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Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 06-Aug-2024 | Report No: PIDDC00841

BASIC INFORMATION

A. Basic Project Data

Project Beneficiary(ies)	Operation ID	Operation Name	
Lebanon	P506791	Lebanon Digital Resilience Project	
Region	Estimated Appraisal Date	Estimated Approval Date	Practice Area (Lead)
MIDDLE EAST AND NORTH AFRICA	03-Mar-2025	16-Jun-2025	Digital Development
Financing Instrument	Borrower(s)	Implementing Agency	
Investment Project Financing (IPF)	The Lebanese Republic	Office of the Minister of State for Administrative Reform (OMSAR)	

Proposed Development Objective(s)

To improve digital foundations and enhance/increase access to digitally-enabled health and education services

PROJECT FINANCING DATA (US$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)?	No
Is this project Private Capital Enabling (PCE)?	No

SUMMARY

Total Operation Cost	**250.00**
Total Financing	**250.00**
of which IBRD/IDA	**250.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	250.00

Environmental and Social Risk Classification	Concept Review Decision
Moderate	

B. Introduction and Context

Country Context

1. **Well into its fifth year, Lebanon's multipronged crisis continues to be weighed down by a political and institutional vacuum and a lack of comprehensive and equitable reforms.** Lebanon's financial and economic crisis is the most serious in the country's history and ranks among the worst globally since the mid-nineteenth century.[1] This crisis has been exacerbated by the economic impact of the COVID-19 pandemic and the devastating Beirut port explosion of August 2020. Real gross domestic product (GDP) has contracted by approximately 35 percent between 2018 and 2023, wiping out more than 15 years of economic growth. GDP per capita dropped from US$8,925 to US$3,926 between 2019 and 2022, causing the World Bank (WB) to reclassify Lebanon in July 2022 as a lower-middle-income country. The crisis has caused an unprecedented brain drain, and at least one-third of the population is estimated to have been plunged into poverty. A highly polarized political landscape, presidential vacuum, caretaker government with restricted executive powers, and limited legislative action have significantly slowed the progress needed for a comprehensive and equitable crisis resolution plan, in the absence of which the bulk of the cost of economic adjustment will continue to be borne by the most vulnerable segments of society.

2. **The sharp depreciation of the local currency and the collapse of public finances have triggered voluntary staff departures and absenteeism in the public sector and an acute deterioration in public service delivery.** Since the onset of the crisis, the Lebanese pound has lost more than 98 percent of its value, triggering triple-digit inflation rates that have been exacerbated by the rise in global food prices due to the war in Ukraine. In the absence of immediate fiscal consolidation measures and a comprehensive crisis resolution plan, a passive approach to fiscal policy continues to drive a near-complete collapse of public finances. The breakdown in revenue generation impedes the correction of public-sector salaries, as well as the procurement and maintenance of public assets and infrastructure, hindering the effective delivery of essential public services.

3. **Climate change will have significant socioeconomic impacts in Lebanon.** Droughts, heatwaves, wildfires, and floods are significant threats and have been occurring with increased frequency and intensity. Climate projections indicate warmer temperatures of 1.7°C to 2.2°C by 2040, and of up to 4.4°C by 2100 along with greater rainfall variability[2]. Coupled with Lebanon's multipronged crisis that challenges the country's capacity to deal with climate hazards, the extreme weather events pose risks to citizens, agricultural lands, infrastructure, and the economy. The reliance on in-person delivery models for essential services, such as health and education, also limits service continuity for citizens during climate crises.

[1] World Bank Group. 2021. *Lebanon Economic Monitor, Spring 2021*: *Lebanon Sinking: to the Top 3* (link).
[2] World Bank Group. 2024. *Lebanon Country Climate and Development Report (CCDR). CCDR Series*. © Washington, DC: World Bank (link).

B. Sectoral and Institutional Context

4. **The limited progress achieved on the digitalization of public services in Lebanon has been hindered by institutional gaps and poor implementation capacity, impeding the broader digital transformation of government.** The need to rapidly scale the emergency responses to the COVID-19 pandemic and economic crisis led to the creation of new digital platforms, namely the COVID-19 vaccination platform and DAEM social registry, the latter having been used to provide social assistance during the crisis.[3] Other notable initiatives include the IMPACT open data information system[4], the digitalization of civil status extracts, the automation of court processes, the digitalization of consumer protection services, and various digital health platforms. Despite these efforts, Lebanon continues to lag peers in the digital transformation of government[5]. At a high level, Lebanon's framework for digital service delivery suffers from institutional gaps (such as the lack of a data protection authority or a standards-setting body), fragmented and unsustainable investments[6], poor implementation capacity, and limited coordination at the political and technical levels between line ministries and the central government around sectoral initiatives for digital transformation. These gaps are delaying digital service delivery at a time when the administration has very limited capacity to process in-person transactions. The actions of the Government of Lebanon (GoL) have been limited to short-term stopgap measures, with little bandwidth or fiscal space to make sustainable investments that would support crisis recovery and economic growth.

