Fund
WB:	World Bank

EXECUTIVE SUMMARY

- i. The UNDP Policy Advisory and Project Implementation Unit has been established at the MEHE since February 2010, to support the realization of the objectives of the Education Sector Development Plan (ESDP). UNDP team provided technical assistance to MEHE stakeholders and the ESDP main international partners for the implementation of the 5-year strategy framework.
- ii. The Project had three strategic outputs: (1) Institutional efficiency and coordination measures for ESDP developed and implemented; (2) Education Management Information System (EMIS) implemented; (3) an operational Monitoring & Evaluation procedures established and in place. The UNDP team of experts in the fields of ICT, education and institutional development, has succeeded to deliver the above outcomes (1) and (2). The feedback of MEHE major stakeholders and beneficiaries was positive. The achievements and added-value of the team in the MEHE administration -mainly in the field of ICT- were clearly noted.
- iii. The UNDP team has succeed to build solid and sustainable operational systems in MEHE by providing modern ICT tools and applications at the level of the ministry's headquarter, regions and schools. These systems will have an increasing importance for the coming period, for they strengthen the ministries' capacity to implement new programs, to use proper data, and to perform accurate monitoring for an efficient decision-making process.

Major Achievements and areas of improvement

- iv. The UNDP team in MEHE actively contributed in the preparation and implementation of each one of the 10 ESDP programs. The level of implication of team member was different among the programs and fields of expertise; UNDP education specialists provided support and coordination to ESDS and the General Director, while UNDP ICT specialists managed the whole process of programs' components, mainly program #8: ICT in Education, with the deployment of the Education Management Information System and its multiple components.
- v. In the field of Institutional development:
 - a. Work was focused on specific processes related to IT automation. Nearly 20 applications have been developed or updated in order to simplify processes within the Headquarter, and between the Headquarter, Regions and Schools, namely: (i) Collection of MEHE Official Exams Results, (ii) Queuing Management System (QMS) for the MEHE equivalence unit, (iii) Printing students' attestations, (iv) Named Student Lists for private schools. Some applications are used by around 1700 users. These applications have been operated via an IT infrastructure deployed and maintained under the management of the ICT unit in UNDP team.

- b. Nevertheless, initiatives for optimizing and updating organizational procedures in MEHE and their legal framework were not fully completed. The prioritization of some fields should be done during the next project phase in order to improve process efficiency. In particular, citizens' operations should be optimized.
- vi. Regarding the organization and the operating modalities:
- a. UNDP team didn't reach its full planned capacity since the project start, and included maximum 10 staff, instead of 18 initially planned. Four members resigned in 2014 (including the project manager), and one in 2015, reducing the team to four staff. The main challenge of the project management was the presence of various reporting lines, making work priorities and deliverables complex to manage.
 - b. The core function of ICT in MEHE is headed by UNDP staff and is actively supported by resources that are funded by external institutions (UNDP, WB, UNICEF, UNHCR and Microsoft). The ICT function in MEHE is therefore highly dependent on those partners who have short-term work assignments; during 2015 last quarter, the mandate of 10 of Microsoft staff ended. These staff had a major role in ICT support to MEHE and were not replaced, reducing MEHE ICT unit to 13 staff (including 3 from UNDP); 9 staff from UNCHR, WB and UNICEF will see their contracts end during 2016, and must be replaced to ensure IT support continuity in MEHE.
 - c. UNDP coordinated with various stakeholders in the MEHE, with a positive level of collaboration. Nevertheless, collaboration with entities such as ECRD and OMSAR was not always efficient; it is recommended to clarify the scope of work of each entity working on common strategic activities and to rely more on existing expertise in both entities: ECRD for curriculum and capacity building related to ICT in education, and OMSAR for institutional development expertise.

Recommendations:

- vii. During the past five years, UNDP team in MEHE has proven its capability to deliver results and to add value in projects and activities. Today, for a successful implementation of the new sector strategy, there is an increasing need to strengthen systems and capacity within MEHE, while improving data management and monitoring processes.
- viii. UNDP team must continue to have a strategic role in MEHE in providing technical support and expertise for the implementation of the education plan. Moreover, UNDP potential project in MEHE should aim at increasing and improving its contribution in institutional development advisory role and outputs, focused on simplification of processes and capacity building within the Ministry.
- ix. The Director General of Education and the Minister's Advisor have confirmed the following fields as being an immediate priority to be included in the future UNDP project's scope: Institutional Development, ICT, Civil works coordination in public schools, and specialized education for children with special needs.

- x. The recommendations raised in this report take into account Project history, constraints of the Lebanese public sector environment, and particularities of UNDP mandate and status. They focus on leveraging the advisory capacity and contribution of the UNDP team in MEHE strategic projects, improving the future project's operating modalities and structure, and its collaboration with major stakeholders. A total of 11 recommendations have been developed. For each recommendation, a bi-dimension rating has been elaborated which enables prioritization ("Ease of implementation" and "Value"). Gaps and recommendations are summarized in section B-4, table 14. Below is a brief of the major recommendations:
- a. *Reinforce the output of Institutional Development and focus it on Process simplification:* UNDP representatives in MEHE should review with the Director General, the existing /new propositions and select processes with high-impact to be simplified. This can be done via an external ad-hoc consultancy mission or via a collaboration agreement with OMSAR. The focus area for process simplification should be linked to the citizens' service (official procedures, forms, help-desk...).
 - b. *Establish Data and ICT security policies and procedures:* Increasing data volume and content is being transferred and used between schools, REOs and the Ministry's Headquarter, in particular with the SIMS project deployment starting 2016. Protecting MEHE data and defining clear access policy for users is crucial. UNDP can provide expertise to implement ICT and data security policies within the Ministry that must be applied by the ICT unit. One ICT Security Officer (CSO) reporting to the Director General and UNDP Project Manager should be recruited.
 - c. *Introduce a new mandate for civil works coordination in public schools:* Support, monitoring and coordination are a priority for the rehabilitation works and facility management in 1266 public schools. The benefit for introducing this new expertise in UNDP project is to widen the fields of intervention of the team and to provide an immediate response to an added-value activity in MEHE. Nevertheless, UNDP is adding in its mandate a new support core function, supposed to be handled by ministry's administration support staff. The option of subcontracting the maintenance by region and recruiting one civil works coordinator in the Ministry's headquarter should be considered.
 - d. *Fifteen additional staff should be recruited to support the mandate of the potential UNDP project in MEHE, while taking into account budget constraints and MEHE requirements;*
 - i. Recruited staff in UNDP project should hold the key roles: 4 staff at the project management level, 5 staff for civil work coordination, 1 staff for institutional development, and 5 staff in ICT unit. Moreover, ICT unit in MEHE must be supported by additional resources for support functions and help-desk, in particular for SIMS project (EU) and ICB (WB).
 - ii. Options of subcontracting ICT activities such as network administration should be considered, to avoid adding weight in support functions to UNDP team.

- e. *Realign the ICT activities to a Process based ICT work organization:* Traditional ICT structures are shifting to a process based organization in order to enhance the implementation of ICT activities and to be focused on the end-user. MEHE ICT unit can apply “ITIL” standards in its operations; the unit would be divided into 3 major departments following the process cycle of an ICT service: Service Design and Strategy, Service Transition, Service Operation. The implementation of this recommendation should come at longer term, and done via an external expert certified in ITIL standards.
- f. *Introduce Change Management and Capacity Building framework:* Change management process reinforces the communication and link between ICT and business; it is an essential success factor for the ICT projects because it is fully oriented towards the end-user and stakeholders. ICT unit in MEHE should apply Change Management in order to add business value in projects. This can be done by implementing the Change Management and Capacity Building Committee and procedures. The scope should include: Institutional development work related to ICT automation (validation of business needs, follow-up of implementation), Training of users, Communication plan to implement change among users.
- g. *Implement a Collaboration chart between ECRD and ICT unit for ICT related projects:* The success of ICT project depends on a proper collaboration and communication plan between the ICT in MEHE and the ECRD. This could be done through a collaboration chart between both entities that will define roles and areas of close collaboration such as ICT in Education material and curriculum and continuous training programs. Moreover, UNDP should consider the recruitment of an ICT coordinator within the ECRD in order to increase efficiency in implementation and to build capacity for ECRD staff in the field of ICT in education.
- h. *At a later stage, it is recommended to integrate the UNDP ICT unit into the MEHE Administration,* ICT being a core function with an increasing strategic importance for the coming years. The integration within administration would empower the ICT team, reinforce its stability, facilitate communication with key stakeholders, and thus, would create a proper environment for new initiatives implementation, efficient operational mode and successful deliverables.

Context

- i. In 2010, The Education Sector Development Plan (ESDP) strategy framework was released by MEHE and approved by the Council of Ministers. This framework included five major themes (that were translated into 10 programs):
 - Education available on the basis of equal opportunity
 - Quality education that contributes to a knowledge society
 - Education that contributes to social integration
 - Education that contributes to Economic Development
 - Governance of education
- ii. In February 2010, the UNDP Policy Advisory and Project Implementation Unit has been established at the MEHE to support the realization of the objectives of the Education Sector Development Plan.
- iii. UNDP unit role was to provide technical assistance by working with MEHE stakeholders and the ESDP main donors for the implementation of the 5-year strategy framework; the team initially supported the World Bank project, and later, expanded its scope of work to include European Union and USAID programs.
- iv. The UNDP project in MEHE was set for 3 years, with a total budget of usd 2.4 million, mainly allocated to a team of technical experts in the areas of IT, education sector, project implementation and public administration.
- v. In 2013, the project's staff did not reach its planned capacity and the project was extended for a period of 2 years - till February 2016- within the same initial budget; UNDP unit continued to support the MEHE via the Education Sector Development Secretariat (ESDS), the Director General, MEHE stakeholders, and the donors.
- vi. After 5 years of the project course and upon agreement between the Project Board (Minister, DG, Advisor and UNDP Officer in Charge), an external project evaluation has been mandated in order to conduct a factual evaluation of the project's achievements and to set the baseline for the potential future UNDP project in MEHE.
- vii. The objective of the actual consultancy work is to undertake a professional evaluation of the project and suggest improvements in order to enable UNDP management and national counterparts in MEHE to decide of a future course of action.

Guiding Principles & Notes

- i. The evaluation focuses on the UNDP Project’s achievements and organizational dimension, and does not include staff evaluation or budgeting and procurement process.
- ii. The assessment is mainly based on qualitative analysis (desk reviews, interviews, cross-check of information).
- iii. The finality of listing gaps is to identify opportunities of improvement in the mandate and the operating mode of UNDP team for the potential UNDP project in MEHE starting 2016.
- iv. The guiding principle for formulating opportunities and analyze gaps is to propose workable recommendations within the given context and potential constraints. These Recommendations have been categorized in a “Value – Ease of Implementation” logic.
- v. The scope of the consultancy mission does not include the implementation framework of raised recommendations. The development of this framework could represent the scope of another consultancy mission, or could be included in the mandate of the coming UNDP project.
- vi. The timing of this consultancy mission matched the end of the 5-year strategy for the education sector; the recommendations for the potential UNDP project describe improvement areas based on the existing context. The formulation and adoption of the new sector strategy for the 5 coming years would enable potential UNDP project to precise its scope and re-adapt it.
- vii. Institutional Development outputs analysis was not conducted in enough depth due to the lack of available documents and the late contact with OMSAR regarding some projects.

Approach & Methodology

The study approach to assess, analyze gaps and identify opportunities of improvement relies on the following areas of focus:

Table 1: Study Focus Areas

Areas of Focus	Rationale
1 Alignment with Project's Objectives	<p>Are there gaps in achieving the Project's objectives based on UNDP project's mandate and strategy?</p> <p>What is the variance between the project scope baseline and the achieved scope for the phase 2010-2015?</p> <p>Where does the added-value of UNDP team in MEHE rely?</p> <p>And how can UNDP expertise be fully exploited for the potential future project's mandate?</p>
2 Operational Modalities and Resources	<p>Are UNDP team deliverables designed and implemented efficiently?</p> <p>Is the structure mature, and does it support the project's objectives? To which successful structure can it aspire?</p> <p>Is there sufficient level of accountability and proper reporting?</p>
3 Stakeholder Management & Coordination	<p>Who are the Project's Key stakeholders and what is their engagement level?</p> <p>Are the communication and information flows between stakeholders and UNDP team satisfactory?</p> <p>Are there duplication activities across stakeholders and UNDP team?</p> <p>What would be the options to optimize the flow of information and the existing collaboration?</p>

The consultancy mission adopted the following methodology:

- i. Desk review
- ii. One to one meetings with: (See appendix B: Meetings list and Outcome)
 - a. UNDP staff members (both Program and Project)
 - b. Key stakeholders in the Ministry (Administration, ECRD)
 - c. Former key stakeholders (Including former Project Manager)
- iii. Regular Checkpoints with project officer in charge.
- iv. Mapping of each planned output for the period with the achievements stated in the yearly reports and crosscheck with Project Officer in charge.
- v. Gathering of information on actual activities, projects and participation in committees via tables filled in by UNDP team.
- vi. Crosscheck of gathered information with several counterparts.

A- ASSESSMENT AND GAP ANALYSIS

Since its start in 2010, the UNDP Project at MEHE had:

- i. Three strategic outputs:
 1. Institutional efficiency and coordination measures for ESDP developed and implemented;
 2. Education Management Information System (EMIS) implemented; and
 3. An operational Monitoring & Evaluation procedures established and in place.
- ii. A project team of experts in the areas of Education project management and implementation, information communication technology (ICT) and institutional development.

