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Report No: PAD3494

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED LOAN

IN THE AMOUNT OF US$163.1 MILLION
AND PROPOSED SUPPORT FROM THE GLOBAL CONCESSIONAL FINANCING FACILITY
IN THE AMOUNT OF US$36.9 MILLION

TO THE

HASHEMITE KINGDOM OF JORDAN

FOR A

YOUTH, TECHNOLOGY, AND JOBS PROJECT

February 28, 2020

Finance, Competitiveness and Innovation Global Practice
Middle East And North Africa Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective Jan 31, 2020)

Currency Unit =	Jordanian Dinar (JD)
JD 0.71 =	US$1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Ferid Belhaj
Country Director:	Saroj Kumar Jha
Regional Director:	Najy Benhassine
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Task Team Leader(s):	Ali H. Abukumail, Khalid Ahmed Ali Moheyddeen, Mariam Nusrat Adil

ABBREVIATIONS AND ACRONYMS

API	Application Program Interface
AWS	Amazon Web Services
BPO	Business Process Outsourcing
CBJ	Central Bank of Jordan
CPF	Country Partnership Framework
CPSD	Country Private Sector Diagnostics
CSO	Civil Society Organization
CRM	Customer Relationship Management
DFS	Digital Financial Services
DLI	Disbursement-Linked Indicator
DTT	Digital Transformation Task Team
EEP	Eligible Expenditure Program
ESCP	Environmental and Social Commitment Plan
E4E	Education for Employment
GCC	Gulf Cooperation Council
GCFF	Global Concessional Financing Facility
GIZ	The German Agency for International Cooperation
GoJ	Government of Jordan
G2P	Government to Persons
ICT	Information and Communications Technology
ILO	International Labor Organization
IPF	Investment Project Financing
ISTD	Income and Sales Tax Department
ITO	Information Technology Outsourcing
IVA	Independent Verification Agency
JOPACC	Jordan Payments and Clearing Company
LMP	Labor Management Plan
M&E	Monitoring and Evaluation
MENA	Middle East and North Africa
MFD	Maximizing Financing for Development
MoDEE	Ministry of Digital Economy and Entrepreneurship
MoE	Ministry of Education
MoH	Ministry of Health
MoL	Ministry of Labor
MOU	Memorandum of Understanding
NAF	National Aid Fund
NSC-ICT	National Skills Council for Information and Communications Technology
PAD	Project Appraisal Document
PMU	Project Management Unit
SA	Social Assessment
SC	Steering Committee
SEP	Stakeholder Engagement Plan

SME	Small and Medium Enterprise
SUM	Skilling Up Mashreq
TOR	Terms of Reference
TVET	Technical and Vocational Education and Training
USAID	United States Agency for International Development
VTC	Vocational Training Corporation
VTI	Vocational and Training Institute
VTSDC	Vocational and Technical Skills Development Commission

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Jordan	Jordan Youth, Technology, and Jobs Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P170669	Investment Project Financing	Moderate

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[✓] Disbursement-linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
20-Mar-2020	31-Mar-2025

Bank/IFC Collaboration

No

Proposed Development Objective(s)

Improve digitally-enabled income opportunities and expand digitized government services in Jordan.

Components

Component Name	Cost (US$, millions)

Support the supply of digital skills in Jordan	102.00
Support the expansion of digital sector and digital government services in Jordan	93.00
Project Management & Implementation support	5.00

Organizations

Borrower:	Hashemite Kingdom of Jordan
Implementing Agency:	Ministry of Digital Economy and Entrepreneurship

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	200.00
Total Financing	200.00
of which IBRD/IDA	163.10
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	163.10

Non-World Bank Group Financing

Trust Funds	36.90
Concessional Financing Facility	36.90

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025
Annual	7.00	34.32	34.61	38.34	33.79	15.04
Cumulative	7.00	41.32	75.93	114.27	148.06	163.10

INSTITUTIONAL DATA

Practice Area (Lead)

Finance, Competitiveness and Innovation

Contributing Practice Areas

Education, Governance, Social Protection & Jobs

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Substantial
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Moderate
8. Stakeholders	● Substantial
9. Other	● Substantial
10. Overall	● Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes   [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes   [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description
A. Institutional Arrangements
The Borrower shall:
(1)   Establish and maintain a Steering Committee in accordance with the terms of the LA.
(2)   Establish and maintain a PMU within MoDEE; and appoint the project director of the PMU and the managers no later than sixty (60) days of the Effective Date.
(3)   Ensure that the PMU is adequately staffed, with qualified and experienced staff, adequate resources and terms of reference no later than hundred and twenty (120) days of the Effective Date.

Sections and Description
B. Employment Subsidy Program for Digital Firms
(4)   For purposes of carrying out Part 2.1(a) of the Project, the Borrower shall cause the PMU to form a selection committee to assess applications from Digital Firms for employment subsidies, and shall select eligible Digital Firms,

based on Eligibility Criteria contained in the POM and the LA and in accordance with the Payment Agreement.

Sections and Description

C. Matching Grants to Digital Firms

(5)   For purposes of carrying out Part 2.1(b) of the Project, the Borrower shall cause the PMU to form a selection committee to assess applications from Digital Firms for Matching Grants to cover costs of implementing business development plans, and shall select eligible Digital Firms, based on eligibility criteria contained in the POM and the LA.

Sections and Description

D. Matching Grants for Nonprofit Companies and CSOs

(6)   For purposes of carrying out Part 2.1(d) of the Project, the Borrower shall cause the PMU to form a selection committee to assess applications from CSO for Matching Grants to cover costs of activities adopting technology means to support vulnerable youth and poor areas, and shall select eligible nonprofit companies and CSOs based on eligibility criteria contained in the POM and the LA.

Sections and Description

E. Common Terms and Conditions of Matching Grants under Parts 2.1(b) and (d) of the Project: Sub-Grant Agreements

(7)   Prior to the PMU providing a Matching Grant under Parts 2.1(b) or (d) of the Project to a Benefiting Entity, the Borrower shall cause the PMU to enter into a Sub-Grant Agreement with each Benefiting Entity under terms and conditions approved by the Bank.

Sections and Description

F. Expenditure Verification, Utilization Verification for the Project

(8)   By no later than five (5) months after the Effective Date, the Borrower shall engage Independent Verification Agent(s) to verify the data and other evidence supporting the achievement and reporting of DLIs, and verify and report on the achievement of the employment level objectives for employment subsidies.

Conditions

I. STRATEGIC CONTEXT

A. Country Context

1.   **Jordan maintains a delicate equilibrium amidst an ever-changing regional context.** Positioned at the epicenter of one of the most volatile regions in the world, Jordan has consistently preserved its stability, drawing from its unique geopolitical positioning and socio-political resilience. The country has been highly exposed to exogenous shocks, particularly the spillovers from regional conflict, the fluctuation of commodity prices, and shifts in geopolitical relations, all of which have compounded the country's existing vulnerabilities. One such shock has been the Syrian crisis. The crisis has gravely affected Jordan's fiscal situation. It has put pressure on the delivery of basic services to the people – Jordanian citizens and refugees alike – in a country already suffering from scarcity of natural resources and pre-existing vulnerabilities in its delivery systems. Jordan's response is a developmental one, with a focus on investing in human and physical capital and service delivery.

2.   **Economic growth and job creation are the key challenges facing the Government of Jordan (GoJ) today.** Jordan's economy has grown at about 2 percent annually over the past three years, constrained by regional challenges and structural impediments. The country is dealing with a particularly challenging set of conditions, some of which are perennial such as youth unemployment, which reached 39.9 percent (more than 700,000 people) in 2019.[1,2]   Progress in reducing unemployment and increasing labor force participation has also stalled, exacerbating the

Figure 1: The Job Challenge

urgency posed by the presence of 1.3 million Syrian refugees that started arriving in 2011. While the youth proportion (15-24 years) in Jordan's population is similar to the regional average (19 percent in 2015), Jordan's youth unemployment rate is far above the regional average (28 percent).

3.   **Women's economic participation in Jordan is strikingly low.**[3] Since 2000, female labor force participation has increased by only 2 percentage points.[4] At 14 percent, Jordan's female labor force participation is well below both the regional average and the average for low- and middle-income countries in the Middle East and North Africa (MENA) region. Similarly, the ratio of female-to-male labor force participation in Jordan in 2019 (22.2 percent) was lower than the regional average (30 percent). Of the few women active in Jordan's labor market, a large share is unemployed (23 percent of the female labor force is unemployed, compared to 13 percent of the male labor force), with young women particularly disadvantaged (55 percent of female youth are unemployed, compared to 33 percent of male youth). The government has recently strengthened its commitment to gender equality and female social and economic empowerment through Jordan's Renaissance Plan 2019-2020 and through its the Women

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[1] Department of Statistics, Jordan (Q3 2019)
[2] International Labor Organization, ILOSTAT database. Data retrieved in Sept 2019.
[3] The gender analysis in this document has been adapted from "Jordan: Improving Women Economic Opportunities - Select Entry Points for Policy Dialogue and Operational Interventions", World Bank (June 2019).
[4] World Development Indicators. Data retrieved in June 2019

Economic Empowerment Action Plan (supported by the Mashreq Gender Facility). Furthermore, the Jordan National Commission for Women is developing a new National Women's Strategy, encompassing the government's vision of women's empowerment and the national plans that address various pillars of gender equality.

4.   **There is a dearth of economic opportunities among Syrian refugees in Jordan.** There are 660,000 registered Syrian refugees in Jordan, according to UNHCR. Only 5 percent of registered Syrian refugee women work while half of registered Syrian refugee men work (United Nations High Commissioner for Refugees - UNHCR, VAF2017). Jordan Labor Market Panel Survey (JLMPS) 2016 data indicated that 91 percent of those who work do so informally. Registered Syrian refugees are concentrated in construction (27 percent), manufacturing (18 percent), and the wholesale and retail sectors (19 percent).

B. Sectoral and Institutional Context

5.   **By 2020, one in five jobs in the Arab world will require digital skills that are not widely available today.** The future of work for youth, women and refugees in Jordan will be determined by their ability to supply the skills demanded in emerging sectors driven by automation and innovation. Existing talents in the market are considered raw and unprepared for fast growing technologies, which may hinder Jordan's ability to benefit from the opportunities offered by disruptive technologies. Of the 8,000 annual graduates of technology-related disciplines, only 1,700 (21 percent) work in the field in which they have been trained. The Jordanian education system remains a credentialist system, in which value is derived from obtaining a particular credential or certificate rather than the demand for the skills and knowledge gained. Considering the changing nature of the future of work, it has become increasingly pressing to address the shortcomings of the credentialist system by equipping youth with skills that are relevant for the digital economy.

6.   **The services sector, including the Information and Communications Technology (ICT) sector, shows potential for growth, job creation, and women's employment in Jordan.** The contribution of the services sector to GDP was 56 percent in 2018. The sector grew at 2.3 percent, generated about 60 percent of the net jobs in the economy in (out of a total of 53,969 new jobs created),[5] and accounted for 46.7 percent of total Jordanian exports in 2017. The direct contribution of the ICT sector to GDP is 4 percent in 2018[6] and employment in the sector increased from approximately 18,000 employees in 2016 to 21,811 in 2018. ICT sector revenues increased from JD677 million in 2017 to JD750 million in 2018 (a growth rate of 10.7 percent),[7] which was fivefold higher than Jordan's GDP growth in the same year (1.94 percent).[8] Women accounted for approximately 33 percent of employment in the sector in 2018 (4,505 female employees), which is above the national average.[9] ICT services accounted for 5.7 percent of exports[10] and 21.6 percent of value added in 2017.[11]

7.   **The IFC/World Bank Country Private Sector Diagnostic (CPSD) for Jordan confirmed the importance and the potential of the ICT sector for growth**. The CPSD highlighted IT outsourcing (ITO)/ Business Process Outsourcing (BPO), and digital entrepreneurship as key potential activities. In addition to recommended reforms in the telecom

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[5] Excluding public administration.
[6] ICT Association of Jordan (Intaj) sector profile, 2018
[7] ibid
[8] World Bank National Accounts Data, 2018
[9] Labor Force Survey, 2018 (DoS)
[10] The Atlas of Economic Complexity, 2017
[11] ibid

infrastructure sector, which the GoJ is currently pursuing, the CPSD also found that the sector would benefit from an impetus on digital payments, including the implementation of e-KYC and the acceleration of digitization efforts for government-linked payments to increase use. Reducing skills mismatches for ICT graduates by providing short-term demand-driven training would increase their employability in the market.[12]

8.   **Jordan has the potential to grow its digital sector and absorb more digitally skilled labor, including through developing the BPO/ITO sector.[13]** Enterprises across the globe are outsourcing business processes to concentrate on their core business. The global BPO/ITO market is expected to expand at 11 percent annually to reach US$335 billion by 2024.[14] Jordan enjoys a unique blend of qualities, making it an attractive destination for BPO/ITO services. Global giants such as Cisco, Expedia, Amazon, Microsoft, Webhelp, Teleperformance, and Oracle have already established operations in Jordan. Local BPO/ITO players such as Aspire, Crystel, and Extensya are experiencing organic growth,[15] targeting global and regional markets. Some of the critical success factors that help position Jordan as an ideal BPO/ITO destination include the availability of affordable technical and non-technical talents, neutral Arabic speaking dialect, geopolitical stability, good infrastructure, liberalized telecom sector, proximity to key target markets in the Gulf Cooperation Council (GCC) countries, and government support. However, critical gaps remain, including the mismatch between the workforce and job market requirements, the size of the domestic market, restricted access to export opportunities, and limited access to funding for business development and expansion.

9.   **Although Jordan is well known for its growing number of university graduates in computer science, math and engineering fields, it remains ill-equipped with specialized skills to thrive in a digital economy.** The findings of a 2016 Labor Market Study conducted by the ICT Association of Jordan (Intaj) revealed five core weaknesses underlying the skills mismatch: (i) an outdated university curriculum; (ii) lack of soft skills; (iii) lack of awareness of and experience with global technology trends; (iv) little to no practical hands-on experience; and (v) brain drain to neighboring countries. A recent research of a leading TVET (Technical and Vocational Education and Training) provider in Jordan, Luminous, revealed that a mix of essential technical, English, and soft skills is needed to better equip youth for future jobs. Technical skills carry more importance and include Python programming, artificial intelligence, Internet of Things, and cloud computing, among others; and soft skills include accountability, adaptability, communications, and creative thinking among others. A two-pronged approach is required to address the gaps in the supply of digital skills: (i) immediate attention to the stock of educated youth with skills gaps; and (ii) a systematic focus on foundational issues in the education system that result in a flow of unprepared students. Innovative rapid skills enhancement models to train a few hundred graduates every year on skills for future jobs have been piloted by the Ministry of Digital Economy and Entrepreneurship (MoDEE) and have produced promising preliminary results. These models represent a nimble approach to closing the skills gap among the stock of youth in the job market and will be part of the ongoing offering of skills development programs to provide rapid response to the changing set of skills sets needed by the digital technologies sector. These models include ReBootKamp (RbK), Al-Hussein Technical University (Luminus, SAGO Training and Education and others. Graduates from these programs have been rapidly absorbed by the private sector at a placement rate of more than 80 percent. In addition, some large incoming foreign investors in the sector, like Expedia and Webhelp, have paid for training their

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[12] Country Private Sector Diagnostic (CPSD), IFC/WB 2019

[13] This refers to the process of outsourcing various business processes including IT, finance and accounting, back-office, e-commerce support, and other services.

[14] Business Process Outsourcing (BPO) Services Market Research Report - Global Forecast till 2024 by Market Research Future

[15] Aspire is specialized in ITO services and targets the US market (retains 275 Jordanian employees), Extensya provides contact center support to Vodaphone, Saudi Airline, MBC, and others (retains 1,700 Jordanian employees in Amman and Irbid), and Crystal provides contact center support to local and regional clients (retains 1,000 Jordanian employees in Amman and Karak).

newly recruited cohorts of staff. Scaling up these models in a sustainable manner remains a challenge but also presents an opportunity for development as well as an opportunity to learn and inform the content of university curricula.

10. **The passage of the Vocational and Technical Skills Development Law in July 2019 has created the institutional framework for sector-specific skills development, including in the digital or ICT sector.** The law approved the establishment of the Vocational and Technical Skills Development Commission (VTSDC), which is mandated to set standards and foundations for the formation of sectoral councils and will lead the development of vocational and technical education and training, governed by a bylaw that will be issued by the Council of Ministers by March 2020. The government established a National Skills Council for ICT (NSC-ICT) as an advisory body for the VTSDC in February 2019. Most of the council members come from the private sector, and it includes representatives from the government, employers and relevant employee associations.

11. **The private sector has expressed interest in contributing to a sustainable mechanism that supports building youth competencies and talents to support growth.** A World Bank (WB) survey of digital firms in Jordan in January 2019 suggested that 48 percent of firms perceive finding technical talent an obstacle in the local market. The recent experience of Injaz in rolling out financial literacy in Jordanian public schools by using allocated funds from commercial banks (0.5 percent of profits on annual basis) suggests a good model to replicate in digital skills development. Preliminary discussions with telecom operators in Jordan confirmed that interest, with the condition of putting in place an efficient digital skills development model that produces graduates of high employability. Leading domestic and foreign ICT firms in Jordan would participate in such a mechanism to ensure that their demand for specific talents informs the design of training provided.

12. **The Jordanian market is relatively small, so private businesses seek to expand into the wider regional markets for business growth and financing; however, enterprises struggle to enter relevant networks, both at home and abroad.** With traditionally hierarchical societies in the Middle East, it can be difficult for businesses in Jordan to enter new networks without personal contacts. This yields tremendous benefits to well-connected entrepreneurs but constrains and may even discourage growing entrepreneurs without these personal connections, with women business owners being less networked with mainstream networks and subject to social norms.[16] Recent efforts by the government to provide financing through the Innovative Startup and SME Fund (ISSF) to partially bridge the financing gap are positive, but there remains a need to secure lead investors. Jordanian entrepreneurs' outreach to regional and global venture capitals is limited to individual efforts. Access to market opportunities, particularly for export, is similarly constrained. Programs that support linkages for digital entrepreneurs to investors and business opportunities, particularly export markets, are absent and could boost the growth of these enterprises.

13. **The GoJ's e-Government Program, which aims to improve service provision, increase the productivity and efficiency of the public sector, and provide the necessary technology and infrastructure to provide e-services, would also drive growth and employment in the digital sector in Jordan.** The GoJ aims to provide seamless integrated service delivery to citizens and businesses through the consolidated government portal (Jordan.gov.jo) and to digitize payments associated with government services. The GoJ is keen to rapidly expand e-government

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[16] World Bank research has shown that obstacles facing female entrepreneurs, globally, include inadequate financial support, lack of access to networks and knowledge resources, and widespread social biases about a woman's entrepreneurial abilities. In Jordan, women face additional binding constraints related to lack of access to child care and concerns about safe, reliable and affordable transportation.

services by partnering with the private sector on the development of applications, services, and solutions. By including the private sector in the transformation - as service providers to the government, Jordan would also strengthen national capacity and local tech ecosystems to build on current platforms, maintain systems, and support public sector innovations. Commercializing some government services may foster new revenue streams while improving the experience for end-users, businesses and investors, leading to job growth and opportunity. Several initiatives have already begun, including national aid payments (through the National Aid Fund), bread subsidies (for civil servants, through the Ministry of Finance), transportation payments (Greater Amman Municipality and Ministry of Transport), and health records and billing (Ministry of Health). The GoJ has also implemented overarching digital infrastructure projects that form an enabler for digitization of government payments, including nationwide identification and authentication, secure networking and key payment system platforms. These need to be supplemented with enhancing integration, business processes, procedures, and policies to achieve the objectives on digitization of government payments.

14. In May 2019, the GoJ created the Ministry of Digital Economy and Entrepreneurship, with a mandate to support digital entrepreneurship, expand electronic payments, and support digital skills development. This step reinforced the GoJ's commitment to expanding the digital economy by creating an institutional champion for the digital agenda in the cabinet. MoDEE's top priority is to expand business and job opportunities in the digital sector, which has led to a focus on digital skills as one of key enablers for access to jobs, digital government services and payments as a driver of business opportunities in the digital sector for improvement of the quality of those services, and finally digital entrepreneurship. Integrating these different elements effectively to achieve a quantitative shift in the level of jobs, business activity, and services enabled by the digital sector demands a high level of public and private sector coordination, learning from global experience, and close technical support. MoDEE has sought the World Bank's support to design and implement a project that would achieve these objectives.

C. Relevance to Higher Level Objectives, and Rational for Use of Financing Instrument

15. The proposed project is aligned with strategic objectives of the World Bank Group (WBG). The WBG twin goals are to eradicate extreme poverty and promote shared prosperity in a sustainable manner by fostering income growth of the bottom 40 percent of the population in every country. As noted in the "Prosperity for All – Ending Extreme Poverty" (The World Bank Group Spring Meetings 2014 Note), "jobs are essential to lifting people out of poverty".[17] By scaling up digital skills, creating economic opportunities, and improving government services, the project will support the achievement of the twin goals in Jordan. The project is aligned with Objective 1.1 of Jordan's Country Partnership Framework (CPF) for FY2017-2022 (Report No. 102746-JO) - *Improve economic opportunities for Jordanians and Syrian refugees*. The project will aim to catalyze the private sector's role as an engine for growth and job creation, moving away from a model in which the bulk of formal employment is created in the public sector. Furthermore, the project will facilitate *increased access to finance and skills development* (Objective 1.3 of the CPF) by providing result-based financing to support the expansion of training and business service providers.

16. The project is aligned with Jordan's REACH 2025 Vision aimed to have a digital economy that empowers people, sectors and businesses to raise productivity and ensure growth and prosperity, creating a highly attractive business destination for investments and international partnerships. The project supports the GoJ in the achievement of its commitments, which were announced at the Digital Mashreq Forum 2019, to advance the

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[17] World Bank 2014 "Prosperity for All, Ending Extreme Poverty, A note for the World Bank Group Spring Meetings 2014; page 10.

digital economy as a strategic growth sector for the Kingdom. On digital infrastructure, the GoJ committed to expanding access to internet broadband in order to reach a 100 percent penetration rate by 2021. Relatedly, the GoJ is opening the National Broadband Network (7,000 kilometers of fiber) for Public-Private Partnerships, allowing affordable fiber broadband to 1.3 million households around Jordan. Further, the GoJ is committed to: (i) increasing the percentage of adults making or receiving digital payments from 33 percent currently to 50 percent by 2020 and to digitizing 80 percent of government-to-citizen payments by 2021; and (ii) launching a national skills development initiative to train 35,000 people on 21st century skills and mainstreaming digital skills in public schools to train 300,000 students by 2022. To enable a business environment friendly for entrepreneurs, the GoJ launched a regulatory reform process in 2019, following a participatory approach with ecosystem representatives. To complete automation of government services, the GoJ commits to automate key services by 2021. Building on the recent transformation of the Ministry of ICT into MoDEE, the GoJ will launch its digital transformation action plan in partnership with the ecosystem in the first half of 2020.[18]

17. The project contributes to the implementation of the enlarged MENA strategy, which focuses on MENA's strongest potential: its youth and its biggest challenge: jobs and economic transformation. The strategy lays out commitments on human capital, maximizing financing for development (MFD), and digital transformation. The Youth, Technology and Jobs project fully operationalizes these commitments to create digital-enabled jobs for youth. The project leverages MFD and aims to attract private sector investments and contributions to support: (1) digital skills development activities; (2) digital firm expansion in underserved communities; and (3) Tech Hubs management and sustainability. Furthermore, it also contributes to the pillars of the MENA strategy on renewing the social contract and resilience to refugee and migration shocks. Renewing the social contract requires a new development model built on greater trust; openness, transparency, inclusive and accountable service delivery; and a stronger private sector that would create jobs and opportunities for the youth of the region.

18. The project will contribute to gender equality and women's social and economic empowerment through Jordan's Renaissance Plan 2019-2020 and Jordan's Women Economic Empowerment Action Plan under the Mashreq Gender Facility, which explicitly seeks to increase women's employment in the private sector and the participation and productivity of women's SMEs. The plan also sets the ambitious target of increasing female labor force participation to 24 percent by 2025.

19. The project will also contribute to the Skilling Up Mashreq (SUM)[19] initiative by creating jobs for Jordanian and Syrian youth (including vulnerable youth) in tech-enabled services in Jordan. The SUM initiative for the Mashreq region aims to provide at least 500,000 students with the skills of the future. The project component focuses on training and education on digital skills as well as TVET education for Jordanian youth aligned with Jordan's National Employment TVET strategy[20] and Jordan's National Strategy for Human Resource Development 2016 – 2025.[21] The project also aligns with the five pillars of the MENA Tech Initiative and DE4A including Digital Infrastructure, Platforms, Financial Services, Entrepreneurship and Skills.

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[18] Amman Communique, link: https://www.worldbank.org/en/news/press-release/2019/06/30/amman-communique-the-first-high-level-mashreq-conference-on-digital-transformation-commitments

[19] Skilling Up Mashreq Initiative (SUM) is an initiative led by the World Bank to train 500,000 students, graduates and workers in digital skills in Jordan, Lebanon and Iraq by the end of 2020, as the countries pledged to overhaul regulations to rejuvenate their digital economies.

[20] http://inform.gov.jo/en-us/By-Date/Report-Details/ArticleId/31/The-Jordan-National-Employment-Technical-and-Vocational-Education-and-Training-E-TVET-Strategyhttp://inform.gov.jo/en-us/By-Date/Report-Details/ArticleId/31/The-Jordan-National-Employment-Technical-and-Vocational-Education-and-Training-E-TVET-Strategy

[21] http://www.mohe.gov.jo/en/documents/national-hrd-strategy.pdf

20. The project supports broader WBG engagement in public sector governance. The GoJ has declared digitalization and expansion of e-governance as one of the key priorities which would enhance transparency and the ease of doing business, reduce costs for citizens and businesses, and thus contribute to stronger economic development and growth. Migration to e-services will increase efficiency of the public sector and has the potential to greatly reduce the time to process and obtain administrative services. This would reduce the overall administrative burden of doing business for investors and encourage expansion of business activities. Thus, the project will potentially contribute to more investment and the creation of new jobs in the country. Further, e-services would eliminate person-to-person interaction and reduce petty corruption and informal payments, increasing transparency and the accountability of service delivery.

21. The project also supports commitments in the World Bank MENA Climate Action Plan. Jordan is highly vulnerable to the climate change. Projected impacts include a 2°C increase in temperatures by 2050, a decrease in annual precipitation, and an increase in drought conditions and heat waves.[22] Additionally, Jordan is one of the most water-stressed countries in the world—its per capita annual renewable resources has dipped below 130 cubic meters and is far below the threshold of severe water scarcity set at an annual 500 cubic meters per capita. These stressors are expected to impact various sectors, including energy which is responsible for 80 percent of Jordan's greenhouse gas emissions. These impacts are further exacerbated by rapid urbanization and population growth, in addition to the influx of refugees. Poor and vulnerable groups are particularly exposed and vulnerable to the physical impacts of climate change—increasing the likelihood of coping strategies that weaken long-term adaptive capacity to climate change and exacerbating grievances which magnify existing inequalities.[23] Components 1 and 2 of this project incorporate elements—specifically, energy efficiency improvements and facilitating the development and incorporation of technologies that support the implementation and capacity of national policies—to enhance climate change mitigation and adaptation opportunities into the design of the project. This is also aligned with the achievement of Jordan's Nationally Determined Contributions (NDCs) under the Paris Agreement of the UNFCCC, as well as the Climate Change Bylaw, published in the Official Gazette on 16 May 2019, to continue the low-carbon transition and climate resilient growth of the economy.

22. The proposed project is a US$200 million Investment Project Financing with results-based financing modality. The amount of US$200 million is financed by a US$163.1 million IBRD loan and US$36.9 million grant from the Global Concessional Financing Facility (GCFF, see Box 1).

Box 1. Global Concessional Financing Facility

The GCFF is a partnership sponsored by the World Bank, the United Nations (UN), and the Islamic Development Bank Group (IsDB) to mobilize the international community to address the financing needs of middle-income countries hosting large numbers of refugees. By combining donor contributions with multilateral bank loans, the GCFF enables eligible middle-income countries that are facing refugee crises to borrow at below-regular multilateral development bank rates for providing global public good. The GCFF represents a coordinated response by the international community to the Syrian refugee crisis, bridging the gap between humanitarian and development assistance and enhancing the coordination between the UN, donors, multilateral development banks, and benefitting (host) countries. The GCFF includes Jordan, Lebanon, Colombia, and Ecuador as benefitting countries. The GCFF is currently supported by Canada, Denmark, the European Commission, Germany, Japan, Netherlands, Norway, Sweden, the United Kingdom, and the United States.

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[22] Jordan Country Profile, Climate Change Knowledge Portal, World Bank Group (2019).
[23] Shockwaves: Managing the Impacts of Climate Change on Poverty, World Bank Group (2016), pg. 141.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

Improve digitally-enabled income opportunities and expand digitized government services in Jordan.

Digitally-enabled income opportunities in this context refer to employment, full-time or part-time, or freelancing/self-employment whether that be: a) entrepreneurship (startup of a digital firm by a beneficiary), b) work within digital firms,[24] c) work on digital technology in other than digital firms, or d) work through digitally-enabled online platforms.

PDO Level Indicators
- Number of beneficiaries, of those trained on employable digital skills, reporting new income opportunities (10,000 individuals), of which 15 percent are Syrian refugees and 30 percent are female.
- Number of transactions from new/improved government e-services introduced (5,000,000 transactions)
- Percentage of government payment services enabled for digital payments (80 percent).
- Volume of new private sector investment mobilized in digital services (US$20,000,000).