5. **The GoL's capacity to build, operate and maintain resilient digital systems has been near-paralyzed due to the lack of funding and skilled personnel, an insecure and unsustainable approach to hosting government data, and inadequate disaster recovery planning**. The result is that Lebanon's critical national information assets are at an imminent risk of catastrophic failure, irrevocable data loss, and cybersecurity attacks. Government data and digital platforms are hosted on ad hoc servers and data centers operated by line ministries. This data hosting approach is financially and environmentally unsustainable, and highly vulnerable to natural and conflict-related disasters. The ability to deliver services at scale—including as part of a disaster or climate emergency response—is increasingly dependent on digital systems whose hosting environment may expose them to vulnerabilities. The short-term impact for this lack of digital resilience is a significant interruption in public service delivery, while long-term impacts include the reversal of decades of digital transformation efforts and damaging consequences on public-service delivery and socioeconomic development. There are also missed opportunities to leverage digital technologies to support resilience and service continuity for the population, such as by providing telemedicine and e-learning platforms that could replace in-person service delivery channels.

6. **Globally, governments are increasingly leveraging cloud computing[7] to ensure affordable, sustainable, secure, and scalable hosting of government data.** The trend is seen across advanced digital economies, with Singapore

[3] Lebanon registered half of its population on DAEM within two months and started to deliver cash to its poorest and the most vulnerable using the DAEM social registry, financed through the WB's Emergency Social Safety Net Project (P173367).
[4] Inter-Ministerial and Municipal Platform for Assessment, Coordination and Tracking (IMPACT): https://impact.gov.lb/
[5] Lebanon ranks 122nd worldwide on the latest (2022) United Nations' E-Government Development Index (EGDI), ahead of only Iraq, Syria, Libya, Yemen, and Djibouti in the MENA region.
[6] See next paragraph.
[7] Cloud refers to a model of provisioning storage and computing resources (servers) remotely over a network, such as the internet.

having migrated over 70 percent of digital government data to commercial cloud providers[8], and the United Kingdom having enabled 90 percent of digital systems to be migrated to a private cloud environment for government users[9]. Cloud computing resources are increasingly seen as essential for modern computing workflows, particularly those leveraging artificial intelligence. The cloud is also key to ensuring disaster resilience and the continuity of service delivery during crises, given its ability to distribute hosting infrastructure and eliminate single points of failure. For example, Ukraine migrated all its government digital systems to commercial cloud to eliminate reliance on vulnerable in-country data centers during the war, ensuring the continuity of digital government services to the conflict-affected population.

7. **An emerging global approach is the "hybrid cloud", which allows governments to adopt different types of cloud services and on-premises hosting solutions in a flexible way, depending on the type of data being hosted.[10]** A risk-based approach that is enabled by data classification allows governments to optimize between cost, security, performance, and other factors. In Lebanon, the current fragmented on-premises data hosting practices are estimated to be over 10 times more expensive and to emit seven times more greenhouse gases than modern hybrid cloud approaches[11].

8. **Lebanon's underdeveloped digital public infrastructure (DPI)[12] has led to fragmentation, inefficiency, and duplicative sectoral investments for the provision of digital services**. Lebanon lacks digital ID capabilities (such as the ability to digitally verify ID credentials and authenticate individuals online) and mechanisms for trusted data sharing that are needed to support digital service delivery and secure electronic transactions. Furthermore, while previous WB technical assistance (TA)[13] supported the development of key regulatory frameworks that recognized the validity of electronic signatures and established clear requirements for their trusted adoption, technical implementation of electronic signature at the national level is still lagging, undermining trust in digital transactions. In addition to the underdeveloped DPI, the absence of a robust data protection framework undermines trust in digital service delivery and exposes users' right to privacy to potential breaches, slowing down online service adoption.

9. **Together, these gaps in DPI are impacting the transparency, efficiency, trustworthiness, and quality of service delivery in essential sectors such as education and health**. For example, the lack of an Education Management Information System (EMIS) that is interoperable with other sectoral systems has led to challenges with evidence-based policymaking, efficient workforce management, effective public financial management, and the implementation of cross-sectoral programs (e.g., eligibility verification of cash transfer beneficiaries). The inability to robustly verify the identity of teachers and students, as well as the absence of data sharing platforms that allow personal data to be shared confidentially between institutions, is a barrier to EMIS implementation and increases

[8] Ministry of Digital Development and Information of Singapore: https://www.mddi.gov.sg/

[9] The World Bank, 2022. "*Government Migration to Cloud Ecosystems: Multiple Options, Significant Benefits, Manageable Risks*." World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

[10] Cloud computing services that can be adopted by governments include both public and private cloud services, with the latter being restricted to government users. Public cloud services are typically implemented on commercial data centers. Private clouds for government use can be implemented on commercial data centers, using government-operated data centers, or by leveraging public-private parternships.