1 Alignment with Project's Objectives

1.1 The UNDP project provided support and coordination to the implementation of the ESDP

- i. As per project output 1, UNDP team has provided technical assistance and coordination for implementation of the ESDP both through the ESDS and the MEHE Administration.
- ii. The level of implication of UNDP team was different among the programs and fields of expertise; UNDP education specialists provided support and coordination to ESDS senior Education experts, while UNDP ICT specialists led the whole processes of programs components, mainly program #8: ICT in Education with the deployment of the Education Management Information System and its multiple components.
- iii. Below table summarizes the implication of UNDP team in each of the 10 programs of ESDS according the defined scope. (Details of the deliverables are available in the quarterly and yearly UNDP reports).

Table 2: UNDP Technical Assistance in ESDP Programs

	Program/Funder / Duration	Scope	UNDP Technical Assistance up to Dec 2015
I	Early Childhood Education WB 2014-2017	<ul style="list-style-type: none"> • Rehabilitation 110 KGs & schools including KGs • Equipment & Furniture for 213 KGs • KGs Curricula Revision and KGs Teacher • Training • Child-at-Risk detection & family participation Programs • Evaluation of KG School Readiness (ECERS) 	<ul style="list-style-type: none"> • Provided support for KG revision and KGs Teacher • Evaluation of KG School Readiness for the Pedagogical part
II	Improving Retention and Achievement EU 2014-2017	<ul style="list-style-type: none"> • Enactment of Compulsory Education up to the age of 15. • Develop Remedial Kits and learning support materials: Cycles 1, 2 & 3; Subjects Arabic Language, First Foreign Language and Math. In addition to Sciences for cycle 3. • Professional development of administrative staff, remedial teachers and school counselors. • Academic, Psychological, and Social Support Programs for at-risk students. 	<ul style="list-style-type: none"> • Provided Support to the program preparation and implementation and follow-up on activities • Provided Support the preparation of Remedial Kits & learning support learning material
III	Development of Infrastructure USAID/WB 2010-2015	<p>USAID (D-RASATI I and D-RASATI II):</p> <ul style="list-style-type: none"> • Refurbishing for 147 schools and 6 ECRD centers with Lab Infrastructure (D-RASATI I). <p>WB (EDP II):</p> <ul style="list-style-type: none"> • Rehabilitation of 110 Kindergartens • Equipment & Furniture for 213 Kindergartens. 	<ul style="list-style-type: none"> • Managed ICT equipment component in public schools and ECRD: TORs, Procurement process, deployment.
IV	Professionalization of the Teaching Workforce USAID/WB 2010-2015	<p>USAID (D-RASATI-II):</p> <ul style="list-style-type: none"> • Training teachers in English language and Delivering Professional Certificate in English Language Teaching to trainers/teachers. <p>WB (EDP II):</p> <ul style="list-style-type: none"> • Professional standards for Teacher Trainers and Pedagogical Counselors and Psycho-social Counselors, and relevant Performance Assessment tools. • A strategic and standardized framework for capacity building units and all other actors involved in TPD (responsibilities framework). • A Professional Development Training Program (ToT) for the concerned education staff. 	<ul style="list-style-type: none"> • Participated in the professional Teacher training and development on ICT level
V	Leadership Program Modernization of	<p>WB (EDP- II):</p> <ul style="list-style-type: none"> • Training of School Planning Committee Members on the SBDI Model. 	<ul style="list-style-type: none"> • Assisted in: Educational Leadership for School-based Development

	Program/Funder / Duration	Scope	UNDP Technical Assistance up to Dec 2015
	School Management WB /USAID 2010-2017	<ul style="list-style-type: none"> • Piloting School Based Self Evaluation system. • Piloting the school grant support program. • Establishing regulations and procedures to license and monitor private schools. USAID (D-RASATI II): <ul style="list-style-type: none"> • Continuation of the Leadership Development Program. • Implementation of the School Improvement Program. • Development of an ECA Strategy and Capacity building for representatives from MEHE, REOs, and Schools. 	<ul style="list-style-type: none"> • and Improvement in EDP II. • Assisted design & implementation of programs in D-RASATI II: Leadership Development, School Improvement, Extra-curricular activities strategy and legal framework.
VI	Achievement Assessment and Curriculum development WB/EU 2010-2015	WB (EDP II): <ul style="list-style-type: none"> • Setting clear foundations for continuous Curriculum development based on periodic evaluation of learning outcomes. • Developing methods, criteria and mechanisms for evaluating textbooks. • Assessment of Student Achievement through analysis of results of International standardized tests (TIMSS & PISA) EU: <ul style="list-style-type: none"> • Development of diagnostic tools (standardized tests) for students for the prevention from Drop-Out. 	Provided support for the EU component: <ul style="list-style-type: none"> • Technical assistance in TIMSS & RISA (review of the report) • Technical assistance for preparation of TOR
VII	Citizenship Education (on hold) EU 2010-2015	<ul style="list-style-type: none"> • Revision of Civic Education Curriculum (Cycles 2, 3 & 4). • Training Teachers on active teaching methods of Civic Education. • Student Clubs and Parent Councils for Citizenship Activities. • Community Service & Volunteerism Program. 	<ul style="list-style-type: none"> • Assisted in the preparation the program design and implementation
VII I	ICT in Education USAID/WB /EU 2010-2015	USAID (D-RASATI II): <ul style="list-style-type: none"> • Developing an ICT Action Plan • Provision of Hardware and Software Platforms for secondary public schools • Professional Development & Support in ICT for Principals & Teachers WB (EDP II) <ul style="list-style-type: none"> • Data Centers (main/back up) expansion and establishment • EMIS expansion and establishment EU: <ul style="list-style-type: none"> • SIMS Provision and Training of concerned staff and Implementation. 	<ul style="list-style-type: none"> • Led the program: National Strategy drafting and follow-up of implementation. • Managed the EMIS project then SIMS from conception, design, and implementation process.

	Program/Funder / Duration	Scope	UNDP Technical Assistance up to Dec 2015
		<p>MEHE-MOT:</p> <ul style="list-style-type: none"> • Implementation and Support of ICT in Education Initiatives. <p>MEHE:</p> <ul style="list-style-type: none"> • Support Revision of Curriculum, Content, Instruction and Assessment through the introduction and integration of ICT. 	
IX	National Qualification Framework		<ul style="list-style-type: none"> • Provided support in the last phase of the National Qualifications Framework project.
X	Institutional Development WB/EU 2010-2015	<p>WB (EDP II):</p> <ul style="list-style-type: none"> • Ensure the effective Monitoring and Evaluation of the ESDP outputs and outcomes, and in some key areas the impact of the interventions. • Review MEHE operational processes and related regulatory framework. • Update the Public Expenditure Review (PER) focusing on the analysis of equity and effectiveness issues using information from TIMSS-2011 and • School based information available at MEHE. • Streamline Administrative Procedures for PES, REOs, Examination • Department, & Document Management/Archiving. • Employees' Training Program (Capacity Building). <p>EU (CLOSER) & WB (EDP II): M&E institutionalization and capacity Building.</p>	<ul style="list-style-type: none"> • Automated several operation processes via the development of IT applications.

1.2 Institutional Development work wasn't exhaustive but was concentrated on specific processes linked to IT automation

- i. In general, institutional development activities can range from a complete reform of the administration, structure, legal framework and policies, to a reengineering of internal processes at a micro level. UNDP team worked with the administration to automate a certain number of processes via IT applications, in order to simplify internal work in the MEHE, the Regions and the schools.
- ii. Nearly 20 applications have been developed and updated in order to simplify processes within the Headquarter, and between the Headquarter, Regions and Schools.

Table 3: IT Applications developed and operational

Application developed and used	Description	Date	Users
1. Help Desk Management Information System - (HDMIS-M1)	Developing an application for the Help Desk Division (Call Service, Archiving, Asset Management, Stock, Staff Management, other)	2012	HeadQuarter
2. MEHE Liban Post import (MEHELP)	Developing a module to import the data from Liban Post list to the Equivalence system (EDMS DB)	2013	HeadQuarter
3. MEHE Official Exams Result Collection (MEHE-RCS)	Developing a system that allows to enter official exams results from excel sheets based on all materials or on a single material, checking the A and B entry and issuing an alert if a deference exists so that the user is able to enter the correct value. Developing a dashboard to monitor and evaluate the ongoing process and issuing the needed reports that will be sent to all stakeholders. Developing an automated process of sending the results of students based on each school students' list and sending it by email.	2012	HeadQuarter
4. Enhancing MEHE Official Exams Result Collection (MEHE-RCS)	Enhancing the RCS, based on the fake number, to enter the official exams results from the table to an online application.	2015	HeadQuarter

Application developed and used	Description	Date	Users
5. Queuing Management System (QMS)	Establishing a Queue Management System at the الجمعية العامة to organize the public attendance and process.	2013	HeadQuarter
6. Document Management System Workflow (DMS/WF) Directorate General of the Ministry	Installing a DMS/WF system for the Director General to process, archive and report on all types of transactions and documents/letters.	2013	HeadQuarter/Regions
7. REO student collection system (Schools Student Lists Project)	Developing an application for REOs to be able to check private schools students thus unifying information requested from private schools and converting it to a database.	2013	HeadQuarter/Regions
8. Named Student Lists Project for private schools	Unification of information requested from private schools and converting it to a database. Developing an application for data population from the "Private schools students' lists". And printing the requested official reports from it.	2013	HeadQuarter
9. Enhancement of the Named Student Lists Project for private schools	Enhancing the application for the unification of information requested from private schools. Adding to it the List of official exams candidates and some minor school budget figures.	2015	HeadQuarter
10. Private schools creation and data update	In this system the administration can control, modify and add schools data or even create new schools or transfer them to other regions.	2015	HeadQuarter
11. Official Secondary Certification Attestation Project	Developing an application to print the Official Secondary Certification Attestation (for years 2001 up till 2013).	2014	HeadQuarter
12. EMIS -Implementation	Implementation of the EMIS that included a Data Warehouse, HR system and a Business Intelligence system to support the management.	2008	HeadQuarter
13. EMIS Enhancements	Enhancements on the Functional Level of Applications (EMIS)		HeadQuarter

Application developed and used	Description	Date	Users
14. Update on the EDMS to distribute the delivery of receipts to citizens directly from employees	The EDMS was updated in order to relieve the stress from the القلم and distribute it on the other employees so they will be able to directly hand over the receipt to citizens.	2014	HeadQuarter
15. Private Schools average tuition fee	Developed an application to input the private school average tuition fee and the number of students and issue the requested reports.	2014	HeadQuarter
16. Printing of attestations of students for year 2014	Developed an application to print the Attestations of students who were candidates for the official exams. The system allows the printing of attestations in the name of the six REO heads and the name of the exams department. Moreover users can change the status of the candidates. A monitoring module is included to check for the printed attestations and log the changes made in the system.	2014	HeadQuarter
17. Higher Education database for universities in Lebanon	Building a web portal for the universities to be able to data populate from the “Student lists”. And printing the requested official reports from it.	2015	HeadQuarter
18. Guidance and Orientation Directorate Information System (GUDIS)	In this system the user will be able to fill the results of certain conducted surveys done the guidance users on certain public schools and students.	2015	HeadQuarter

Source: UNDP ICT unit

- iii. The number of users for developed applications can range from 3 users (Headquarters/Regional Offices) to 1700 (Private schools) and required important support during specific period each year. (See Appendix 2).
- iv. A lack of simplification of procedures and forms directly related to citizens was noted.
- v. Nearly 10 applications are in progress of design or are installed but not fully used (see Appendix):

Table 4: IT Applications in progress / not used yet

Application in Progress	Short Description	Date	Users
1. Pilot project for interoperability	Developing an eservice to exchange information electronically with the MOPH	2012	HeadQuarter
2. Directorate General for Higher Education DMS/WF Project	Installing a DMS/WF system for the DGHE to process, archive and report on all types of transactions and documents/letters	2012	HeadQuarter
3. Exams automation projects - Barcode	Introducing Barcodes on the exams pamphlets (الكراسات) and inputting data to system directly	2012	HeadQuarter
4. Student Information Management System (SIMS)	Implementation of new SIMS system at the levels of the MEHE	2015	HeadQuarter
5. Student Unique ID project	Conceptualization of the Student Unique ID system		HeadQuarter
6. Archiving software for the Exams Department	National Exams Results Registers which provide the input for certificate production are in need of automation and archiving update.	2014	HeadQuarter
7. Public schools detailed basic and technical information gathering	Developed an application to input/check the public school basic information and the related ICT information needed for the deployment of the SIMS project.	2014	HeadQuarter
8. MEHE Web Portal	Establishing a web portal for the MEHE		HeadQuarter
9. One stop Shop	Institutional development / design for all the operation with online tracking		HeadQuater

vi. In order to host, connect and operate applications, UNDP IT team actively participated in the following equipment and hardware deployments:

- Implementation of a Data Center in the Headquarter (Core Switch, Firewall, Servers, Routers, IP Telephony)
- Introducing a digital signage system in the Head Quarter
- Equipment of computers and printers in the MEHE building
- Equipment of schools via the USAID program (Tablets, laptops, servers, projectors, Switches, Wireless access point)
- Equipment of schools via UNICEF program (Computers, Printers, UPC's)
- Equipment via Lebnen program (Routers, Switches, Access Points)
- Equipment of Regional Education Offices via UNHCR program (Servers, Routers, Switches, Computers, Printers)

1.3 Monitoring and evaluation framework has been prepared but not used

- i. UNDP team member provided support to ESDS management in drafting a monitoring & evaluation framework with key indicators for the 5-year plan programs. The tool was not updated nor used by ESDS stakeholders. Nevertheless, a monitoring framework including KPIs was especially used for the WB EDP 2 project, for ICT component.
- ii. Moreover, advice and additional support have been provided by UNDP team members in additional fields such as the impact of Syrian refugee's crisis on education sector, UNDP IT support or data requests.
- iii. The table below summaries the main deliverables of the team v/s the stated outputs stated in the project document.