B. Project Components

23. The proposed project is a US$200 million IPF with results-based financing modality. The IPF instrument was chosen to support critical investments for the growth of digital economy and to create income opportunities, with disbursement-linked indicators (DLIs) driving a focus on results. The project aims to build an impetus for private-sector-led growth of the digital sector by: (i) deepening the pool of quality digital skills; and (ii) leveraging the government's ambitious agenda of digitizing government services to create a demand for digital services and jobs. The project is structured around interventions that address constraints to both the supply and demand side of digitally skilled labor in Jordan, with Component 1 focusing on strengthening the supply of digital skills and Component 2 boosting demand in the digital economy and hence jobs and income opportunities. Component 3 supports project management.

24. The use of an IPF with results-based financing modality will link disbursements to the achievement of results. The DLIs provide a common set of results that reflect joint priorities of MoDEE, Ministry of Labor (MoL), and Ministry of Education (MoE) in preparing for the fourth industrial revolution. DLIs will be a critical tool for shifting the policy dialogue towards results, especially in the initial years, and generating momentum around key activities that are bottlenecks in the system. Finally, the DLIs will provide an opportunity to leverage GoJ's investments in data systems and strengthen and institutionalize a culture of results measurement. The DLIs for this project include outcomes, intermediate results, and implementation performance targets that build incrementally over the life of the project to improve the quality and relevance of digital skills development programs and to boost demand for these skills. The results represented in the DLIs are critical to achieving the project's development outcomes. An

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[24] Digital firms in this context refers to technology or technology-enabled companies, organized or incorporated in Jordan, that work on the: (a) development of information technology products or services, and/or (b) provision of IT or IT-enabled business processes for third parties – also known as IT outsourcing and business process outsourcing.

IPF with DLI was chosen over a Program-for-Results since the GoJ does not have a defined program and there are specific activities that would benefit from an IPF modality and related procurement procedures.

25. The components leverage DLIs for activities that require a focus on results. Component 1, supporting the supply of digital skills in Jordan, is structured against three DLIs ensuring substantive outcomes are delivered under the activities, and which cover both procurable and recurrent expenditures incurred by MoDEE, MoL and MoE during project implementation. Component 2, supporting demand in the digital sector and government e-services, is structured against IPF procurable expenditures as well as one DLI, ensuring that outcomes for delivering e-services are achieved, and which are supported by procurable expenditures (no recurrent expenditures). Component 3 for project management is supported only by IPF procurable expenditures (no associated DLIs).

26. The structure of the project is as follows:
   Component 1 – Increasing the supply of digitally skilled youth in Jordan - US$102 million
   - Sub-component 1.1: Establishing a digital skills training ecosystem with private sector involvement (DLI 1 and 2) - US$64 million
   - Sub-component 1.2: Enhancing digital skills competencies for public school students (DLI 3) - US$33 million
   - Sub-component 1.3: Providing working spaces in underserved communities through Tech Hubs - US$5 million
   Component 2 – Expanding the digital sector and digital government services in Jordan - US$93 million
   - Sub-component 2.1: Expanding access to market for digital firms - US$15 million
   - Sub-component 2.2: Supporting digital transformation of service delivery to citizens and businesses (DLI 4) - US$72 million
   - Sub-component 2.3: Digitization of government payments -US$6 million
   Component 3 - Project management and implementation support - US$5 million

   Component 1: Increasing the supply of digitally skilled youth in Jordan (US$102 million)

27. Component 1 aims to increase the supply of high-quality human capital to cater to the increasing demand for digital skills in Jordan, covering both employment and freelancing jobs. A two-pronged approach is required to address the gaps in supply of digital skills: (i) immediate attention to the stock of youth that is currently in the job market with inadequate digital skills, complemented by: (ii) institutionalizing a link between emerging skills needs in the digital sector and the design of curricula in the education system and complementary rapid response programs to improve the preparedness of the flow of job-seekers in the digital sector. The project will support creating a Customer Relationship Management System (CRM) to maintain a database of all trainees/ graduates to ensure that they are plugged into relevant offline and online job matching activities (e.g., employment matchmaking platforms, job fairs, etc.). The project will leverage a local job-matching platform that was launched by the Ministry of Labor recently[25] to support connections between supply and demand.

28. Component 1 will address the five core weaknesses identified in the Intaj's study[26] underlying the skills mismatch directly and indirectly by developing a strong alignment between the supply and demand sides, boosting demand for digitally skilled youth in Jordan, and ensuring that training activities produce demand-driven skills for the market. Direct and frequent feedback collected from private sector employers will inform the alignment

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[25] https://sajjil.gov.jo/en/the-middle-east
[26] http://intaj.net/wp-content/uploads/2017/12/Labor-Market-Study-2016-ICT-Fresh-Graduates.pdf

approach. The project will also leverage regional and global job requirement trends in this regard. To incentivize the alignment between the supply and demand sides, the project will offer up to 15 percent incentive to training providers who successfully secure job opportunities for their graduates. Component 1 will include three sub-components.

29. Sub-component 1.1 - Establishing a digital skills training ecosystem with private sector involvement (US$64 million): The project will support the establishment of the NSC-ICT, as an independent (financially and administratively) legal entity, with a majority private sector board membership and representation from key public sector stakeholders, and with the mandate to: (a) conduct demand and supply side assessments; (b) establish national occupational standards to be adopted by VTSDC; (c) qualify training service providers; (d) select and contract training service providers; (e) create, accredit, and disseminate on-line training materials; (f) conduct national awareness activities; (g) engage in monitoring and evaluation; and (h) establish comprehensive CRM system for the beneficiaries. The activities of the NSC-ICT will be coordinated with and, when required by VTSDC law and regulations, approved by VTSDC. The Project Management Unit (PMU) will facilitate signing a Memorandum of Understanding (MoU) between MoDEE and VTSDC. The MoU will specify the process related to issuing national occupational standards, accrediting training services providers, advising on plans for digital skills development, and exchanging relevant market information.

30. The project will support building the NSC-ICT capacity and operating model to ensure future sustainability, through future contributions from private sector entities and monetization of offered services. The operating model of the NSC-ICT will follow global best practices to identify and rapidly respond to changing market demand; augment various sources of financing for digital skills trainings; allocate funds in accordance with market needs and national policies; build training systems and capacities and develop competitive training markets; and ensure inclusivity in access to training opportunities. It will also seek to raise awareness and build digital skills that have the potential to expand products and facilitate entrepreneurship related to climate in Jordan (i.e., early warning systems related to expected increase in heat waves and other extreme weather events in the country). Examples of such products include ArabiaWeather, developed by Jordanian technology entrepreneurs, that has become the largest private weather company in the Arab world and a pioneer in weather technology.[27] The Terms of Reference (TOR) for training programs and learning assets development will include this requirement.

31. Following a review of global practices in rolling out national frameworks for skills development, the GoJ found out that the Indian model in digital skills development is the most relevant for Jordan. Therefore, the GoJ intends to leverage the experience of the Indian National Skills Development Corporation to support this sub-component, including building the capacity of the NSC-ICT. The project will also leverage large scale private-sector-led initiatives, such as Amazon Web Services (AWS), Educate, or One Million Jordanian Coders, in collaboration with universities and vocational institutes to build the regional future workforce by creating digital skills development programs.[28] The sub-component will also include capacity building and advisory support to universities and the Khidmat Watan Program, which focuses on vocational and technical education, to ensure that mainstream digital

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[27] Arabia Weather website: https://www.arabiaweather.com/en/
[28] George Mason University (Mason) and Northern Virginia Community College (NOVA), in collaboration with AWS Educate, announced a Bachelor of Applied Science (BAS) pathway in cloud computing. https://aws.amazon.com/blogs/publicsector/george-mason-university-and-northern-virginia-community-college-announce-the-regions-first-bachelors-degree-for-cloud-computing-with-aws-educate/
Managed by the Crown Prince Foundation, the One Million Jordanian Coders initiative, hosted in partnership with Microsoft, Udacity, Facebook and Bayt.com, includes the launch of an online platform that offers free training courses for young people in Jordan interested in developing their digital skills across different domains.

skills training activities in the education system have enhanced market relevance. The Khidmat Watan Program will coordinate with the NSC-ICT for the delivery of ICT training for underserved youth participating in the program.

32. This sub-component will include supporting the most vulnerable youth (i.e., those living under the poverty line), women, and those with lower education outcomes by enabling their participation in online training courses and providing them with financial assistance to purchase / upgrade digital hardware and software, stipends for transportation, and childcare support. The NSC-ICT, which will implement digital skills development activities, will receive initial funding from the project and leverage private sector contributions in subsequent years.

33. The training will ensure inclusion of women, Syrian refugees, and vulnerable youth, including those identified through the National Aid Fund (NAF) database across project components. The project will include the design and implementation of targeted outreach and awareness-raising activities to identify and motivate targeted beneficiaries to register for trainings and to support applicants with the application process. The activities will adopt a consistent and tailored approach for different categories of target beneficiaries and regions and will include gender-sensitive approaches (times, locations), while also engaging with families when appropriate.

34. Sub-component 1.2 – Enhancing digital skills competencies for public school students (US$33 million): This sub-component will introduce quality technology courses in public classrooms G7-12. The activities under this sub-component will aim to identify gaps in the existing information technology courses in schools and develop context-relevant technology learning curriculum for G7-12. The activities will include training teachers on the new courses and roll out in a systematic way across four grades (G7-10) during the timeframe of the project in public classrooms. The MoE will be the counterpart for this sub-component and will seek partnerships with organizations active in the technology curricula space. The sub-component will leverage the recent MoE experience of rolling out similar specialized curricula, on financial literacy and entrepreneurship.

35. This sub-component will adopt a focused approach to enhance technology skills among girls enrolled in G7-10. To raise awareness about job opportunities offered in the tech sector in Jordan and to encourage more girls to seek employment opportunities in this sector, career advisory materials and training for school counsellors specifically targeting young women will be developed, and teachers will be made aware of these resources. Furthermore, technology skills learning assets will be developed with a gender lens, such as including female role models, to ensure ICT curriculum and learning resources are inclusive. The ToRs for curriculum and learning assets development will emphasize this requirement.

36. Sub-component 1.3 - Providing working spaces in underserved communities through Tech Hubs (US$5 million): This sub-component is designed to support upgrading, equipping, and managing three to five technology hubs (Tech Hubs) as "for fee" venues for skilling programs, co-working spaces, ITO/BPO spaces, and networking spaces for trainers, entrepreneurs, freelancers, CSOs, and ITO businesses in nearby communities. The Tech Hubs will be established at the sites of existing Vocational Training Institutes (VTIs) or other appropriate locations, and private operator(s) will be contracted or partnered with to manage them. The project will finance the upgrading, equipping, and managing of selected Tech Hubs for three years. The project will select the locations of the Tech Hubs using a "hub and spoke" approach - building on existing agglomeration "hubs" while creating venues for digital ecosystems and opportunities for inclusion in nearby "spokes" of underserved communities with a concentration of unemployed youth and women capable of working in the tech sector. Locations of Tech Hubs will be selected following an agglomeration index to ensure the viability of selected locations.

37. The selection criteria and technical proposals for the Tech Hubs will factor in necessary design and delivery considerations to minimize constraints to women's participation, such as program timings, percentage of female staff, layout of the physical space, proximity to or availability of safe transport, and childcare. Targeted, gender-sensitive outreach activities will also be implemented to attract women entrepreneurs and freelancers to leverage these spaces, and specific activities will be developed such as women's mentorship programs and networks, whereby women would be matched with successful Jordan women entrepreneurs who would serve as role models, advisors and mentors. While no new construction activities will be undertaken in this project, as it relates to facility refurbishment or upgrading activities, this sub-component also provides an opportunity to mainstream climate change mitigation and adaptation into its development. The PMU will include energy efficient improvements, including using building techniques and materials that enable the reduction of energy consumption, in the terms of reference for potential contactors who will refurbish the Tech Hubs. For example, more efficient insulation will contribute to increased efficiency in air conditioning and heating. When available, improvements will also include energy efficient lighting, appliances and equipment. Additionally, where applicable, the designs will incorporate the use of revised codes that consider increased frequency of storms and/or flooding for enhanced resilience of built infrastructure.

Component 2: Expanding the digital sector and digital government services in Jordan (US$93 million)

38. Component 2 comprises interventions which aim to boost activity in the digital sector by supporting the expansion and access to business opportunities. This is achieved primarily through support of the digitization of government services, which is expected to boost demand for digital services in the domestic market, as well as through interventions that improve access to global markets and investment opportunities for digital entrepreneurs. The component also supports inclusive job opportunity creation through digital platforms and the gig economy by facilitating access of women, youth, and disadvantaged communities to these platforms.

39. Sub-component 2.1 - Expanding access to markets for digital firms (US$15 million):

40. Access to markets for digital firms: This sub-component will provide incentive packages to support the growth plans of digital firms (focusing on ITO/BPO businesses) in underserved communities, help build and scale up their activities, and generate local job opportunities. The project will provide employment subsidies following a results-based model against overall jobs created. This sub-component is designed to spur the development of the digital sector in proximate cities and areas with minimum levels of agglomeration, which may not otherwise benefit from this sector's growth, once again building on the "hub and spoke" approach used in the establishment of the Tech Hubs. Today, training providers outside Amman rent spaces in restaurants and hotels, which are not equipped for training, to offer skills development activities. The project will increase training traffic in areas outside Amman, where the Tech Hubs will be located. This will create higher demand for fee-based services offered by Tech Hubs. The model will specifically seek to incentivize female employment through, for example, the provision of incentives for employers attracting and retaining women or favoring the selection of digital firms could favor those that include having internal policies that would be attractive to women (e.g., flexible working arrangements). This sub-component will also support expansion of digital firms into new markets by providing matching-grants for business development and outreach activities to building linkages between Jordanian digital firms (including ITO-BPO firms and digital entrepreneurs) and potential buyers and investors in regional and global markets. This sub-component will also finance outreach and linkages with domestic digital firms, particularly small and women-owned and managed firms, to support their ability to access procurement opportunities emerging from the development of e-government services under sub-component 2.2.

41. **Growth and adoption of the gig economy.** This sub-component aims to provide access to income opportunities in various tech and non-tech economic activities for individuals in the gig economy. The project will seek to increase the adoption of platforms by supporting Civil Society Organizations (CSOs) in training individuals to access and offer their services on digital platforms and by conducting market outreach and awareness building, with a focus on underserved communities, the inclusion of women of those coming from poor households (NAF beneficiaries), and refugees. The sectors served by these platforms would also be selected with the intention of ensuring that they prioritize sectors in which women and Syrian refugees are active and may include digital platforms for care, maintenance and home improvement, personal tech support, and other personal services. Outreach activities will be designed and implemented to ensure women are aware, trained and connected to these platforms. The content of the trainings could reflect the specific issues that require further exploration as identified by women beneficiaries. The sub-component will provide matching-grants against CSOs activities to adopt technology, including online freelancing, ITO-BPO services, marketplace platform adoption, and job matching and networking to support vulnerable youth and poor areas where the CSOs have comparative advantage due to the limited presence of private / public service providers. The project will cover up to 80 percent of the costs associated with providing services to individuals by CSOs. The project will provide matching-grants following an output / performance-based model that validates the number of beneficiaries engaged and the proportion of female beneficiaries. CSOs may leverage the digital skills supply component and the shared spaces provided through the Tech Hubs.

42. **Sub-component 2.2 - Supporting digital transformation of service delivery to citizens and businesses (US$72 million):** Building on the government's commitment to advance the e-government agenda, this sub-component supports activities designed to improve access to and quality of selected e-government services. In addition to improving quality[29] and cost efficiency of service, the GoJ's commitment to adopt a private sector-based delivery model for government e-services is expected to create business opportunities that provide an impetus for employment growth in the digital sector. The GoJ aims to outsource the development, maintenance, and in some cases, delivery of government e-services to the private sector, including domestic SMEs. The private sector is expected to play a key role in providing know-how and infrastructure to support e-governance; for example, in the development of Application Program Interfaces (APIs) that can be re-used and modified to advance e-service migration at a faster pace and lower cost. Enabling digital payments (see sub-component 2.3) will enhance functionality of key services, allowing payments to go both ways, between persons and government (P2G), and government to persons (G2P). This additional functionality increases the sophistication of services (e.g., services will be accessed, paid for and delivered electronically) and will increase effectiveness and transparency of service delivery.

43. The GoJ sees a significant role for the private sector to contribute to this project, including re-engineering and digitizing key services provided by the Ministry of Civil Status, the Ministry of Interior, Ministry of Social Insurance, Ministry of Health, and the Jordan Investment Commission. Support will be targeted to service re-engineering and automation of business processes of services identified by MoDEE in consultation with relevant government entities. The preliminary list of services includes those that were identified through a prioritization exercise based on citizen demand and alignment to GoJ priorities. Under the project, an assessment of the preliminary list of

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[29] As it is related to the digital transformation of service delivery, the sub-component provides an opportunity to mainstream climate change mitigation and adaptation into its development. Specifically, the PMU will advise the government to include in the terms of reference for potential developers measures that ensure continuity in service delivery in the case of extreme climate-related weather events (i.e., heat waves which contribute to expanded demand of energy which are expected to put strain on existing infrastructure), for example, circuit breakers, storage systems that facilitate integration of renewables, etc.

services will be undertaken to ensure the services digitized are of high value to citizens and businesses. They will be assessed and prioritized for digitization based on criteria such as number of annual transactions (demand); services targeting different economic groups (e.g., women, the elderly, unemployed, refugees); administrative burden and efficiency gains (number of visits and documents required); and application of G2P payments for transactions. Once the list if finalized, the project will support digitization of these services and enhance line ministries' capabilities to deliver services.

44. In addition to the service re-engineering and automation, the project will support access to services through the development of a unified mobile application, increased capacity to deliver e-services through upgrading and extending the functionalities of the interoperability platform, the government cloud, database security, the government's digital archiving systems, and Public Key Infrastructure (PKI); and improved monitoring and data driven decision making through the development of decision support system for business intelligence. These activities will provide significant opportunity for private sector participation such as development of e-services, provision of service infrastructure, hardware and software, and technical support and maintenance of the integrated system. Additional activities will focus on strengthening the regulatory framework to enable e-services (e-signature, e-transaction, data exchange, authentication of e-documents, and interface with the national digital ID system) and promote responsible data use and data protection and privacy surrounding online delivery mechanisms; change management, performance monitoring, and communications and outreach to sensitize government actors and the public on ongoing reforms and anticipated results.

45. Given the need for significant inter-institutional communication and coordination to achieve the digital transformation, this sub-component will support activities to strengthen MoDEE's convening and advocacy capacities to lead e-Government reforms. This sub-component will also finance the recruitment of a Digital Transformation Team comprised of full-time consultants under MoDEE to provide long-term technical expertise to implement the e-government program, including specialists in business process re-engineering, digital payments, mobile applications, API design, and other skills to provide quality assurance of private sector deliverables.

46. Sub-component 2.3 - Digitization of government payments[30] (US$6 million): During the First Digital Mashreq Forum in Amman, June 2019, and as presented in the "Amman Communique", the GoJ committed to increasing the percentage of the population making or receiving digital payments from 33 to 50 percent by 2020 and digitizing 80 percent of G2P payments by 2021. This sub-component supports the government commitment to advance penetration of digital payments in Jordan supporting e-payments for all applicable government services. Jordan has a well-developed payments system infrastructure with wide reaching GSM coverage and smartphone penetration of 85 percent.[31] Moreover, Central Bank of Jordan (CBJ) has created an enabling regulatory and policy environment to overcome challenges faced in the sector. However, there is a need to expand agent networks and strengthen the business case to increase take-up and usage of Digital Financial Services (DFS) and expanding digitization of government payments would contribute to this.

47. The key activities under this sub-component will support implementing digitization of government payments. Specifically, the front-end solution that provides citizens with diverse options/tools to make their payments

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[30] Government payments constitute an important component of the overall payment system. These payments are central to the functioning of the government in terms of revenue collection, public sector salary payments, government-led investment programs, and social benefit transfers. Depending on the government (G) being the payer or payee and the counterpart – which could be natural persons (P) or businesses (B)– the payments are classified as G2P, P2G, B2G, and G2B.

[31] Jordan Telecom Regulatory Commission, 2019

digitally**.** This would supplement the current government initiative to implement the back-end solution linking the request to pay (RTP) with governmental entities core system. For example, the project will support the Ministry of Health (MoH), Ministry of Transport, Ministry of Finance (MoF), and Income and Sales Tax Department (ISTD) in enhancing their internal payment systems and processes as part of their introduction of e-services. Key activities will include technical assistance in: (i) developing an overarching government payments architecture and roadmap; (ii) supporting and growing capacity of an intergovernmental task force for the digitization of government payments and revenues that was formed on November 19, 2019 with membership of MoDEE, CBJ and MoF. The objectives of this task force are to provide a dedicated project management structure responsible for overseeing, aligning, prioritizing, implementing different digitization initiatives of government payments projects, and sequencing their execution. CBJ acts as an advisory arm, reviewing the business process (payments) and operations to this proposed structure that will drive the change in coordination with private sector and other stakeholders. This will build on the work of current digital transformation team at MoDEE along with representatives from different relative ministries, and CBJ ; (iii) developing a set of rules, policies, and procedures that ensure satisfactory completion of digitization projects; (iv) establishing and implementing a comprehensive change management program for digital payment system;[32] (v) developing and implementing required digital G2P payment enablers, (both software and hard ware) (e-KYC, IBan verification, etc). This will be complemented by technical assistance around necessary regulatory changes to support e-KYC and KYC registry and regulatory and policy aspects of digital G2P payments and financial inclusion under the forthcoming MENA MSME Facility 2.0; and (vi) implementing IT enhancements in the ID systems to meet the needs of the financial sector. This includes using the ID system for e-KYC; developing hosted digital signature services for use by individuals for their interactions with financial institutions (e.g., authorizing sharing of data, signing new loan applications, etc.); and enabling linkages with other identification and information providers (e.g., a bank providing information on address records, tax authority on annual income, etc. in the form of a federated architecture). More details are provided in Annex 2.

Component 3: Project Management and Implementation Support (US$5 million)

48. Component 3 will support provision of technical advisory services and goods to manage, coordinate, monitor and evaluate the project, including operating costs, independent verification of the achievement of DLIs and independent verification of completion of employment objectives for employment subsidies and relevant results milestones for matching grants. A PMU will be set up in the MoDEE and will include focal points for MoL and MoE. The PMU (within MoDEE) will have the overall fiduciary responsibility for project implementation and ensure activities are executed in accordance with the Project Operational Manual (POM).[33] It will have the overall responsibility for the monitoring and evaluation of project activities, as well as designing and implementing outreach activities specifically targeting women. This component will finance: (a) PMU staff (non-civil servants) salaries; (b) PMU equipment and operating costs related to the daily management of the project (office space, utilities and supplies, bank charges, communications, translation, transportation, maintenance and insurance, building and equipment maintenance costs, and travel and supervision costs); (c) regular internal audits and annual external audits according to the World Bank's legal requirements); (d) building the capacity of the VTSDC, and (e) consultancy services.

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[32] This will be covered under Sub-component 2.1.

[33] The POM includes the necessary details to ensure that the PMU has the capacity to facilitate the inclusion of climate change mitigation and adaptation elements into implementation (i.e., how to include in the terms of reference for potential developers the review of energy efficient improvements, ensure designs incorporate the use of revised codes that consider increased frequency of storms and/or flooding for enhanced resilience of built infrastructure).

Disbursement-Linked Indicators

49. The project includes DLIs to enhance the results orientation of the project activities. DLIs are chosen for sub-components that require an investment in key activities overlaid by a focus on ensuring that these investments materialize into expected results. A total of US$169 million will be disbursed against DLIs (85 percent of financing). Of this, US$113 million is for result-focused sub-DLIs while US$56 million is aligned with process indicators that are key milestones in the achievement of these results. The selection of process indicators not only helps build a pathway for the achievement of project results, but also ensures a smooth disbursement profile which allows for sufficient cash inflow that the client requires to implement activities necessary to achieve the results. The following table provides a summary of the DLIs.

DLI/sub-DLI	Allocation
DLI 1 - Digital skills developed through private sector collaboration	**$40m**
DLI 1.1. NSC- ICT has been established as a separate legal entity, with a majority private sector board membership and representation from key public sector stakeholders, and its Charter has been adopted with the mandate to: (a) conduct demand and supply side assessments; (b) establish national occupational standards to be adopted by VTSDC; (c) qualify training service providers; (d) select and contract training service providers accredited by VTSDC; (e) accredit training curriculum; (f) create and disseminate on-line training materials; (g) conduct national awareness activities; (h) engage in monitoring and evaluation; and (i) establish comprehensive CRM system for the beneficiaries.	$5m
DLI 1.2 On an annual basis, between CY 2 and CY 5, the NSC-ICT to perform the following core functions as specified in the NSC-ICT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers	$14m
DLI 1.3 Number of performance-based contracts signed with training service providers (TSPs)	$21m
DLI 2- Number of graduates trained and hired	**$24m**
DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities	$17m
DLI 2.2 Number of graduates from the training programs established to provide digital skills development activities who obtained full-time employment	$7m
DLI 3 - Enhancing digital skills competencies for public school students	**$33m**
DLI 3.1 Ministry of Education carries out readiness assessment for grades 7-12 to assess classrooms' readiness for a new digital skills curriculum	$5m
DLI 3.2 Ministry of Education develops and adopts, through a ministerial decree, an action plan for designing and rolling out digital curriculum for grades 7-12.	$4m
DLI 3.3 Ministry of Education develops and adopts a digital skill learning curriculum content for grades 7-12	$9m
DLI 3.4 Ministry of Education completes teacher training on new digital skills courses for 70% of ICT grade 7-12 teachers	$6m
DLI 3.5 Number of public schools enrolled into digital skills classes for grades 7-12	$6m
DLI 3.6 At least 60% of students enrolled in digital skills classes in public schools pass assessment in CY 5	$3m
DLI 4- Support digital transformation of service delivery to citizens and businesses	**$72m**
DLI 4.1 MoDEE issues a ministerial decree for the adoption of the Government Digital Transformation Strategy and change management action plan	$5m
DLI 4.2 Number of new transactional e-services being made available to citizens and businesses through respective government agencies' e-portals	$50m

DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services	$14m
DLI 4.4 MoDEE launches a new citizen feedback system for transactional e-services	$1.5m
DLI 4.5 MoDEE launches e-service performance dashboard for e-services	$1.5m
Overal Total	**$169m**

C. Project Beneficiaries

50. Consistent with the integrated approach, the project will target the following primary groups of beneficiaries, including individuals, firms and CSOs, and government agencies.

(i) *Individual beneficiaries*: These groups will benefit from activities in Component 1 including digital skills training programs, digital skills courses in public schools and income-generation opportunities created through Component 2.

a. The targeted number of individuals reporting income opportunities is 10,000, of which 30 percent Jordanian females and 15 percent Syrian refugees (male and female).
b. Under Sub-component 1.1, implemented trainings will target: (i) 15,000 trainees who will benefit from digital skills development activities, of which 20 percent Syrian refugees (male and female); out of the remaining 12,000, 80 percent Jordanians will be youth aged 18-34, of which at least 40 percent will be women; (ii) 15,000 Jordanian trainees, of which 80 percent will be youth aged 18-34 and at least 40 percent will be women benefitting from ICT-related training under the National Service Program (Khidmat Watan);
c. Under Sub-component 1.2, about 300,000 Jordanian school students in grades 7-12, of which 50 percent female and 6 percent Syrian refugees;
d. Under Sub-component 1.3, 12,000 beneficiaries will benefit from the tech hubs, of which 40 percent Jordanian females and 15 percent Syrian refugees;
e. Under Sub-component 2.1, 2,500 Jordanians will benefit from income opportunities resulting from the expansion of digital firms, including 30 percent Jordanian females.
f. Under Sub-component 2.2, 2,000 individuals, including 50 percent female and 15 percent Syrian refugees will benefit from digital skilling and income opportunities stemming from the technology adoption by CSOs.
g. Under subcomponent 2.3, 6,000 individuals, of which 40 percent Jordanian females, and 15 percent Syrian refugees will benefit from access to and services provided by digital platforms.

(ii) *Firms (including digital platforms) and Civil Society Organization (CSOs):* This group will benefit from activities in Component 2, specifically: accessing financial packages provided by the project that would enable firms and CSOs to create economic opportunities and jobs as well as non-financial services to increase access to markets. Selection criteria will be developed to ensure inclusion: poor and vulnerable, women-owned firms, as well as Syrian refugees will be given a preference to benefit from these opportunities. The project will support the expansion plans of estimated 20 private firms and 15 CSOs.

(iii) *Government agencies:* Component 2 will target line ministries and agencies that are responsible for delivery of the selected government services and who will benefit from service reengineering, digitization, and aligning institutional capabilities to the new model of services delivery. Jordanian citizens and

businesses that are recipients of automated services and government to person payments will benefit from these enhanced services.

51. The project also has an inclusion focus for underserved youth, women, and Syrian refugees[34] which will be achieved through: (i) broad deployment of and access to skilling programs to ensure access to digital skills; (ii) supporting the expansion of demand for skilled workers in areas beyond the traditional hub for tech businesses in West Amman to spokes in East Amman and other cities, building on existing agglomerations while making jobs more accessible; and (iii) supporting employment for women, youth, and Syrian refugees through setting ambitious targets across sub-components, providing employment opportunities closer to their residence, and providing incentives to remove access barriers such as childcare, transportation, and work permits and work around the specific circumstances of these underserved populations.

52. **It is pertinent that increased income for these groups who otherwise lack the resources to adapt to shocks, including climate-induced shocks** is expected to increase adaptive capacity by: (i) meeting existing basic needs, thereby reducing short-term vulnerability and existing development deficits at the household level; (ii) increasing capacity to respond to climate-induced shocks; and (iii) reducing the pressure to engage in coping strategies that weaken long-term adaptive capacity. As digital technologies have demonstrated success in facilitating solutions in energy, industry, construction, transport, food, forestry, and agriculture[35]—sectors these groups engage in—the project thus contributes to adaptation objectives in sustainable development-oriented socioeconomic adaptation targets set out in Jordan's Intended Nationally Determined Contribution (INDC) and the National Climate Change Policy (2013-2020). It specifically notes that, "Low levels of education and professional skills that prevent members of poor households for shifting to climate-resilient sources of income".[36] This project intends to facilitate adaptation to climate change of vulnerable population groups in Jordan, namely: (a) the 54.12 percent of Jordan population in the age group 0-24 years old, including infants, young females, and pregnant women; and (b) refugees.