[11] Source: WB Digital team and Roland Berger Consultants.

[12] DPI refers to digital ID, payment, and data exchange capabilities that are fundamental to enabling service delivery at scale and supporting innovation in the digital economy. DPI provides reusable and foundational digital platforms that allow public- and private-sector service providers to build and innovate their products and services.

[13] Mashreq Digital Dialogue & DD Watch (P180980).

the risk of safeguarding issues through misidentification. Furthermore, existing processes such as the preparation and grading of national examinations are inefficient and subjective, affecting the availability and validity of data on student learning outcomes. In the health sector, the inability to uniquely identify patients is a major hurdle for the efficient integration, targeting, and monitoring of health services, including remote care solutions/telemedicine.

10. **The 2019 National Cybersecurity Strategy has yet to be implemented**. At the technical level, most government systems are insecure and fragmented, raising the risk that critical government data will be lost permanently if adequate cybersecurity and disaster recovery measures are not implemented immediately. These vulnerabilities are exacerbated by the lack of budget to take basic security precautions such as renewing and updating software licenses, and training and retaining critical staff.

11. **The Lebanon Digital Transformation National Strategy 2020-2030 (DTS)[14] is the main blueprint for digital transformation in Lebanon, but implementation has been slow.** Piloted by the Office of the Minister of State for Administrative Reform (OMSAR) and approved unanimously by the Council of Ministers in May 2022, the DTS reflects the GoL's commitment to digital transformation and presents high-level guidelines and policy recommendations. Key recommendations include legal and institutional reforms; moving to a secure, standards-based digital government architecture; implementing digital ID, e-signature, and trusted data sharing; enabling people-centric digital services; strengthening cybersecurity and data protection; digital upskilling; and stakeholder engagement. However, the strategy's implementation has moved slowly due to COVID-19, the port explosion, and the economic and financial crisis. OMSAR, which is leading the strategy's execution in coordination with public- and private-sector stakeholders, has very limited resources to carry out implementation.

Relationship to CPF

12. **The proposed operation contributes to advancing the objectives of the Lebanon Country Partnership Framework (CPF) FY2017–FY22[15] and is consistent with the FY22 Performance and Learning Review[16].** The CPF identifies information and communications technology as a nested constraint. The proposed operation contributes to the CPF's first focus area of expanding access to and quality of service delivery, and the CPF's second focus area of expanding economic opportunities and increasing human capital development.

13. **The proposed operation is aligned with the FY24 Systematic Country Diagnostic (SCD; P500099), the Middle East and North Africa (MNA) Regional Strategy, the Guiding Principles for WB Engagement in Lebanon Under the Status Quo 2023-2025, and the WB Gender Strategy 2024-2030.** The SCD's second high-level objective (HLO) on improved public service delivery and accountability lists the implementation of DPI, data hosting, and the digitalization of high-impact sectoral services as priorities in the Muddling Through scenario, and DTS implementation, legal reforms, and digitalization at scale as priorities in the Recovery scenario. Under HLO4 on improved and more equitable human capital, the DPI-enabled digitalization of education and health services is listed as a priority. In addition, the MNA Regional Strategy focuses on driving digital transformation, including through end-to-end DPI-enabled digitalization, enhancing data governance frameworks, supporting the development of cloud and data hosting markets, and digital upskilling. Furthermore, the Guiding Principles for WB

[14] OMSAR. 2022. *Lebanon Digital Transformation National Strategy 2020-2030, May 2022 Update (link)*.

[15] *Lebanon - Country partnership framework for FY17-FY22* (English). Washington, D.C.: World Bank Group. (link)

[16] *Lebanon - Performance and Learning Review (PLR) of the Country Partnership Framework for the Period of FY17-FY22* (English). Washington, D.C.: World Bank Group. (link). This PLR extended the CPF until FY23 only.

Engagement in Lebanon 2023-2025 identify citizen-centered digital development and the preservation of essential public services as core principles, and the DPI-enabled digitalization of public services, digital upskilling, data hosting, and cybersecurity as priorities. Finally, the proposed operation advances the WB Gender Strategy 2024-2030 through wider access to and use of enabling services to accelerate gender equality for a resilience, inclusive, and sustainable future.