Table 5: Mapping of Achievements v/s Outputs' Baseline for 2010-2015

Key: ✓: Completed, ✗: Not Completed, ≈: Partially Completed

Output Baseline	Achievement	
1 Institutional efficiency and coordination measures for ESDP developed and implemented		
1.1 Assess, priorities, and list programs/activities for which technical assistance/ coordination in institutional development will be prepared	≈	Done not for all activities, but for specific processes
1.2 Provide organizational management assistance for the institutional development prepared within the implementation of the ESDP programs.	≈	Done not for all activities, but for specific processes
1.3 Provide legal assistance for the developed institutional procedures prepared within the implementation of the ESDP programs.	✗	No legal resources provided
1.4 Assist in developing/ implementing capacity building activities.	≈	Training on the automation on new processes done for concerned units
1.5 Supporting the development, deployment and improvement of the different systems/ applications of the Education Management Information System (EMIS)	✓	
1.6 Supporting the establishment of new infrastructure (hardware, networks, and communication platforms) and expansion of existing one, centrally at MEHE, in the regional offices, and in public schools	✓	
1.7 Supporting the automation of the administration processes centrally at MEHE, in the regional offices, and in public schools	≈	Done not for all activities, but for specific processes (see list of developed applications)
1.8 Supporting the Information, Communication, and Telecommunication (ICT) in Education initiatives	✓	

Output Baseline	Achievement	
2	Education Management Information System (EMIS) implemented	
2.1 Supporting the development, deployment and improvement of the different systems/ applications of the Education Management Information System (EMIS)	✓	
2.2 Supporting the establishment of new infrastructure (hardware, networks, and communication platforms) and expansion of existing one, centrally at MEHE, in the regional offices, and in public schools	✓	
2.3 Supporting the automation of the administration processes centrally at MEHE, in the regional offices, and in public schools	≈	Done not for all activities, but for specific processes (see list of developed applications)
2.4 Supporting the Information, Communication, and Telecommunication (ICT) in Education initiatives	✓	

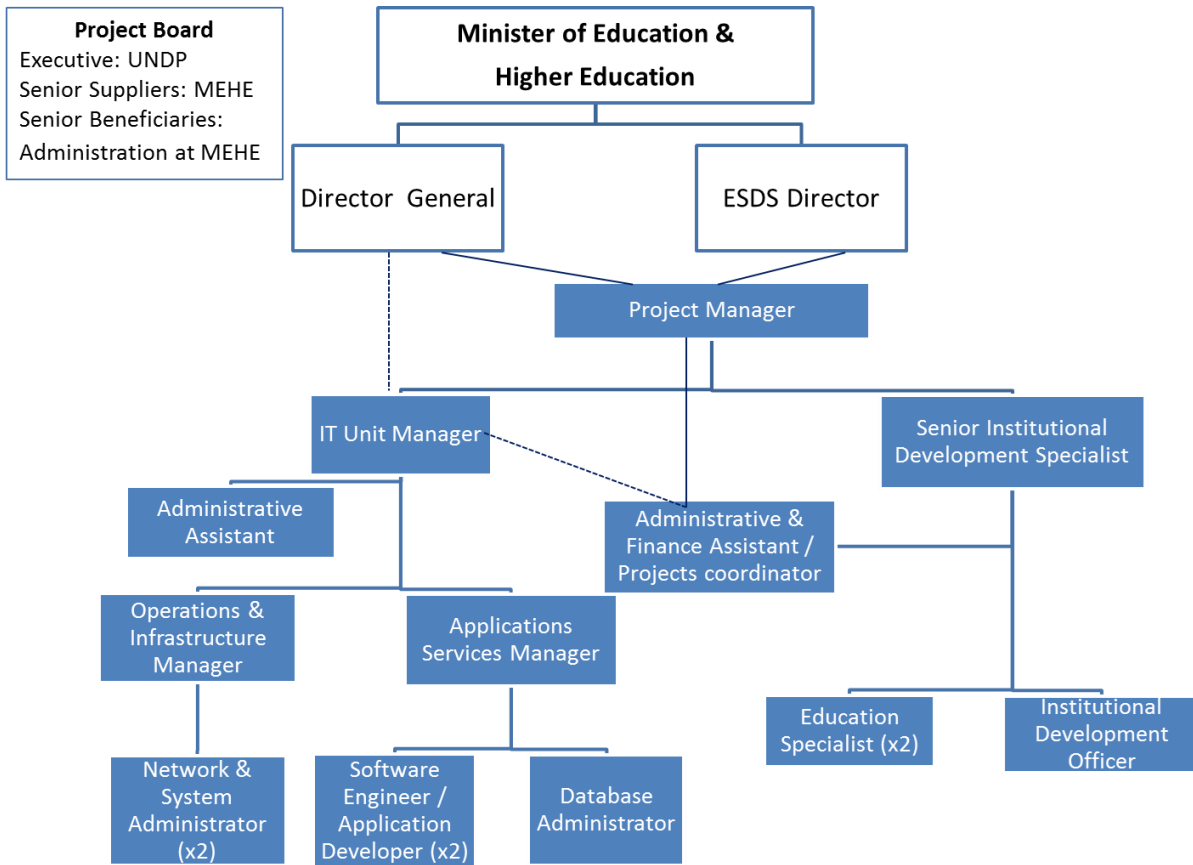
Output Baseline	Achievement	
3	Operational program management, monitoring, and evaluation procedures established and followed up	
3.1 Providing technical assistance for the development and follow up of programs' framework	✓	Framework developed (but not used)
3.2 Integrating monitoring and evaluation procedures within MEHE institutional operations activities	✗	
3.3 Supporting the delivery of required data outputs from the EMIS	✓	
3.4 Providing technical assistance for the ESDP monitoring and evaluation related activities	≈	Framework developed (but not used)
3.5 Assisting in the formulation of operation and procedures manuals for monitoring and evaluation	✗	

2 Project’s Operational Mode and Resources

2.1 The UNDP project team structure was not stable during the five years

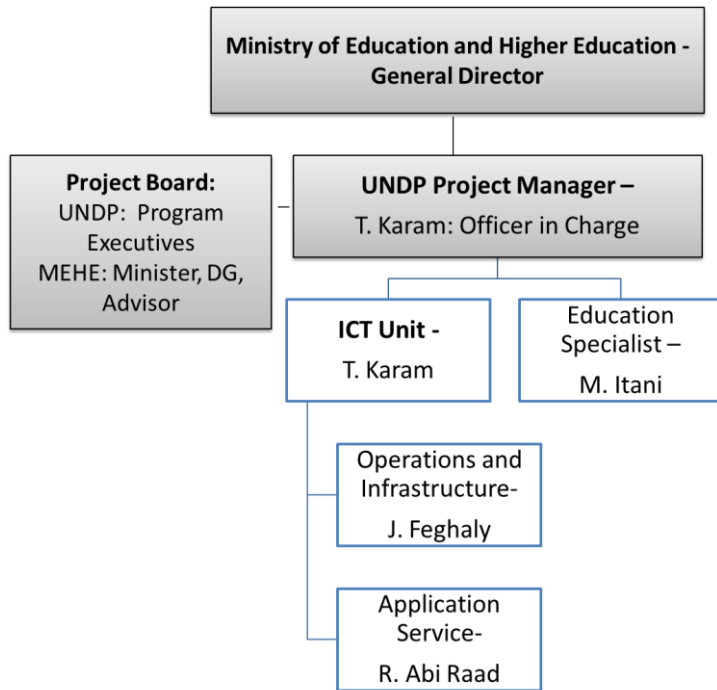
- i. UNDP staff didn’t reach its full planned capacity since the project start, and was at its maximum of 10 staff (instead of 18 initially planned). Today, the team includes 4 staff only.

Figure 6: Project Team organizational Chart in 2013



Source: UNDP Project Document updated version in 2013

Figure 7: Actual Project Team organizational Chart



ii. Four members resigned in 2014 (including the project manager), and one in 2015. The table below shows the unstable structure of the team since 2009:

Table 8: Evolution of UNDP Project Team

Name	Position	Unit	Start Date	End Date
Toufic Karam	Project Manager / ICT Manager	UNDP/ICT Unit	Jan-09	Feb-16
Robert Abi Raad	Applications Service Manager	ICT Unit	Jul-12	Feb-16
Joe Feghaly	Operations and Infrastructure Manager	ICT Unit	Jun-12	Feb-16
Mayssa Itani	Education Specialist	ESDS Unit	Sep-11	Feb-16
Paullete Assaf	Project Manager	UNDP	Jul-10	Oct-14
Caroline El-Rayes	Institutional Development Specialist	UNDP Institution Development	Apr-11	Mar-15
Madeleine El Helou	Administration and Finance Assistant	UNDP Institution Development	Jun-11	Oct-14
Souad Morabi	Senior Software Engineer	ICT Unit	Jul-11	Oct-12
Youmna Hannawi	Education Specialist	UNDP Institution Development	Sep-11	Sep-14
Mira Chebib	Administration Assistant	ICT Unit	Mar-13	Feb-14

Source: UNDP Project Officer in Charge

- iii. The main challenge of the project management was the presence of various reporting lines, making work priorities and deliverables complex to manage: reporting to ESDS, to the Minister / his advisor and to the General Director of Education.

2.2 The UNDP team mainly handles the core function of the ICT department, filling the gap in the MEHE administration

- i. As the 1st section shows, the main deliverables of the UNDP team were related to ICT programs. The ICT unit's structure has been aligned with the need and vision of MEHE, and operates as a traditional ICT unit in any organization, covering major IT activities, namely:
 - a. Managing the whole processes of design, implementation and maintenance for new applications and for hardware
 - b. Providing back-up support for the operations of ICT services
 - c. Providing technical assistance and training to users
 - d. Providing consultancy and advisory support to various stakeholders through work committees.
- ii. In collaboration with other resources, UNDP assures the ICT help-desk and support function to all users in Headquarters, REOs and schools. Help-Desk levels of support are defined but not automated nor managed through a dedicated workflow in a software.

- iii. SIMS project to be implemented in 2016, has been managed and led by UNDP team according to proper standards and methods: Definition of requirements with stakeholders, design, preparation of request for proposal content, selecting implementing firm, supporting the use cases drafting, following-up the implementation phases.

2.3 MEHE ICT unit is head by UNDP staff and is actively supported by resources funded by other institutions

- i. MEHE ICT unit manager is a UNDP staff, who manages several resources in addition to UNDP ICT team. These resources have contracts with: UNDP, WB, UNICEF, UNHCR and Microsoft partners. In December 2015, MEHE ICT unit included 13 staff as indicated in the following table:

Table 9: MEHE ICT unit staff according to contract and duration

Name	Position	Contract	Start	End
Toufic Karam	Project Manager / ICT Manager	UNDP	Jan-09	Feb-16
Robert Abi Raad	Applications Service Manager	UNDP	Jul-12	Feb-16
Joe Feghaly	Operations and Infrastructure Manager	UNDP	Jun-12	Feb-16
Abbas Abbas	Senior Network Administrator	WB	Jun-09	Dec-16
Elie Abi Farah	Senior System Administrator	WB	Jul-09	Dec-16
Hussain El Arab	Technical Support	Microsoft	Jan-08	Dec-15
Jean Haddad	Senior Application Manager	UNHCR	Nov-14	Jul-16
Toufic Hadaya	Regional Office Implementer	UNHCR	Nov-14	Jul-16
Elie Wakim	Regional Office Implementer	UNHCR	Mar-15	Jul-16
Elias Mechelaany	Regional Office Implementer	UNHCR	Nov-14	Jul-16
Mrad Mhaweij	Regional Office Implementer	UNHCR	Mar-15	Jul-16
Mohammad Souki	Regional Office Implementer	UNHCR	Mar-15	Jul-16
Ayman Ballout	Senior Application Manager	UNICEF	Jan-14	Jul-16

Source: UNDP Project Officer in Charge

2.4 The ICT function in MEHE is highly dependent on external resources and the lacks of internal procedures

- i. The ICT unit staff relies on fixed term contracts with external institutions and providers; For instance, 10 of Microsoft staff completed their contract in 2015 and were not replaced. Their role was important in the support and training of users for several applications, for school support and technical services.
- ii. Since the project started, a total of 30 resources worked for the ICT unit; 12 staff have contracts deadlines in 2016. (See appendix for detailed list of staff)

Table 10: Number of ICT staff since 2010 according to contracts and end date

Contracts / End date	2010	2012	2013	2014	2015	2016	Total
Microsoft			1		10		11
UNDP		1		2		3	6
UNHCR						6	6
UNICEF						1	1
World Bank	2	1	1			2	6
Total	2	2	2	2	10	12	30

- iii. Documentation is not available for all ICT internal work processes putting at risk the business continuity and staff hand over.
- iv. MEHE ICT security procedures are not clearly defined and the security equipment needs maintenance and upgrade; the teams lacks a security architect who would collaborate with the Network Administrator team to apply IT security procedure. In addition, some hardware is obsolete or needs maintenance, but this issue will be solved through the ICB project to be implemented in 2016.

2.5 A good level of motivation and involvement has been noticed in the actual UNDP team

- i. Initiatives were taken for interactive ICT projects in public schools such as: Raspberry Pi and Lego Robotics contests.
- ii. In general, TOR are applied and staff seemed satisfied with the content of their activities.