53. Syrian refugees are expected to benefit from the following specific activities supported by the proposed project: (i) Syrian refugees, including women and youth, would benefit from the digital skills programs (estimated 15 percent of trainees – Sub-component 1.1); (ii) Syrian students in grades 7-12 in public schools would benefit from the digital courses (Sub-component 1.2); and (iii) Syrian individuals, more specifically free-lancers, and in line with GoJ rules and regulations, would benefit from: (a) the services provided by the refurbished and upgraded Tech Hubs at the Vocational Training Institutes (Sub-component 1.3), (b) some ITO-BPO centers could be established within the refugee camps or at their borders and therefore would provide economic opportunities to refugees (Sub-component 2.1); and (c) access to platforms supported by the project to identify income-generating activities in the gig economy (Sub-component 2.2). In general, Syrian refugees are expected to have access to ICT-enhanced jobs (i.e., jobs in which basic ICT capabilities are needed such as leveraging the internet to access online jobs, platforms to access markets and clients, ICT tools to improve productivity, etc.), whereas only Jordanian beneficiaries will have access to ICT-dependent jobs, that require medium to more advanced ICT skills.

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[34] There are about 660,000 Syrians registered with the UNHCR in Jordan. The census identified 1.26 million Syrians in Jordan. About half are of working age. ILO (2017) estimates that there are 85,000 Syrians working formally or informally. (Leading Point (2016) estimates this number at 330,829).

[35] Ekholm, Borje and Johan Rockstrom. Digital technology can cut global emissions by 15 percent. Here's now. World Economic Forum. https://www.weforum.org/agenda/2019/01/why-digitalization-is-the-key-to-exponential-climate-action/

[36] Jordan INDC – Revised Final (2015), pg. 17.

54. **Women.** Across all parts of the proposed project, activities and interventions have been designed in a way that addresses the barriers facing women in the Jordanian labor market (Box 2).

Box 2: Summary of gender-informed interventions in the project.

As described in Section I, women are at a disadvantage in accessing economic opportunities in Jordan - illustrated by significant gender gaps in labor market outcomes (activity, employment, access to finance). The ICT sector has the potential to contribute to increasing the number of women working, especially in light of GoJ's strengthened commitment in recent years to gender equality and women's economic empowerment. The proposed project has been designed to: (a) address barriers preventing access of women to economic opportunities in the digital sector; (b) identify and implement specific activities aimed to incentivize skills building and employment opportunities for women; and (c) ensure that project implementation processes incorporate, address and support the activities aimed to increase women's economic opportunities. It will ensure close coordination with a "whole of government" approach to leverage complementarities and synergies and avoid duplication of efforts.

Specific activities aimed at improving women's economic empowerment under this project include:
• *Communications campaign and outreach activities will be designed and implemented in a gender-sensitive way to attract and encourage women to participate in project activities.* These activities will include approaches that specifically take women's needs into account (times, locations) and will engage with families and influential male relatives when appropriate (Sub-components 1.1 and 1.2 complemented by Component 3 activities). To further address challenges due to social norms and to inspire young women, Component 3 will finance dedicated communication and awareness-raising activities. Communications will target women, their families, and potential employers.
• *Incentives for women and girls to participate in training activities and courses* (Sub-components 1.1 and 1.2) will include the provision of stipends, adequate timings of training courses, facilitate access to safe transportation, provision of childcare, pre and post enrollment orientation support on available job opportunities to encourage more women in non-traditional, digital jobs. *Training courses will include content that would cover topics where the women beneficiaries need specific, additional support.*
• *Encourage women entrepreneurs and freelancers in the digital space.* The selection criteria and technical proposals for the Tech Hubs (Sub-component 1.3) will factor in necessary design and delivery considerations to minimize constraints to women's participation, such as program timings, percentage of female staff, layout of the physical space, proximity to or availability of safe transport, and childcare. Gender-sensitive outreach activities will also be implemented to attract women entrepreneurs and freelancers to leverage these spaces and access opportunities provided in the gig economy (Sub-component 2.2). The Tech Hubs and project activities to support digital entrepreneurs will also offer access to women mentorship programs and networks, whereby women would be matched with other successful Jordanian women entrepreneurs and would serve as role model, advisor and mentor. They will also offer special sessions to address knowledge and experience gaps disproportionately facing women, such as in personal leadership skills or managerial capacity. The intermediaries selected by the project to support the growth of digital entrepreneurs (Sub-component 2.2) will be charged with ensuring the inclusion of women entrepreneurs in the beneficiary pool and ensuring that the support services offered, including access to a network and mentoring support by successful women and financial literacy courses to enhance access to finance, address the constraints disproportionately facing women entrepreneurs (Sub-component 2.2).
• *Selection of digital firms with women-friendly internal policies.* The model that aims to support the

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expansion of ITO-BPO firms (Sub-component 2.1) will specifically seek to incentivize female employment through, for example, the provision of higher subsidies or bonuses for employers attracting and retaining women employees. Selection criteria of the digital firms will include having internal policies that would be attractive to women (e.g., flexible working arrangements). This will also allow to assess the impact of positive internal policies on application rates and preferences for the jobs advertised.

• *Hiring of a part-time Women's Economic Empowerment specialist in the PMU* (Component 3), who will support the overall program management with M&E, potential use of services of women-owned firms, gender-sensitive and specific outreach and advocacy, ensuring the POM and selection processes define clear criteria for the selection of Tech Hubs and companies with gender sensitive approaches, support the Training Team in the PMU with the supply-demand assessments, ensure adequacy of materials and training methods, advise on the adequate stipend format and selection to attract women, amongst other responsibilities.

D. Results Chain
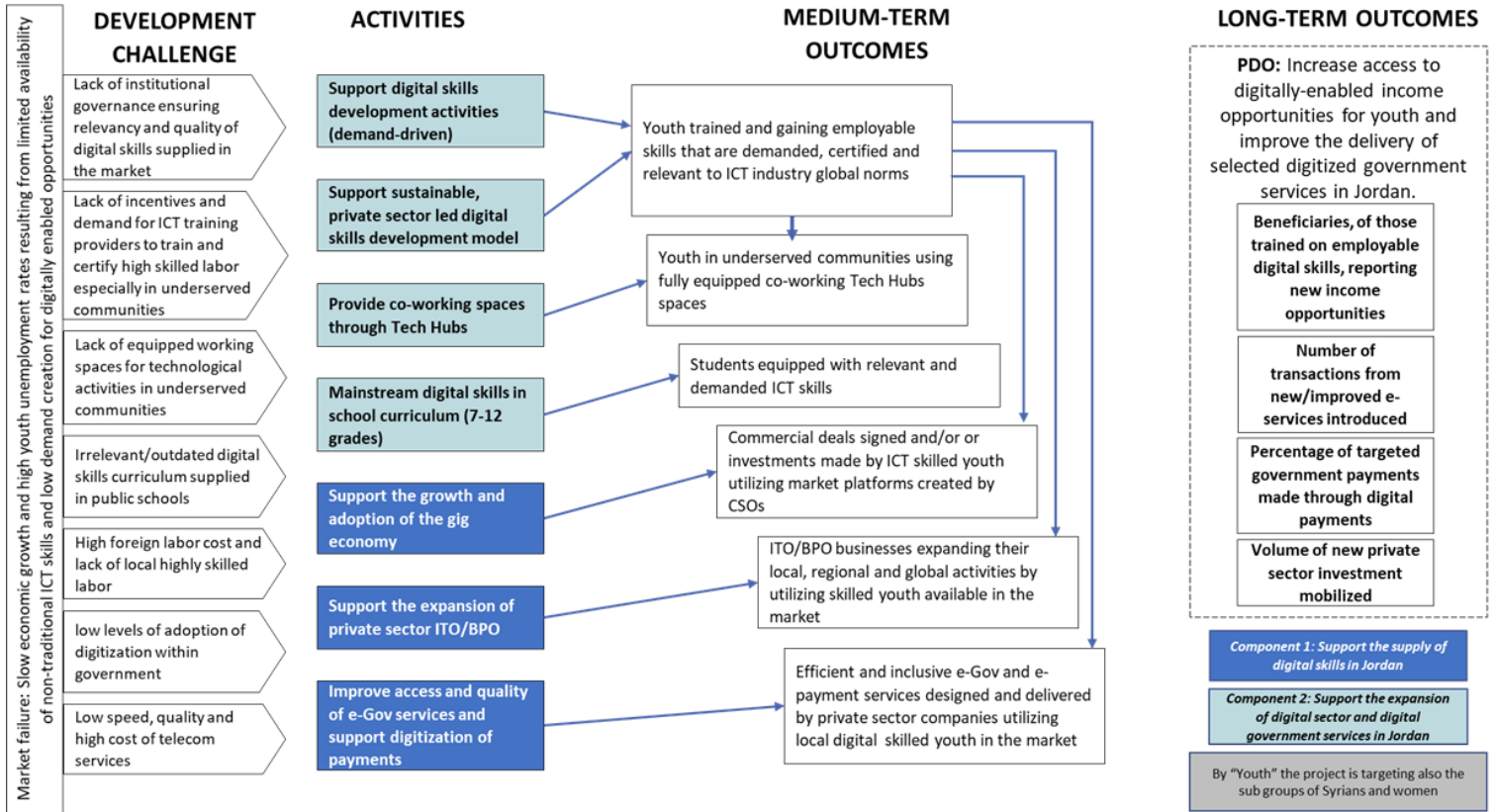
Figure 2: Results Chain

E. Rationale for Bank Involvement and Role of Partners

55. The World Bank has been working closely with the GoJ in supporting the digital transformation of the economy over the last year. The World Bank has provided several advisory activities to support the government's planning efforts to take a holistic approach in supporting digital economy, build stronger regional and global networks, and build institutional capacity following global best practices. The World Bank's holistic approach in supporting the digital economy in MENA, with focus on pillars of digital infrastructure, e-payments, digital skills, entrepreneurship and platforms will significantly support Jordan's ongoing efforts in this domain. The unique World Bank combination of advisory assistance, global experiences, knowledge and financing will support Jordan's efforts in this area.

56. The Bank will leverage international experience needed to understand the complex dynamics of a multi-sectoral reform and assist the GoJ in achieving the project objectives. Technical advice and financial support are critical for guiding digital transformation priorities. Given that this is a new mandate, the GoJ has requested WB assistance in bringing global expertise to build a deep pool of digital talent and leverage growth of digitized government services to absorb this pool. Furthermore, the Bank will use its convening power to not only ensure intra-ministry connectivity and coordination, but also establish partnerships with the private sector.

57. The project will build on ongoing initiatives by other donors such as United States Agency for International Development (USAID) and the German Agency for International Cooperation (GIZ), which are active in the digital transformation space. USAID is supporting re-engineering and automation of court services under their Rule of Law Program. GIZ is developing an e-governance program that focuses on capacity building.

F. Lessons Learned and Reflected in the Project Design

58. The project design leverages lessons learned from international experiences. Previous World Bank experiences showed that financing inputs for business development and training programs would likely be more successful if payments are linked to results achieved. Performance-based contracts are a key feature of the project design. Performance-based contracts with private and public training providers are implementable, stimulate innovation in catering to market demand for skills, and produce skills for employment. This is the lesson from World Bank-financed projects in Eastern Europe and Latin America. Component 1 focuses on this innovative approach for Jordan. It shifts the focus from investing in upgrading infrastructure of institutions to a more flexible and results-based financing of training through contracting of private and public training providers. This puts the onus of creating market linkages on training providers. Contracts should include job placement rates with related financial incentives. Payments should be made on a cost per trainee basis or another cost-effective and performance-inducing measure. Independent monitoring must verify reported results to minimize misreporting of results. Furthermore, the following proposed features of digital skills development activities are aligned with best practices from national training funds.

59. The project design leverages lessons learned from the Education for Employment initiative (E4E). This project addresses fundamental challenges that faced the implementation of Education for Employment Initiative for the Arab Youth:[37] (a) where the E4E program lacked a policy and institutional context and ownership, the scope of digital skills development is now governed by a Skills Development Law and led by a sector-based national skills council; (b) where the E4E project attempted to build full-fledged curricula, this project will not attempt to introduce a comprehensive new curriculum, but rather will accredit existing market based curricula as add-ons to core education of ICT graduates; (c) this project uses a results-based delivery that includes jobs as the performance metric, not an input driven agenda based on numbers trained; and (d) implementation support is strengthened by working across the World Bank, including education and social protection expertise, along with competitiveness and private sector, partnered with the relevant government agencies (MoDEE, MoL, and MoE).

60. The operation integrates key lessons from implementing e-government reforms in Jordan. Key lessons include: (i) the need for high level political support; (ii) continuing consolidation and re-use of ICT investments to mitigate the risk of duplication; (iii) ensuring strong change management and inter-ministerial coordination; and (iv) strengthening the foundations of integrated service delivery and linkages to the National ID system, interoperability platform, and digital payments to increase efficiency and transparency of services. The GoJ has invested in shared services infrastructure to promote integrated service delivery, including a government enterprise service bus, digital ID systems, cloud and data systems, and a unified registry. There is additional scope for cost-savings and systems integration.

61. The operational design integrates some of the latest international lessons and innovations in digital government adapted to the Jordanian context. A key lesson is the need to pair technology solutions with

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[37] http://www.e4earabyouth.com/en/aboute4e/ ; and https://www.worldbank.org/content/dam/Worldbank/Event/social-protection/B1.2_%20Dahlia%20Khalifa.pdf

institutional reform, incentives and change management. Technology brings opportunity, paving the way to create new jobs, increase efficiency and productivity, and improve public services delivery, accountability and transparency. It should be coupled with mechanisms to facilitate institutional coordination to reduce bottlenecks and pro-actively involving relevant stakeholders to increase ownership (World Development Report, 2017). Stakeholder consultations would also include CivicTech tools to increase citizen engagement to close the accountability loop and ensure citizen feedback is used to improve government services.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

62. The Government of Jordan (GoJ) formed a **Steering Committee (SC)** led by the Minister of MoDEE and includes the Minister of Planning and International Cooperation and the Minister of Labor. Subcommittees will be formed following project effectiveness to include private sector representatives. The SC will be authorized to approve the overall project charter and implementation plans.

63. MoDEE will be the project's primary implementing agency in collaboration with MoL and MoE. MoDEE established a **Project Management Unit (PMU)** in MoDEE and appointed interim staff. The PMU will be responsible for coordinating the roles of ministries and agencies that are involved in project implementation. The PMU will also be responsible for the implementation of project activities and will support the NSC-ICT to manage digital skills development activities. The PMU will be responsible for project oversight, consultations with public and private sector stakeholders, communications, and others. The PMU will ensure activities are executed in accordance with the legal agreements and Project Operations Manual (POM). MoDEE has developed a PoM for the project, which details the implementation process of project activities. The PMU will have the overall responsibility for: (a) processing procurement implementation, (b) monitoring and managing / evaluating program activities, and (c) reporting to the Bank on related fiduciary and technical aspects.
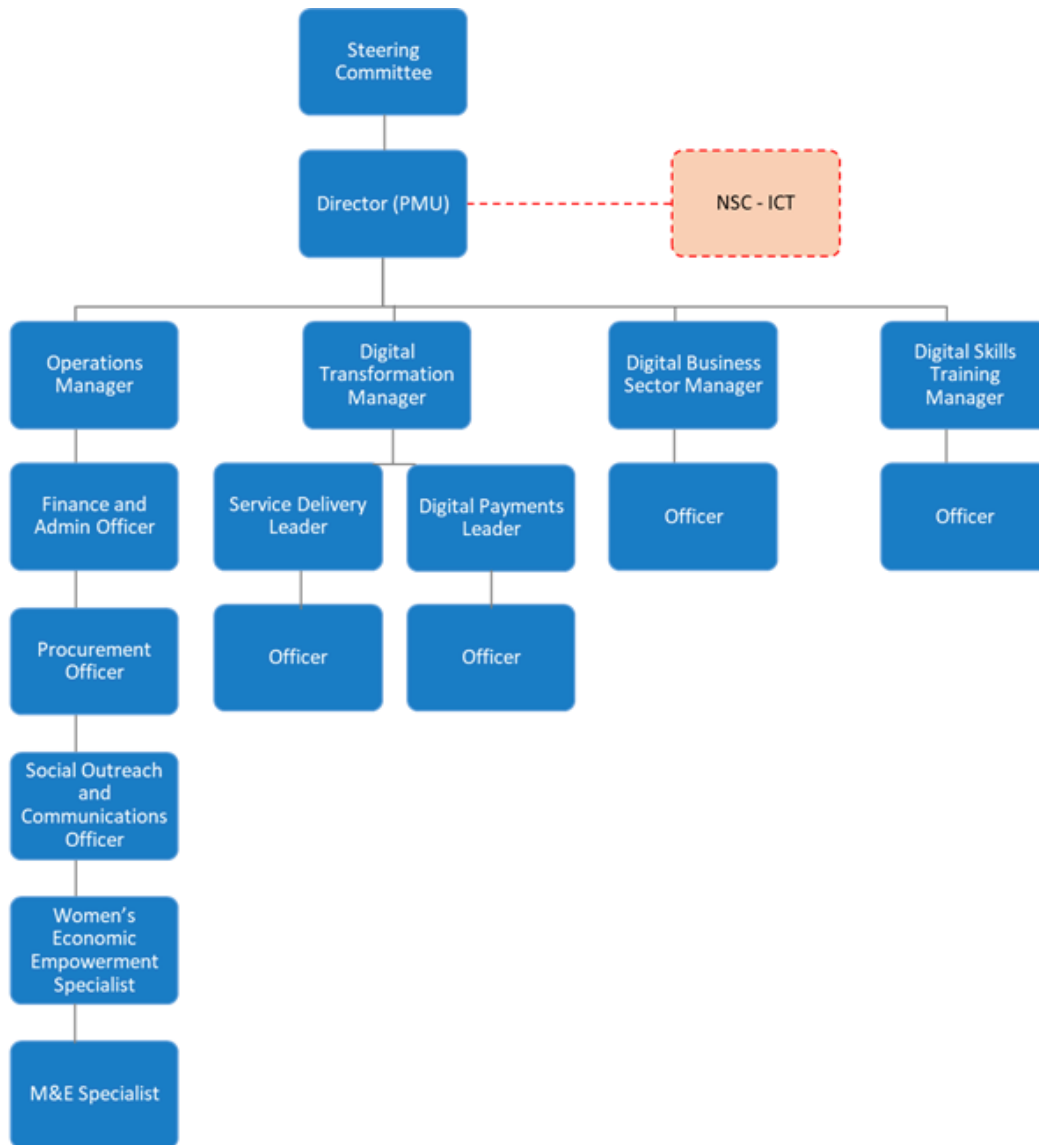
Figure 3: PMU Organizational Structure

64. The PMU will be headed by a Project Director and will consist of four core operations management functions in addition to three technical teams. All PMU staff will be selected following a competitive selection process.

65. Operations Management. This unit will be headed by a manager and will consist of: (i) finance and admin officer who will be responsible for resource management, budget control, scheduling, monitoring and evaluation (M&E), reporting, quality control, and administrative support; (ii) procurement officer responsible for managing all procurement-related activities, including issuing calls for proposals, managing contractual relations, among others. This unit will also be responsible for supporting digital skills development activities as it relates to managing the procurement process related to qualifying and recruiting training service providers; (iii) social outreach and communications officer; (iv) a women's economic empowerment part-time specialist responsible for ensuring that the implementation of project activities is gender sensitive and tackles the challenges women face (i.e., ensuing

the project does not just target women but addresses constraints they face and how they are supported and monitored); and (v) monitoring and evaluation officer responsible for the design, coordination and implementation of the monitoring and evaluation, research, and learning framework of the Project.

66. Digital Skills Training. This unit will be headed by a manager and will include technical staff members. The team will manage issues related to digital skills development activities, including oversight, approvals of the procurement process, and monitoring and evaluation.

67. Digital Business Sector. This unit will be headed by a manager and will be responsible for all private sector related activities under Component 2. The team will include digital business experts in different specialization. The digital business team will also manage the relationship with sector stakeholders.

68. Digital Transformation. This unit will be headed by a manager that will be responsible for managing all elements related to e-government and digital payments.

B. Results Monitoring and Evaluation Arrangements

69. The project will support the PMU to develop and implement the M&E framework and to build the capacity of PMU staff to undertake the activities related to the M&E of project results. This will include support for setting up an M&E system and establishing a comprehensive CRM system, as well as relevant staff training on different aspects of M&E. The project evaluation system will help determine whether the training provided under the project translates into income opportunities. In addition to the outcome of obtaining a job or income opportunity, the project will include results indicators on skills development (such as increased confidence, or other personal or social outcomes). The project monitoring reports will contain, at a minimum, summary data on overall performance against project targets, implementation challenges experienced, and feedback received from project beneficiaries.[38]

70. The World Bank will review the Results Framework submitted by the PMU as part of implementation support. The World Bank experts will discuss the progress and deviations with the PMU to identify any areas where additional help from the World Bank is needed. The PMU and the World Bank will also use results data to build awareness of project results among key beneficiaries and counterparts. Beneficiary feedback will also feed into regular monitoring. The M&E framework will leverage data collection activities undertaken by the independent verification agency (IVA) for DLIs.

71. The project will conduct rigorous impact evaluations to identify the absolute impact of the interventions prescribed by the project design on key outcomes and provide feedback on the relative efficacy of alternate design modalities to enable course corrections.[39] A consultation process to prioritize and select the questions and methodologies for the impact evaluations will take place between country stakeholders and researchers when project activities are being further defined. The impact evaluations would focus on the following knowledge gaps:

- For Sub-component 1.1, it will be important to assess the impact of skills trainings activities on the command

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[38] To the extent possible, any data gathered on Syrian refugees will be disaggregated by sex to identify specific gender gaps that need to be addressed.

[39] Rigorous impact evaluations assess causality by identifying a counterfactual with experimental or quasi-experimental methodologies.

of digital skills and employment outcomes, as well as the relative impact of alternate training modalities such as in-person and online sessions. In addition, it will be important to pilot ways to engage with beneficiaries before, during, and after the trainings to achieve higher impact and collect data.

- For Sub-component 1.3, it would be relevant to shed light upon how to attract more users to the hubs and the types of hub services that are most valuable when it comes to getting more and better jobs.

- For Sub-component 2.1, an impact evaluation would focus on measuring the effects of incentives packages on take-up, employment, technology adoption, and firm performance. Also, on comparing the value added of different incentives, and comparing the effects of alternate modalities to link digital firms to buyers (for example, platform interactions vs networking events).

72. For Sub-components 2.2 and 2.3, it will be important to measure the impact of improvements under the project (such as application interfaces) on the take-up and quality of the services delivered, as well as on client perception and satisfaction.

C. Sustainability

73. The sustainability of the outcomes of the proposed project will be enhanced by the prominent role of the private sector in the delivery of outcomes, and through government ownership. The sustainability of digital skills development activities, and the NSC-ICT that will implement these activities, is underpinned by the leadership of the private sector in setting skills development priorities, increasing private sector contribution to the costs of the activities, and the ownership and commitment of the GoJ of this private sector-led model as demonstrated in the Vocational and Technical Skills Development Law. The project will include the following measures to ensure the financial sustainability of digital skills development activities beyond the timeline of the project, these include: (i) a gradual fee structure with fees commensurate with the sophistication of training topics, with entry level training provided for symbolic fees. Collected fees will provide revenues for the NSC-ICT; (ii) a decreasing level of financial support to digital skills development activities over time, with larger contributions provided in the first three years of operation and then public financing gradually phased-out in years four and five; and (iii) leveraging private sector contributions in an increasing proportion over the duration of the project, building on successful outcomes in terms of the high employability of graduates. The sustainability of the outcomes on e-government services is underpinned by the government ownership of the REACH 2025 agenda for boasting a digital economy that empowers people, sectors and businesses to raise productivity and ensure growth and prosperity, creating a highly attractive business destination for investments and international partnerships including GoJ's goals for digitization of government services and payments. This is all reinforced by the high level of government ownership and commitment to position the Kingdom as a regional and global technical hub.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

74. The project's economic rationale is to take advantage of existing human capital in Jordan that is well suited to engage in income generating opportunities brought forth by technology. Supply-side components of the project focus on improving the employability of its beneficiaries to help generate economic benefits from increasing their

employment rates and placing them in jobs with greater earnings. Demand-side components[40] complement these efforts by supporting firms' expansion, which generate economic benefits by hiring otherwise un- or underemployed workers into better paying jobs. In addition to benefits directed to workers (e.g., greater employment rates and earnings), there are also broader benefits to society associated with the jobs, such as increased social cohesion or decrease in crime and violence. The project's emphasis on explicit target populations and implementer incentives based on beneficiary categories is motivated by the recognition that driving factor for the benefits is, indeed, supporting populations that would otherwise have had lower employment rates, earned less in the jobs they have access to, and whose employment creates a positive social change.

75. Based on these principles, the World Bank conducted a cost-benefit analysis of the project's six sub-components, with a focus on labor market outcomes,[41] to calculate the project's social rate of return. Among the sub-components, three relevant approaches were used to suit related activities: one for assessing skills training interventions (sub-component 1.1), one for business expansion subsidies (sub-component 2.1), and one for curriculum reform (sub-component 1.2). In each case, the estimated benefit streams are based on available data. For example, labor force data was used to estimate various wage and employment rates among youth ages 18 to 30. Annex 3 specifies the approach and adaptation for each of the sub-components and the parameter values used in the calculation.

76. Accounting for the total benefits and costs across all six sub-components with jobs-related outcomes, a project-level social rate of return is estimated at 16 percent. Although the project budget attributed to the sub-components analyzed totals US$112 million, the overall investment generated once matching from the beneficiaries is taken into account exceeds US$157 million.

77. Because the analysis is based on a 'without project' scenario -which reflects the outcomes that would have occurred if the same pattern of household, firm, and market behavior were to take place – and yields a favorable return of 16 percent, it serves as a justification that, economically, there is a role for public sector financing.

	Social rates of return	Tota costs (including component budgets and raised investments)	Individuals employed through job placement or job creation
All jobs-outcomes components	**16%**	**139,937,229**	**10,828**
C 1.1: Digital skills training and related services	17%	55,454,545	5,709
C 1.2: Public high school curriculum reform	13%	30,454,545	N/A
C 2.1.a: Matching grants for digital firms (payroll)	16%	26,666,667	2,500
C 2.1.b1: Matching grants for ITO/BPO market expansion activities	27%	14,883,117	1,429
C 2.1 b2: Support for digital entrepreneurs through BDS (market access through intermediaries)	21%	12,478,355	1,190

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[40] Demand side components' economic benefits also include the increased firm output associated with their expansions.
[41] The main benefits from Component 2 are not through labor market outcomes. This is further discussed in Annex 4.

B. Fiduciary

(i) Financial Management

78. The project is an IPF with result-based financing modality using a set of DLIs. The verification of the DLIs will be conducted by an independent verification agent to be contracted by the government/PMU, except for DLI 1.1 and 1.2, the verification of which will be done by the PMU of MoDEE, and which will be subsequently confirmed by the World Bank. Eligible expenditures will be reported semi-annually to the World Bank through Interim Financial Reports (IFRs). The semiannual IFRs will be subject for review by Jordan Audit Bureau.

79. MoDEE will have the overall responsibility for implementation of the project, including the financial management (FM) function, while a NSC-ICT, still to be established, will implement the tasks related to digital skills development, which will provide an immediate and agile solution to the skills gaps in both quantity and quality of digital skills. Given MoDEE's lack of prior experience in implementing World Bank-financed operations, the project will recruit a Financial Officer who is familiar with World Bank FM policies, procedures and guidelines, to manage the FM function of the project. The World Bank will also provide intensive training to MoDEE's FM staff on World Bank FM and disbursement guidelines. FM assessment will be conducted to confirm that the NSC-ICT has in place the necessary acceptable FM systems.