3 Stakeholders' Management and Coordination

3.1 UNDP team collaborated with various stakeholders and provided support to international donors through the ESDP programs

- i. In order to implement the ESDP, the MEHE has benefited from external financing source and programs provided by different international agencies. According to their fields of competence in ICT, Institutional development and Education, UNDP staff collaborated actively with these organizations, in particular with: WB (initially), USAID and EU.
- ii. UNDP team collaborated also with NGOs supporting the MEHE programs.

Table 11: UNDP implication in International Donors programs

Donor	Program	UNDP implication in scope
USAID \$24 Million	Developing Rehabilitation Assistance to Schools & Teacher Improvement (D-RASATI –II)	<ul style="list-style-type: none"> • Assessment/ Standards • ICT Equipment deployment • Public School Teacher Training • Leadership Development Program (LDP- II)
EU EUR 6.5 Million	EU Program of Cooperation: Support to Education and PFM Reforms	<ul style="list-style-type: none"> • SIMS • Improving Retention & Achievement (support provided but sub-component on hold) • Citizenship in education
WB \$40 Million	Second Education Development Project (EDP II)	<ul style="list-style-type: none"> • Early Childhood Education. • Supporting Improvements in Quality of Education. • Education Sector Policy Development and Management
AFD \$46.5 Million	AFD Program of Cooperation (Not implemented)	<ul style="list-style-type: none"> • Provided support in preparation phase
UNICEF Approx: \$2 Million	Remedial kits	<ul style="list-style-type: none"> • Provided support to all phases

- iii. UNDP team is present and actively participates in committees related to the above programs: D-RASATI-II, D-RASATI-II, Component: ICT equipment Provision, SIMS.

3.2 UNDP coordinated with various stakeholders in the MEHE, with a positive level of collaboration

- i. UNDP team worked with the Headquarter units, the REOs, and the schools representatives mainly for ICT services implementation and support to the General Director in education sector related activities.
- ii. Several Administration stakeholders were met; they expressed their positive feedback regarding their collaboration with UNDP team, evaluated the good added-value of UNDP work in MEHE and stressed on the importance of strengthening the IT function in the administration.

3.3 The level of coordination between stakeholders and UNDP varies

- i. UNDP team participates in major program committees, making collaboration and communication process easier in inter-related projects among several stakeholders.

Table 12: Participation in Committees for the UNDP Project Officer in Charge

Meeting type	Name / Main Subject	Participation Nature	Frequency
Inter-ministerial Committee	MEHE ICT Committee	Member	Monthly
Committee	D-Rasati 2 Committee	Member	Monthly
Workshop / workgroup	ICT Action Plan	Member	Punctual
Committee	SIMS Committee	Chair	Monthly
Committee	D-Rasati 2 "Component 2: ICT equipment Provision"	Member	Punctual
Committee	Institutional Development	Member	Quarterly
Committee	ICT into Education Committee	Member	Quarterly
Committee	Exam Committee	Member	Quarterly
Committee	Interoperability	Member	Quarterly

Source: UNDP Team Officer in Charge

- ii. Not all committees meet on the planned regular basis; their activation depends on MEHE priorities.
- iii. Nevertheless, collaboration with entities such as ECRD and OMSAR was not always efficient;
 - The Interoperability project with OMSAR has been suspended for the moment. Also, there was no close collaboration in institutional development field.
 - ECRD management is declaring not being aware of the SIMS project, even though representatives of ECRD attend the SIMS committee.

3.4 The level readiness of all the stakeholders towards ICT services is not the same across MEHE, making the tools implemented not always used efficiently

- i. In general, the users are satisfied by the applications installed, but they require more support for their proper usage.
- ii. Automation of the equivalence processes and queuing system were successful because of the active participation and “sponsor” of the concerned stakeholder in MEHE. The same level of readiness to process automation and IT usage is not generalized in all the units.
- iii. The pilot of Dhour el Shoueir secondary school for ICT in Education program was successful because of the direct involvement of the school manager, and her ability to implement her own initiatives in technology, and the close support and follow-up of the UNDP IT team. This pilot is in process of being deployed in other public schools who present the same level of readiness in using ICT tools.
- iv. Nevertheless, usage of technology tools is inhomogeneous across users in public schools because of the lack of: sponsor from school representatives and teachers, continuous training and support, and proper content to use on the ICT material.

3.5 Various players are involved in inter-related projects along with UNDP; overall visibility and proper coordination of activities lack in some fields

- i. ICT in Education program have been handle by UNDP team starting with the formulation of the ICT national strategy, then the equipment of hardware, the introduction of technology tools for quality learning, and the required training for users.
- ii. Within ICT field, ECRD is working on introducing e-learning systems in education, on continuous training (Including ICT) and on interactive applications for the curriculum.
- iii. “Direction Orientation Pédagogique” at MEHE is also working to train schools and teachers in various fields.

B- RECOMMENDATIONS

- i. The following recommendations fall under the 3 areas of focus analyzed in the Assessment and Gaps analysis chapter. They take into account Project history, constraints of the Lebanese public sector environment, and particularities of UNDP mandate and status.
- ii. For each recommendation,
 - a rationale, description, benefits, and high level guidelines have been developed.
 - a bi-dimension rating is elaborated: “Ease of implementation” and “Value”. For both criteria, the rating can be: “High”, “Medium”, “Low”. The recommendations with their rating are summarized in the Recapitulation Table in section 4.

Note:

The list of recommended actions doesn't represent an implementation plan. The latter must include templates, framework, and detailed actions and responsibilities, with a timeframe and deadlines for implementation.

1 Alignment with Project's Objectives

The Director General of education and the Minister Advisor have confirmed the following areas as being an immediate priority to include in UNDP future project scope: Institutional Development, ICT, civil works in public schools, and specialized education for children with special needs.

Below recommendations focus on the internal organization priorities in order to optimize UNDP technical support and meet the administration needs. 5 sets of recommendations are proposed related to UNDP mandate, which will lead to an update UNDP project outputs:

- 1- Introduce a new mandate for civil works coordination in public schools.
- 2- Introduce a new mandate for IT and Data Security.
- 3- Introduce a new function of PMO (Project management office).
- 4- Focus the mandate of Institutional Development on process simplification.
- 5- Confirm the mandate of Education Program Support.

1.1 Introduce a new mandate for civil works coordination in public schools

Value: **High**, Ease of implementation: **Medium**

- i. Today, the MEHE includes 1266 public schools. Support, monitoring and coordination are a priority for the rehabilitation works and facility management in those schools.
- ii. UNDP project in MEHE could provide expertise in civil engineering field. Five resources are needed; they will be working across schools in a same region and will be reporting to the UNDP Project Manager and work closely with the Director General. Below main elements of their TOR:
 - Conduct regular field visits in schools in order to assess the needs in facility management / civil works and report them to the REOs
 - Assist in the selection of the third party responsible for the civil works
 - Validates the design, time frame and the deliverable of the work
 - Assist in preparation of the budget for rehabilitation work and prepare financial reports
 - Send regular reporting to the UNDP Project Manager and General Director via the REO directors
- iii. The benefit for introducing this new expertise in UNDP project is to widen the fields of intervention of the team and to provide an immediate response to an added-value activity in MEHE. Nevertheless, UNDP is adding in its mandate a new support core function in the administration, supposed to be handled directly by ministry support staff. The option of subcontracting the maintenance by region and recruiting one civil works coordinator (Instead of 5) in the Ministry's headquarter should be considered.

1.2 Introduce a new mandate for IT and Data Security

Value: **High**, Ease of implementation: **High**

- i. Important Data volume and content is being transferred and used between schools, REOs and the Ministry's Headquarters. The volume of data exchange is done for nearly 700 000 students in Lebanon and will significantly increase with the SIMS implementation. Protecting MEHE data and defining clear access policy for users is becoming crucial.
- ii. UNDP can provide expertise to implement ICT and data security policies within the Ministry to be applied by the IT unit. One IT Security Officer (CSO) reporting directly to the Director General and UNDP Project Manager is to be recruited.
- iii. The IT CSO is directly responsible of the entire IT security function that includes digital or electronic security requirements and computer networks. Below main elements of his/her TOR:
 - Enhance and improve IT security.
 - Identify organizational protection goals and objectives, ensuring they're consistent with their organizations' strategic plans.
 - Work with key stakeholders to decide on the priority of security needs and then spend according to an organization's financial constraints and directives.
 - Set security policies and enforce them.
 - Increase staff security awareness.
 - Train staff on security related subjects.
 - Work closely with IT security and Security auditors.
- iv. UNDP should also provide an IT Security Architect allocated to the IT team in order to complete and implement the IT and data security policies. He/she will report to the Operations and Infrastructure unit under IT unit manager. His main role is to apply the IT security policies set by the Security Officer, in collaboration with the network administrators.

1.3 Introduce a new function of PMO for ICT and UNDP project Monitoring & Evaluation

Value: **Medium**, Ease of implementation: **Easy**

- i. MEHE relies and will rely more and more on ICT activities included in its internal processes and operations. It is important to centralize and standardize the follow-up and reporting of all IT projects that are translated into applications, systems and hardware.
- ii. The PMO is used as a tool to enhance the Ministry's management oversight, assist in building planning capabilities, and more importantly, provide targeted advisory support on a number of issues to main stakeholders.

- iii. A Project Management Office sets project management standards and ensures they are followed, performing regular assessments of projects to the Ministry's and UNDP stakeholders. Moreover, PMO undertakes a close follow-up of the users' experience with developed applications.
- iv. UNDP IT unit should add and organize a PMO function into its mandate. It can be added to the role of a competent executive assistant. He/She will report to the IT unit management. Below main elements of a Project Management Officer TOR:
 - Track the status of all IT projects in the Ministry based on updates from stakeholders.
 - Standardize the way this information is compiled and reported to management.
 - Keep an up-to-date repository of ongoing projects and requests.
 - Implementing scoring and prioritization framework to help assess which IT requests should be approved and when.
 - Manage a resource capacity plan to determine resource availability for projects.
 - Perform regular reviews of users' experience in using developed applications and systems and propose corrective/preventive actions.

1.4 Focus the mandate of Institutional Development on Process simplification

Value: **High**, Ease of implementation: **Medium**

- i. UNDP representatives in MEHE should review with the Director General, the existing/new propositions for institutional development and select processes with high-impact to be simplified and or automated. This can be done via the UNDP project Manager to be recruited, or via an external ad-hoc consultancy mission.
- ii. The focus area for process simplification should be linked to the citizens' service (official procedures, forms, help-desk...).

Note: Not enough data and information have been provided for the topic of institutional development, thus recommendations could not be more detailed.

1.5 Confirm the mandate of Education Program Support

Value: **High**, Ease of implementation: **Easy**

- i. It is important for MEHE to benefit from education expertise in UNDP team in ongoing education programs and future projects to be included in a new education strategy;
- ii. UNDP education specialists have actively participated in EU projects: Citizenship in education and Improving retention & Achievement but those programs have been suspended, postponed or re-oriented. UNDP team can have additional added-value if these programs are reactivated or new components added to them.

- iii. UNDP education specialist can moreover provide support in on-going programs running till 2017 such as Early Childhood Education (WB), Professionalization of the Teaching Work force (WB/USAID), and specialized education for children with special needs (EU).

2 Project's Operational Mode and Resources

In order to fulfill UNDP project new mandate four major recommendations are stated below:

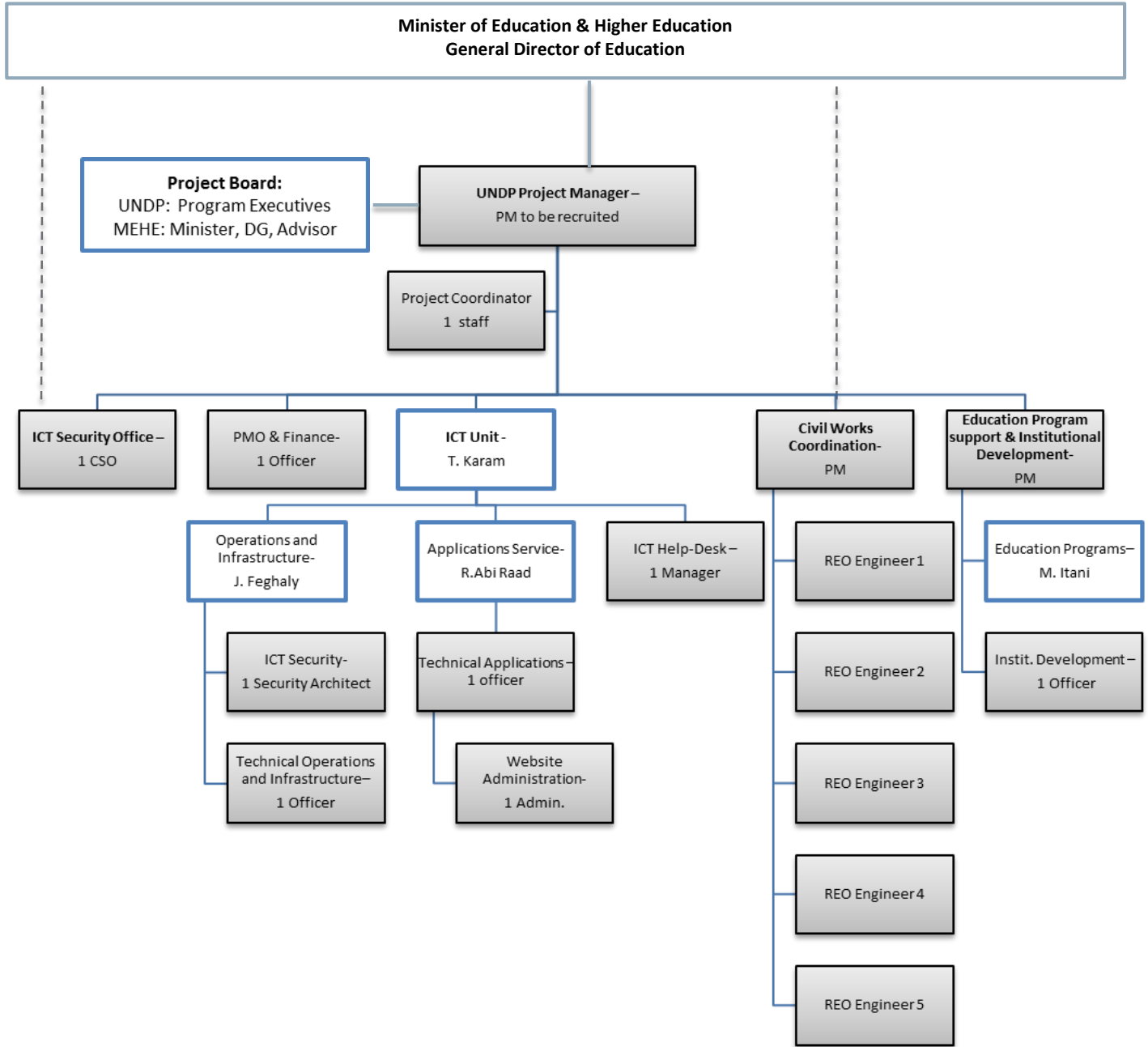
- 1- Staff UNDP team according to new functions in target Organizational Chart
- 2- Deliver the ICT Operations and Procedures manual
- 3- Realign the ICT activities to a Process based ICT work organization
- 4- Integrate ICT unit the MEHE administration

2.1 Staff UNDP team according to new functions in target Organizational Chart

Value: **High**, Ease of implementation: **Medium**

Additional staff should support the future mandate of the UNDP project in MEHE, while taking into account budget constraints and MEHE requirements; A total of 15 UNDP staff to be recruited (see target organizational chart below).

Figure 13: Target Organization Chart of UNDP Team



- i. At a UNDP team management and coordination level:
 - a. Three units to add:
 - ICT & Data Security
 - Civil Works coordination
 - Education Program & Institutional Development support
 - b. 4 staff to recruit:
 - One Project Manager: A Project Management specialist with expertise in education sector programs and process improvement.
 - One ICT Security Officer (See main TOR in section 1)
 - One PMO & Finance officer:
 - Manages and Maintain the Monitoring and Evaluation Framework for UNDP project
 - Maintain and update program budgets and assist in the preparation of budget revisions
 - Maintain proper inventory records of office material and equipment and handle supply requisition (purchase orders, etc).
 - Prepare and follow up payments, maintain project banking operations, and manage petty cash.
 - One project Coordinator:
 - Assist in the preparation of Terms of reference/Scope of work for required inputs with expert/internal technical support as required.
 - Support in the monitoring project progress against annual and quarterly work plan and budget plan.
 - Provide support in the preparation of project progress and final reports against set targets and indicators.

- ii. At the ICT unit level:
 - a. 5 staff to recruit:
 - One Technical Operations and Infrastructure Officer:
 - Support the Project Manager/ICT Director and Operations and Infrastructure Manager in defining the overall mission of the IT infrastructure team
 - Assist in the coordination of the deployment of the IT infrastructure projects as school connectivity and any other Mega projects
 - Maintain knowledge of industry-wide IT infrastructure / architecture standards and practices
 - One Technical Application Officer:
 - Support the Project Manager/ICT Director and the Applications Service Manager to support and implement a Strategic Plan for the portfolio of all IT applications and systems, integration tools, and technologies
 - Assist in the coordination of the SIMS application and any Other Mega projects
 - One help-desk manager, in particular for projects SIMS (EU) and Interconnectivity (ICB). Additional resources should support him:

- Oversee timely delivery of quality technical support service to the ministry's administration and schools with a knowledge in software and hardware systems.
 - Manages the Help Desk staff including consultation on performance evaluations
 - One Security Architect who will apply the IT security policies (see TOR in section 1)
 - One Website administrator: he/she will set the design guidelines, monitor the website provider's work, and will be the focal point with the Ministry communication unit (or staff) for content publishing.
- b. Moreover, ICT unit in MEHE must be supported by additional resources funded by other international donors with a minimum of 3 years contracts and via subcontracting firms, in particular for SIMS project (EU) and ICB (WB).
- c. These additional ICT staff should be allocated to the Operations & Infrastructure unit for Network supervision and administration, and to the ICT Help-Desk.
- Network administration for connectivity should be sub-contracted. IT unit should have network engineers mainly in order to set the network design and monitor daily the quality of the network operation.
 - ICT Help-Desk UNDP manager should be supported by contracting firms for related projects (SIMS) and additional staff directly related to the administration support.
- iii. At the Civil work Coordination level, 5 engineers to be recruited and allocated in REOs. (See TOR in section 1). The UNDP Project manager can follow-up directly this team on the administrative aspect, but staff would work more closely with the Director General.
- iv. At the Education Program & Institutional Development support level, one staff is to be recruited for institutional development work.

2.2 Deliver the ICT Operations and Procedures manual

Value: **Medium**, Ease of implementation: **High**

- i. ICT function is embedded in the Ministry operations and is being managed by competent staff, funded by different external parties. It is essential to document the internal ICT processes for the following major objectives:
 - a. Standardize the working methods & procedures among an IT team including contractual resources from different external entities.
 - b. Improve efficiency in the delivery process of IT services.
 - c. Improve quality in the IT services used by stakeholders.
 - d. Become less dependent of IT staff changes and turnover.
 - e. Keep record and use best practices in IT service Management.
- ii. The process of documenting can be handle by the new PMO & Finance officer under the direct supervision of the ICT manager, and with the input of ICT units. In particular, help-desk and security procedures must be drafted in order to support the implementation of SIMS and ICB projects.

2.3 Realign the ICT activities to a Process based ICT work organization

Value: **Medium**, Ease of implementation: **Low**

- i. Traditional ICT structures are shifting to a process based organization in order to enhance the implementation of IT activities and to be focused on the end-user. MEHE ICT unit can apply “ITIL” standards in its operations; the unit would be divided into 3 major departments following the process cycle of an IT service:
 - a. Service Design and Strategy: ICT PMO, ICT financials, Quality control, Business Analyst, ICT Security.
 - b. Service Transition: Development, Application Management, Testing.
 - c. Service Operation: ICT infrastructure, End of day process, Batch processing, Back-up, Disaster recovery/Data Center, Help-desk.
- ii. The implementation of this recommendation should be at long term, and done via an external expert certified in ITIL standards.

2.4 Integrate the UNDP ICT unit into MEHE Administration

Value: **High**, Ease of implementation: **Low**

At a later stage, it is recommended to integrate the UNDP ICT unit into the MEHE Administration, ICT being a core function with an increasing strategic importance for the coming years. The integration within administration would empower the ICT team, reinforce its stability, facilitate communication with key stakeholders, and thus, would create a proper environment for new initiatives implementation, efficient operational mode and successful deliverables.

3 Stakeholders' Management and Coordination

In order to optimize coordination with stakeholders working with UNDP team in MEHE, two major recommendations are proposed:

- 1- Introduce a Change management process for ICT activities
- 2- Implement and follow a Collaboration chart between ECRD and MEHE for ICT projects

3.1 Introduce Change Management and Capacity Building framework

Value: **High**, Ease of implementation: **Medium**

- i. There are many reasons why ICT projects can fail to deliver expected returns among organizations, mainly: Business needs not communicated properly, organizational factors not aligned with the change, business priorities change due to external unexpected factors, lack of readiness to apply IT tools and implement change in internal processes.
- ii. IT unit in MEHE should apply Change Management in order to add business value in projects, to deliver results on each activity more effectively and to build competencies that grow the organization's capacity.
- iii. Change management process reinforces the communication and link between ICT and business; it is an essential success factor for the ICT projects because it is fully oriented towards the end-user and stakeholders: Needs definition, integration of change, capacity building, permanent support and follow-up.
- iv. This can be done by implementing the Change Management and Capacity Building Committee and procedures. The scope should include:
 - a. Institutional development work related to IT automation: validation of business needs, follow-up of implementation.
 - b. Assessment of gaps in change readiness and level of involvement among stakeholders and building training programs accordingly.
 - c. Training, coaching and support program.
 - d. Monitoring and follow-up of changes implementations.
 - e. Communication plan to implement change among users.

3.2 Implement a Collaboration chart between ECRD and ICT unit for ICT projects

Value: **High**, Ease of implementation: **Medium**

The success of ICT project depends on a proper collaboration and communication plan between the ICT in MEHE and the ECRD. This could be done through:

- i. A collaboration chart between the two entities. (The ICT existing committee must remain active).
Below major component to include in the chart:
 - a. Educational material and application to be provided by ECRD, MEHE IT department to manage the provision of IT services and tools in order to use the material.
 - b. ICT department provides advice on best practices of ICT in education.
 - c. ECRD includes the ICT component in its continuous training program, ICT department provides the training.
- ii. To be considered also: the recruitment of a UNDP ICT coordinator within the ECRD in order to have efficient implementation processes and to build capacity for ECRD staff in the field of ICT in education.

4 Recapitulation of Gaps / Recommendations and potential UNDP project scope

- i. The following table summarizes the list of recommendations in order to fill the assessed gaps, with the Value/Ease of Implementation rating:

Table 14: Recapitulation of Gaps / Recommendations by focus areas

Gap	Recommendation	Value	Ease of implement
1. Alignment to Project's Objectives			
Rehabilitation works and facility management in 1266 schools are not coordinated in MEHE.	1. Add a "Civil work Coordination" function and unit in UNDP team: Recruit 5 engineers in REOs.	High	Medium
Increasing volume of Data is being transferred and used. Protecting MEHE data and defining clear access policy for users is becoming crucial, but ICT Security policies and deployment processes are not available.	2. Introduce a new mandate in UNDP team for IT and Data Security: Recruit a Chief Security Officer reporting to UNDP Project Manager /Director General and a Security Architect reporting to ICT Manager.	High	High
The planning and monitoring of ICT projects is not standardized.	3. Introduce a new function of PMO for ICT activities. The PMO is used as a tool to enhance the Ministry's management oversight, assist in building planning capabilities, and, provide targeted advisory support on a number of issues to main stakeholders.	Medium	High
Institutional Development work wasn't exhaustive but was concentrated on specific processes linked to IT automation.	4. Focus the mandate of Institutional Development to process simplification namely for citizens' service.	High	Medium
All forms and procedures related to the citizen were not simplified.			

Gap	Recommendation	Value	Ease of implement
UNDP Education expertise is not always used at its full capacity	5. Participate more actively in Education Program Support in on-going and future education programs	High	Easy
2. Operations and Resources			
UNDP team has not reached its full capacity and has witnessed several resignations over the past period	6. Staff UNDP team with 15 additional resources (including the 5 engineers), taking into account MEHE priorities and budget constraints.	High	Low
The IT function in MEHE faces a risk of unsustainability due to the dependency of resources on external organizations with contracts ending in 2016			
	7. Integrate the UNDP ICT unit into MEHE Administration	High	Low
ICT function is embedded in the ministry and is being managed by competent staff but documentation is not available for all IT internal work processes, putting at risk the business continuity and staff handover	8. Deliver the IT Operations and Procedures manual in order to standardize working mode, apply best practices, deliver efficiently IT services to end users and provide a proper handover of methodology for future staff.	Medium	High
IT organization is traditional and not process oriented	9. Realign the ICT activities to a Process based ICT organization, according to "ITIL" standards in order to add value in the education sector organization.	High	Low
3. Stakeholders management and Collaboration			
Readiness level of all the stakeholders to IT and ICT services is not the same across MEHE, making the tools implemented not always used efficiently	10. Introduce Change Management and Capacity Building framework: New Committee and working procedures.	High	Medium
Lack of coordination between UNDP team and stakeholders can	11. Implement a Collaboration Chart between ECRD and ICT	High	Medium

Gap	Recommendation	Value	Ease of implement
hinder the efficient implementation of projects	unit for ICT in education program.		
Various players are involved in inter-related projects along with UNDP; overall visibility and proper coordination of activities lack in some fields	12. Recruit one UNDP ICT specialist in ECRD.		

The UNDP project's new outputs could include:

- 1- Technical assistance to Education Programs and Institutional Development for process efficiency provided.
 - 2- IT Services and Systems to support Education programs managed, operated, monitored and secured.
 - 3- Civil works coordination provided.
- i. The list of the recommendations approved would be allocated to each output as “activities”.
 - ii. At the UNDP project level, Monitoring of Evaluation should be integrated in all outputs with associated costs. The content of this framework is to be communicated on regular basis to the Ministry's counterparts.
 - iii. The ICT in education component should not be confused nor merged with ICT support function: As for any education program, ICT services will provide the necessary tools to support the implementation of ICT in education program and content; several stakeholders are concerned: Educations specialists in MEHE, MEHE executives and ECRD.