80. Two Designated Accounts (DAs), to be opened at the Central Bank of Jordan, will be used to receive loan and GCFF grant proceeds. US$125 million of the funding will flow to Designated Account A (DA-A) and US$75 million will flow to Designated Account B (DA-B). Subject to the FM assessment confirming that the NSC-ICT has in place acceptable FM systems, a sub-account from DA-B in JD will be opened for the NSC-ICT. This sub-account will be used to receive funds to finance the training activities entrusted to the NSC-ICT. Out of two designated accounts, DA-B captures procurable expenditures that do not appear in the GoJ's budget and DA-A includes recurrent and procurable expenditures that appear in line ministry budget lines but either have had insufficient allocation or will increase due to project support. By disbursing to the central treasury, the project will provide a behavioral nudge to facilitate dialogue between MoF and line ministries and ensure greater financial sustainability beyond the project lifecycle. As per the Eligible Expenditure Program (EEP) table, the details are below:

- DA-A: US$125 million:
    - US$63 million for Component 1 (recurrent expenditures, IPF with DLI)
    - US$62 million for Component 2 (procurable expenditures, IPF with DLI)

- DA-B: US$75 million:
    - US$5 million for Sub-component 1.3 (expenditure-based)
    - US$34 million for Component 1 (IPF linked to DLIs)
    - US$21 million for Sub-component 2.1 and 2.3 (expenditure-based)
    - US$10 million for Sub-component 2.2 (IPF linked to DLIs)
    - US$5 million for Component 3 (expenditure-based)

81. The EEP is summarized in the table below:

	Recurrent expenditures (Linked with DLIs) - $63m	Procurable expenditures (linked with DLIs) - $106m	Procurable expenditures (expenditure-based) - $31m
Component 1 - $102m	**$63m** (assigned to Designated Account A) DLI 1- $35m Khidmat Watan stipends for trainees ($32m) Khidmat Watan Program operational expenses ($3m) The project will support the ICT part of the program and cover recurrent expenditures (stipends for Khidmat Watan training and operational expenditures) linked to provision of selected digital skills training programs. DLI 2- $2m MoDEE operational budget to cover salaries, incentives, and allowances for MoDEE staff, to support their expanded mandate DLI 3 – MoE - $26m Teacher training costs and ICT, Mathematics, and Science teacher salaries for G7-12 teachers who will be engaged in the development and the delivery of the enhanced digital skills curriculum	**$34m** (assigned to Designated Account B) DLI 1- $5m Consulting contracts for Skills Assessments and Gaps Analysis Contracts for development of quality assurance standards and accreditation standards as well as establishing a comprehensive CRM. DLI 2- $22m Contracts for Training Service Providers under digital skills training activities DLI 3- $7m Consulting contracts for development of ICT curricula and learning assets	**$5m** (assigned to Designated Account B) for Sub-component 1.3 to contracts to recruit/partner with private operator(s) to manage targeted Tech Hubs
Component 2 - $93m	$0m	C2.2: E-Gov: **$72m** for DLI 4 $10m (assigned to Designated Account B) Consultancy services for e-services arena including several assessments (assessing key 25 e-services	**$21m** (assigned to Designated Account B) C2.1: Support building ITO-BPO markets by supporting export and domestic demand stimulation activities, and supply side capacity building for local

		previously launched by the government and interoperability assessment), development of national digital transformation strategy, and digital solutions $62m (assigned to Designated Account A) i) E-transformation expenditures in government ministries and departments; ii) E-gov processes management/ sustainability of e-gov application administration, control and assessment, iii) developing the infrastructure supporting e-gov, iv) re-engineering procedures and developing e-services Consulting and other services contracts, equipment, and systems.	businesses; Consulting contracts for professional matchmaking intermediaries to support the implementation C2.3: Digital Payments rollout expenditures including consulting services, equipment, and systems development.
Component 3 - $5m	$0m	$0m	**$5m** (assigned to Designated Account B): 1. PMU staffing: US$1.5m 2. PMU capacity building: US$0.5m 3. IVA agency: US$1.5m 4. Leveraging international best practices - Indian National Skills Development Corp: US$1m 5. Consultancies for online learning assets and private sector collaboration: US$0.5m

82. The following table provides details of the distribution of the US$169 million amount allocated that is linked to DLIs under components 1 and 2 between DA-A and DA-B:

DLI/Sub-DLI	DA-A	DA-B	Total Allocation
Component 1: Increasing the supply of digitally skilled youth in Jordan			
DLI 1 - Digital skills developed through private sector collaboration			
DLI 1.1. NSC- ICT has been established as a separate legal entity, with a majority-private sector board membership and representation from key public sector stakeholders, and its Charter has been adopted with the mandate to: (a) conduct demand and supply side assessments; (b) establish national occupational standards to be adopted by VTSDC; (c) qualify training service providers; (d) select and contract training service providers accredited by VTSDC; (e) accredit training curriculum; (f) create and disseminate on-line training materials; (g) conduct national awareness activities; (h) engage in monitoring and evaluation; and (i) establish comprehensive CRM system for the beneficiaries.	2,500,000	2,500,000	$5,000,000
DLI 1.2 On an annual basis, between CY 2 and CY 5, the NSC-ICT performs the following core functions as specified in the NSC-ICT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers	11,500,000	2,500,000	$14,000,000
DLI 1.3 Number of performance-based contracts signed with training service providers (TSPs)	21,000,000	0	$21,000,000
Sub-total DLI-1	**35,000,000**	**5,000,000**	**$40,000,000**
DLI 2- Number of graduates trained and hired			
DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities	2,000,000	15,000,000	$17,000,000
DLI 2.2 Number of graduates from the training programs established to provide digital skills development activities who obtained full time employment	0	7,000,000	$7,000,000
Sub-total DLI-2	**2,000,000**	**22,000,000**	**$24,000,000**
DLI 3 - Enhancing digital skills competencies for public school students			
DLI 3.1 Ministry of Education carries out readiness assessment for grades 7-12 to assess classrooms' readiness for a new digital skills curriculum	3,000,000	2,000,000	$5,000,000
DLI 3.2 Ministry of Education develops and adopts, through a ministerial decree, an action plan for designing and rolling out digital curriculum for grades 7-12	2,000,000	2,000,000	$4,000,000
DLI 3.3 Ministry of Education develops and adopts a digital skill learning curriculum content for grades 7-12	6,000,000	3,000,000	$9,000,000
DLI 3.4 Ministry of Education completes teacher training on new digital skills courses for 70% of ICT grade 7-12 teachers	6,000,000	0	$6,000,000
DLI 3.5 Number of public schools enrolled into digital skills classes for grades 7-12	6,000,000	0	$6,000,000
DLI 3.6 At least 60% of students enrolled in digital skills classes in public schools pass assessment in CY 5	3,000,000	0	$3,000,000

Sub-total DLI-3	**26,000,000**	**7,000,000**	**$33,000,000**
Sub-total Component 1	**63,000,000**	**34,000,000**	**$97,000,000**
Component 2: Expanding the digital sector and digital government services in Jordan			
DLI 4- Support digital transformation of service delivery to citizens and businesses			
DLI 4.1 MoDEE issues a ministerial decree for the adoption of the Government Digital Transformation Strategy and change management action plan	2,000,000	3,000,000	$5,000,000
DLI 4.2 Number of new transactional e-services being made available to citizens and businesses through respective government agencies' e-portals	50,000,000	0	$50,000,000
DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services	7,000,000	7,000,000	$14,000,000
DLI 4.4 MoDEE launches a new citizen feedback system for transactional e-services	1,500,000	0	$1,500,000
DLI 4.5 MoDEE launches e-service performance dashboard for e-services	1,500,000	0	$1,500,000
Sub-total DLI-4, Component 2	**62,000,000**	**10,000,000**	**$72,000,000**
Overal Total	**125,00,000**	**44,000,000**	**$169,000,000**

83. FM arrangements are designed to address the needs and specific activities of the project, including:
- Employment of staff whose salaries are covered by the project will be verified through the Social Security Corporation;
- Matching Grant agreements with clear deliverables and payment conditions will be developed and signed by beneficiaries. Benefiting entities will be required to prepare simplified annual financial statements that will be audited by the project's auditor;
- Clear consultancy service contracts with specific TORs and payment conditions will be developed and signed by service providers;
- Payments against upgrades of hubs will be against actual expenditures.

84. A project FM manual has been developed as part of the POM. The PMU will be required to submit semi-annual IFRs to the World Bank within 45 days after the end of the concerned period. Submission of semi-annual IFRs and annual budgets will be generated in Excel spreadsheets that would allow the World Bank to monitor the disbursement progress and address any bottlenecks on a timely basis. Jordan Audit Bureau will be responsible for reviewing the semiannual IFRs and auditing the project's annual financial statements as well as for providing an opinion on the project's effectiveness of internal control systems. The auditor's scope of work will be expanded to cover the benefiting entities from the matching grants sub-component.

85. Disbursement. Project disbursements will follow IFRs based disbursement method. There are two triggers for disbursements under category one: (a) eligible expenditures incurred and paid, and (b) DLIs achieved and verified. Any balance of the allocated EEP disbursement not disbursed at any disbursement cycle may be carried forward to be paid during a subsequent disbursement cycle once there is evidence that the sub-DLI has been achieved. Where achievement of a sub-DLI cannot be certified, an amount equivalent to the unitary sub-DLI price will be withheld. This amount will be paid at any later date, during project life, and at the discretion of the Bank when such achievement is verified. The World Bank may consider that a later achievement of the sub-DLI performance would not qualify for disbursement against the unmet sub-DLI if it determines that the on-schedule achievement of the sub-DLI is fundamental to achieving the overall objectives of the project. In such circumstances, the allocation of the undisbursed amount against the sub-DLI may, at the discretion of the Bank, be cancelled.

86. The following table provides expected annual disbursements.

	CY1	CY2	CY3	CY4	CY5	Total
DLI 1	12	6.5	7.5	7.5	6.5	40
DLI 2	0	6	8	5.5	4.5	24
DLI 3	5	4	6	9	9	33
DLI 4	5	21	21	12.5	12.5	72
Total Disbursements for DLIs	22	37.5	42.5	34.5	32.5	169
Total Disbursements for IPF expenditures	3	7	9	8	4	31
Total Disbursements	25	44.5	51.5	42.5	36.5	200

(ii) Procurement

87. Applicable Procurement Regulations: The project will apply the World Bank's "Procurement Regulations for Borrowers under IPF" dated July 1, 2016, revised August and November 2018; and "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, revised January 2011 and as of July 1, 2016.

88. The World Bank undertook an assessment of the procurement system and capacity of Ministry of Digital of Economy and Entrepreneurship in terms of planning, availability of the regulations, internal procurement procedure, availability of qualified staff, and contract management envisaged for the project, and identified the risks and risk mitigation measures.

89. Overall, procurement risk is rated as "Substantial" due to the following: (i) based on the overall assessment of the implementing agency wherein MODEE does not have previous experience and working knowledge of World Bank-funded operations, and more specifically the procurement and management of such consultancy assignments as those envisaged under the proposed project; (ii) the implementation of the large contracts is delayed; (iii) the design of some activities is new and therefore the selection of consultants and their supervision may pose challenges; and (iv)the project involves multiple ministries /stakeholders.

90. The procurement associated risk will be mitigated through: (i) use of a procurement plan for contract packaging and as a monitoring tool for processing procurement activities in a timely manner; (ii) guidance in the procurement section of the Project Operation Manual (POM); (iii) close support and capacity building provided by the Bank, at the initial stages of project implementation; (iv) recruitment of a qualified and experienced Procurement Officer familiar with World Bank procurement regulations. The Procurement Officer will work closely with the concerned procurement staff at the ministry; (v) preparation of clear and appropriate Technical Specifications/TORs for each assignment commensurate with estimated cost; (vi) ensuring that the stipulated selection and qualification criteria are not restrictive, allow a wide range of service providers to participate in the bidding opportunities; (vii) assign staff with adequate number and qualifications satisfactory to the Bank to be responsible for project implementation; (viii) ensuring effective coordination between stakeholders and continuously track and monitor

implementation to mitigate cost and time overruns, all parties to the contract must understand the terms and conditions stipulated in the contract as well as their responsibilities and obligations under the contract. Support and handholding in the initial stages of project implementation will be critical; and (ix) establishment of a special Technical Committee at MODEE so that it takes on the responsibility of procurement activities and handle all communications with the Bank and the technical teams regardless of estimated contract amount. Also, to avoid risks of delays and capacity constraints, the project may consider offering part of some activities to the experienced SMEs if any, etc.

91. Project Procurement Strategy for Development (PPSD): Contracts include: (i) development of ICT and rollout of a digital skills curriculum at local schools across two grades (US$2.5 million); (ii) development of ICT and rollout of a digital skills curriculum online (US$1.5 million); (iii) support digitization of payments (US$3 million); (iv) support of digital transformation of service delivery to citizens (US$1.35 million); and (v) selection of IVA (US$1 million). The selection of consultants should not cause a serious challenge as international ICT firms and their partners are active in Jordan. Similarly, qualified individuals are readily available in the country, however, their remuneration is on the high end.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

92. **Environmental**. The project is of 'moderate' environmental risk as it will not support any civil works or new construction, mainly "soft" interventions will be supported such as delivering trainings and potential provision of operational support for existing vocational centers by providing desks and computers to increase digital skills and create jobs. Such activities are expected to cause minimal negative environmental impact, if any. Minor, limited and site-specific impacts might result from the potential support to vocational centers which might require minor refurbishing or remodeling which will be done by the private sector, once engaged. Such activities are commonly implemented and minor impacts can be avoided or managed without requiring special or complicated measures. Adequate management of potential impacts of such activity should be ensured through including clauses in the contract(s). Such provision should cover required Personal Protection Equipment for workers, as appropriate, as well as safe handling and disposal of waste that will be generated. Labor Management Procedures (LMP) were prepared to cover labor and working conditions of project workers such as the PMU and trainers as well. The project will be implemented by MoDEE. MoDEE will manage the overall project activities, through a PMU located at MoDEE. The Ministry will subcontract the implementation of project activities to professional private sector vendors. The MODEE does not have designated capacity for environmental and social assessment although the nature and scale of impacts are low and will be mitigated primarily through overall project design and outreach strategies as assigned through the Environmental and Social Commitment Plan (ESCP). MoDEE disclosed the LMP and ESCP documents on MoDEE's website on November 8, 2019.

93. **Social**. The social risks associated with the project are considered moderate. There are limited direct adverse

social impacts resulting from project activities since there will be no civil works. There are no land-related impacts. The social risks are limited in nature and scale, and are summarized as follows: 1) risks related to social exclusion in its various forms that would need to be mitigated through ensuring that project benefits, such as access to training and job opportunities in the high tech sector, would be accessed and optimized for vulnerable youth, including those from poor communities, Syrian refugees, and women; 2) risks related to labor and working conditions for project workers, including PMU and contracted workers delivering training programs to youth; 3) risk of exposure of youth, including vulnerable youth and women, to sexual harassment or exploitation, or poor working conditions, indirectly, through project activities such as training and jobs. A Social Assessment (SA), Stakeholder Engagement Plan (SEP) and LMP have been prepared to address these risks and impacts. MoDEE will be responsible for implementing these plans and has relevant experience through implementing its e-initiatives, which include public outreach and training. MoDEE will be required to retain a Stakeholder Outreach and Communications Officer (SOCO) who will add capacity in these areas and be responsible for implementing the SEP. MoDEE disclosed the SA and SEP documents on MoDEE's website on November 8, 2019.

V.   GRIEVANCE REDRESS SERVICES

94. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org

VI.   KEY RISKS

95. The overall risk rating for the project is **substantial**.

96. Political and Governance Risk (Substantial). Jordan's economic growth has been subdued in the last few years as spillovers from regional instability take a toll with unemployment reaching a recent high. Foreign and local digital firms in Jordan perceive political stability as a key competitiveness factor for the Jordanian market. A deterioration in the political stability of the region will affect the growth plans for Jordan in the ICT sector and affect the expected outcomes of the project. The stability of Jordan's economy relies on its access to international markets and the realization of the multilateral and bilateral commitments made to support it.

97. Technical design of the project (Substantial). The project is deploying innovative solutions to support the supply of skills following a private-sector-led growth model and the improvement of income opportunities in the gig economy and business process outsourcing activities. These are relatively new solutions to the region and mitigation of potential technical design risk is key. These activities will employ pilot initiatives to test the design before it is scaled to full potential and will be monitored closely and will follow a paced approach in implementation. The World Bank will deploy global expertise in establishing market linkages, enhancing skill sets of IT professionals, and developing

software outsourcing opportunities to ensure proper implementation of these pilots, and put forward plans for scale-up in collaboration with local industry experts. Implementation of these mitigation measures is supported by other ongoing World Bank-financed projects.

98. Institutional capacity for implementation and sustainability (Substantial). The nature of the project design and implementation will require complex day-to-day coordination within departments across the MoDEE and line ministries. Relevant departments at MoDEE and line ministries have limited capacity to undertake such leadership and coordination. The MoDEE and World Bank have agreed to increase the technical capacity and skill base of the PMU staff members and related MoDEE staff members to implement project activities.

99. Fiduciary (Substantial). The combined FM and procurement risk is based on the overall assessment of the implementing agency, noting in particular: (i) the lack of prior experience of MoDEE with the World Bank FM and procurement regulations; (ii) the complex nature of the proposed project activities; (iii) potential delays in the implementation of large contracts, (iv) challenges associated with selection of consultants to assist with some new activities, and (v) the involvement of multiple stakeholders. The fiduciary risk will be mitigated by the implementation support and capacity building that will be provided by the Bank during project implementation.

100. Stakeholders (Substantial). Success of the service re-engineering and automation will depend on the cooperation of ministries, agencies, and their willingness to improve efficiency in service delivery and undertake related organizational changes. Progress on re-engineering and automation has demonstrated stakeholder willingness to improve services, however, further organizational changes may face resistance within the public sector. Further, complex services that require data exchange and validation across multiple ministries require ministerial communication to ensure automation plans are coordinated. An additional stakeholder risk surrounds data governance and data privacy. As the project includes activities surrounding online service delivery to citizens and businesses, and digital payments, it will be important to include data governance activities under Component 2 to ensure safety and security of personal data. As part of the interoperability assessment, data governance and data privacy regulations will be examined. If necessary, additional TA will be provided under Component 2 to strengthen data governance and privacy. The Bank team is liaising with Identification for Development (ID4D) Bank unit to provide support to the GoJ in ensuring integration of the e-governance and digital payment services with the digital ID system.

101. Other: Establishment of NSC-ICT (Substantial). The establishment of the NSC-ICT as a separate legal entity will require legal and regulatory amendments, which could take longer time than envisaged. This would affect the implementation of the skills development sub-component of the project (Sub-component 1.1). The government has committed to taking the necessary measures to ensure that the NSC-ICT is established by December 31, 2020. The project includes a DLI linked to the establishment of the NSC-ICT.

VII.   RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Jordan
Jordan Youth, Technology, and Jobs Project

Project Development Objectives(s)

Improve digitally-enabled income opportunities and expand digitized government services in Jordan.

Project Development Objective Indicators

Indicator Name	DLI	Baseline	End Target
Increase access to digitally-enabled income opportunities for youth in Jordan			
Number of beneficiaries, of those trained on employable digital skills, reporting new income opportunities (Number)		0.00	10,000.00
Out of which are females (Jordanian) (Number)		0.00	3,000.00
Out of which are Syrians (Number)		0.00	1,500.00
Improve the delivery of selected digitized government services in Jordan			
Number of transactions from new and/improved government e-service introduced (Number) (Number)		0.00	5,000,000.00
Percentage of government payment services enabled for digital payments (Percentage) (Percentage)		5.00	80.00
Volume of new private sector investment mobilized in digital services (Amount(USD))		0.00	20,000,000.00

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Support the supply of digital skills in Jordan								
Number of individuals trained by training service providers supported by digital skills development activities (Number)	DLI 2	0.00	1,000.00	2,000.00	5,000.00	5,000.00	2,000.00	15,000.00
Out of which are females (Jordanian) (Number)		0.00	300.00	800.00	1,600.00	1,600.00	500.00	4,800.00
Out of which are Syrians (Number)		0.00	300.00	500.00	900.00	900.00	400.00	3,000.00
Number of individuals trained by Khidmat Watan program on ICT skills (Number)		0.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	15,000.00
Out of which are females (Jordanian) (Number)		0.00	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00	6,000.00
Number of students (grade 7-12) receiving digital skills curriculum in schools (Number)	DLI 3	0.00	0.00	0.00	100,000.00	100,000.00	100,000.00	300,000.00
Out of which are females (Jordanian) (Number)		0.00	0.00	0.00	50,000.00	50,000.00	50,000.00	150,000.00
Out of which are Syrians (Number)		0.00	0.00	0.00	6,000.00	6,000.00	6,000.00	18,000.00
Number of beneficiaries using Tech Hubs (Number)		0.00	0.00	2,000.00	3,000.00	3,000.00	4,000.00	12,000.00
Out of which are females (Jordanian) (Number)		0.00	0.00	500.00	1,000.00	1,000.00	1,500.00	4,000.00
Out of which are Syrians		0.00	0.00	300.00	450.00	450.00	500.00	1,800.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
(Number)								
Project Management and Implementation Support								
Percentage of registered grievances that are addressed within the timeframe specified in the project operations manual (Percentage)		0.00						90.00
Support the expansion of digital sector and digital government services in Jordan								
Number of individuals with digital skills benefiting from ITO/BPO businesses supported (Number)		0.00	400.00	600.00	800.00	700.00		2,500.00
Out of which are females (Number)		0.00	160.00	240.00	320.00	280.00		1,000.00
Number of ITO/BPO firms supported on business plan expansion (Number)		0.00	5.00	5.00	5.00	5.00		20.00
Out of which receiving matching grants (Number)		0.00	4.00	4.00	4.00	3.00		15.00
Number of individuals with digital skills benefiting from technology adoption by nonprofit company/civil society organizations (CSOs) supported (Number)		0.00	500.00	500.00	500.00	500.00		2,000.00
Out of which are females (Jordanian) (Number)		0.00	250.00	250.00	350.00			850.00
Out of which are Syrians (Number)		0.00	75.00	75.00	75.00	75.00		300.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	**2**	**3**	**4**	**5**	
Number of start-ups supported with business matchmaking (Number)		0.00	50.00	70.00	80.00	50.00		250.00
Out of which are Jordanian females or Jordanian Female led businesses (Number)		0.00	25.00	35.00	40.00	25.00		125.00
Out of which are Syrians or Syrian led businesses (Number)		0.00	8.00	10.00	12.00	8.00		38.00
Number of individuals trained to access and offer their services on digital platforms (Number)		0.00	1,000.00	2,000.00	2,000.00	1,000.00		6,000.00
Out of which are females (Jordanian) (Number)		0.00	400.00	600.00	600.00	440.00		2,040.00
Out of which are Syrians (Number)		0.00	100.00	300.00	400.00	100.00		900.00
Number of new government services digitized (Number)		43.00	10.00	20.00	20.00	20.00	30.00	100.00
Out of which were procured to private sector firms (Number)		43.00	10.00	20.00	20.00	20.00	30.00	100.00
Number of improved e-government services (Number)		0.00	0.00	10.00	10.00			20.00
Number of government payment services digitized (Number)		200.00	50.00	100.00	100.00	100.00	150.00	500.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Number of beneficiaries, of those trained on employable digital skills, reporting new income opportunities	Number of individuals (out of which are females, Syrians) supported by the project that reported that they - Started their own IT related business - Started a business that benefited from IT support provided by the project - Got a part-time ICT related work (including consulting work) or - Got a full-time employment contract with an ICT related business	Semiannual for at least 3 years post support	Intermediaries supported by/through the project who are providing support to individuals	Semiannual monitoring surveys conducted with individuals post support	Intermediaries providing support to individuals as part of the project's monitoring and evaluation agreement with PMU
Out of which are females (Jordanian)	Number of Jordanian females supported by the project that reported that they - Started their own IT related business	Semiannual for at least 3 years post support	Intermediaries supported by/through the project who are providing	Semiannual monitoring surveys conducted with Jordanian females post support	Intermediaries providing support to Jordanian females as part of the project's monitoring and evaluation agreement

	- Started a business that benefited from IT support provided by the project - Got a part-time ICT related work (including consulting work) or - Got a full-time employment contract with an ICT related business		support to Jordanian females		with PMU
Out of which are Syrians	Number of Syrians supported by the project that reported that they - Started their own IT related business - Started a business that benefited from IT support provided by the project - Got a part-time ICT related work (including consulting work) or - Got a full-time employment contract with an ICT related business	Semiannual for at least 3 years post support	Intermediaries supported by/through the project who are providing support to Syrians	Semiannual monitoring surveys conducted with Syrians post support	Intermediaries providing support to Syrians as part of the project's monitoring and evaluation agreement with PMU
Number of transactions from new and/improved government e-service introduced (Number)	number of transactions from new/improved government e-service digitized by the project	semiannual	e-service system	e-service system reports	PMU and entity owning the e-service system
Percentage of government payment services enabled for digital payments (Percentage)	percentage of government payment services enabled for digital payments	Semiannual	e-payment system	e-payment system reports	PMU and entity owning the e-payment system

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Volume of new private sector investment mobilized in digital services	Private sector investment in expanding IT operations in undeserved communities, annual contributions to digital skills development activities, and investment in expansion of startup activities and platforms operations.	Semiannually	MODEE/PMU		PMU

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Number of individuals trained by training service providers supported by digital skills development activities	Income opportunities refers to employment, fulltime or part-time, or freelancing/self-employment whether that be a) entrepreneurship (startup of a digital firm by a beneficiary), b) work within digital firms , c) work on digital technology in other than digital firms, or d) work through digitally enabled online platforms.	Semiannual	PMU	CRM system/ PMU/ NSC-ICT	PMU/ NSC-ICT
Out of which are females (Jordanian)	Number of Jordanian females trained by service providers receiving funding/support from the	Semiannual	PMU/ NSC-ICT/ contracted service	CRM system of the PMU/ NSC-ICT	PMU/ NSC-ICT

	project		providers		
Out of which are Syrians	Number of Syrians trained by service providers receiving funding/support from digital skills development activities	Semiannual	PMU/ NSC-ICT / contracted service providers	CRM system of the PMU/ NSC-ICT	PMU/ NSC-ICT
Number of individuals trained by Khidmat Watan program on ICT skills					
Out of which are females (Jordanian)	Number of Jordanian females trained on ICT-related skills under the National Service Program (Khidmat Watan)	Semiannual	National Service Program (Khidmat Watan)	National Service Program (Khidmat Watan) monitoring system reports	PMU through National Service Program (Khidmat Watan)
Number of students (grade 7-12) receiving digital skills curriculum in schools	Students grade 7-12 receiving digital skills curriculum in schools	Semiannually	Schools providing digital skills curriculum	Schools providing digital skills curriculum monitoring systems and reports	PMU through schools providing digital skills curriculum
Out of which are females (Jordanian)	Female students grade 7-12 receiving digital skills curriculum in schools selected for curriculum roll out	Semiannually	Schools providing digital skills curriculum	Schools providing digital skills curriculum monitoring systems and reports	PMU through schools providing digital skills curriculum
Out of which are Syrians	Syrian students grade 7-12 receiving digital skills curriculum in schools selected for curriculum roll out	Semiannually	Schools providing digital skills curriculum	Schools providing digital skills curriculum monitoring systems and reports	PMU through schools providing digital skills curriculum

Number of beneficiaries using Tech Hubs	Number of beneficiaries using tech-hubs co-working space for freelancing and training purposes.	Semiannually	Regular reports from Tech Hubs management	Registration system of Tech Hub management	PMU and management firms of Tech Hubs
Out of which are females (Jordanian)	Number of Jordanian female beneficiaries using tech-hubs co-working space for freelancing and training purposes.	Semiannually	Regular reports of Tech Hub management	Registration system of Tech Hub management	PMU and Tech Hub managements
Out of which are Syrians	Number of Syrian beneficiaries using tech-hubs co-working space for freelancing and training purposes.	Semiannually	Regular reports of Tech Hub management	Registration system of Tech Hub management	PMU and Tech Hub management
Percentage of registered grievances that are addressed within the timeframe specified in the project operations manual	# of grievances received/ # of grievances addressed By PMU and MODEE				
Number of individuals with digital skills benefiting from ITO/BPO businesses supported	Number of individuals with digital skills gained from supply side of the project benefiting from ITO/BPO businesses/platforms supported	Semiannual	ITO/BPO supported businesses/platforms	ITO/BPO supported businesses/platforms reports	PMU and ITO/BPO supported businesses/platforms
Out of which are females	Number of Jordanian females with digital skills gained from supply side of the project benefiting from ITO/BPO	Semiannually	ITO/BPO supported businesses/platforms	ITO/BPO supported businesses/platforms reports	PMU and ITO/BPO supported businesses/platforms

	businesses/platforms supported				
Number of ITO/BPO firms supported on business plan expansion	Number of ITO/BPO companies that have received incentive package from the project against their expansion plan focusing on eligible expenditure according to the POM.	Semiannually	MODEE/PMU		
Out of which receiving matching grants	Number of ITO/BPO supported with matchmaking grants aims at increasing their access to new market opportunities	Semiannually	PMU/MODEE		
Number of individuals with digital skills benefiting from technology adoption by nonprofit company/civil society organizations (CSOs) supported	Number of individuals with digital skills gained from supply side of the project benefiting from technology adoption by nonprofit companies/CSOs supported by the project	Semiannual	Nonprofit companies/CSOs supported by the project	Nonprofit companies/CSOs supported by the project reports	Nonprofit companies/CSOs supported by the project
Out of which are females (Jordanian)	Number of Jordanian females with digital skills gained from supply side of the project benefiting from technology adoption by nonprofit companies/CSOs supported by the project	Semiannually	Nonprofit companies/CSOs supported by the project	Nonprofit companies/CSOs supported by the project reports	PMU and Nonprofit companies/CSOs supported by the project
Out of which are Syrians	Number of Syrians with digital skills gained from supply side of the project	Semiannually	Nonprofit companies/CSOs	Nonprofit companies/CSOs supported by the	PMU and Nonprofit companies/CSOs

	benefiting from technology adoption by nonprofit companies/CSOs supported by the project		supported by the project	project reports	supported by the project
Number of start-ups supported with business matchmaking	Number of established companies (tech start-ups) at an early growth stage and higher that will aim to raise investments through B2B linkages under the matchmaking program	Semiannually	MODEE/PMU		PMU
Out of which are Jordanian females or Jordanian Female led businesses					
Out of which are Syrians or Syrian led businesses					
Number of individuals trained to access and offer their services on digital platforms	Number of individuals who will be trained by CSOs/Platforms on how to use freelancing platforms effectively to generate opportunities	Semiannually	MODEE/PMU		PMU
Out of which are females (Jordanian)	Number of Jordanian females who will be trained by CSOs/Platforms on how to use freelancing platforms effectively to generate opportunities	Semiannually	MODEE/PMU	MODEE/PMU monitoring system and reports	PMU through MODEE
Out of which are Syrians	Number of Syrians who will be trained by CSOs/Platforms on how to use freelancing platforms effectively to generate	Semiannually	MODEE/PMU	MODEE/PMU monitoring system and reports	PMU through MODEE

	opportunities				
Number of new government services digitized	Number of new services for citizens and businesses automated at UN Level 3 or 4 available on the portal	Annual	e-service portal	e-service portal	PMU and entity owning the e-service portal
Out of which were procured to private sector firms					
Number of improved e-government services					
Number of government payment services digitized	Number of payment services tested and digitized (available online)	Annual	e-payment portal	e-payment portal	PMU and entity owning the e-payment portal