Appendix 1: List of meetings and main outcome, November 2015 to January 2016

Date	Attendees	Main Outcome
Friday 30-10	Fadi Yarak MEHE- General Director of Education Hassan Krayem UNDP Program Manager Toufic Karam MEHE - CIO & UNDP Officer in charge	<ul style="list-style-type: none"> • Introduction and objective of the consultancy mission • Fields of priority for potential UNDP project required by DG: Institutional Development, ICT, Coordination of civil works
Monday 2-11	Toufic Karam CIO & UNDP Officer in charge	<ul style="list-style-type: none"> • Overview of UNDP project history and team main activities
Wednesday 4-11	Joe Feghali MEHE/UNDP- Operations and Infrastructure Manager ICT Department	<ul style="list-style-type: none"> • Overview of the unit activities and major achievements: ICT in education, success stories and initiatives. • on-going projects and resources • Current main focus on ICB project.
Thursday 5-11	Elham Komaty MEHE-School Improvement and Leadership Expert	<ul style="list-style-type: none"> • History and context of ESDS • Added-Value of UNDP team as support to ESDS programs • Added-Value of ICT unit, good collaboration
Monday 9-11	Robert Abi Aad MEHE / UNDP- Application Service Manager Ayman Ballout MEHE – Senior Application Manager	<ul style="list-style-type: none"> • Overview of the unit activities, major achievements and applications developed to improve efficiency in MEHE operations • on-going projects and resources • Current Main focus on SIMIS project
Thursday 12-11	Nada Mnayme Former ESDS Director at MEHE	<ul style="list-style-type: none"> • ESDS history and context and main achievements • Recommendations for future UNDP project: Need to work on ICT in education, to reinforce ICT unit in MEHE • Importance of continuous training programs for teachers, and collaboration with ECRD
Monday 16-11	Elie Naim MEHE - Advisor of the Minister	<ul style="list-style-type: none"> • Importance of ICT in MEHE and good UNDP ICT unit contribution • Need to have a list of UNDP team deliverables during the 5 years • Importance of institutional development and capacity building for MEHE staff • Improve collaboration between UNDP team and ECRD on common activities • Work on education for children with special needs
Tuesday 17-11	Hilda El Khoury MEHE - General Directorate-Counselling & Guidance Director	<ul style="list-style-type: none"> • Overview of the unit's main activities • Need of training in ICT in education • Need of an HR application and follow-up of the teachers' activities • Need of expertise for the education of children with special needs

Date	Attendees	Main Outcome
Wed. 18-11	Fadi Yarak General Director of Education	<ul style="list-style-type: none"> • Debriefing of the consultancy mission progress • Request of some information and documents
	Hassan el Dine Kashli Director of the secondary education unit	<ul style="list-style-type: none"> • Usage of ICT tools in 265 secondary schools • One ICT officer in nearly each secondary school • Importance of the Interactive White Board project • Excellent support from ICT unit
	Souhayla Tohme MEHE- Director of Equivalence unit	<ul style="list-style-type: none"> • Success story of process simplification via IT automation and new applications implemented by UNDP ICT unit: DMS software, workflow for equivalences, queuing system
Thursday 19-11	Toufic Karam MEHE - CIO & UNDP Officer in charge	<ul style="list-style-type: none"> • Overview of activities and organizational structure
Friday 20-11	Joe Feghali MEHE / UNDP - Operations and Infrastructure Manager ICT Department & Help Desk Team	<ul style="list-style-type: none"> • Presentation of help-desk history and main activities • Support team role and lack of resources for the next phase: 10 Microsoft staff's contracts ended in 2015 • Applications that needed important support such as private schools data collection and public examination results collection. • Current and future important projects to support: ICB and SIMS
Monday 30-11	Toufic Karam MEHE - CIO & UNDP Officer in charge	Regular debriefing and work session
Monday 7-12	UNDP Office –Half Mission	<ul style="list-style-type: none"> • Mission debriefing • Request of Documentation on Institutional development and meeting with OMSAR
Tuesday 8-12	School Visit Baabat & Dhour El Shoueir	<ul style="list-style-type: none"> • Excellent support from ICT unit • Not the same level of usage of ICT tools in both schools • Need of content / application to use on ipads • Need of special training to teachers by subject in order to use applications • Need of hardware maintenance • Need to include civism in education in the curriculum
	Elham Komaty MEHE - School Improvement and Leadership Expert	<ul style="list-style-type: none"> • Detailed review of UNDP contribution by program component of ESDS (List of deliverables of Youmna Hennaw submitted)
Friday 11-12	Paulette Assaf with Former UNDP project manager Toufic Karam	<ul style="list-style-type: none"> • Project history and overview of main achievements • Institutional development priority fields were hard to define, work was focused on specific processes automation • Reinforce the ICT in education program in future UNDP project

Date	Attendees	Main Outcome
Monday 14-12	Mayssa Itani MEHE/UNDP – Education specialist	<ul style="list-style-type: none"> • Main achievements specially in EU programs • Currently supporting DG and follow-up on EU programs
Monday 21-12	Fadi Yarak MEHE - General Director of Education	<ul style="list-style-type: none"> • Confirmation of the 3 main priority fields • For institutional development, need to simplify processes related to citizens' operations and forms • For ICT in education, ECRD must develop the content of curriculum and is responsible of continuous training • Positive feedback for recruiting an ICT Data and security officer
	Toufic Karam CIO & UNDP Officer in charge	Regular debriefing and work session
Tuesday 22-12	Nada Ouwayjan ECRD Director	<ul style="list-style-type: none"> • General overview of ECRD activities • Is not aware of SIMS project advancement • Need of resources for ICT in education programs and training on tools
Tuesday 22-12	Toufic Karam MEHE - CIO & UNDP Officer in charge	Regular debriefing
Wednesday 27-01-2016	UNDP team and Minister advisor	<ul style="list-style-type: none"> • Validation of the draft report
Friday 29-01-2016	UNDP Program Management team	<ul style="list-style-type: none"> • Validation of the draft report

Appendix 2- List of developed Applications 2010-2015

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
Help Desk Management Information System - (HDMIS-M1)	Developing an application for the Help Desk Division (Call Service, Archiving, Asset Management, Stock, Staff Management, other)	In House	وحدة المعلوماتية	Installed and used	2012	HeadQuarter	6//6	Jean Haddad	2-Developer 1-Senior Developer
MEHE Liban Post import (MEHELP)	Developing a module to import the data from Liban Postlist to the Equivalence system (EDMS DB)	In House	وحدة معلومات المعلوماتية	Installed and used	2013	HeadQuarter	2//2	Jean Haddad	1-Senior Developer
MEHE Official Exams Result Collection (MEHE-RCS)	Developing a system that can handle to enter the official exams results from excel sheets based on all materials or based on a single material, checking the A and B entry and issuing an alert if a deference exists so that the user will directly be able to entered the correct value. Developing a dashboard to monitor and evaluate the ongoing process and issuing the needed reports that will be sent to all stakeholders. Developing an automated process of sending the results of students based on each school student list and sending it by email.	In House	وحدة المعلوماتية	Installed and used	2012	HeadQuarter	50/100	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers
Queuing Management System (QMS)	Establishing a Queue Management System at the الامتحانات لجنة سر امانة to organize the public attendance and process. After successfully completing the queuing system, the MEHE ICTD is supporting the system for the ongoing daily operations.	MEHE	وزارة التربية	Installed and used	2013	HeadQuarter	7//7	Abbas Abbas	1- Project Manager 1- Implementer/Trainer
Document Management System Workflow	Installing a DMS/WF system for the Director General to process, archive	Microsoft EA	ICTD - وحدة	Installed and used	2013	HeadQuarter/Regions	15/15	Amir Fayad Toufic Hadaya Mohammad	1- Project Manager 1- Developer

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
(DMS/WF) Directorate General of the Ministry	and report on all types of transactions and documents/letters		المعلوماتية					Souki Mrad Mhaweji Salah Risk	10- Implementer/Trainer
Pilot project for interoperability	Developing an eservice to exchange information electronically with the MOPH	OMSAR	مكتب وزير الدولة لشؤون التنمية الإدارية	Other (Precise in "Comments")	2012	HeadQuarter	5//5		
Directorate General for Higher Education DMS/WF Project	Installing a DMS/WF system for the DGHE to process, archive and report on all types of transactions and documents/letters	OMSAR	مكتب وزير الدولة لشؤون التنمية الإدارية	Other (Precise in "Comments")	2012	HeadQuarter	15//15		
Exams automation projects - Barcode	Introducing Barcodes on the exams pamphlets (الكراسات) and inputting data to system directly	In House	وحدة - ICTD المعلوماتية	Other (Precise in "Comments")	2012	HeadQuarter			
SIS Evaluation	Evaluation of the currently found SIS and issuing recommendation what to do	WB	USAID - Consultant منظمة التنمية الامريكاي	Other (Precise in "Comments")	2013	HeadQuarter			
Student Information Management System project (SIMS)	Implementation of new SIMS system at the for levels of the ministry 1 - The MEHE represented by the Directorate General and its central sub division, 2 - The six Regional Education Offices and its sub division, 3- The ECRD and 4- The public schools (1282)	EU	الاتحاد الاوروبي	Testing in progress	2015	HeadQuarter	2500//1400	ALL ICTD Staff	
REO student collection system	Developing an application for REOs to be able to check private schools students thus unifying of	In House	وحدة - ICTD المعلوماتية	Installed and used	2013	HeadQuarter/Regions	15/15	Jean Haddad Ayman Balout Toufic Hadaya	5- Developers 2- Senior Developer

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
(Schools Student Lists Project)	information requested from private schools and converting it to a database.							Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	1- Senior Analyst 5- Implementers /Trainers 10- Support
Named Student Lists Project for private schools	Unification of information requested from private schools and converting it to a database. Developing an application for data population from the "Private schools student lists". And printing the requested official reports from it.	In House	وحدة - المعلوماتية ICTD	Installed and used	2013	HeadQuarter	1700/1700	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support
Official Secondary Certification Attestation Project.	Developing an application to print the Official Secondary Certification Attestation (for years 2001 up till 2013).	In House	ICTD	Installed and used	2014	HeadQuarter	15/15	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad	
Student Unique ID project	Conceptualization of the Student Unique ID system	EU	Eduware	Other (Precise in "Comments")		HeadQuarter			
EMIS Enhancements	Enhancements on the Functional Level of Applications (EMIS)	WB	WB	Installed and used		HeadQuarter			
Archiving software for the Exams Department	National Exams Results Registers which provide the input for certificate production are in need of automation and archiving update. For the years 1925 to date, there are 1479 National Exams Results Registers of which 672 are printed from a digitized database. The registers are utilized to provide certificates for requests received from people still in the workforce,	WB	WB	Design In progress	2014	HeadQuarter	20/30	Robert Abi Raad	1- Project Manager 1- Developer 10- Implementer/Trainer

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
	<p>decreasing in number for people after the retirement age. There is an estimate of one million students and a hundred thousand pages, covering the years 1960-1979.</p> <p>Certificates vary according to type of certificate request including the original certificate, with/without scores, a second request for a certificate, and a certificate copy conform document. There is also the need to unify and standardize certificate templates issued covering present and past years. There is an estimate of 100,000 new annual certificates prepared</p>								
Proof of concept in Dhour El Shoueir	A successful proof of Concept / model on 1 February 2012 till 13 June 2012 till date to adopt the tablet as a supporting instructional tool inside the classrooms by Lebanese Students for the grade 10 and 11.		Microsoft	Installed and used		HeadQuarter			
Raspberry Pi	The project will motivate students for programming by creating small basic applications at first and then incorporating a curriculum that they follow through the academic year. The curriculum will be applied during the student's computer lab hour, 1 hour per week		Boustros Foundation- IEA - Microsoft	Installed and used		HeadQuarter			
Lebanese National Educational Strategic Plan	Lebanon's national educational technology strategic plan lays out a five-year roadmap to guide the implementation and integration of information and communications technology (ICT) ¹ within all levels of the Lebanese general education	WB	Drasati - USAID - MEHE	Installed and used	2012	HeadQuarter			

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
	system. This strategic plan establishes a vision, set of goals and education system. This strategic plan establishes a vision, set of goals and objectives, and recommendations that government, donors, private- and public sector implementers, schools, principals, and teachers must address so that every stakeholder is working from and toward the same vision, goals, and outcomes. The strategic plan covers the period of September 2012 to September 2017								
Update on the EDMS to distribute the delivery of receipts to citizens directly from employees	The EDMS was updated in order to relieve the stress from the القلم and distribute it on the other employees so they will be able to directly hand over the receipt to citizens who submitted their requests	In House	ICTD	Installed and used	2014	HeadQuarter	7//7	Jean Haddad	1 Senior Developer
Establishment of the ICT Department	Identifying the need to the MEHE and preparing the structure of the ICT Department including the preparation of terms of reference for each post identified. Launching the recruiting process with the UNDP and other supporting agencies	MEHE	ICTD	Installed and used		HeadQuarter			
EMIS - Implementation	Implementation of the EMIS that included a Data warehouse, HR system and a Business Intelligence system to support the management	WB		Installed and used	2008	HeadQuarter			
Private Schools average tuition fee.	Developed an application to input the private school average tuition fee and the number of students and issue the requested reports.	In House	وحدة المعلوماتية	Installed and used	2014	HeadQuarter	3//3	Toufic Hadaya Ayman Balout	1 Senior Developer 1 Developer
Public schools detailed basic and technical	Developed an application to input/check the public school basic information and the related ICT	In House	وحدة المعلوماتية	Installed but not used	2014	HeadQuarter	10//10	Toufic Hadaya Ayman Balout	1 Senior Developer 1 Developer