Disbursement Linked Indicators Matrix

DLI 1	Digital skills developed through private sector collaboration			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	40,000,000.00	20.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	No private sector role to support digital skills development.			
2020	DLI 1.1. NSC- ICT has been established as a separate legal entity, with a majority-private sector board membership and representation from key public sector stakeholders, and its Charter has been adopted with the mandate to:		5,000,000.00	1.1: $5m

	(a) conduct demand and supply side assessments; (b) establish national occupational standards to be adopted by VTSDC; (c) qualify training service providers; (d) select and contract training service providers accredited by VTSDC; (e) accredit training curriculum; (f) create and disseminate on-line training materials; (g) conduct national awareness activities; (h) engage in monitoring and evaluation; and (i) establish comprehensive CRM system for the beneficiaries.		
2021	DLI 1.2 On an annual basis, between CY 2 and CY 5, NSC-ICT performs the following core functions as specified in the NSC- IT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers; DLI 1.3 Number of performance-based contracts signed with training service providers (TSPs)	7,500,000.00	1.2: $3.5m, 1.3: $4m
2022	DLI 1.2 On an annual basis, between CY 2 and CY 5, NSC-ICT performs the following core functions as specified in the NSC- IT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers; DLI 1.3	8,500,000.00	1.2: $3.5m, 1.3: $5m

	Number of performance-based contracts signed with training service providers (TSPs)		
2023	DLI 1.2 On an annual basis, between CY 2 and CY 5, NSC-ICT performs the following core functions as specified in the NSC- IT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers; DLI 1.3 Number of performance-based contracts signed with training service providers (TSPs)	9,500,000.00	1.2: $3.5m, 1.3: $6m
2024	DLI 1.2 On an annual basis, between CY 2 and CY 5, NSC-ICT performs the following core functions as specified in the NSC- IT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers; DLI 1.3 Number of performance-based contracts signed with training service providers (TSPs)	9,500,000.00	1.2: $3.5m, 1.3: $6m

DLI 2	Number of graduates trained and hired			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	24,000,000.00	12.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	0.00			
2020			0.00	
2021	DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities		6,000,000.00	2.1: $6m
2022	DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities		8,000,000.00	2.1: $8m
2023	DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities; DLI 2.2 Number of graduates from the training programs established to provide digital skills development activities who obtained full time employment		5,500,000.00	2.1: $2m ; 2.2: $3.5m
2024	DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities; DLI 2.2 Number of graduates from the training programs established to provide digital skills development activities who obtained full time employment		4,500,000.00	2.1: $1m; 2.2: $3.5m

DLI 3	Enhancing digital skills competencies for public school students			
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	33,000,000.00	16.50
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	ICT curriculum is outdated			
2020	DLI 3.1 Ministry of Education carries out readiness assessment for grades 7-12 to assess classrooms' readiness for a new digital skills curriculum		5,000,000.00	3.1: $5m
2021	DLI 3.2 Ministry of Education develops and adopts, through a ministerial decree, an action plan for designing and rolling out digital curriculum for grades 7-12.		4,000,000.00	3.2: $4m
2022	DLI 3.3 Ministry of Education develops and adopts a digital skills learning curriculum content for grades 7-12; DLI 3.5 Number of public schools enrolled into digital skills classes for grades 7-12.		6,000,000.00	3.3: $3m ; 3.5: $3m
2023	DLI 3.3 Ministry of Education develops and adopts a digital skills learning curriculum content for grades 7-12; DLI 3.4 Ministry of Education completes teacher training on new digital skills courses for 70% of ICT grade 7-12 teachers; DLI 3.5: Number of public schools enrolled into digital skills classes for grades 7-12		9,000,000.00	3.3:$3m; 3.4:$3m; 3.5:$3m

| 2024 | DLI 3.3 Ministry of Education develops and adopts a digital skills learning curriculum content for grades 7-12; DLI 3.4 Ministry of Education completes teacher training on new digital skills courses for 70% of ICT grade 7-12 teachers; DLI 3.6 At least 60% of students enrolled in digital skills classes in public schools pass assessment in CY 5 | 9,000,000.00 | 3.3:$3m; 3.4: $3m; 3.6:$3m |

DLI 4		Support digital transformation of service delivery to citizens and businesses		
Type of DLI	**Scalability**	**Unit of Measure**	**Total Allocated Amount (USD)**	**As % of Total Financing Amount**
Intermediate Outcome	Yes	Text	72,000,000.00	36.00
Period	**Value**		**Allocated Amount (USD)**	**Formula**
Baseline	0.00			
2020	DLI 4.1 MoDEE issues a ministerial decree for the adoption of the Government Digital Transformation Strategy and change management action plan.		5,000,000.00	4.1: $5m
2021	DLI 4.2 Number of new transactional e-services being made available to citizens and businesses through respective government agencies' e-portals; DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services		20,000,000.00	4.2: $16m; 4.3:$4m
2022	DLI 4.2 Number of new transactional e-services		20,000,000.00	4.2: $16m; 4.3:$4m

	being made available to citizens and businesses through respective government agencies' e-portals; DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services.		
2023	DLI 4.2 Number of new transactional e-services being made available to citizens and businesses through respective government agencies' e-portals; DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services	12,500,000.00	4.2: $8.5m; 4.3:$4m
2024	DLI 4.2 Number of new transactional e-services being made available to citizens and businesses through respective government agencies' e-portals; DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services; DLI 4.4 MoDEE launches a new citizen feedback system for transactional e-services; DLI 4.5 MoDEE launches e-service performance dashboard for e-services	14,500,000.00	4.2: $9.5m; 4.3:$2m 4.4: $1.5m; 4.5:$1.5

Verification Protocol Table: Disbursement Linked Indicators	
DLI 1	Digital skills developed through private sector collaboration
Description	DLI 1.1. NSC- ICT has been established as a separate legal entity, with a majority-private sector board membership and representation from key public sector stakeholders, and its Charter has been adopted with the mandate to: (a) conduct demand and supply side assessments; (b) establish national occupational standards to be adopted by VTSDC; (c) qualify training service providers; (d) select and contract training service providers accredited by VTSDC; (e) accredit training curriculum; (f) create and disseminate on-line training materials; (g) conduct national awareness activities; (h) engage in monitoring and evaluation; and (i) establish comprehensive CRM system for the beneficiaries. DLI 1.2 On an annual basis, between CY 2 and CY 5, NSC-ICT performs the following core functions as specified in the NSC- IT's Charter: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefitting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers; DLI 1.3 Number of performance-based contracts signed with training service providers (TSPs).
Data source/ Agency	Signed agreement between MODEE and NSC-ICT Progress report detailing completion of the core digital skills development activities agreed upon. Signed performance based contracts with TSPs
Verification Entity	DLI 1.1: MODEE; DLI 1.2: IVA (Consultant); DLI 1.3: IVA (firm/consultant)
Procedure	DLI 1.1: MODEE provides the WB with (a) a copy of the registration document of the NSC-ICT as a separate legal entity. This will be validated by the World Bank team. .DLI 1.2: IVA checks on an annual basis, between CY 2 and CY 5, PMU performs the following core functions: (a) conduct a gap analysis for digital skills; (b) maintain a comprehensive customer relationship management system for the trainees benefiting from the training programs; (c) publish an annual performance report; and (d) publish an annual list of certified training service providers. DLI 1.3: IVA will verify the number of training provider contracts signed by the digital skills training activities .
DLI 2	Number of graduates trained and hired
Description	Scalable DLIs Y2-Y5: 2.1: DLI 2.1 Number of graduates from the training programs established to provide digital skills development activities (breakdown by women and Syrian refugees) Y4-Y5: 2.2: DLI 2.2 Number of graduates from the training programs established to provide digital skills development activities who obtained full time employment

	(breakdown by women and Syrian refugees) Details of Disbursement Formula DLI 2.1: from the baseline of 0, $1,000,000 for every 1000 graduates from training programs established to provide digital skills development activities, up to $10,000,000 Out of the graduates counted under DLI 2.1, from the baseline of 0, $1,000,000 additional for every 1000 females graduating from training programs established to provide digital skills development activities, up to $3.500,000 Out of the graduates counted under DLI 2.1, from the baseline of 0, additional $1,000,000 for every 500 Syrian refugee graduating from training programs established to provide digital skills development activities, up to $3,500,000 DLI 2.2: from the baseline of 0, $1,000,000 for every 1000 graduates from training programs established to provide digital skills development activities employed full time for more than four months, up to $6,000,000 Out of the graduates counted under DLI 2.2, from the baseline of 0, $500,000 additional for 2500 female graduates employed full time for more than four months Out of the graduates counted under DLI 2.2, from the baseline of 0, $500,000 additional for 1,000 Syrian refugees employed full time for more than four months
Data source/ Agency	Training Records and Social Security Database
Verification Entity	DLI 2.1 and DLI 2.2: IVA (consultant, firm)
Procedure	DLI 2.1: IVA will verify the number of graduates: receive records from training programs established to provide digital skills development activities and verify through sample-based phone, SMS interviews or site visits. DLI 2.2: IVA will check the number of graduates with full-time employment that will be defined as having held employment for more than 4 months. IVA will receive records from TSPs and verify through social security database.
DLI 3	Enhancing digital skills competencies for public school students
Description	DLIs: DLI 3.1 Ministry of Education carries out readiness assessment for grades 7-12 to assess classrooms' readiness for a new digital skills curriculum DLI 3.2 Ministry of Education develops and adopts, through a ministerial decree, an action plan for designing and rolling out digital curriculum for grades 7-12. DLI 3.3 Ministry of Education develops and adopts a digital skills learning curriculum content for grades 7-12 DLI 3.4 Ministry of Education completes teacher training on new digital skills courses for 70% of ICT grade 7-12 teachers DLI 3.5 Number of public schools enrolled into digital skills classes for grades 7-12 DLI 3.6 At least 60% of students enrolled in digital skills classes in public schools pass assessment in CY 5 Disbursement Formula Details: DLI 3.1: $5,000,000 by CY 2 DLI 3.2: $4,000,000 by CY 2 DLI 3.3: $9,000,000 by CY 4 Formula: $1,500,000 for the successful development of the curriculum content and digital skills learning assets for each grade between Grade 7 and 12, up to $9,000,000 DLI 3.4: $6,000,000 by Closing Date Formula: from the baseline of 0, $1,500,000

	for every additional 25% point increase in ICT grade 7-12 teachers trained to deliver digital courses, up to $6,000,000 DLI 3.5: $6,000,000 by Closing Date Formula:from the baseline of 0, $1,000,000 for every 10% point increase in public schools receiving digital skills classes, up to $6,000,000 DLI 3.6: $3,000,000 by Closing Date
Data source/ Agency	MoE
Verification Entity	DLI 3.1: IVA; DLI 3.2: IVA; DLI 3.3: IVA; DLI 3.4: IVA; DLI 3.5: IVA
Procedure	DLI 3.1: IVA will verify that readiness assessment has been conducted in accordance with protocols agreed with the WB DLI 3.2: IVA will check the ministerial decree to adopt the action plan and will verify that the action plan includes sufficient details (as agreed with the WB) of the following: 1. Competency framework for digital skills for all grades 2. Teacher training plan 3. Roll-out plan for digital skills courses 4. Draft budget DLI 3.3: IVA will check the ministerial decree that adopts the Digital skills curriculum for all grades DLI 3.4: IVA to check the training records of the G7-12 teachers and confirm the percentage of teachers trained on the delivery of the digital skills curriculum. Training delivery records will be verified through spot checks (virtual or field based) on a sample basis. DLI 3.5: IVA will verify that 50% of students in grades 7-10 are enrolled in new digital skills courses. Verification will include review of records and spot checks.
DLI 4	Support digital transformation of service delivery to citizens and businesses
Description	DLIs: DLI 4.1 MoDEE issues a ministerial decree for the adoption of the Government Digital Transformation Strategy and change management action plan DLI 4.2 Number of new transactional e-services being made available to citizens and businesses through respective government agencies' e-portals DLI 4.3 Responsible government agencies adopt recommendations of the public value assessment for at least 20 transactional e-services DLI 4.4 MoDEE launches a new citizen feedback system for transactional e-services DLI 4.5 MoDEE launches e-service performance dashboard for e-services Disbursement Formula Details DLI 4.1: $5,000,000 by CY 1 DLI 4.2: $50,000,000 by Closing Date Formula: from the baseline of 0, $500,000 for each new transactional e-service being made available to citizens and businesses, up to $50,000,000 DLI 4.3: $14,000,000 by Closing Date Fomula: from the baseline of 0, $700,000 for each adopted recommendation of the public

	value assessment, up to $14,000,000 DLI 4.4: $1,500,000 by Closing Date DLI 4.5: $1,500,000 by Closing Date
Data source/ Agency	MoDEE
Verification Entity	DLI 4.1: WB team/consultant; DLI 4.2: IVA; DLI 4.3: IVA; DLI 4.4: IVA; DLI 4.5: IVA
Procedure	DLI 4.1: WB team/consultant receives and reviews the ministerial decree for the adoption of the Government Digital Transformation Strategy and change management action plan DLI 4.2: IVA will verify that new Services with transactional web presence, including electronic authentication, e-filing and e-payments. Level 3 automation is defined by the UN e-Government Web Measure https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index/Online-Service. Compliance will be assessed by third party validation. DLI 4.3: IVA will verify that recommendations were applied and improved services meet user acceptance testing (UAT). DLI 4.4: IVA will verify the functionality of the Citizen Feedback System DLI 4.5: IVA will verify the functionality of the e-Service Performance Dashboard

Implementation Support Plan and Resource Requirements

1.   This implementation support plan describes how the World Bank will assist the government with implementation and provide the technical advice necessary to help the client achieve the PDO. It has been developed based on the nature of the project and its risk profile. The World Bank task team will work closely with the PMU and key stakeholders to ensure project success. A midterm review (MTR) mission will be fielded three years after the project becomes effective. Should structural implementation challenges emerge before three years, the resolution of which would require in-depth analysis and restructuring then the MTR will take place accordingly.

2.   In addition to implementation support visits and ongoing engagement, the World Bank will carefully monitor the progress of project implementation and achievement of results through formal and informal reporting channels. Formal reporting channels include World Bank Implementation Status and Results Reports (ISRs) and results monitoring reports supplied by the PMU. Informal channels include interaction with direct beneficiaries of the project, reports from local media, and international assessments.

3.   The World Bank will also take a flexible approach to ensure that it responds to client needs as circumstances evolve. The World Bank will continue a close policy dialogue with the PMU and the government to support the achievement of project objectives.

4.   Project procurement and FM missions will be undertaken as part of periodic fiduciary support conducted concurrently across operations in Jordan. In addition to autonomous supervision by the fiduciary specialists, FM and procurement specialists will also participate in the MTR, implementation support missions, and contribute to the ISRs and Implementation Completion and Results Report.

5.   M&E. The World Bank will review the Results Framework submitted quarterly by the PMU as part of implementation support. The World Bank team will discuss the progress and deviations with the PMU to identify any areas where additional help from the World Bank is needed. The PMU and the World Bank will also use results data to build awareness of project results among key beneficiaries and counterparts. Beneficiary feedback will also feed into regular monitoring.

6.   The tables below detail the key areas of focus of the implementation support activities for the first 24 months of the project's implementation. These have been determined based on discussions with the client and an understanding of the priority activities to be implemented during the first two years of the project. Future updates will be based on progress on project activities, timing of major new activities or large procurement packages, and the expertise required to address any issues that arise, among other things.

Implementation Support Plan

Time	Focus	Skills Needed
First six months	Review of RFP and bidding documents for PMU selection, including evaluation criteria and selection report	Project Task Management Consultants and World Bank specialists in digital skills development, digital sector, digital transformation, Procurement, FM, and Safeguards
First six months	Review of the subsidiary agreement between the PMU and a NSC-ICT	Project Task Management Consultants and World Bank specialists in digital skills development, digital sector, Procurement, FM, and Safeguards
First six months	Review of the ToRs for the development of ICT and rollout of a digital skills curriculum at local schools and online	Project Task Management Consultants and World Bank specialists in digital skills development, digital sector, Procurement, and Safeguards
First six months	Review of the ToR for the business matchmaking subcomponent	Project Task Management Consultants and World Bank specialists in digital sector, Procurement.
First six months	Review of the ToR for the digital transformation sub-component	Project Task Management Consultants and World Bank specialists in digital transformation, Procurement, and Safeguards
First six months	Review of the ToR for the upgrading and equipping two Tech-Hubs	Project Task Management Consultants and World Bank specialists in skills development, digital sector, Procurement, FM, and Safeguards
6–24 months	Support implementation of activities	Project Task Management Consultants and World Bank specialists in skills development, digital sector, digital transformation, Procurement, FM, and Safeguards
Other	General supervision	Project Task Management FM Specialist, Procurement Specialist, Legal

Skill Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips
Task Team leaders	18	8
Procurement Specialist	6	0
FM Specialist	6	0
Counsel	2	0
Operations Support	12	0
Safeguards Specialist	2	0
M&E Specialist	4	2
Digital Skills Development Specialists	10	6
Digital Sector Specialists	4	2
Outsourcing and Freelancing Specialist	10	6
Digital Transformation Specialists	10	6

ANNEX 2: Detailed Project Description

Component 1: Increasing the supply of digitally skilled youth in Jordan (US$102 million)

1.   This component aims to increase the supply of high-quality human capital to cater to the increasing demand in Jordan covering both employment and freelancing jobs. The component aims to train thousands of youth in entry, mid, and advanced levels of digital skills over five years. The training will ensure inclusion of women, Syrian refugees, and vulnerable youth, including those registered in the National Aid Fund (NAF) database.

1.1 - Support the establishment of private sector-led digital skills development activities (US$64 million):

2.   The project will support the creation of an ecosystem in which digital skills trainings will be provided in close collaboration with the private sector. Key activities under this sub-component will include digital skills training, demand and supply assessments, national occupational standards, affiliation of service providers, accreditation of training curriculums, provision of online training courses and materials, national awareness activities, and monitoring and evaluation.

3.   To maximize impact, the project will focus on specific tech-enabled services that factor both: (a) Jordan's current/ potential capabilities, and (b) existing and future global demand. The following outlines those services, mapped out to the tech-enabled services value chain including employment and freelancing jobs:

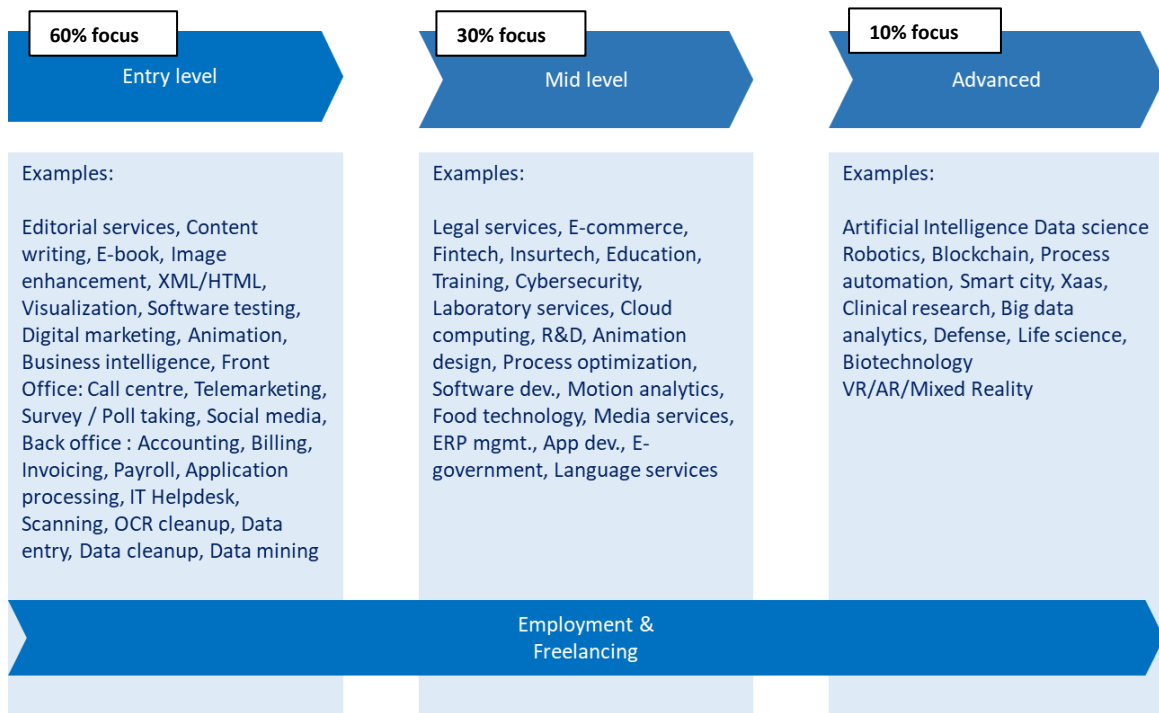| 60% focus	30% focus	10% focus
Entry level	**Mid level**	**Advanced**
Examples:	Examples:	Examples:
Editorial services, Content writing, E-book, Image enhancement, XML/HTML, Visualization, Software testing, Digital marketing, Animation, Business intelligence, Front Office: Call centre, Telemarketing, Survey / Poll taking, Social media, Back office : Accounting, Billing, Invoicing, Payroll, Application processing, IT Helpdesk, Scanning, OCR cleanup, Data entry, Data cleanup, Data mining	Legal services, E-commerce, Fintech, Insurtech, Education, Training, Cybersecurity, Laboratory services, Cloud computing, R&D, Animation design, Process optimization, Software dev., Motion analytics, Food technology, Media services, ERP mgmt., App dev., E-government, Language services	Artificial Intelligence Data science Robotics, Blockchain, Process automation, Smart city, Xaas, Clinical research, Big data analytics, Defense, Life science, Biotechnology VR/AR/Mixed Reality
Employment & Freelancing		

Figure 4: Digitally-enabled opportunities across main levels

4. International experiences with national skills councils and training funds show that program effectiveness and sustainability depend on two main factors: (a) quality of the training delivery governance, leadership and staff, and (b) financial autonomy of the executing agency, where autonomy is in two dimensions: management and finance. The objective of the PMU/ NSC-ICT is to evaluate and plan the needs of the training system, minimize political intervention in the allocation of funding for the digital skills training activities, and ensure that disbursements coincide with market needs.

5. The project will finance the costs of digital skills development activities, carried out by the NSC-ICT, under the supervision of PMU, to implement institutional development activities, demand and supply assessments, draft national occupational standards, affiliation of service providers, provision of online training courses and materials, national awareness activities, monitoring and evaluation, establishing a comprehensive CRM system, and managing contracts with TSPs. The PMU will also subcontract an international experienced consultant / vendor to support these activities.

6. The project focus on digital skills development aims to achieve the following:
- Provide a lean platform to respond to rapidly changing market demand;
- Augment various sources of financing for digital skills trainings;
- Allocate the funds in accordance with market needs and national policies;
- Build training systems and capacities and develop competitive training markets;
- Ensure inclusivity in access to training opportunities through stipends, timings of classes, transport facility, childcare provision, pre and post enrollment orientation support on available job opportunities to encourage more women in non-traditional digital jobs;
- Ensure the inclusion in the training of topics where the women beneficiaries need specific, additional support.
- Design and implement targeted outreach and awareness-raising activities to identify and motivate targeted beneficiaries to register and to inform applicants about the procedures and requirements for accessing the services provided. The activities will adopt a consistent and tailored approach for different categories of target beneficiaries and regions and will include gender-sensitive approaches (times, locations) and will engage with families and influential male relatives when appropriate.

7. The project's financing to digital skills development will be deposited in a subsidiary account for the PMU, which the NSC-ICT will manage according to a subsidiary agreement between the PMU and the NSC-ICT. The NSC-ICT will establish other account(s) for private sector contributions, training fees received, and/or other revenues. The NSC-ICT will qualify and recruit training service providers (accredited by VTSDC) to support both employment and freelancing jobs across Jordan. It will also collaborate with large tech companies such as Amazon Web Services Educate to build digital skills. The project will reward TSPs on labor market outcomes including graduation, placement and job retention.

1.2 – Enhancing digital skills competencies for public school students (US$33 million)

8. **This sub-component will introduce quality computer science courses in public classrooms (G7-12).** The activities under this sub-component will aim to identify gaps in the existing information

technology courses in schools, develop context-relevant digital skills learning assets, train teachers on the new courses and roll out in a systematic way across four grades (G7-10) during the timeframe of the project in public classrooms.

9.   **To reap the benefits of education, Jordan must align its push for learning with a pull for skills** (World Bank MENA Education Flagship 2019). A pull for skills will depend on curricula that reflect the skills that prepare students for the future of work. The majority of youth entering the workforce every year, as well as of the huge stock of young people in the 15-25 year old age group, need both foundational skills as well as basic digital skills.

10.   **There is strong evidence of demand for digital skills in classrooms.** In a survey on social media and education reform across 13 MENA countries, most respondents supported ICT in the classroom (Arab Social Media Report 2013). Eighty-four percent of those surveyed felt universal internet access should be a norm and that children in schools should be able to access the internet on personal devices. Over three-quarters felt that social media should be part of the school curriculum; indeed, 61 percent believed students should be allowed to use social networking media in class. Responding to a question on whether students should be allowed to engage in a range of computer related activities, almost 80 percent noted they would be happy to have their children use "collaborative web tools" in classwork.

11.   **This sub-component is aligned with the commitment made in the "Amman Communique",** which was announced at the Digital Mashreq Forum 2019, for mainstreaming digital skills in public schools to train 300,000 students by 2022. Key activities will aim to introduce quality computer science courses in public classrooms between G7-12 as an enhancement to the existing information technology curriculum in schools.

12.   **Injaz[42] conducted a mapping of global digital skills frameworks to identify the gaps in the existing curriculum.** The mapping found significant gaps in the existing curriculum. Figure 5 shows that of the 27 digital competencies, the current curriculum only strongly covers 4 competencies and moderately covers 5. The project will finance the development and roll-out of a digital skills curriculum at local schools. The MoE will lead this sub-component and will seek partnerships with organizations active in the digital curricula space.

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[42] Injaz is an independent, nonprofit Jordanian organization, which was established in 2001. The organization has established a Skills Building Program (SBP) that targets students in grades 7 to 11 in Jordan's public, UNRWA, and military schools and special education centers. SBP has rolled out entrepreneurship and financial literacy across public schools in 2016, so a similar approach would be followed in rolling out digital skills curriculum. Link: http://injaz.org.jo/Pages/viewpage.aspx?pageID=127&NewID=1
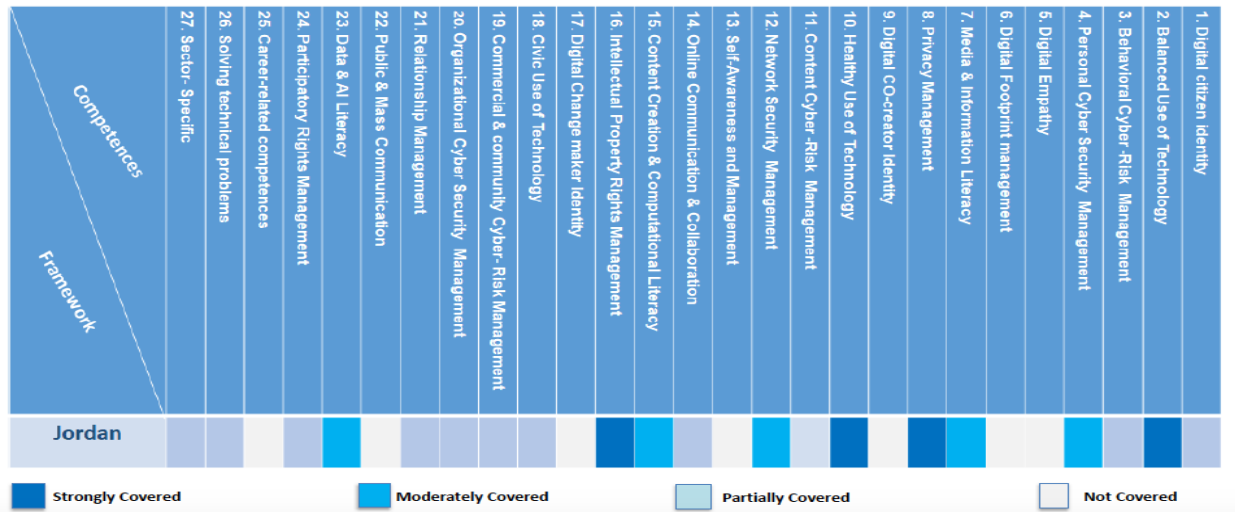
Figure 5: Mapping of Jordan computer courses against international competencies (Injaz, 2019)

1.3 - Provide working spaces in underserved communities through Tech Hubs (US$5 million)

13. The project will support upgrading and equipping three to five Technology Hubs (tech hubs) at the sites of existing Vocational Training Institutes (VTIs)[43] and recruit / partner with private operator(s) to manage them following a competitive process. Tech Hubs will act as a for fee venue for skilling programs, co-working spaces, ITO-BPO space, and networking spaces to trainers, entrepreneurs, freelancers, CSOs, and ITO businesses in nearby communities. The project will finance the upgrading, equipping, and managing selected Tech Hubs for three years. The project will select the locations based on their potential to support the growth of the industry and generate revenues for sustainability. The locations of the Tech Hubs will be selected to reinforce the hub and spoke approach by building on existing agglomerations while providing opportunities for inclusion of underserved communities with a concentration of unemployed youth and women capable of working in the tech sector.

Selection Process
14. The project will select 3-5 VTIs (or other appropriate locations) that fulfill the following criteria:
- Geographical selection:
  - Distribution: Tech Hubs locations will be selected based on their agglomeration potential factoring the density and the connectivity, where the top 3-4 deciles of market access as per Figure 6 below will have the most appropriate agglomeration
  - Connectivity: Selected Tech Hubs location should be in an area that has good internet connection that allows beneficiaries to undertake tech-enabled activities.
  - Talents: Selected locations should be proximate to talent pools such as universities and/or colleges.

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[43] The Ministry of Labor has 45 VTIs across Jordan, the Vocational Training Corporation expressed willingness to provide spaces in VTC centers to act as Tech Hubs for surrounding communities.
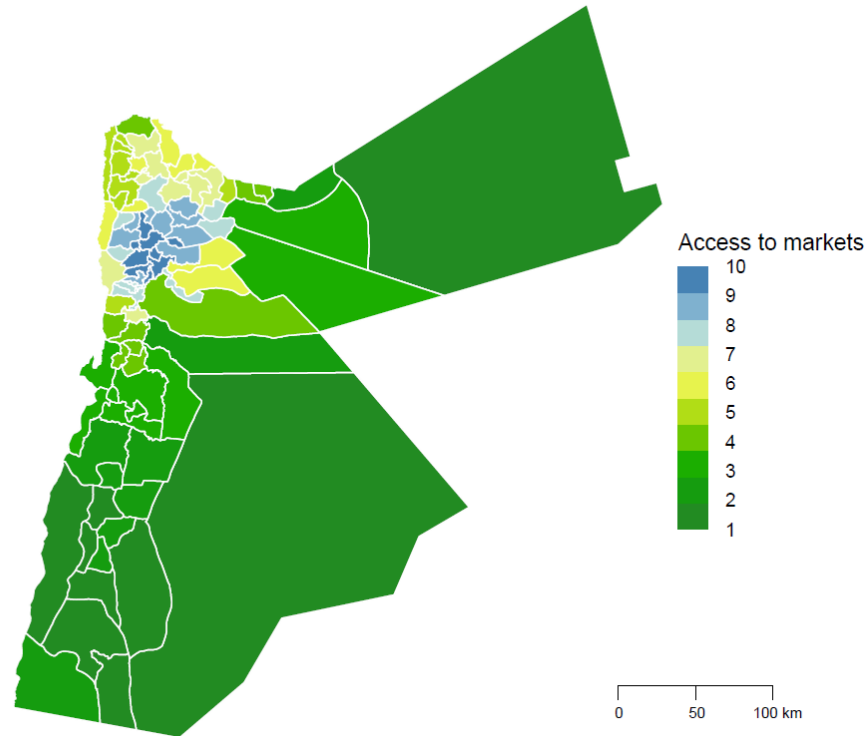
Figure 6: An index for median value of market access

- Availability of building
    - Space: the building should have 500 sqm for the following:
        - Co-working space which can accommodate up to 50 workers;
        - Training room that can accommodate up to 50 participants;
        - Networking space that can accommodate up to 100 people;
        - Meeting rooms of different sizes;
        - Others: telephone booths, kitchen space, and restrooms.
- Women economic empowerment:
    - The selection criteria and technical proposals for the Tech Hubs will factor in necessary design and delivery considerations to minimize constraints to women's participation, such as program timings, percentage of female staff, layout of the physical space, proximity to or availability of safe transport, and childcare. Gender-sensitive outreach activities will also be implemented to attract women entrepreneurs and freelancers to leverage these spaces. The hubs would also offer access to women mentorship programs and networks, whereby women would be matched with other successful Jordan women entrepreneurs and would serve as role model, advisor and mentor. They would also offer special sessions to address knowledge and experience gaps disproportionately facing women, such as in personal leadership skills or managerial capacity.

Component 2: Expanding digital sector and digital government services in Jordan (US$93 million)

15. This component will support the growth plans of tech-enabled businesses and nonprofit

companies and Civil Society Organizations (CSOs) in Jordan to develop digital functions and generate new income opportunities for underserved youth in tech-enabled activities. The component will finance the expansion and access to market for digital firms (including ITO-BPO firms and digital entrepreneurs), increasing access to new market opportunities for digital firms, and supporting job opportunity creation through digital platforms and the gig economy.

2.1 - Expanding the access to market for digital firms (US$15 million)

Support the expansion of ITO-BPO activities (US$6 million):
16.   The project will provide incentive packages to support growth plans of digital firms (focusing on ITO-BPO businesses) in under-served communities, to help build / scale their activities and generate local job opportunities.   These types of businesses do not need to be located within high-technology development hubs. The project will cover employment subsidies to eligible employees of digital firms, using procedures and a transfer and verification mechanism acceptable to the Bank, not to exceed 50 percent of the first six months salaries of eligible employees. These incentives are designed based on the Jordanian Government's previous successful experience in stimulating similar activities as well as consensus from private sector companies in that space.[44] These incentives have also been successful according to World Bank international experience in several countries. That said, the project includes an impact assessment activity to measure the results of employment subsidies on ITO/BPO companies. The project will provide employment subsidies, following a result-based model against overall jobs created. This sub-component is designed to spur the development of the digital sector in proximate cities that may otherwise not directly benefit from this sector's growth. The model will specifically seek to incentivize female employment through, for example, the provision of higher subsidies or bonuses for employer attracting and retaining women, selection criteria of the digital firms would include having internal policies that would be attractive to women (e.g. flexible working arrangements). This would help assess the impact of internal policies on application rates and preferences for the jobs advertised (e.g., to some beneficiaries of those services providers, disclose these policies and not to others).

17.   The project will support the expansion plans of at least 20 companies over five years. Those companies will include existing and new digital firms (focusing on ITO-BPO businesses). To qualify for the incentives, the companies would have to expand in under-served communities that qualify for potentially building viable operations, following specific criteria including access to talent, infrastructure, etc.

Application and selection process
18.   The PMU will conduct a competitive selection process and invite interested companies to apply and submit their proposals and growth plans including, but not limited to:
- The number of new net jobs that they will create, including the plan to ensure those jobs are inclusive and accessible to women and youth;
- Breakdown of all costs related to expansion such as leasehold improvements, rent,

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[44] Government of Jordan provided grants (up to JD140,000) to subsidize the operational cost of expansion (equipment, furniture, leasehold improvement) in remote areas to two ICT firms in 2010/2011 and provided subsidies to cover apprenticeship costs of newly recruited employees from local areas. The two companies have successfully expanded in these areas (Irbid and Karak) since then. For example, the company in Irbid (Extensya) has employed 1,700 employees in 2019, while the government grant only supported the employment of the first 50 employees in 2010/2011.

equipment, furniture, etc.;
● The expansion location in underserved community, taking into consideration agglomeration potential factoring the density and the connectivity.

19. The PMU will form a committee that will include public and private sector representation to assess the applications and approve/decline applications.

Incentives package overview
● Employment subsidies to eligible employees of digital firms will not exceed 50 percent of the first six months salaries of the new employees needed for the expansion as per the approved growth plans. Incentives would be higher for women who are employed and retained. Employment will be in cohorts.

● The project assumes the following breakdown in jobs levels:
  ○ 60 percent of all jobs covered would be at entry-level;
  ○ 30 percent mid-level;
  ○ 10 percent advanced-level;
  ○ Accordingly, the average amount of subsidies would be $400.

● Employment subsidies will be provided as follows:
  o First payment will cover new employees after 4 months of employment;
  o Second and final payment will take place after 6 months of employment;
  o The incentive package will only cover new net employees. The duration of the agreement with each company will be for twelve months to factor in possible employees' turnover.

Rationale
20. Providing incentives packages to expand in under-served communities will provide opportunities to graduates in those areas, who are otherwise excluded, to engage in the digital firms (focusing on ITO-BPO) value chain. Human capital costs (i.e. salaries) constitute about 75 percent of the operating budgets of BPO-ITO companies. Getting that subsidized will enable the companies to bid for new contracts more aggressively as it relates to pricing. The rationale of making the first payment after 4 months of employment is because Jordanian employees must register at Social Security Corporation by the end of their third employment month. Once registered, the commitment of the employer to retain them in the medium term becomes much higher. This will ensure higher retention rate for new employees supported by the project. The project will ask for the social security records of new employees to process payments.

Support increasing access to new market opportunities for digital firms (US$4 million):
21. The project will support building linkages between Jordanian digital firms and potential buyers and investors in regional/global markets, to provide access to market and investments.

22. **Support to digital firms:** Support the business development efforts of digital firms (focusing on ITO-BPO businesses) aimed at securing new contracts from target markets in the GCC countries, Europe,

China, India, and USA. The project will provide matching grants of around $100,000 to cover up to 50 percent of the cost of implementing the business development plans of those companies. Cost items covered will include travel and accommodation for attending conferences/trade shows, retainers/success fees for intermediaries (e.g. brokers) that would help companies secure new contracts, and salaries of new business development staff. Companies that will receive these grants must be incorporated or organized in Jordan to ensure that the programs target Jordanian firms.

Application and selection process

23.   The PMU will conduct a competitive selection process and invite interested companies to apply and submit their proposals/business development plans including, but not limited to:
- Implementation plan including breakdown of all costs related to business development, e.g. travel and accommodation, success fees, and business development;
- Key result indicators including number of new jobs, increased revenue, etc.

24.   The PMU will form a committee that will include public and private sector representation to assess and approve/decline applications.

Incentives overview
- The project will provide matching grants to reimburse up to 50 percent of the total costs at around $100,000;
- The project will provide matching grants against specific result milestones agreed upon with each company;
- The PMU will sign letters of agreements with each company to govern the business development scope and incentives.

25.   **Support digital entrepreneurs**: The PMU will competitively procure the services of professional intermediaries in key markets such as the USA and Europe that boost vibrant tech ecosystem that can be a catalyst for global scaling, attracting international funding, and developing exit pathways, as well as impactful commercial partnerships. The intermediaries will pursue opportunities on behalf of a pool of digital entrepreneurs in partnership with local incubators, accelerators, relevant government institutions, and development partners to help those companies identify and secure investment and supply chain opportunities from global partners and investors. This will include building the companies' investment readiness and organizing matchmaking and business networking activities in target markets. The intermediaries will be charged with ensuring the inclusion of women-led entrepreneurs in the beneficiary pool and ensuring that the support services offered, including access to a network and mentoring support by successful women who would serve as role models and to financial literacy courses to enhance access to finance and address the constraints disproportionately facing women entrepreneurs.

Selection process

26.   The PMU will conduct a competitive selection process and invite intermediaries to apply and submit their proposals. The intermediaries will be responsible for developing the application process, assessing applicants and choosing the companies that will be admitted into the program. They will also provide recommendations aimed at increasing the companies' investment readiness. The PMU will form a

committee that will include public and private sector representation to assess and select intermediaries.

Supporting the growth and adoption of the gig economy (US$5 million)

27.   The project will support nonprofit companies and CSOs, which adopt technology means, including online freelancing, ITO-BPO services, marketplace platforms' adoption, job matching and networking, to support vulnerable youth and poor areas where the CSOs have comparative advantage due to the limited existence of private / public service providers. The project will cover up to 80 percent of the costs and at around US$200,000 each. The project will provide matching grants, following an output / performance-based model that validates the number of beneficiaries engaged. CSOs will leverage the digital skills supply component and the shared spaces provided through the Tech Hubs.

Application and selection process

28.   The PMU will conduct a competitive selection process for this sub-component to invite nonprofit companies and CSOs to apply for matching grants and submit their proposals, which will include but not limited to:

- Description and implementation plan, including supply and demand development components. The project will favor end-to-end scope that covers both capacity building and securing income improvement opportunities for beneficiaries though agencies in under-served communities;
- The number of new income opportunities created, including for women and youth;
- Breakdown of all related costs and suggested key performance indicators;
- Description of gender-sensitive outreach activities to ensure women are connected to these platforms.

Matching grants will only be provided to CSOs/nonprofit companies that are incorporated or organized in Jordan to ensure that the programs target Jordanian firms.

Incentives overview

- The project will provide matching grants to reimburse up to 80 percent of the total costs at around US$200,000 each;
- The project will provide matching grants against specific result milestones agreed upon with each nonprofit company/CSO, mainly focused on income opportunities created (individual trained and received income opportunity) especially for women and youth.

29.   The PMU will sign letters of agreements with each nonprofit company/CSO to govern the engagement scope and incentives.

2.2 Support Digital Transformation of Service Delivery to Citizens and Businesses (US$72 million)

30.   Building on the government's commitment to advance the e-Government agenda, this component supports activities designed to strengthen public sector institutions and improvements in the access to and quality of e-government services to enhance productivity, competitiveness, and job creation. The private sector would play a key role in providing know how and infrastructure to support e-Governance; for example, in the development of Application Program Interfaces (APIs) that can be re-used and modified to advance e-service migration at a faster pace and lower cost. The availability of

additional services would drive demand for digital services, increase uptake, and enhance digital skills of beneficiaries.

31. The component will support the implementation of a whole-of-government digital transformation of the public sector (Digital Jordan). Given the need for significant inter-institutional communication and coordination to achieve the digital transformation, the Project will support activities to strengthen MoDEE's convening and advocacy capacities to lead e-Government reforms. Support will be targeted to service re-engineering and automation; development of a unified mobile application for service delivery; upgrading and extending the functionalities of the interoperability platform, the government cloud, database security, the government's digital archiving systems, decision support system, and Public Key Infrastructure (PKI). Additional activities focus on strengthening change management, performance monitoring, and communications and outreach to sensitize government actors and the public on ongoing reforms and anticipated results.

32. The GoJ has made significant gains in digitally transforming service delivery, including the development of a consolidated Government Portal (Jordan.gov.jo) that offers access to 242 e-services to citizens and businesses and development of a shared services infrastructure to reduce redundancies in systems and capital investments in ICT. While citizens can access a number of e-services on the service portal, many of these services are informational only. Some are transactional in terms that the front end of the service is automated, but the back end of service processing and delivery is still completed manually. Providing for digital payments (see Sub-component 2.2) will enhance functionality of key services, allowing payments to go both ways between persons and government (P2G) and government to persons (G2P). This additional functionality increases the sophistication of services (e.g. services can be accessed, paid for and delivered electronically); and will increase effectiveness and transparency of service delivery. This functionality paired with re-engineering and automation of processes will make a tangible difference for citizens and businesses in terms of efficiency and ease of access.

33. This subcomponent will support ongoing efforts to reengineer business processes and digitize administrative services to be more user-centric. Under the project, a key first step is a public value assessment of services already available to ensure they are efficient, high quality, and meet user acceptance standards. An additional shared services assessment covering interoperability, systems capabilities, data governance, resilience, and requisites to realize fully digital payment systems will also be conducted in Year 1 of the project. This services assessment will also examine the legal and regulatory environment around e-services such as e-signature, e-transaction, data exchange, and authentication of e-documents legislation and ensure responsible data use and data protection and privacy surrounding online delivery mechanisms.

34. The GoJ has planned for re-engineering and automation of services under 7 ministries, departments and agencies (MDAs)[45]. Each MDA has completed a service inventory which was used to

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[45] Execution plan includes Ministry of Interior, Supreme Judicial Department, Ministry of Finance, Ministry of Local Administration, and Ministry of Social Development as well as the automation for Department of Land and Survey, Companies Control Department, Ministry of Industry and Trade, Driver and Vehicle Licensing Department, Ministry of Labor, Ministry of Justice, Ministry of Social Development, Ministry of Health, Greater Amman Municipality, Income and Sales Tax Department, Civil Status and Passports Department, Health Insurance Administration, Jordan Investment Commission, Ministry of the Interior and Ministry of Tourism.

identify services for re-engineering and automation over the period of 2018-2021. The list of services selected include those that were identified through a prioritization exercise based on citizen demand and alignment to GoJ priorities. Under the project, an assessment of these services will be undertaken to ensure services digitized are of high value to citizens and businesses. The assessment will support prioritization by measuring services against criteria such as number of annual transactions (demand); services targeting different economic groups (e.g. women, the elderly, unemployed, refugees); administrative burden and efficiency gains (number of visits and documents required); and application of G2P payments for transactions.

36. Based on the assessments, a target of 100 services will be re-engineered and digitized to ensure that they are high quality and fully transactional (as defined by UN Web Services); and existing services (up to 20) will be improved based on the public value assessment. The progressive modernization of the delivery of government services through simplification and modernization of service processes and elimination of obsolete services would improve the efficiency, effectiveness, transparency and accessibility and increase trust between citizens and the government. The net result will increase in the number of services that are offered online for interactivity (level 2 of e-governance according the UN definition[46]), paperless transaction at the citizen end (e-filing, e-payment, and related citizen authentication; level 3), and full paperless decision making (all relevant databases are integrated, and decisions are made online; level 4).

36. Activities supported under this subcomponent include:
   ● Re-engineering of services as agreed by selected ministries and agencies. Simplification of services would be accomplished in two complementary ways: (i) simplifying procedures using an integrated ICT system and/or decreasing the number of procedures and rules governing administrative services and, (ii) eliminating redundant procedures. Implementation of these measures will reduce transaction costs, decreasing the overall cost of obtaining services, and doing business, and may consequently strengthen the private sector.
   ● Digitization of services that have undergone reengineering. The project will incentivize the digitization of 100 services to be offered to citizens, businesses, through the GOJ e-Portal and mobile applications.
   ● Improvement of up to 20 e-services based on recommendations of the public value assessment.
   ● Quality assurance and UAT to support digitization of services that have undergone reengineering to ensure they are citizen-focused and accessible.
   ● Development of a unified mobile application for service delivery.
   ● Training for the new approach in service delivery. To reap the benefits of e-government transformation, government employees will need to be trained to incorporate the use of new technologies into their work. The project will support training on the effective internal use of digital platforms by civil servants involved in the delivery of services reengineered and digitized under the project.
   ● Citizen engagement and communications. This includes the design of a new citizen feedback mechanism or leveraging existing ones, communication strategy and outreach campaigns to promote uptake of digital services Jordan. These mechanisms would collect data that would be presented in the performance dashboards in Sub-component 2.1.

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[46] UN definition of web services added in Annex 5.

37. Support Enabling Infrastructure for Integrated e-Service Delivery: To achieve the target of 100 additional services over the life of the project, additional support is needed to upgrade the functionality and capacity of the current e-service infrastructure. This subcomponent will incentivize the creation and upgrading of necessary foundations for e-government advancement, including expansion of the interoperability platform for data exchange to support automation of service delivery, upgrades to the government cloud, database security, and Public Key Infrastructure (PKI) upgrades.   The activities proposed under this subcomponent include:

- Support phase 3 development of the Government's document archiving and communication system (Terasol). Almost every administrative service performed in public administration includes the production of documentation and/or paperwork. This system will allow the GoJ to transition from a paper-based administration to an e-document, e-filing, and e-sharing culture.
- Expansion of the Interoperability Platform and e-Services Gate: the interoperability platform / government service bus provides for safe, secure, and standardized electronic exchange of information and documents between public institutions. It is expected that the expansion of the platform will enable the creation of additional e-services to citizens and businesses.
- Implementation of the decision support platform for business intelligence and data warehousing).
- Extension of the Government service for applying and validating electronic signatures.
- Upgrade of cloud storage capacity for business continuity and replication.

38. Support Whole of Government Digital Transformation: This subcomponent will focus on supporting a whole of government approach to digital transformation of the public sector. Given the multisectoral nature of government digital transformation, special attention will be given to inter-institutional communication and coordination. The Project will support the development of a whole of government digital transformation plan; the design of a change management strategy, action plan and supporting change management activities to implement the e-government agenda, strengthen the MoDEE's convening and advocacy capacities to lead e-government reforms, and conduct outreach and overcome resistance. This includes building the capacity and core functions of the center of government to enforce policy decisions, track reform implementation down the delivery chain, and build government capacity for strategic communication and public consultation to build reform coalitions. The following activities will be supported:

- Development of a whole of government digital transformation strategy (contract);
- Development and implementation of a change management strategy and Action Plan (contract);
- Development of a performance management system with dashboards to provide at a glance performance monitoring of e-services, transactions, use and citizen satisfaction (contract and BL).

39. Capacity Building and Knowledge Transfer: This subcomponent will finance additional staff under MoDEE to provide long-term technical expertise to implement the Digital Jordan program, including specialists in business process re-engineering, digital payments, mobile applications, API design, and other skills. This digital transformation task team (DTT) will be responsible for overseeing, aligning, prioritizing, and implementing the e-transformation and digitization of government payments projects, sequencing their execution based on their dependencies, and liaising with ministries and agencies including the Central Bank of Jordan as needed. This team will also be responsible for quality assurance of private sector and consultant deliverables. The project will support establishing and staffing of the DTT for four years.

2.3 Support digitization of payments (US$6 million):

40.   During the First Digital Mashreq Forum in Amman, June 2019, and as presented in the "Amman Communique", the Government of Jordan committed to advancing penetration of digital payments in Jordan. The GOJ committed to increasing the percentage of the population making or receiving digital payments from 33 to 50 percent by 2020 and digitizing 80 percent of government to person payments by 2021. The objectives for G2P digitization are manifold and include: improving transparency, decreasing costs, and reducing leakage, and using Government payments as a catalyst for increasing account ownership in a way that leads to meaningful financial inclusion, especially for low-income Jordanians. Mandatory delivery to an account (bank account or mobile wallet) would create a demand and could become a gateway to other financial services.

41.   Jordan has well-developed payments system infrastructure with 100 percent GSM coverage, mobile subscriptions above 150 percent and smart phone penetration 85 percent. The Jo-PACC plays the role of a market-level infrastructure functioning as a public good; a wide variety of payment service providers (banks and non-banks) provide payment services to individuals and businesses. Moreover, CBJ has created an enabling regulatory and policy environment to overcome challenges faced in the sector. Yet, there is a need to expand agent network and strengthen the business case to increase take-up and usage of DFS. Current financial services outlets include 31,902 POS, 1,707 ATMs, 1,600 cooperatives, 310 post office branch, 891 bank branches and 186 MFI branches and there is an opportunity for agent network expansion to cover the entire kingdom if tapped on these outlets. These outlets provide access points to the end users, while PSPs will provide interface with existing channels and integration with backend systems.

42.   The GoJ has embarked on a process of digitizing G2P payments in Jordan with the objective of improving transparency, decreasing costs, and reducing leakage, and using Government payments as a catalyst for increasing account ownership in a way that leads to meaningful financial inclusion, especially for low-income Jordanians where mandatory delivery to an account (bank account or mobile wallet) would create a demand and could become a gateway to other financial services[47]. The Cabinet of Ministers has taken a decision in January 2019 to digitize G2P for National Aid Fund (NAF), bread subsidies, transportation, and health services. The National Aid Fund (NAF) is currently underway to digitize all its current and new beneficiary caseloads. Offering the choice of two payment modalities (Basic Bank Accounts[48] and E-Wallets). NAF piloted both digital payment modalities in Azraq and Jerash to inform the final design of the payments and reconciliation process for the scale-up. While, Ministry of Finance has provided the option of receiving bread subsidy within the salaries of public servants, yet cash was the only option provided to the rest of eligible beneficiaries. Ministry of Transport (MoT) is currently underway to utilize the lessons learned from Greater Amman Municipality (GAM) in digitizing its transport services and is working diligently towards a comprehensive business and operating model. Lastly, MoH continues to digitize its Electronic Health Records, an integrated inventory management, and a billing module to its systems that are being piloted to specific hospitals and medical centers. Whereas, the inventory management was successfully piloted at Prince Hussein Hospital, the Billing Module is currently being

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[47] Account ownership among low-income Jordanians (19.3 percent) and women (27.2 percent) are substantially lower than the national average (33.1 percent).

[48] CBJ put forward Instructions on the Basic Bank Account, thus opening the door for NAF beneficiary to open bank accounts that are affordable

piloted at Hamzah Hospital, Hashmi Medical Center as well as at Al-Shameli Medical Center.

43. Moreover, the GoJ has implemented overarching infrastructural projects that form an enabler for digitization of government payments. These include: developing a nation-wide identification and authentication service of users transacting using electronic means (Public Key Infrastructure-PKI), ongoing implementation of Identity Management Solution (IDMS)[49], and Secured Government Network (SGN).[50] Several key payment system platforms that contribute significantly to the foundation needed to move towards a digital financial economy also exist including Real Time Gross Settlements Systems (RTGS);[51] Automated Clearing House (ACH);[52] E-Fawateer.com;[53] and Jordan Mobile Payment (JoMoPay).[54] These need to be supplemented with enhancing integration, business processes, procedures, and policies to achieve the Government's objectives on digitization of government payments. Digital payments would also be supported by the completion of the GoJ's digital ID project to enable digital authentication of individuals. There is a need to build on the progress achieved thus far in developing the national ID system and the overall government PKI infrastructure to develop and implement an overall Digital ID framework, including necessary regulatory changes to support e-KYC and KYC registry, implement IT linkages between ID systems and other government systems and implementing IT enhancements in the ID systems to meet the needs of the financial sector and increase efficiency of e-service delivery. These need to be supplemented with enhancing integration, business processes, procedures, and policies to achieve the Government's objectives on digitization of government payments.

44. Thus, activities that will be supported under this project are needed to leverage the e-services facilitation and achieve the government objective. These include:

(i) Developing an overarching government payments architecture and roadmap. Achieving the government vision in digitization of Government payments requires developing a roadmap to structure the various ongoing efforts into a strategic framework with a clear set of activities and implementation plan and providing multi-channels of payment streams and coherent systems interacting together to ensure efficiency, security and safety of the overall country's financial stability systems. A consulting firm will be hired to review all the existing IT system components, existing processes for government payments and propose an overarching government payments architecture, overall roadmap and project management structures.

(ii) Establishing a dedicated project management structure responsible for overseeing, aligning, prioritization, implementation of different digitization of government payments projects, and

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[49] Identity Management Solution (IDMS) allow citizens requiring access to different governmental e-services use a Single Sign-On (SSO). IDMS implementation will enhance the delivery of both G2P and P2G e-services for the public.
[50] A networking foundation that securely connects all government entities throughout the kingdom of Jordan using Fiber-Optics.
[51] The RTGS system provides certainty of settlement and is a mechanism through which the CBJ can supply settlement liquidity in central bank money. As such, RTGS system policy and practice is closely tied to the central bank's core responsibilities for financial stability.
[52] An electronic network for the automatic batch processing of financial transactions. ACH networks simultaneously process very large numbers of credit and debit transactions. The primary purpose of ACH networks is for making electronic direct deposits or money transfers.
[53] A bill presentment and settlement mechanism provided by the central bank to citizens, businesses and government linking billers to various payment streams to facilitate e-payments instantly
[54] A mobile payment and clearing solution acquired by CBJ and handed the operation to JOPACC that provides citizens and businesses make payments using mobile apps and wallets.

sequencing their execution based on their dependencies. CBJ and JOPACC act as advisory arms, reviewing the business process (payments) and operations to this proposed structure that will drive the change and in coordination with consultancy firms that will be hired. This will build on the current digital transformation team at MoDEE along with representatives from different relative ministries, and CBJ. This unit requires building the capacity of this office with qualified personnel in various IT and project management skills and adopting a project management framework and a set of rules, policies, and procedures that ascertain completing projects within scope, time, and cost.

(iii) Establishing and implementing a comprehensive change management program for Government payments. This would include among others: communication campaign, identifying and equipping change leaders in each ministry, understanding end-user needs and designing appropriate processes, payment services, grievance redressal processes, and support in pilots and rollout planning. Managing resistance among public institutions is also another area that requires a change management strategy and plan. This change management plan must be coupled with a communication plan that targets all stakeholders overseen by senior executive from each governmental entity. Engaging stakeholders in these development at early stage and developing / launching awareness campaigns that educate both the public and private sector would ensure that change is adopted and widely accepted.

(iv) Supporting the digitization of government payments. Specifically, the front-end solution that provides front facing citizens with diverse options/tools to make their payments digitally. This would supplement the current government initiative to implement the Back-end solution linking the request to pay (RTP) with governmental entities core system. For example, the project will support the MoH, Ministry of Transport, MoF, and Income and Sales Tax Department (ISTD) in enhancing their internal payment systems and processes as part of their introduction of e-services.

(v) Supporting the enhancements of national payment systems components (IBAN, ACH upgrade, JoMoPay-ACH linkage etc) already established and operated by CBJ where designing e-payment steam require the utilization of current existing national payment systems, Therefore, the design of e-payment service must consider the use and integration with the Automated Clearing House (ACH), Mobile Payment Clearing System (JoMoPay), the IBAN verification system to be built and launched to provide Straight Through Processing (STP) to name a few. This will be aligned with the design of systems that will be developed under E-Gov subcomponent to ensure real-time integration between different ministries and repositories where real-time integration with different ministries and repositories is of key to success to ensure quality of service delivery in payment systems. Data being collected, requires verification to ensure its quality hence, current existing repositories and methods of bi-directional data update is of high importance. The e-KYC CBJ's initiative, as well as NUR constitutes an immediate and high priority milestone that subsequent service depends on. Also, the completion of the PKI project is another cornerstone for introducing other payment streams such as B2B, B2G, G2B that supersede any other project. overarching architecture discussed earlier will identify the specific linkages and enhancements to the various IT components. Implementation of these linkages and enhancements would then be implemented by the GoJ with funding under this project.

(vi) Supporting the IT enhancements of ID systems to meet the needs of the financial sector. This includes enable using the ID system for e-KYC; developing hosted digital signature services for use by individuals for their interactions with financial institutions. For example, authorizing sharing of data,

signing new loan applications etc.; and enable linkages with other identification and information providers. For example, a bank providing information on address records, Tax authority on annual income etc. in the form of a federated architecture.