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
information gathering	information needed for the deployment of the SIMS project.								
Printing of attestations of students for year 2014	Developed an application to print the Attestations of students who were candidates for the official exams. The system allows the printing of attestations in the name of the six REO heads and the name of the exams department. Moreover users can change the status of the candidates. A monitoring module is included to check for the printed attestations and log the changes made in the system.	In House	وحدة المعلومات المرئية	Installed and used	2014	HeadQuarter	10//0	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support
MEHE Web Portal	Establishing a web portal for the MEHE	WB		Design In progress		HeadQuarter	15//30		
Updating Data and Printing of attestations of students for year 2014	Based on the official request of H.E. the minister we are adding new candidates and printing their attestations. Also modifying any information requested.	In House	وحدة المعلومات المرئية	Installed and used	2014	HeadQuarter	2//2	Toufic Hadaya Ayman Balout	
MEHE Official Exams Result Collection (MEHE-RCS)	Developing a system that can handle to enter the official exams results from and online application based on all materials or based on a single material, checking the A and B entry and issuing an alert if a deference exists so that the user will directly be able to enter the correct value. Developing a dashboard to monitor and evaluate the ongoing process and issuing the needed reports that will be sent to all stakeholders. Developing an automated process of sending the results of students based on each school student list and sending it by email. Developing an automated process to distribute committees and its relevant data.	In House	وحدة المعلومات المرئية	Installed and used	2014	HeadQuarter	50//100	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
Enhancement of the Named Student Lists Project for private schools	Enhancing the application for the unification of information requested from private schools and converting it to a database. Developing an application for data population from the "Private schools student lists". And printing the requested official reports from it.	In House	وحدة - المعلوماتية	Installed and used	2014	HeadQuarter	1700/1700	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support
Higher Education database for universities in Lebanon	Building a web portal for the universities to be able to data populate from the "Student lists". And printing the requested official reports from it.	In House	وحدة - المعلوماتية	Installed and used	2015	HeadQuarter	100/100	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support
Enhancing MEHE Official Exams Result Collection (MEHE-RCS)	Enhancing the RCS system, based on the fake number, to enter the official exams results from the table on to an online application based on each material, checking the RED and GREEN entry, where the higher grade will be automatically recorded in the final grade , Where a report will be printed by the committee showing the final grades and an empty cell if the deference is more than 2 points or 20% from the total grade. Then the committee will enter the missing grade. While in the next process the real number will be entered in line with the fake number and then the data will be merged together rounded, and multiplied by a certain coefficient to issue the final result and requested reports.	In House	وحدة - المعلوماتية	Installed and used	2015	HeadQuarter	50/100	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support

Application name	Short Description	Funder	Developer /Provider	Status	Date / Deadline	Users	# Users/Planned	Name of Staff allocated	Needed Staff by profile
More Enhancement of the Named Student Lists Project for private schools	Enhancing the application for the unification of information requested from private schools and converting it to a database. Developing an application for data population from the "Private schools student lists". And printing the requested official reports from it. Adding to it the List of official exams candidates and some minor school budget figures.	In House	وحدة - المعلوماتية	Installed and used	2015	HeadQuarter	1700/1700	Jean Haddad Ayman Balout Toufic Hadaya Amir Fayad Robert Abi Raad Mohammad Souki Mrad Mhaweij Elie Wakim	5- Developers 2- Senior Developer 1- Senior Analyst 5- Implementers /Trainers 10- Support
Private schools creation and data update	In this system the administration can control, modify and add schools data or even create new schools or transfer them to other regions	In House	وحدة - المعلوماتية	Installed and used	2015	HeadQuarter	3//3	Toufic Hadaya Ayman Balout	1 Senior Developer 1 Developer
Guidance and Orientation Directorate Information System (GUDIS)	In this system the user will be able to fill the results of certain conducted surveys done the guidance users on certain public schools and students.	In House	وحدة - المعلوماتية	Installed and used	2015	HeadQuarter	3//3	Amir Fayad Ayman Ballout	1 Senior Developer 1 Developer
One stop Shop	Institutional development / design for all the operation with online tracking			Design In progress					

Source: UNDP ICT Unit

Appendix 3: List of Completed Projects (2010-2015)

Project name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Digital Signage At MEHE Building	Cisco ICTD	General Directorate MEHE	Enabling MEHE to display dynamic multimedia graphics on digital screens in the MEHE Building, grabbing the attention of the public visiting MEHE as well As the Ministry Departments with eye-catching videos, images and animations that can change by time and day.		Joe Feghaly Abbas Abbas Elie Abi Farah Elie Daher Garro Hassekian
IT DATA Center Consolidation	Microsoft MEHE ICTD	MEHE	Improving service levels , lowering Data Center costs, Aligning systems with the organization of the Ministry of Education and Higher Education Ministry		Joe Feghaly Abbas Abbas Elie Abi Farah
Show And share	Cisco Hariri Foundation ICTD	MEHE Public Schools	The purpose of this project or initiative is to create a video portal where students and teachers can submit and share educational videos upon approval from a central manager.		

Project name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
LEBNEN	Cisco Hariri Foundation ICTD	MEHE Public Schools	<p>“Lebanon National Educational Network” – LEBNEN project was initiated through a memorandum of understanding - MOU between the Ministry of Education and Higher Education- MEHE and the Ministry of Telecommunications – MOT. This platform aims</p> <ul style="list-style-type: none"> • to connect the 1281 Lebanese public schools to MEHE Headquarters • Leverage LEBNEN network by creating digital material that complements/supports the curriculum and provides third party content that is relevant <p>Currently, 50 schools are connected to the national network while a new MOU is under study between the two ministries to move forward with Project Phase II - in preparation, to connect another 75 schools, among others.</p>		Joe Feghaly Abbas Abbas Elie Abi Farah Mrad Mhawej Mohammad Damen Elias Mechaalany Mohammad Elsouki Elie Wakim Mohammad Srour Garro Hassekian Abbas Abbas Elias mechaalani

Project name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Transforming Classroom Proof of concept	Microsoft	Public Schools	A successful proof of Concept / model on 1 February 2012 till 13 June 2012 till date to adopt the tablet as a supporting instructional tool inside the classrooms by Lebanese Students for the grade 10 and 11.	<ol style="list-style-type: none"> 1. Prepared the scope of work and selected two schools to integrate ICT into their classroom training and supported these schools during summer in regards to thire readinessto adopt the new concept applied on both levels: educational and technical. 2. Continued support to launch the first classroom where ICT is integrated in the teaching and learning process, in Bteghrine Secondary High School and Al Akhtal Al Sahjir - Jdeideh 3. Continued support to Dhour El Choueir secondary public school in its fourth year of implementation of integration of ICT in teaching and learning 	

Project name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Lebanese National Educational Strategic Plan	Drasati USAID MEHE	The education Sector at Large - قطاع التربية والتعليم	Lebanon's national educational technology strategic plan lays out a five-year roadmap to guide the implementation and integration of information and communications technology (ICT) ¹ within all levels of the Lebanese general education system. This strategic plan establishes a vision, set of goals and education system. This strategic plan establishes a vision, set of goals and objectives, and recommendations that government, donors, private- and public sector implementers, schools, principals, and teachers must address so that every stakeholder is working from and toward the same vision, goals, and outcomes. The strategic plan covers the period of September 2012 to September 2017		Joe Feghaly Elie Abi Farah
Rotari Donation	Rotari	Public Schools MEHE	it aims at providing unprivileged public schools in Lebanon with devices to enhance the ICT literacy of teachers and students. 6 public schools were selected to benefit from this project and it was completed in September 2015.		Joe Feghaly Abbas Abbas Elie abi Farah

Project name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Queuing Management System (QMS)	MEHE	Equivalence Committee General Directorate	Establishing a Queue Management System at the امانة سر لجنة المعادلات to organize the public attendance and process. After successfully completing the queuing system, the MEHE ICTD is supporting the system for the ongoing daily operations.		Joe Feghaly Abbas Abbas Elie abi Farah

Source: UNDP ICT Unit

Appendix 4: List of Ongoing Projects and Allocation of Resources

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Raspberry Pi		Boustros Foundation IEA Microsoft	Public Schools	The project will motivate students for programming by creating small basic applications at first and then incorporating a curriculum that they follow through the academic year. The curriculum will be applied during the student's computer lab hour, 1 hour per week. 10 public Schools Labs will be prepared in terms of infrastructure and equipment by the funders in order to host the 1 hour training.	Schools have been selected	Elie Abi Farah Abbas Abbas Garro Haisekian

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
D-RASATI 2 Program	<p>1-Preparing the technical specifications for tablets and connectivity within the 126 public schools and include it in an RFP.</p> <p>2-Assist in the selection of the supplier to execute the RFP.</p> <p>3-Supervise and manage the ICT items distribution and their integration with the education in the 126 public schools.</p>	USAID WorldLearning	Public Schools MEHE	<p>Provided continued technical assistance and support towards the implementation of the following components activities:</p> <p>1. Follow-up as program “Focal Point for Coordination and Communication”, participation in Coordination Committee, and co-lead of Component 2</p> <p>2. Component 2: ICT Equipment Provision</p> <p>2.1. ICT equipment provisioning sub-component: MEHE ICTD representatives participated in the evaluation of the proposals received after launching the bidding process for equipping 126 secondary public schools and 6 ECRD centers with ICT equipment. The schools are divided into 3 tiers, as per the guidelines of the Lebanon Education Technology Strategic Plan.</p> <p>2.2. ICT coaching sub-component: phase 1</p>	Phase 1 and 2 completed. Phase 3 is 75% completed	<p>Joe Feghaly</p> <p>Abbas Abbas</p> <p>Elie Abi Farah</p> <p>Elie Daher</p> <p>Mrad Mhawej</p> <p>Mohammad Damen</p> <p>Elias Mechaalany</p> <p>Mohammad Elsouki</p> <p>Elie Wakim</p> <p>Mohammad Srour</p> <p>Garro Hassekian</p> <p>Abbas Abbas</p> <p>Elias mechaalani</p>

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
				<p>completed by end of June 2014. The second phase is due to start at the beginning of school year 2014-2015 with 126 secondary public schools. The aim of the activity is to support the use of ICT in education and facilitate the development of knowledge and skills needed by educators to help prepare students for the dynamic, technology-intensive, and increasingly connected 21st Century.</p> <p>3. Component 3: Teachers Training ICT in Education Training sub-component: support of the training of Trainers sessions effectively completed in September 2014 with the collaboration and attendance of MEHE ICTD team members.</p>		

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
MEHE IT Data Center and School Connectivity Projects	<p>1-Preparing the technical specifications and submitting them to World bank for approval</p> <p>2-Submit the bid for suppliers and respond to their questions</p> <p>3-Manage the project of deployment of the items within the technical specifications.</p>	World Bank MEHE	MEHE	<p>MEHE IT Datacenter:</p> <p>1. Contract for replacing several defected disks within the main storage of the MEHE datacenter, was signed under World Bank . Delivery and installation done in July 2014.</p> <p>2. Technical specifications of the main MEHE Data Center (DC) , Disaster Recovery (DR) and connectivity of the public schools to MEHE DC center have been prepared by MEHE ICTD and were approved by the World Bank in September 2015 and the tender was launched and the bidder selection is expected by 18th of December 2015.</p> <p>3.Once Selected the ICTD team will supervise and manage the implementation and acceptance of the items and service requested.</p>	Phase 1 and Phase 2 are completed	Joe Feghaly Abbas Abbas Elie Abi Farah

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
UNICEF project / ICT Support component	<p>1-Preparing the technical specifications and submitting them to World bank for approval</p> <p>2-Submit the bid for suppliers and respond to their questions</p> <p>3-Manage the project of deployment of the items within the technical specifications and get the acceptance from public schools.</p> <p>4-Supervise the public schools in the maintenance of these items.</p>	UNICEF	Public Schools	Equip 1280 public schools with computers and printers on an average of 1 per school and equip districts with raspberry Pi.	Phase 1 and 2 are completed. Phase 3 is 50 % completed.	<p>Joe Feghaly</p> <p>Abbas Abbas</p> <p>Elie Abi Farah</p> <p>Elie Daher</p> <p>Mrad Mhaweij</p> <p>Mohammad Damen</p> <p>Elias Mechaalany</p> <p>Mohammad Elsouki</p> <p>Elie Wakim</p> <p>Mohammad Srour</p> <p>Garro Hassekian</p> <p>Abbas Abbas</p> <p>Elias mechaalani</p>
Robotics		VEX - IEA - Raspberry Pi- Lego -MEHE	Public Schools	<p>Providing students with devices and programming tools to create robotics.</p> <p>Participate in regional and international competition</p>		<p>Joe Feghaly</p> <p>Elie Abi Farah</p> <p>Abbas Abbas</p>

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
UNHCR project / ICT Support component			Region Educational Offices MEHE	<p>1. Procurement of ICT equipment and infrastructure preparation for the Regional Education Offices as recommended by MEHE ICTD based on their analysis and assessment of the regional offices need.</p> <p>2. Provision and recruitment of ICT Support Personnel to Regional Education Offices on an average of one personnel for each of the six offices.</p> <p>3. Deployment of equipment into the regional offices</p>	Phase 1 and 2 completed Phase 3 50% completed	Joe Feghaly Abbas Abbas Elie Abi Farah Mrad Mhawej Jean Haddad Toufic Hadaya Mohammad Elsouki Elie Wakim Elias mechaalani

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Public Schools Visit		Microsoft	Public Schools	The aim of this project is to check the administration PCs and lab equipment within public schools running windows operating systems and Microsoft Applications in order to upgrade them to the latest versions available and apply to them a valid Microsoft application and upgrade or maintain the hardware if needed	25 % Completed.	Abbas Abbas Elie Abi Farah Elie Daher Mrad Mhawej Mohammad Damen Mohammad Srour Garro Hassekian Abbas Abbas

Project name	Sub-project / Phase name	Funder	Beneficiary	Short description	Short Progress	Name of Staff allocated
Initiation of Office 365 Project		Microsoft-MEHE ICTD	Public Schools	Provide an E-mail for each student and teacher within the Lebanese public schools along with the online tools like the office suite, Lync for video communication and online conferencing and onedrive for online storage. It will be used as a learning tool in the class and for communication with public schools, teachers and students.	Initiation Phase	Abbas Abbas Elie Abi Farah Elie Daher Mrad Mhawej Mohammad Damen Mohammad Srour Garro Hassekian Abbas Abbas