The following chart describes the project components and allocated budget:
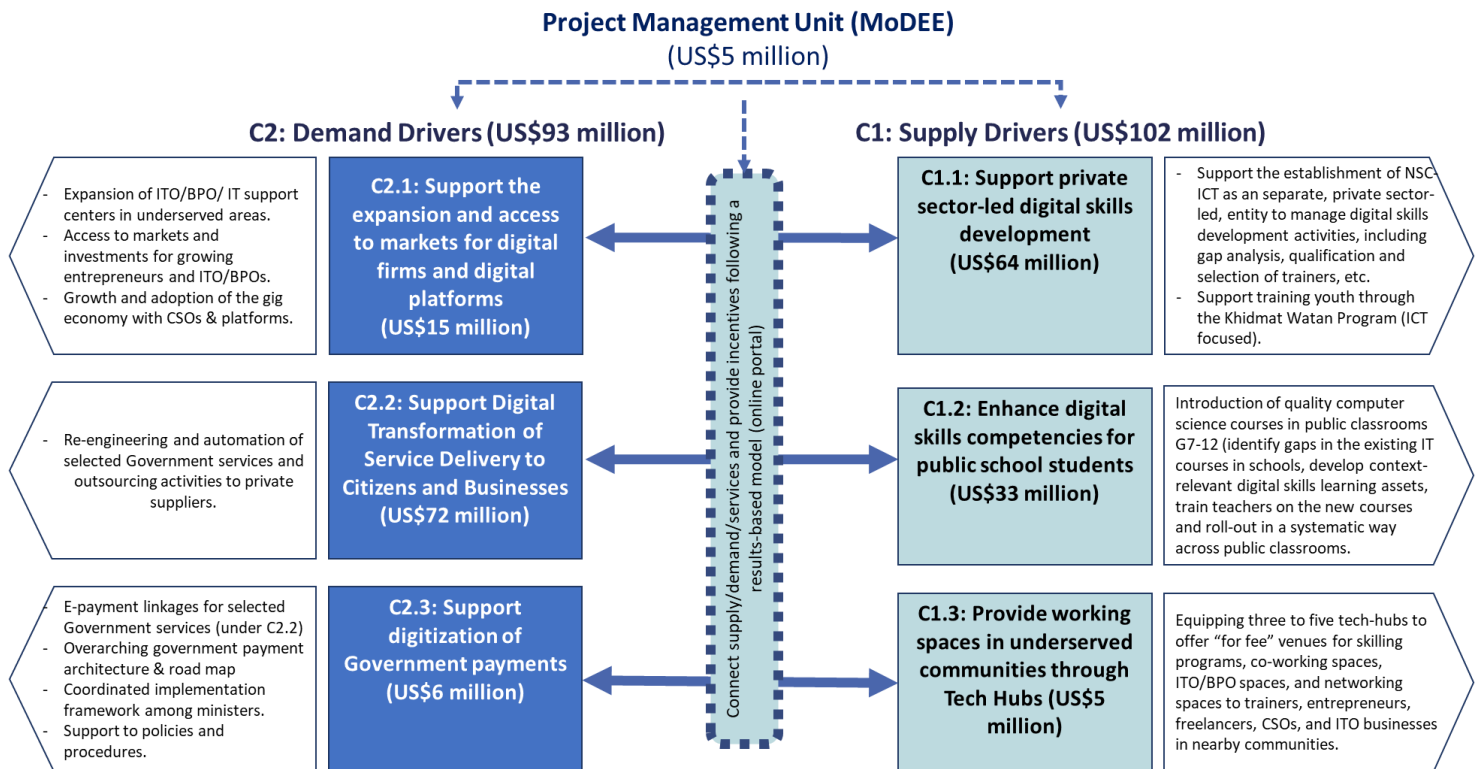
Project Management Unit (MoDEE)
(US$5 million)

C2: Demand Drivers (US$93 million)

C1: Supply Drivers (US$102 million)

Connect supply/demand/services and provide incentives following a results-based model (online portal)

Demand details	C2 Components	C1 Components	Supply details
- Expansion of ITO/BPO/ IT support centers in underserved areas. - Access to markets and investments for growing entrepreneurs and ITO/BPOs. - Growth and adoption of the gig economy with CSOs & platforms.	**C2.1: Support the expansion and access to markets for digital firms and digital platforms (US$15 million)**	**C1.1: Support private sector-led digital skills development (US$64 million)**	- Support the establishment of NSC-ICT as an separate, private sector-led, entity to manage digital skills development activities, including gap analysis, qualification and selection of trainers, etc. - Support training youth through the Khidmat Watan Program (ICT focused).
- Re-engineering and automation of selected Government services and outsourcing activities to private suppliers.	**C2.2: Support Digital Transformation of Service Delivery to Citizens and Businesses (US$72 million)**	**C1.2: Enhance digital skills competencies for public school students (US$33 million)**	Introduction of quality computer science courses in public classrooms G7-12 (identify gaps in the existing IT courses in schools, develop context-relevant digital skills learning assets, train teachers on the new courses and roll-out in a systematic way across public classrooms.
- E-payment linkages for selected Government services (under C2.2) - Overarching government payment architecture & road map - Coordinated implementation framework among ministers. - Support to policies and procedures.	**C2.3: Support digitization of Government payments (US$6 million)**	**C1.3: Provide working spaces in underserved communities through Tech Hubs (US$5 million)**	Equipping three to five tech-hubs to offer "for fee" venues for skilling programs, co-working spaces, ITO/BPO spaces, and networking spaces to trainers, entrepreneurs, freelancers, CSOs, and ITO businesses in nearby communities.

Figure 7: Project components

Component 3: Project Management and Implementation Support (US$5 million)

45. The PMU at the MODEE will be responsible for the implementation of project activities, including project oversight, monitoring and evaluation, regular reporting, consultations with public and private sector stakeholders, design and implementation of a gender-sensitive communication campaign and outreach, ensuring all activities implemented are gender-sensitive and does not only target but also addresses the constraints faced by women to actively participate and benefit from the training and employment opportunities generated by the project, etc.

ANNEX 3: Detailed Economic Analysis

1.   Overview of methodology: This economic analysis applies the principles of cost benefit analysis to estimate a social rate of return (SRR), which is defined as the rate of return that sets the project's net present value to zero. The rationale for each of the components is considering the benefits generated and subtracting beneficiary foregone benefits (i.e. economic opportunity costs). These foregone benefits can be interpreted as a counterfactual; thus, net economic benefits are equivalent to a treatment effect of the program (adjusting for a social externality), in the language of impact evaluation. The net benefit stream for the project sums all the benefits (financial and social) and costs of the project for each period, so that the project SRR is defined by:

(1) $Net\ present\ value\ (NPV) = 0 = \sum_{t=0}^{T} \frac{\sum_{c}\ (B_{c,t} - C_{c,t})}{(1+SRR)^t}$

2. $B_{c,t}$ and $C_{c,t}$ represent the benefits and costs for component c realized in period t, respectively. The primary ways in which components generate jobs-related benefits are through increasing the likelihood that a person will have a job, the earnings they receive in the job, and broader social benefits associated with the job, such as increased social cohesion, decrease in crime and violence, and increased educational attainment of beneficiary's children. Thus, net economic benefits for workers are measured by the gap between their earnings and their opportunity costs plus a social externality. Regarding component costs, there is a specified budget for each component. To this we add an equal portion of the costs of Component 3 (the project management unit).

3.   Among the project's components where the focus is on labor market outcomes, we apply 4 relevant approaches, and each applies to one or more components. Nevertheless, applying the approach to a component requires adjustments to fit its design. The approach for training applies to 2 sub-components, for business expansion subsidies applies to 3 sub-components, and approach to Tech Hubs and curriculum reform each to one component. We also discuss how to incorporate the e-government and digital component into the analysis, for which a different methodology. Each of the approaches are summarized below, followed by parameters and assumptions used, and the results of the analysis.

4.   Approach for training and jobs intermediation components: Training program and jobs intermediation interventions increase the labor market-relevant skills of its beneficiaries and provide support in becoming economically active. Accordingly, the direct benefits to beneficiaries are increasing the employment rate their employment rate[55] and helping them access jobs with higher earnings rates. These direct benefits need to be adjusted to reflect the 'without' scenario by incorporating the opportunity costs of the beneficiaries associated with their prior employment rate, E_{opp}, and their foregone earnings. The difference between the direct benefits and the forgone benefits are the beneficiaries' economic benefits. In addition to direct gains to beneficiaries, the social benefits are measured in proportion to the beneficiaries' economic benefits – these are social externalities. They are incorporated into the calculation as a multiplier such that for each dollar of the beneficiaries' economic

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[55] The evidence of skills training programs, usually with a focus on wage employment, and entrepreneurship promotion interventions indicates that even when there is a large portion of beneficiaries being successfully placed in jobs, many would have found a job in their `without' scenario.

benefits there are δ dollars generated that represent the value of the job to the broader society; δ is assumed to be .2 (20 cents of social externality per dollar)[56] unless otherwise specified.

5.   The adjustments necessary to component 1.1 are the need to differentiate between males, female, and Syrian refugee workers. The labor force survey data shows stark contrast in the wages and employment rates. We also attached a higher social multiplier, of .35 (compared to .20 used elsewhere) for refugees. Given there are different skill level courses, a different wage rate is applied to basic and mid and advanced skill graduates.

6.   **Business expansion subsidies and support:** Activities to support the expansion of firms are done through subsidies, in the form of matching grants or subsidized business development services. Subsidies used in this way help correct a market failure caused by the existence of *jobs-linked externalities (JLEs)* by inducing the creation of a socially optimal number of jobs. The fact that subsidies are being used to correct a market failure justifies public sector allocation of resources. The JLEs stem from having firm profit maximizing decisions that, presumably, do not account for benefits received by the workers, although those benefits are determined by the firm's choices. The disconnect between worker benefits and the benefits that the firm is able to appropriate results in underinvestment in job creating expansions. Hence, subsidies[57] are meant to induce expansions that may have great value to society but, due to the inability of firm owners to appropriate the full benefit of the expansion, may not be profitable enough to motivate them to cover the costs.[58]

7.   In the analysis we model firms in a component c such that in each period each has output given by the average product of labor $AP_{L,c}$ times the number of jobs created by the expansion[59], $Jobs_c$, and the firm's costs is equal to investment needed for its expansion, which may be allocated to payroll, $W_{new} * Jobs_c$, and/or to other non-labor costs, OC_c, which can be one-off fixed costs to purchase equipment.[60] Given this setup, once an investment towards expansion is made to cover the first year's costs, the net financial benefits (NFBs) are given by Equation 3 below, and setting the NPV of the firm's NFB stream zero, as described in Equation 1, yields the firm financial rate of FRR.

(2) $NFB_{expansion} = AP_{L,c} * Jobs_c - W_{new} * Jobs_c - OC_c$

8.   The JLEs can be considered a transfer of a portion of the benefits generated by the investment from the firm both to the workers and to society. The JLEs are analogous to the net economic benefits to beneficiaries of the training program described above in Equation (2) and defined as the sum of the worker's net economic benefit $(W_{new}E_{new} - W_{opp}E_{opp}$), here referred to as the labor externality, and the social externalities associated with those benefits $[(W_{new}E_{new} - W_{opp}E_{opp}$) $* \delta]$. The main difference between the worker benefits in business expansion and the benefit calculation for training is

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[56] Based on the evidence from research on education, this multiplier is a reasonable assumption.

[57] Can be made into fixed or working capital.

[58] Although part of the challenge can be attributed to access to capital this is also related to the JLEs since, were the firm able to capture the benefits to the workers they would generate a higher return on investment and thereby able to attract investment with previously prohibitively high costs.

[59] Since, below, we use value added as a proxy for the average labor productivity, non-labor costs are also incorporated into this, even though not explicitly modelled.

[60] In principle the total investment (of which a maximum of 30 percent is the subsidy) will be allocated to covering the payroll costs. Here we assume that the majority the investment is going towards non-labor expenditures.

that we consider the benefits to workers hired by the firm, which, mean 100 percent employment rate 'post-program' (i.e. E_{new} =1). Therefore, the net economic benefits each period from the expansion components are given by:

(3) $NEB_{expansion} = NFB_{expansion} + JLEs$

9. **Applying to matching payroll grants for digital firms:** In this case we used the knowledge of industry, such as payroll on average accounting for 75 percent of operation costs, and on average firms having profits of 6 percent, to back out average product of labor and other quantities of relevance. The investment in the analysis of this component is solely the operation cost of one period/year and estimate the full investment from our knowledge that the component's budget goes towards funding representing half of payroll for the first six months.

10. **Adjustments in applying this to matching grants for ITO/BPO market expansion activities, and support for digital entrepreneurs through business development services (BDS)** (market access through intermediaries) were related to the initial investment having the objective of expanding through, among other things, accessing additional sources of finance. In this exercise when measuring costs, both the initial costs of expansion activities and investment necessary for the expansion itself (e.g. working capital for the first period). While these are the total costs, in order to estimate the number of jobs created we consider the relation between dollars invested in expansion activities. This is done since it allows borrowing the evidence from Karlan and Schoar (2018), who find that in Mexico each job is associated with $2,100 towards the business development services. There is little additional evidence on the effects solely from business development services. Additionally, as presented in the assumption discussion below, workers in these firms have earnings than the average earnings used elsewhere as all jobs counted here are in guaranteed to be in the more lucrative digital industries.

11. **Approach for curriculum reform:** Component 1.2 (enhancing digital skills competencies for public school students) entails a curriculum reform for public schools to enhance and update digital skills competencies. Specifically, it is a national reform for the digital literacy and computer skills courses taken high school grades 7 to 9. The benefits calculation for this component adopts a conventional methodology taken for interventions that increase access to education. The increase in income associated with various schooling levels (e.g. high school completion, four-year university completion) relative to no or lower levels of education are estimated through regression analysis (in the form of Mincerian equations) of individual-level survey data. Once earnings differentials denoted ΔW, are calculated, they are assumed to be realized each year from when the students enter the labor market until they are in retirement age, roughly 65 years old (Jimenes and Patrinos 2007). The education level of each individual largely determines the timing of labor market entry, with some entering right after completing high school, at age 18, those attending university 4 years later, and so forth. The analysis here is an adjusted version of the conventional approach, using the differential is relative to no computer literacy courses[61] rather than a different level of education. This presents a challenge since it is not possible to estimate the differential from the individual survey data available and there does not exist much evidence on it. Of the scarce literature, Bishop and Mane (2004) indicate that the increase in earnings is about 12 percent (or more) for students in the US who, in high school, entered a technical program with computer courses during

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[61] Although there is an existing course in computer literacy and skills, the curriculum is considered obsolete.

high school (relative to the other students). Given that a digital curriculum requires updating periodically, we count the estimated the benefits for the first 4 cohorts of students that are exposed to the curriculum. Thus, we take the number of students enrolled in grades 6,7,8, and 9 at 2 years after program starts and calculate the proportion of each that would be going directly into the job market after high school, after 2-year technical schools, and after 4-year universities. Since someone at grade 7 graduates high school 5 years later, the benefit streams from the curriculum begins seven years after beginning of project and, following the literature, counted for the next roughly 45 years.

12.   **Assumptions and parameters in the analysis:** Below in table 1 we present the set of values used when to estimate the costs and benefits to each of the above listed approaches and components. The assumptions are mainly based on evidence from the literature, labor force survey data (JLMPS 2016), or our expectations of outputs for the program from different components, which are described in other section of this PAD. Below we list all amounts is USD and refer to annual earnings as wages to keep constant terminology with the models above. In all cases, once there is a job created or a beneficiary placed in a job, the effect wanes over time using a decay rate of 5 percent for skills training components and 10% for components directly supporting firms (as pointed out above, for gig economic employment we use a decay rate of 25 percent). Note that all statistics from labor force date (wages and employment rates) are taken for the population of 18 to 30 years old.

Table 1. Summary of assumptions

C 1.1: Digital skills training and related services

% Benef. by skills level :			Numb of benef.:				
Basic	Mid	Advanced	Total	Syrian	Jordanian female	Jordanian male	Empl. rate increase (all)
0.55	0.25	0.1	8,209	1,231	2,791	4,187	10%

Opportunity cost: empl. Rate			Opportunity cost: wage rate			Post grad. wage rate:		
Syrian	Jordanian male	Jordanian female	Syrian	Jordanian male	Jordanian female	Basic skills	Mid and advanced skills	Social ext. multlier for Syrian workers
57%	80%	45%	2,500	4,200	3,600	4,500	7,699	0.35

C 1.2: Public high school curriculum reform

# of students took courses	Applicable grades	Avarage graduating year	% Benef. by education attainment		Average wage rate:		LFP rate	Unempl. rate	Curriculum wage differential (income increase as % of income)
			Only HS diploma	4 year university	Only HS diploma	4 year university			
580,000	7 to 12	2025	66%	33%	4,000	4,800	42%	15%	2%

C 2.1.a: Matching grants for digital firms (payroll)

Job levels (% of each):			Payroll as % of oper. budget	Average profit	Number of jobs
entry	mid	advanced			
60%	30%	10%	75%	6%	2,500

matching level	% that are women	Opp empl rate	entry level wage	mid and adv. level wage	entry level opp. wage
50%	50%	63%	4,200	4,800	4,000

C 2.1.b1: Matching grants for ITO/BPO market expansion activities					C 2.1 b2: Support for digital entrepreneurs through BDS (market access through intermediaries)		
average match	expansion per job	average product of labor	numb jobs created	wage rate	expansion per job	avg. product of labor	numb of jobs created
0.4	2,100	6,720	1,786	4,800	2,100	22,000	1,190

13.   Analysis results for components with jobs-related outcomes: Accounting for the total benefits and costs across all five components with jobs-related outcomes, we get a project-level social rate of return of 16 percent. Although the project budget attributed to the five components sums to US$118 million, the overall investment generated once matching from the beneficiaries is considered extends to about $140 million. The project's benefits stem from the economic earnings of about 11,200 jobs that were created or in which beneficiaries were placed in, users from the Tech Hubs, and the increase in earnings for students associated with the curriculum reform.

14.   Because the analysis is based on a 'without project' scenario -which reflects the outcomes that would have occurred if the same pattern of household, firm, and market behavior were to take place – and yields a favorable return of 16 percent, it serves as justification that, economically, there is a role for public sector financing.

Table 2. Economic analysis results

	Social rates of return	Tota costs (including component budgets and raised investments)	Individuals employed through job placement or job creation
All jobs-outcomes components	16%	139,937,229	10,828
C 1.1: Digital skills training and related services	17%	55,454,545	5,709
C 1.2: Public high school curriculum reform	13%	30,454,545	N/A
C 2.1.a: Matching grants for digital firms (payroll)	16%	26,666,667	2,500
C 2.1.b1: Matching grants for ITO/BPO market expansion activities	27%	14,883,117	1,429
C 2.1 b2: Support for digital entrepreneurs through BDS (market access through intermediaries)	21%	12,478,355	1,190

15.   **Approach for Components related to expanding government e-services and digital payments:**
The benefits of these components are broad-based on largely come from channels other than the labor market, as opposed to the other components listed above. The analysis of this component entails estimating the rates of return for various potential amounts of benefits against the component's cost. Accordingly, we considered the component cost of $88 million spent over the first 4 years of the project and then applied an annual benefit generated that starts the fourth year of the project and continues for 10 years. We limited the time horizon to 10 years given technology changes and further investments and updates would likely be needed by that time. Figure 8 below depict the returns for a range of annual benefits from US$10 million to US$35 million annually. The chart shows that to reach a return of 10 percent, sometimes considered a minimum threshold in evaluating project as being acceptable, requires annual benefits of about US$15 million in our setup and 10-year time horizon. For the component to reach a return of 23 percent and match the total return for the other components, it would need to generate between US$20 to US$25 million worth of benefits annually.
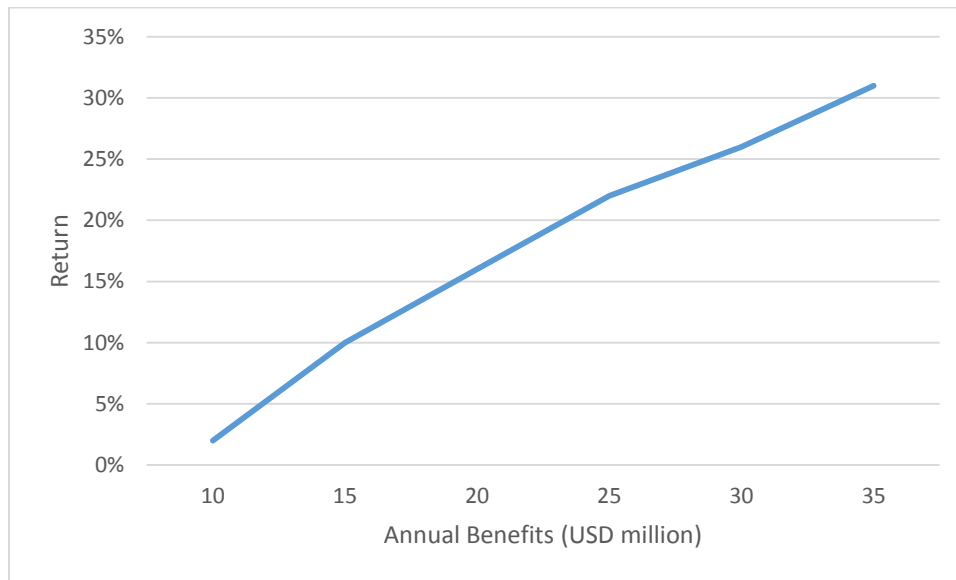

Figure 8: Rate of return for different annual benefit levels

ANNEX 4: Detailed Financial Management

The World Bank undertook an assessment of the Financial Management (FM) systems at MoDEE. The assessment concluded that with the implementation of agreed-upon actions, the proposed FM arrangements will satisfy the minimum financial management requirements under the Bank policy on IPF.

1.   Implementation Arrangements: MoDEE will have the overall responsibility over implementation of the project, including the Financial Management (FM) function. Given MoDEE's lack of prior experience in implementing World Bank-financed operations, the project will recruit a Financial Officer, who is familiar with World Bank FM policies, procedures and guidelines, to manage the FM function of the project. The World Bank will also provide intensive training to MoDEE's FM staff on World Bank FM and disbursement guidelines.

2.   The NSC-ICT, that will be established, will be subject to the FM assessment confirming the availability of acceptable FM systems to manage the project funds.

3.   An FM assessment will be conducted to confirm that the NSC-ICT has in place the necessary acceptable FM systems.

4.   Project FM risk**.** Based on the FM assessment, the overall FM risk is "**Substantial**". With mitigation measures are in place, the project will have acceptable FM arrangements and residual FM risk rating will remain "Moderate". The FM risk is assessed as "Moderate" mainly due to:
   a) No prior experience of MoDEE with the World Bank-financed operations and FM guidelines;
   b) Complex project with many activities;
   c) Accounting system at MoDEE is not capable of generating the semiannual Interim Unaudited Financial Reports (IFRs) in accordance with the World Bank guidelines;
   d) Matching Grants are not utilized for the intended purposes;
   e) Upgrading of hubs of not of acceptable standards;
   f) Salaries are provided to ghost employees.

5.   The following measures are to be taken to mitigate FM-related risks: The FM arrangements were designed to mitigate the identified FM risks, which would suit the available capacity during implementation, including:
i)   A full time Financial Officer with experience in international donors' operations will be hired at the PMU;
ii)   The existence of employment of staff whose salaries are covered by the project will be verified through the Social Security Corporation;
iii)   Matching Grant agreements with clear deliverables and payment conditions will be developed and signed with beneficiaries. Benefiting entities should prepare annual simplified financial statements that will be subject to audit;
iv)   Clear consultancy service contracts with specific TORs and payment conditions will be developed and signed with service providers;
v)   Payments against upgrades of hubs will be against actual expenditures;
vi)   Acceptable accounting system will be installed at the PMU;
vii)   Submission of semiannual Interim Unaudited Financial Reports (IFRs) will be subject for review by

Jordan Audit Bureau;

viii)   Annual budgets will be generated in excels that would allow the Bank team to follow up on the disbursement progress and address any bottlenecks on timely basis;

ix)   A project FM manual will be developed as part of the project POM;

x)   Jordan Audit Bureau will be hired to audit the project's annual financial statements in accordance with terms of reference (TORs) acceptable to the World Bank and MoDEE's annual financial statements. The auditor's scope of work will be expanded to cover the benefiting entities' annual financial statements under the matching grants.

6.   The bulk of the activities will be financed under the results-based financing modality using a set of DLI described in this document and specific verification protocols are established. However, component 4 will be financed outside the DLIs framework through contracting.

7.   **Budgeting:** Project will be included in the national budget starting 2020. For the purpose of close monitoring of financial progress of the project, MoDEE will maintain a detailed disbursement plan per quarter. This plan will be developed based on the initial procurement plan, approved business plans for grant provisions, and/or based on the schedule of outputs as defined in the implementation schedule and estimated payments cycles - revised upon need. It will be used as a monitoring tool to analyze budget variances and manage cash and will feed into the semiannual IFRs.

8.   **Accounting and Financial Reporting**: The project will follow the cash basis of accounting and key accounting policies and procedures will be documented in the financial procedures manual which will be finalized before project effectiveness. Alike all line ministries in Jordan, MoDEE uses Government Financial Management Information System (GFMIS) for budget preparation and execution. The GFMIS provides information on how the annual Budget Law and its execution support the strategic priorities of the Government. The current GFMIS utilizes a subset of the functionalities of the underlying application software. The current core application software comprises: (a) Hyperion for budget preparation; (b) Oracle Financials for budget execution; and (c) software for interfacing to other software for debt management, payroll, bank reconciliation, and revenue management. The GFMIS will be used for budget preparation. While, an acceptable accounting system will be installed at the PMU within 6 months of project effectiveness.

9.   **Internal controls:** Project's expenditure cycle will follow the controls specified in the applicable Financial By-law (1994) and its Amendment (2015) and the Financial Control By-law (2011) and it's Amendment (2015),, which includes: (i) technical approval of the department involved; (ii) checking and approval by finance staff; (iii) verification of the accuracy of the payments and its compliance with the applicable laws in Jordan and the World Bank procurement and FM procedures as well as the Loan terms and conditions. Although the project will follow the Government-applied controls set in the local laws, there will be supplementary controls in place for monitoring project activities, including the verification and approval of the PMU (financial and technical). A project POM will be developed that includes a financial management manual. This manual will document the Project's implementation of internal control functions and processes and describe the roles and responsibilities of the project staff and finance department, summarized in terms of authorization and execution processes. The manual will also describe clearly the fiduciary responsibilities on related financial procedures and controls to be set in place, and the required financial reporting obligations. On monthly basis, the PMU Financial Officer will reconcile the

Project account bank statement with the account book balance. Reconciliations should be prepared by the Financial Officers and verified by the project Managers. All reconciling items (if any) should be listed, explained and followed upon. Copies of the reconciliation together with the account bank statement should be kept in the Project files and should be attached to the IFRs.

10. **Controls over Payroll:** Payroll is administered by the payroll department at the Directorate of Employees Affairs (HR) in each line ministries. The payroll systems in place have a good degree of integration and reconciliation between the position controls, personnel records, and payroll registers. The payroll system in Jordan follows the Civil Service Bureau instructions and is in line with the national financial law and internal controls regulation, in addition to instructions issued by the MoF. The Directorate of HR is responsible for receiving the information for the appointed employee for entry into the automated HR database system. The HR department ensures the completeness of information and the data entry of related salary entitlements through an automated system and record archival both in the system and in paper files. HR input in the system is subject to both automated and human checks. A payroll schedule is prepared on a monthly basis and subject to several layers of approvals (payroll officer, head of payroll unit, the department manager [budget holder], Internal Control Department, MoF financial controller, and the financial management manager). Salaries are transferred to employees and teachers' personal bank accounts. Monthly reconciliations are prepared in the system and shared with the internal control unit and MoF representative. Daily time attendance sheets based on an automated attendance register are maintained by the attendance supervisor, who reports absences to the HR and responsible departments. All payroll records are kept in a secure, centralized computerized payroll data base that is updated daily from paper-based reports from the various directorates. The data base is audited by an internal audit mission within the Directorate of HR to ensure that all changes are supported by appropriate documentation. Payroll records and payments are annually audited by Jordan Audit Bureau.

11. **Financial Audit: MoDEE will hire Jordan Audit Bureau to audit the Project's financial statements on annual basis.** Jordan Audit Bureau will conduct the audit in accordance with internationally accepted auditing standards and based on terms of reference cleared by the Bank. MoDEE will be responsible for preparing the TORs for the auditor and will submit them to the Bank for clearance. MoDEE should engage Jordan Audit Bureau six months following the submission of the first withdrawal application. The Jordan Audit Bureau will be responsible of:
   i)   reviewing semiannual IFRs to be submitted by not later than 2 months from the end of each 6-month period;
   ii)   Issuing annual audited financial statements of MoDEE in accordance with IPSAS cash;
   iii)   Issuing project's annual audited financial statements that will be sent to the Bank no later than 6 months following the end of the project's fiscal year. The report will include an opinion on the project's financial statement. The auditor will also be requested to provide an opinion on the project's effectiveness of internal control system.
   iv)   Audit scope will be expanded to cover the benefiting entities' annual financial statements under the s and the NSC-ICT sub-account that will be opened as a subsidiary account to the PMU's DA and managed by the NSC-ICT;
   v)   Issuing a management letter that shall accompany the audit report, identifying any deficiencies in the control system the auditor finds pertinent, including recommendations for their improvement.

Disbursements

12. The project financing will be through investment project financing (IPF) instrument with result-based financing modality using a set of disbursement-linked indicators (DLIs) described in this document. The verification of the DLIs will be conducted by an independent verification agent to be contracted by the government/PMU. Meanwhile the recurrent eligible expenditures will be reported semiannually to the World Bank through Interim Financial Reports (IFRs) for which the design and content were agreed with MoDEE.

13. Two Designated Accounts (DAs), will be opened at the Central Bank of Jordan, will be used to receive loan proceeds: US$125million of the funding will flow to Designated Account A and US$75 million will flow to Designated Account B. Subject to the establishment of the NSC-ICT and the FM assessment confirmed that the earlier have in place acceptable FM systems, a sub-account from DA-B in JD will be opened for the NSC-ICT. Subject to the establishment of the NSC-ICT and the FM assessment confirmation that the earlier have in place acceptable FM systems, a sub-account from DA-A in JD will be opened for the NSC-ICT.