Source: UNDP ICT Unit

Appendix 5: List of Suspended Projects

Project name	Funder	Budget	Short Progress
OPEN YOUR TOMORROW	Intel / Triple C	Public Schools	A initiative will create a disruptive environment for successful education transformation across Lebanon through the use of technology in the teaching and learning . It consists on donating 1,500 tablets to public schools students in grade 10 and 11 as part of their pilot for integrating classroom technology.
GIS for School	Esri	Public Schools MEHE	Implementation of 2 GIS pilot projects: With teachers to enhance the teaching methods of a list of identified courses (within the curriculum) by introducing and using the GIS technology in the class With students to introduce the GIS as an extracurricular activity

Source: UNDP ICT Unit

Appendix 6: List of Hardware in MEHE and Users

Hardware Category	Short Description	Quantity	Project Related to	Funder	Date of Installation / Deadline	Location	User Type	Number of users by Type	Developer/ Provider	Name of Staff allocated
Data Center										
Core Switch	3Com 7750 Connect the MEHE HQ Together	1			2007	MEHE HQ	Head Quarter	400	MEHE	Abbas Abbas/Elie Abi Farah
Router Firewall	Cisco 3845 Helps to filter and route inbound and outbound traffic to MEHE HQ	2			2009	MEHE HQ	Head Quarter , Schools & Regional Offices	1600	MEHE	Abbas Abbas/Elie Abi Farah
Blade Servers	HP Blade Servers that is acting as hypervisor and hosting around 15 virtual machines mainly for the applications	8			2009	MEHE HQ	Head Quarter , Schools & Regional Offices	1600	MEHE	Abbas Abbas/Elie Abi Farah
Rack Mounted Servers	These servers are used for the Mailing Service, Active Directory, Archiving Service, Application Servers	10			2009	MEHE HQ	Head Quarter , Schools & Regional Offices	1600	MEHE	Abbas Abbas/Elie Abi Farah
Router	Cisco 3845 helps connecting 50 schools for now with the MEHE HQ	1			2010	MEHE HQ	Schools	50	MEHE	Abbas Abbas/Elie Abi Farah
IP Telephony		1			2010	MEHE HQ	Head Quarter	300	MEHE	Elie Abi Farah
MEHE Building										
Computers		400			2009	MEHE HQ	Head Quarter	300	MEHE	MEHE Technical Team

Hardware Category	Short Description	Quantity	Project Related to	Funder	Date of Installation / Deadline	Location	User Type	Number of users by Type	Developer/ Provider	Name of Staff allocated
Printers		150			2009	MEHE HQ	Head Quarter	200	MEHE	MEHE Technical Team
Schools BY USAID										
Tablets		6060	School Improvement	USAID By D-Rasati	2014	Schools	Schools	6060	D-rasati /Technomania	Technomania/MEHE ICT Team
Laptops		780	School Improvement	USAID By D-Rasati	2014	Schools	Schools	780	D-rasati /Technomania	Technomania/MEHE ICT Team
Servers		150	School Improvement	USAID By D-Rasati	2014	Schools	Schools	6840	D-rasati /Technomania	Technomania/MEHE ICT Team
Projectors		540	School Improvement	USAID By D-Rasati	2014	Schools	Schools	6840	D-rasati /Technomania	Technomania/MEHE ICT Team
Switches		160	School Improvement	USAID By D-Rasati	2014	Schools	Schools	6840	D-rasati /Technomania	Technomania/MEHE ICT Team
Wireless Access Point		500	School Improvement	USAID By D-Rasati	2014	Schools	Schools	6840	D-rasati /Technomania	Technomania/MEHE ICT Team
Schools By UNICEF										
Computers		1300	SIMS	UNICEF	2015	Schools	Schools	1300	MEHE	Abbas Abbas/Elie Abi Farah
Printers		1300	SIMS	UNICEF	2015	Schools	Schools	1300	MEHE	Abbas Abbas/Elie Abi Farah
UPS's		1300	SIMS	UNICEF	2015	Schools	Schools	1300	MEHE	Abbas Abbas/Elie Abi Farah
Lebnen										
Routers		50		Cisco	2012	Schools				
Switches		50		Cisco	2012	Schools				

Hardware Category	Short Description	Quantity	Project Related to	Funder	Date of Installation / Deadline	Location	User Type	Number of users by Type	Developer/ Provider	Name of Staff allocated
Access Points		150		Cisco	2012	Schools				
Reginal Education Offices By UNHCR										
Servers	To Host Applications provided by MEHE	12		UNHCR	2015	REO's	Regional Offices	90	MEHE	MEHE UNHCR ICT Team
Routers	To connect REO's to MEHE HQ	6		UNHCR	2015	REO's	Regional Offices	6	MEHE	MEHE UNHCR ICT Team
Switches		25		UNHCR	2015	REO's	Regional Offices	90	MEHE	MEHE UNHCR ICT Team
Computers		90		UNHCR	2015	REO's	Regional Offices	90	MEHE	MEHE UNHCR ICT Team
Printers		24		UNHCR	2015	REO's	Regional Offices	90	MEHE	MEHE UNHCR ICT Team
Items to be acquired through School Connectivity ICB										
Routers		1266		MEHE	2016	Schools	Schools	6000		MEHE ICT Team
Modems		1266		MEHE	2016	Schools	Schools	6000		MEHE ICT Team
Network and Security Items to be acquired through Data Center and Disaster Recovery Center ICB										
Cisco Identity Services Engine	To identify who can access the MEHE Local Area Network	2		MEHE	2016	MEHE HQ	Head Quarter, Schools & Regional Offices	400	Winner of the ICB	MEHE ICT Team
Data Center Firewalls	Firewall to protect the data center In MEHE HQ	2		MEHE	2016	MEHE HQ	Head Quarter, Schools &	7000	Winner of the ICB	MEHE ICT Team

Hardware Category	Short Description	Quantity	Project Related to	Funder	Date of Installation / Deadline	Location	User Type	Number of users by Type	Developer/ Provider	Name of Staff allocated
							Regional Offices			
Data Center IPS	Intrusion Prevention System In MEHE HQ	2		MEHE	2016	MEHE HQ	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
NETWORK MANAGEMENT Software	Software to monitor the Public Schools Network	1		MEHE	2016	MEHE HQ	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
Application Security and Traffic Manager	Network Load balancer and Web Application Firewall	2		MEHE	2016	MEHE HQ	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
SIEM Log Management Appliance	Correlate Events from multiple security devices	1		MEHE	2016	MEHE HQ	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
Next Generation Threat Protection Appliances	Appliance that detect zero Day attacks	1		MEHE	2016	MEHE HQ	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team

Hardware Category	Short Description	Quantity	Project Related to	Funder	Date of Installation / Deadline	Location	User Type	Number of users by Type	Developer/ Provider	Name of Staff allocated
Firewall / IPS for DR	Firewall to protect the DR	1		MEHE	2016	MEHE DR	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
Core Switch - Cisco Catalyst 4500X for DR	Core Switch at the DR Site	2		MEHE	2016	MEHE DR	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
WAN Gateways - ASR 1002-X for DR	Routers at the DR Site	1		MEHE	2016	MEHE DR	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
Storage Items to be acquired through Data Center and Disaster Recovery Center ICB										
Storage DC		1		MEHE	2016	MEHE HQ	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team
Storage DRC		1		MEHE	2016	MEHE DR	Head Quarter , Schools & Regional Offices	7000	Winner of the ICB	MEHE ICT Team

Appendix 7: List of Staff in ICT, by project, since 2010

Name	Position	Unit allocated to	% of allocated time	Contract with	Start Date	End Date
Toufic Karam	Project Manager / ICT Manager	UNDP/ICT Unit	100%	UNDP	Jan-09	Feb-16
Robert Abi Raad	Applications Service Manager	IT Unit	100%	UNDP	Jul-12	Feb-16
Joe Feghaly	Operations and Infrastructure Manager	IT Unit	100%	UNDP	Jun-12	Feb-16
Mayssa Itani	Education Specialist	ESDS Unit	100%	UNDP	Sep-11	Feb-16
Paullete Assaf	Project Manager	UNDP	100%	UNDP	Jul-10	Oct-14
Caroline El-Rayes	Institutional Development Specialist	UNDP Institution Development	100%	UNDP	Apr-11	Mar-15
Madeleine El Helou	Administration and Finance Assistant	UNDP Institution Development	100%	UNDP	Jun-11	Oct-14
Ahmad Mincara	Database Administrator	IT Unit	100%	World Bank	Dec-06	Dec-12
Souad Morabi	Senior Software Engineer	IT Unit	100%	UNDP	Jul-11	Oct-12
Yumna Hannawi	Education Specialist	UNDP Institution Development	100%	UNDP	Sep-11	Sep-14
Mira Chebib	Administration Assistant	IT Unit	100%	UNDP	Mar-13	Feb-14
Abbas Abbas	Senior Network Administrator	IT Unit	100%	World Bank	Jun-09	Dec-16
Elie Abi Farah	Senior System Administrator	IT Unit	100%	World Bank	Jul-09	Dec-16
Elie Daher	Help Desk Manager	IT Unit	100%	Microsoft	Nov-10	Sep-15
Amir Fayad	Junior Developer	IT Unit	100%	Microsoft	Sep-12	Sep-15
Garo Hassekian	Technical Support	IT Unit	100%	Microsoft	Apr-12	Sep-15
Salah Rizk	Technical Support	IT Unit	100%	Microsoft	Oct-10	Sep-15
Mohammad Damen	Technical Support	IT Unit	100%	Microsoft	Jun-10	Sep-15
Mohammad Srour	Technical Support	IT Unit	100%	Microsoft	Jul-10	Sep-15
Najib Hachem	Junior Developer	IT Unit	100%	Microsoft	Mar-14	Sep-15
Lea Mneimneh	Assistant	IT Unit	100%	Microsoft	Feb-14	Sep-15
Tarek Abdalla	System Administrator	IT Unit	100%	Microsoft	Sep-10	Sep-13
Jihad Safitly	System Administrator	IT Unit	100%	World Bank	Sep-10	Sep-13
Fady Saade	Network Administrator	IT Unit	100%	World Bank	Jan-05	Apr-10
Jean Mrad	Application Project Manager	IT Unit	100%	World Bank	Nov-04	Dec-10
Hussain El Arab	Technical Support	IT Unit	100%	Microsoft	Jan-08	Dec-15
Mireille Tabet	ICT in Education Expert	ICT in Education Unit	100%	Microsoft	Mar-14	Sep-15
Jean Haddad	Senior Application Manager	IT Unit	100%	UNHCR	Nov-14	Jul-16
Toufic Hadaya	Regional Office Implementer	IT Unit	100%	UNHCR	Nov-14	Jul-16
Elie Wakim	Regional Office Implementer	IT Unit	100%	UNHCR	Mar-15	Jul-16
Elias Mechelaany	Regional Office Implementer	IT Unit	100%	UNHCR	Nov-14	Jul-16

Name	Position	Unit allocated to	% of allocated time	Contract with	Start Date	End Date
Mrad Mhawej	Regional Office Implementer	IT Unit	100%	UNHCR	Mar-15	Jul-16
Mohammad Souki	Regional Office Implementer	IT Unit	100%	UNHCR	Mar-15	Jul-16
Ayman Ballout	Senior Application Manager	IT Unit	100%	UNICEF	Jan-14	Jul-16

Source: UNDP ICT Unit

Appendix 8: Participation in Committees/Workshops for UNDP ICT team members**1. Toufic Karam**

Meeting Type	Denomination / Main Subject	Participation Nature	Frequency	Comments
Interministerial Committee	MEHE ICT Committee	Member	Monthly	
Committee	D-rasati 2 Committee	Member	Monthly	
Workshop / workshop	ICT Action Plan	Other (Precise in Comments)	Punctual	Active participant in the workshop aiming to translate the National Educational Technology Strategic plan into relevant Action Items
Committee	SIMS Committee	Chair	Monthly	
Committee	D-rasati 2 "Component 2: ICT equipment Provision"	Member	Punctual	Participated in the writing of the technical specifications, supplier selection in the bid process and supervision of the distribution of equipment to the 126 public schools selected.
Committee	Institutional Development	Member	Quarterly	
Committee	ICT into Education Committee	Member	Quarterly	
Committee	Exam Committee	Member	Quarterly	
Committee	Interoperability	Member	Quarterly	

Source: UNDP ICT Unit

2. Joe Feghali

Meeting type	Denomination / Main Subject	Participation Nature	Frequency	Comments
Interministerial Committee	MEHE ICT Committee	Member	Monthly	
Committee	D-rasati 2 Committee	Member	Monthly	
Workshop / workgroup	ICT Action Plan	Other (Precise in Comments)	Punctual	Active participant in the workshop aiming to translate the National Educational Technology Strategic plan into relevant Action Items
Committee	SIMS Committee	Member	Monthly	
Committee	Acceptance of the GIS infrastructure project	Other (Precise in Comments)	Punctual	Head of the Acceptance committee for the hardware needed for the web application implemented by Geovision at the MEHE departments using the existing GIS.
Committee	D-rasati 2 "Component 2: ICT equipment Provision"	Other (Precise in Comments)	Punctual	Participated in the writing of the technical specifications, supplier selection in the bid process and supervision of the distribution of equipment to the 126 public schools selected.
Committee	National Committee for Electronic waste management	Member	Quarterly	The objective of this committee is to put a process for the management of electronic waste on a national level.

Source: UNDP ICT Unit

3. Robert Abi Raad

Meeting type	Denomination / Main Subject	Participation Nature	Frequency	Comments
Committee	Institutional Development	Member	Quarterly	
Committee	ICT into Education Committee	Member	Quarterly	

Source: UNDP ICT Unit

Appendix 9: ICT organization Chart as defined by Project Officer in Charge