14. *"Incremental Operating Costs"* means project-related incremental costs incurred by the project on account of communication, translation and interpretation, printing, procurement-related advertising, office supplies, banking charges, Project related travel including per diem accommodation and transportation, vehicle rental and fuel, postal fee, and other miscellaneous costs directly associated with Project implementation subject to prior approval by the World Bank.

15. **E-Disbursement**. The World Bank has introduced e-disbursement for all projects in Jordan. Under e-Disbursement, all transactions will be conducted and associated supporting documents and IFRs scanned and transmitted online through the World Bank's Client connection system. The use of e-Disbursement functionality will streamline online payment processing to (i) avoid common mistakes in filling out WAs; (ii) reduce the time and the cost of sending WAs to the Bank; and (iii) expedite the Bank processing of disbursement requests.

ANNEX 5: Procurement Arrangements

1.   Applicable Procurement Regulations: An IPF with DLIs is regulated by the "Procurement Regulations for Borrowers under IPF" of July 1, 2016, revised August and November 2018; and "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, revised January 2011 and as of July 1, 2016.

2.   Legal framework in the country: The new Public Procurement bylaw No. 28 was made effective in May 2019 and governs all categories of procurement (Goods, Works and Consulting Services). Two agencies are central procurers General tender Department under the Ministry of Public Works and Housing for procurement of works and related consultancies, and the General Procurement Department under the Ministry of Finance for purchase of goods and consultants. Ministries will be able to procure the foreseen consultancies and goods if below set thresholds; above that, they will be raising their request to the central agencies, unless a Cabinet waiver is provided to the project to be establishing Special Tendering Committees (STC) in order to expedite procurement transactions, regardless of estimated contract amount.

Project Implementation Arrangements:
3.   The project will be implemented by Ministry of MoDEE, that handles all the components except for the subcomponent 1.1 related to private sector-led digital skills development activities. The implementation of this sub-component will be delegated to the newly established NSC-ICT, (detailed in a subsequent paragraph). Once the NSC-ICT becomes effective, a quick procurement assessment will be conducted to confirm that the NSC-ICT has in place the necessary acceptable procurement arrangement. Both agencies will observe due diligence in processing transactions and will be responsible for (a) Processing procurement implementation, (b) monitoring and managing contracts, and (c) reporting to the Bank on related fiduciary and technical aspects.

Institutional Arrangements
4.   MoDEE will be the project primary implementing agency in collaboration with MoL and MoE, with a Project Management Unit (PMU) housed in MoDEE and including focal points for MoL and MoE. The PMU will be responsible for coordinating the roles of ministries and agencies that are involved in project implementation. The PMU will also be responsible for the implementation of project activities, including overall management, M&E, reporting, consultations with public and private sector stakeholders, communications, and others. The PMU will be headed by a Project Director and will consist of a core operations management functions including procurement and Financial Management staff, and three technical experts/teams. All PMU staff will be selected following a competitive selection process for Individual Consultants.

The procurement capacity assessment:
5.   The World Bank undertook an assessment of the procurement system and capacity of the proposed implementing agency in terms of planning, availability of the regulations, internal procurement procedure, availability of qualified staff, and contract management envisaged for the project, and identified the following;
   a. The Ministry of Digital Economy and Entrepreneurship has evolved its role from the previous role for the Ministry of ICT towards creating the policies to enable the transformation towards a digital

economy and support the enabling pillars for this transformation including Digital Entrepreneurship, Digital Skills, Digital Financial Services, Digital Infrastructure and Digital Platforms.

b. MoDEE has clear regulations and operation manual in place regarding procurement responsibilities under the public procurement of Works bylaw No. (71) of 1986, and the Supplies bylaw No. (32) of 1993. MODEE has acquired experience in working with Consultants, and suppliers through the Government budget. In addition, they have good experience in the procurement of the large IT contracts with estimated cost equal and more than US$10M/each contract, such as (i) implementation of fiber Optic networks in Balqa Governorate and West Amman with total amount (JD12.89M) (ii) implementation of fiber Optic networks in Zarqa and East Amman with total amount (JD13M); and (iii) implementation of fiber Optic networks in Madaba Governorate and South Amman with total amount (JD12.76M). Also, (v) the contract of provision of smart Card for Civil Servants department of with total amount (JD24M) which signed in December 2016 for one year then it was amended for additional one year, it is now in the Maintenance period. Most of the contracts are not completed within the contract period. The implementation period were delayed for a variety of reasons, including due to the Difficulties in the communication with the employees in the beneficiary entities and resistance to change, the lack of technical staff in the concerned entities, in addition to bureaucracy in the management in most of the government institutions and the non-readiness of the infrastructure of the planned activities in most of them.

c. The procurement division in the ministry is housed under the Finance Department. the overall procurement staff is composed of (7) seven members, the head by Tender & Procurement Manager and staffed by 6 officers (procurement specialist & contract management specialists), three civil engineers, one mechatronics engineer, and two procurement officers. The team is well skilled in Jordan's public procurement by-Law no. (32) of the year 1993 and its amendments and FIDIC contracts. The team are well skilled in Jordan's supply by-Law no. (32) of the year 1993 and it is amendments, public procurement of Works bylaw No. (71) of 1986 and FIDIC contracts. The staff has a satisfactory record dealing with the project funded by the Saudi Fund for Development, however, they do not have previous experience and working knowledge on Bank-funded operations and more particularly the procurement and management of consultancy assignments of comparable size and complexity, as those envisaged under the project. The team's experience in the preparation of the TORs and Technical Specifications, of the new planned activities is rather limited.

d. Procurement envelop and planning Most procurement activities of MoDEE are provided through consultancy services and include developing sustainable administration, portal and the infrastructure support for e-government & their applications. There are also other contracts related to the ICT sector in many ministries and Government entities.

e. Legal framework: All procurement procedures have been done based on the following;

    1. Supplies bylaw No. (32) of 1993 all procurement activities less than JD 20,000 implemented through: (i) Direct purchase up to JD 3,000, (ii) Purchase through the purchasing committee in the ministry (JD 3,001-10,000), and (iii) Purchase through the local tender committee in the ministry (JD 10,001- 20,000). Other procurement activities with estimated cost exceeding JD 20,000 will be implemented by the GSD unless the special tender committee is established to procure such activities with estimated more than JD 20,000.

2. Based on the Public Works bylaw No. (71) of 1986, the ministry formed a local committee and two Special Tenders Committees endorsed by the Cabinet of Ministers:

   I. A special tender committee for e-governance program, it is responsible for tenders all e-government projects irrespective to the estimated cost. the committee consisting of the Secretary-General of the MoDEE, representatives from the General Procurement Department, General Tenders Directorate, Ministry of Public Works, the Director of the e-Governance, a representative of the General Intelligence, the head of tenders and procurement Section and the financial director of the MODEE in order to speed the electronic transfer, the committee is authorized by the Cabinet of Ministers to apply the direct contract and Request for proposal methods.
   II. A special tender committee for all Fibber Networks program it is responsible for all network's contracts irrespective to the estimated cost.
   III. A special tender committee for all works projects, responsible for the works, rehabilitation, solar system contracts, etc.

   f. Procurement planning is observed and is based on quarterly planning using the allocated budget. Standards Contract and template for IT activities are developed and used.
   g. Filling: the procurement division is keeping a dedicated written record for each procurement activity in addition to the electronic recording system.
   h. Audit: MoDEE has an internal audit, and audit externally by the Audit Bureau.

6. Overall, procurement Risk is rated as "Substantial" based on the overall assessment of the implementing agency wherein: (i) MODEE does not have previous experience and working knowledge on Bank-funded operations and more particularly the procurement and management of such consultancy assignments as those envisaged under the proposed project; (ii) the implementation of the large of contracts is delayed, (iii) the design of some activities is new and therefore the selection of consultants and their supervision may pose challenges; and (iv) the project involves multiple ministries/stakeholders.

7. The procurement associated risk will be mitigated through: (i) use of a procurement plan for contract packaging and as a monitoring tool for processing procurement activities in a timely manner; (ii) preparation of procurement section in the Project Operations Manual (POM); (iii) close support and capacity building provided by the Bank, at the initial stages of project implementation; (iv) recruitment of a qualified and experienced Procurement Officer familiar with World Bank procurement regulations. The Procurement Officer will work closely with the concerned procurement staff at the ministry; (v) preparation of clear and appropriate Technical Specifications/ TORs for each assignment commensurate with estimated cost; (vi) ensuring that the stipulated selection and qualification criteria are not restrictive, allow a wide range of service providers to participate in the bidding opportunities; (vii) preparation of clear, realistic, and sufficient selection procedures in order to attract appropriate service providers from across the market; (viii) assign staff with adequate number and qualifications satisfactory to the Bank to be responsible for project implementation; and (ix) ensuring effective coordination between stakeholders and continuously track and monitor implementation to mitigate cost and time overruns, all parties to the contract must understand the terms and conditions stipulated in the contract as well as their responsibilities and obligations under the contract. Support and handholding in the initial stages of project

implementation will be critical. (x) establishment of a special Technical Committee at MODEE is required so that it takes on the responsibility of procurement activities and handle all communications with the Bank and the technical teams regardless of estimated contract amount**.** Also, to avoid risks of delays and capacity constraints, the project may consider offering part of some activities to the experienced SMEs if any, etc.

Market Analysis summary:

8. The project will finance mainly consultancy services, in addition to supply of IT equipment and development of the systems. Main procurement activities financed under the project include: (i) Selection of international consulting firm to support the PMU/NSC-ICT in digital skills development, (ii) Development and rollout of a digital skills curriculum at local schools across two grades, (iii) Development and rollout of an online digital skills curriculum, (iv) Consulting services and systems development to support the rollout of digital payments, (v) Supply of equipment to support the rollout of digital payments, (vi) Recruitment of professional matchmaking intermediaries to support the implementation of Sub-component 2.1, and (vii) Selection of PMU staff.

9. Consultants: There are several potential service providers in the region for providing services required for the project. The international firms such as Cisco, Expedia, Amazon, Microsoft, Teleperformance, and Oracle have established operations in Jordan through their certified partners. These, as well as the ones not named here may compete for identified services based on competitive selection. The international service provider(s) may also associate with the local service provider(s) to enhance their skills and to ensure local know how and sustainability. Qualified SMEs may also be approached for small scale activities as the case maybe through appropriate procurement process;

10. Considering the history of a few of the planned activities such as: (i) providing digital skills development support estimated at US$1 million; (ii) development and rollout of a digital skills curriculum at local schools across two grades estimated at US$2.5 million; and (iii) development and rollout of a digital skills curriculum online estimated at US$1.5 million. Upon request of the implementing agency, and justifications that will be provided, these will be assessed, and if justified, may be awarded to the existing NGOs on Direct Selection Basis. Any such justification needs to be prepared by the implementing agency, and in addition to general qualification of the firms (NGOs), will satisfy one of the requirements of paragraph 7.14 of Procurement Regulations for Direct Selection, as well as ensuring that the assignment does not cause conflict of interest, as defined in the Procurement Regulations. These requests will be reviewed on a case-by-case basis and subject to no objection by the Bank, during implementation. Goods and non-consultancy services: the required supply of software and IT system with total estimated cost of US$2,500,000, can be procured internationally. Local qualified firms will be shortlisted, to ensure local participation for sustainability purposes.

Proposed Procurement Arrangements

11. Procurement activities: The main procurement activities financed under the project include but are not limited to: (i) Selection of international firm to support the PMU/NSC-ICT in digital skills development, (ii) Development and rollout of a digital skills curriculum at local schools across two grades, (iii) Development and rollout of a digital skills curriculum online, (iv) Consulting services and systems development to support the rollout of digital payments, (v) Supply equipment to support the rollout of

digital payments, (vi) Recruitment of professional intermediaries to support the implementation of Sub-component 2.1, and (vii) Selection of PMU staff. The following procurement methods will be used:

I. Goods and non-consulting services: The project procurement is expected to include but not limited to supply of equipment to support the rollout of digital payments rollout expenditures and support upgrading and equipping three to five Technology Hubs (Tech Hubs) by both providing interior design services, rehabilitation, networks, furniture, and IT equipment. The following methods will be used: (i) Request for Bids, (ii) Request for quotations; and (iii) Direct selection.

II. Consulting Services: The project will use request for proposals with the following methods: (i) Quality and Cost-Based Selection (QCBS), (ii) Fixed Budget-based Selection (FBS); (iii) Least Cost-based Selection (LCS); (iv) Consultants' Qualification-based Selection (CQS); (v) Direct Selection; and (vi) Selection of Individual Consultants. For activities estimated to cost more than US$300,000 will be launched internationally, unless otherwise justified and cleared by the Bank.

12. **Prior review thresholds**: The details of the procurement review/oversight are defined in the Annex II of the Procurement Regulations. Considering the substantial risk rating the project, the following prior review thresholds will apply regardless of the method of selection. Capacity building and assistance will be provided by the Bank as and when needed. TORs for all consultant contracts irrespective of the contract amount will be furnished to the Bank for its prior review and no objection. The following would be subject to prior review of the Bank.

Type of procurement	Prior review threshold
Goods, information technology and non-consulting services	>= $ 2 million
Consultants: firms	>= $ 1 million
Consultants: individuals	>= $ 0.3 million

13. **STEP:** An initial procurement plan for the life of the project was developed by the government through Bank's Systematic Tracking of Exchanges in Procurement (STEP). It defines the market approach options, the selection methods and contractual arrangements, and determine the World Bank's prior/post reviews. The initial procurement plan for the project was submitted by the client to the Bank before negotiations of the loan.

14. **Project Procurement Strategy for Development (PPSD):** Contracts include: (i) development of ICT and rollout of a digital skills curriculum at local schools across two grades (US$2.5 million); (ii) development of ICT and rollout of a digital skills curriculum online (US$1.5 million); (iii) support digitization of payments (US$3 million); (iv) support of digital transformation of service delivery to citizens (US$1.35 million); and (v) selection of IVA (US$1 million). The selection of consultants should not cause a serious challenge as international ICT firms and their partners are active in Jordan. Similarly, qualified individuals are readily available in the country, however, their remuneration is on the high end.

Contract positioning diagram

Figure 9: Contract positioning diagram

15. Frequency of supervision. The frequency of implementation support missions and post procurement review is foreseen to be once a year. In post procurement review, a minimum sample of twenty percent (20 percent) of contracts, or at least one contract eligible for post review will be covered.

ANNEX 6: Table of Service Levels

Table 1: Levels of E-Government Evolution (United Nations Web Measure)

Level	Description
1	*Emerging Presence* is Stage I representing information, which is limited and basic. The e-government online presence comprises a web page and /or an official website; links to ministries/departments of education, health, social welfare, labor and finance may/may not exist; links to regional/local government may/may not exist; some archived information such as the head of states' message or a document such as the constitution may be available on line, most information remains static with the fewest options for citizens.
2	*Enhanced presence* is Stage II in which the government provides greater public policy and governance sources of current and archived information, such as policies, laws and regulation, reports, newsletters, and downloadable databases. The user can search for a document and there is a help feature and a site map provided. A larger selection of public policy documents such as an e-government strategy, policy briefs on specific education or health issues. Though more sophisticated, the interaction is still primarily unidirectional with information flowing essentially from government to the citizen.
3	*Transactional presence* is Stage III that allows two-way interaction between the citizen and his/her government. It includes options for paying taxes; applying for ID cards, birth certificates/passports, license renewals and other similar C2G interactions by allowing him/her to submit these online 24/7. The citizens are able to pay for relevant public services, such as motor vehicle violation, taxes, fees for postal services through their credit, bank or debit card. Providers of goods and services are able to bid online for public contacts via secure links.
4	*Connected presence* is Stage IV which represents the most sophisticated level in the online e-government initiatives. It can be characterized by an integration of G2G, G2C and C2G (and reverse) interactions. The government encourages participatory deliberative decision-making and is willing and able to involve the society in a two-way open dialogue. Through interactive features such as the web comment form, and innovative online consultation mechanisms, the government actively solicits citizens' views on public policy, law making, and democratic participatory decision making.

Source: United Nations Web Measure Assessment Model
https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index/Online-Service

1.   This Annex provides definition of some key terms used in the proposed project.

2.   **Information Technology Outsourcing (ITO),** is the use of service providers for delivering IT-reliant business processes, application services, and infrastructure solutions. ITO has been a business reality for decades transforming from a mere trend to a strategic necessity for enterprises worldwide. Despite the difficulties, ITO would provide huge benefits in terms of productivity, prices, profits and wages—an irresistible combination in a highly competitive world. A natural evolution of how the global marketplace operates today, ITO is on the way to becoming a mainstream business. Proximity is increasingly becoming a factor in location decisions as companies seek solutions to time zone differences, cultural issues, and **operational** challenges. The decline of mega outsourcing deals in favor of lower-value deals has opened a larger segment of the market to smaller and niche providers based in non-traditional locations.

3.   **Business process outsourcing (BPO)** is the contracting of non-primary business activities and functions to a third-party provider. BPO services include payroll, human resources (HR), accounting and customer/call center relations.

4.   **Disadvantaged/Vulnerable Groups/Individuals**: Any group or sector of society that is at higher risk of being subjected to discriminatory practices due to economic hardship, natural or environmental disasters than other groups within the country. This also applies to any group or sector of society (such as women, people with disability or the elderly) that is at higher risk in periods of economic hardships. In order to prioritize selected of vulnerable applicants, the Project will leverage the database of NAF. More detailed selection processes will be described in the POM, including possible quota for each gender group and by targeted regions. Syrian refugees benefit under the project will be implemented in accordance with Jordanian laws and regulations.

5.   **Information, and Communication Technology (ICT)** refers to all technologies (software, hardware, data, transactions, internet access, etc.) that enables people and firms to interact in a digital world. Digital technology falls under the ICT umbrella and therefore "digital work" refers to jobs that leverage digital technology tools. The proposed project categorizes two types of tech-related jobs: (i) *ICT-dependent jobs*: defined as jobs that cannot be performed without the use of technology, including digital; and (ii) *ICT-enabled jobs*: defined as jobs that uses technology as a tool to improve efficiency and effectiveness, although it could be performed without it. Both category of jobs would however require different levels of digital skills.

6.   To simplify, the Project will categorize the ***"ICT-enabled jobs"*** as jobs that would require basic level of digital skills which are essentially generic skills required to safely use technology, including digital, to improve productivity on the job. Those types of jobs will be accessible to Syrian Refugees beneficiaries, whereas the ICT-dependent jobs will be accessible to Jordanians only. For example, a farmer could become ICT-enabled with basic digital skills, if his capacity is built to leverage his phone to access clients and markets via online platforms or applications (e.g. WhatsApp) that would require sharing information in a digital form. A waiter in a restaurant could leverage digital technology to place an order on a tablet instead of a pen and a paper. A plumber could learn about and how to safely use online freelancing platforms to find clients. On the other hand, *"ICT-dependent jobs"* would encompass jobs that would

require medium to high-level of digital skills – from leveraging large databases for analysis to creating digital contents (e.g. software developers).

Figure 10: Occupations and digital skill level

Source: Muro M.; Liu S.; Whiton J.; Kulkarni S. (2017). *Digitalization and the American Workforce*. "Brookings" Metropolitan Policy Program

(A) Adaptation Co-Benefits:

Jordan climate change vulnerability context:
1.   Jordan has population of 10.5 million (2018 estimate), and population density of approximately 110 individuals per km[2]. Of those, nearly 2 million have resettled from abroad, and 755,050 have registered under refugee status prior to May 2019[62]. The refugees represent 57 nationalities, major share is comprised by the refugees from Syria (664,226). Refugees are vulnerable to climate change effects because of their living conditions and lack of financial resources. Also, it has been historically observed in several other countries, that psychological shock from forced resettlement is too taxing for individuals, and "weakens" their abilities to withstand any other/additional environmental risks and hazards.

2.   Median age of population in Jordan is 22.8[63] years, compared to 24.3 (Egypt), 30.5 (Lebanon), and 30.2 (Israel) – Jordan's neighboring countries. 34.14% of country residents are between 0 and 14 years old. Children in this group are the most vulnerable to flashfloods, and to a lesser degree – to heat waves. As shown by statistics of floods and flashfloods around the world, children, disabled and elderly are the most likely victims because they lack either physical ability or skills to escape the disaster. Adult women also fall into the vulnerable category because they often are de facto responsible for evacuation of children and disabled or elderly relatives, or lack physical strength for strenuous activities. 19.98% of Jordan population are in the age group 14-24 years old. Although they are physically better equipped to withstand environmental hazards, they lack financial resources for adaptation and post-disaster recovery and would find it difficult to secure a job given high rates of youth unemployment in the country. Even more so, this is the age group of reproductive age, and it is safe to assume that many/majority of them will have 1 or 2 children in the nearest 5-10 years. In turn, those infants will become the most vulnerable group. Moreover, recent research has shown that heat waves may have negative effect on pregnant women and their unborn babies and increase the risk of maternal hospitalization[64]. Moreover, pregnant women are not known to be strong of fast runners, which will make them more vulnerable during flash floods. Unemployment rate among young females is higher than among young males, therefore young females (about 60% of all young females in Jordan) are not financially independent and need to rely on others for access to financial resources. This makes them more vulnerable to environmental, social and economic risks.

3.   GDP contribution by sectors is as follows: agriculture (4.5%), industry (28.8%), services (66.6%, including transport sector about 15.7%). "The primary obstacle to further agricultural development in Jordan is the Kingdom's shortage of water. Over 91% of the country's land mass is classified as desert or arid desert, and irrigation agriculture currently accounts for about 72% of Jordan's entire water usage.[65]" Agricultural products grown in Jordan fall are in two categories: "perennial" (citrus, olives, bananas, grapes, stone fruits, sheep, poultry, dairy), and "annual and water intensive" (tomatoes, cucumbers, melons, strawberries). From plant biology standpoint, annual crops are usually more water intensive than

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[62] https://reliefweb.int/sites/reliefweb.int/files/resources/69826.pdf
[63] https://www.cia.gov/library/publications/the-world-factbook/geos/jo.html
[64] Kim J., Lee A., and Rossin-Slater M., What to Expect When it Gets Hotter: the Impacts of Prenatal Exposure to Extreme Heat on Maternal and Infant Health. http://ftp.iza.org/dp12685.pdf
[65] http://www.kinghussein.gov.jo/economy9.html

perennial, and grow in a very narrow range of "acceptable" temperature-precipitation/irrigation conditions. Perennial crops can tolerate climatic shocks better but offer almost no flexibility to farmers in terms of changing the crops in dry years. This is because perennial crops (or products) occupy the land and require "maintenance" regardless of whether they produce any yield in a given year. This means that farmers growing both "annual" and "perennial" types of products are equally vulnerable to climate-related risks. Farmers' climate adaptation schemes would likely require strategic change of activity type from farming to "services" or "industry".

Current and anticipated impacts of climate change:

4. Scientists in Jordan already express concern that increase in frequency and severity of flash floods in Jordan is happening sooner than has been predicted. GCM models from the World Bank Climate Knowledge Portal[66] indicate that monthly temperatures in Jordan will increase in the next decades. Mean annual temperature is predicted to increase by 2% by 2050. The risk of heatwaves will increase by up to 13% by 2090. Ensemble model shows even trend of temperature increase through the year, whereas several individual models predict substantial seasonal variation in temperatures, with sharp peaks in some months.

5. In Jordan climate change is predicted to result in the following outcomes: lower water availability for citizens and residents, negative impact on agriculture, heat waves, higher occurrence and intensity of flash floods. The most vulnerable to climate change will be the following population groups: children and teenagers, young adults and especially young females, refugees, elderly and disabled, and farmers. Each group for their own reasons, outlined above.

This project intends to facilitate adaptation to climate change of those vulnerable population groups. Specifically: (a) the 54.12% of Jordan population in the age group 0-24 years old, including infants. young females, and pregnant women; (b) refugees.

6. To be prepared for the potential environmental hazards, the National Center for Security and Crises Management (NCSCM) with support from UNDP prepared national natural disaster risk reduction strategy67. The Higher Council of Civil Defense (HCCD) is tasked with authority to deal with disasters. To manage the inflow of refugees, the Jordan Response Platform for the Syria Crisis (JRPSC), led by the Ministry of Planning and International Cooperation, constitutes the strategic partnership mechanism for the development of a comprehensive refugee, resilience-strengthening and development response to the impact of the Syria crisis on Jordan.

7. **The impact of activities undertaken in project components/DLIs/Pas on climate change adaptation of vulnerable population groups**:
The reality of modern-day sciences, both natural and social, as well as almost all fields of engineering, is that all of them heavily rely on the use of specialized software for data analysis and forecasts. All drawings for new resilient buildings or infrastructure projects are done digitally, using specialized software. All calculations for achieving desired resilience level are done using digital technology. The best climatic weather forecasts models will be useless if there are no professionals in Jordan who have skills to operate/apply those models, calibrate them as needed, know how to handle data. Knowledge for

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[66] https://climateknowledgeportal.worldbank.org/country/jordan/climate-data-projections
[67] https://www.jo.undp.org/content/jordan/en/home/library/NationalNaturalDisasterRiskReductionStrategy.html

programming languages in IT sector, economics, banking-finance, climate science, meteorology and climatology, geodesy, biology and many other fields. This project will help the youth in Jordan to acquire those crucial skills.

8.   DLI 1 Digital skill developed through private sector collaboration will help vulnerable population of Jordan adapting to climate change: vulnerable population would get training and improve their financial stability; vulnerable population would benefit from forecasting and early warning system operated by individuals who acquired digital skills.

9.   DLI 2 Number of graduates trained and hired through digital skills activities: higher capacity of the training program will ensure that more interested individuals, from different fields/backgrounds, get access to the knowledge and will acquire essential digital skills.
The graduates will be able to:
-   Operate and improve early warning system for climate induced disasters like floods and dust storm or any other disaster identified in the vulnerability context.
-   Via electronic means design outreach plans and increase public awareness in Jordan of how to adapt to climate change induced disasters.
-   When choosing career in public, private or non-profit sector, other than IT per se, contribute to planning and implementing climate change adaptation policies and measures, from the government or business side. For example: identify vulnerable populations like poor households, women headed households, households located within vulnerable areas prone to flooding, drought and famine, where interventions to assist with predicting and adapting to climate change induced disasters would be implemented. For example, assisting households in drought prone areas to predict famine or low agricultural yields to allow the household some lead time to adapt before all their resources are spent in agricultural initiatives and recommending a livelihood change for a season.

10.   DLI 3 Enhancing digital skills competencies for public school students: teaching middle- and high-school students will produce greater positive outcome, because it will prepare teenagers for career that requires digital skills. This approach saves a lot of time and resources. Information about applications of digital technology to various fields of science and business, including the use of digital technology for climate and weather forecasting could be added to curriculum, appealing to young impressionable students, and motivating them to consider career in this field.

(B) Mitigation Co-Benefits:
11.   DLI 1 Digital skill developed through private sector collaboration: facilities and tech hubs as examples of "sustainable facilities" – would be used for tours or trainings. In addition to students trained in IT skills, much larger number of children, teenagers, and adults of all ages could be brought to those facilities on tours to educate them about sustainability.

12.   Qualifies as climate change mitigation Co-Benefits under categories:
3.2 Energy efficiency improvements in existing commercial, public and residential buildings;
3.5 Energy efficiency in new commercial, public and residential buildings;
9.1 Cross-cutting issues: Support for national, regional or local policy through technical assistance or policy lending. Education, training, capacity-building and awareness-raising on climate change mitigation or

sustainable energy or sustainable transport, mitigation research.

And may qualify under the category 1.1 electricity generation, solar power – if solar panels will be installed on any of the facilities.

13.   DLI 2 Number of graduates trained and hired through digital skills development activities: Attach climate relevant information to training material including sustainable campuses.

14.   Qualifies as climate change mitigation Co-Benefits under categories:

8.1 Low carbon technologies: products or equipment, projects producing components, equipment, or infrastructure dedicated to the renewable and energy efficiency sectors, or low carbon technologies.

9.1 Cross-cutting issues: Support for national, regional or local policy through technical assistance or policy lending. Education, training, capacity-building and awareness-raising on climate change mitigation or sustainable energy or sustainable transport, mitigation research.

15.   DLI 3 Enhancing digital skills competencies for public school student:

Include climate-relevant and sustainability modules to the educational program. Provide information about best practices of using IT for attaining sustainability in all sectors of economy, for climate change adaptation, and for reducing GHG emissions.

16.   Qualifies as climate change mitigation Co-Benefits under categories:

8.1 Low carbon technologies: products or equipment, projects producing components, equipment, or infrastructure dedicated to the renewable and energy efficiency sectors, or low carbon technologies.

9.1 Cross-cutting issues: Support for national, regional or local policy through technical assistance or policy lending. Education, training, capacity-building and awareness-raising on climate change mitigation or sustainable energy or sustainable transport, mitigation research.

17.   DLI 4 Support Digital Transformation of Service Delivery to Citizens and Businesses:

When system of requests and applications from citizens will be digitalized, government employees will no longer need to be processing the applications manually or spending time looking for paper documents in the physical archives. It could take a government employee from few hours to few days to "process" a request or an application from citizens. Employees work in the offices, offices require some "interior climate control": an A/C or a room fan, both options use electricity and are operated for the whole duration of the work day (8 hours). Some employees use artificial light in their offices during the day as well.

18.   Thus, we conclude that every workday of a government employee is supported by large electricity use: for climate control, some sort of computer (is switched on even when employee is reading hard copy request), and possibly artificial light too. When amount of work worth of thousands of workdays of government employees is replaced by instantaneous digital transactions, this saves electricity, and in turn abates GHG emissions.

19.   Qualifies as climate change mitigation Co-Benefits under categories:

9.1 Cross-cutting issues: Support for national, regional or local policy through technical assistance or policy lending. Other policy and regulatory activities, including those in non-energy sectors, leading to climate change mitigation.