14. **The proposed operation is aligned with Lebanon's Nationally Determined Contribution (NDC)**[17] that pledges to reduce greenhouse gas (GHG) emissions unconditionally by 20 percent and conditionally by 31 percent by 2030[18]. The operation will contribute toward this goal by ensuring all infrastructure-related investments, including connectivity, digital infrastructure equipment, and data hosting, are low-carbon and energy-efficient. The operation is also aligned with the Fourth National Communication on Climate Change[19] that recognizes the role of digitalization in reducing GHG emissions by limiting the need to take physical trips. On adaptation, the proposed operation is also consistent with the NDC's "Climate Action Enabler" of accelerating the deployment of climate-friendly technologies– namely through the adoption of climate-resilient data hosting approaches. It also supports the recommendations of the CCDR to invest in digitalization by building whole-of-government digital foundations to enable service digitalization at scale that would strengthen the climate resilience of populations, such as through digital ID that would facilitate emergency cash transfers following a flood or drought. The project has been screened for climate change and disaster impacts, and potential resilience-enhancing measures will be identified and properly reflected in project documents before appraisal. No specific risks with respect to the mitigation and adaptation aspects of the Paris Alignment Assessment have been flagged at this stage.

C. Proposed Development Objective(s)

To improve digital foundations and enhance/increase access to digitally-enabled health and education services.

Key Results (From PCN)

- People with a digitally verifiable official identification (Number), disaggregated by gender
- People using digitally-enabled services (Number), disaggregated by:
  - Gender
  - Service type

D. Concept Description

15. **The proposed operation is strongly aligned with the World Bank's Global Challenge Program (GCP) on *Accelerating Digitalization*.** The latter proposes a holistic approach to promoting digital transformation, based on complementary investments in broadband and data hosting (Focus Area 1), interoperable and safe data platforms (Focus Area 2) and high-impact digital services (Focus Area 3). The proposed operation is aligned with the GCP approach, with its main components (listed below) corresponding to the three GCP focus areas. The health and education sectors were prioritized due to their broad reach across the population, their central role in crisis recovery, and their potential to realize transformative impact when using DPI. Under the health sector, the proposed activities will improve access to and the quality of health services through seamless data sharing within the sector and across government, better coordination of care, and the enhancement of efficiency, transparency,

[17] *Lebanon's Nationally Determined Contribution, Updated 2020 Version* (link).
[18] The Government of Lebanon (GoL) is still preparing its national adaptation plan (NAP) and long-term low emission development strategy.
[19] Lebanese Ministry of Environment. 2022 (link).

and cost effectiveness. Under the education sector, the proposed activities will improve the efficiency and transparency of the Ministry of Education and Higher Education (MEHE), laying the foundations for future reform in the sector. In addition, the proposed activities will improve the interactions of end users, namely students and their families, with the sector.

16. **The proposed operation will be structured around five components, as follows:**

Component 1: Strengthening Digital Foundations

Subcomponent 1.1: Data Hosting Capabilities will build resilient, green data hosting capabilities at the national level that leverage modern cloud computing.

Subcomponent 1.2. Broadband Connectivity will reinforce high-speed broadband links, as needed, between data centers and government facilities to streamline the operation of key data platforms.

Component 2: Digital Enablers

Subcomponent 2.1: Enabling Environment and Capacity Building will strengthen the legal, regulatory, institutional, and governance framework for digital resilience, including substantial capacity building and digital upskilling of public servants, health workers, teachers, and citizens.

Subcomponent 2.2*: *Interoperable and Safe Data Platforms will build cross-cutting and interoperable DPI (namely, digital ID and trusted data sharing) to improve the resilience, inclusivity, and scalability of digital services. It will also strengthen national cybersecurity platforms and infrastructure.

Component 3: Digitalizing the Health and Education Sectors.
This component will leverage national-level data platforms, data hosting capabilities, and governance frameworks financed under components 1 and 2 to increase access to health and education services, improving crisis response and resilient service delivery to the population.

Subcomponent 3.1: Digitalizing the Health Sector will strengthen existing digital health platforms and integrate them with the national-level DPI.

Subcomponent 3.2: Digitalizing the Education Sector will strengthen existing and future digital education platforms and integrate them with the national-level DPI.

Component 4: Project Management. This component will finance project management and coordination, including procurement, financial management (FM), monitoring and evaluation (M&E), as well as environmental and social safeguards. This includes the setup and staffing of a project implementation unit (PIU), as well as funding for project communication, stakeholder engagement, training and institutional capacity building, audit, grievance redress, and logistics.

Component 5: Contingent Emergency Response Component (CERC). Considering Lebanon's context, a CERC is added to allow for quick disbursement of uncommitted balances as a crisis response measure for a future emergency. The CERC may be financed during implementation using funds redirected from other components.

Legal Operational Policies

	Triggered?	
	Last approved	**Current**
Projects on International Waterways OP 7.50	No	
Projects in Disputed Area OP 7.60	No	

Summary of Screening of Environmental and Social Risks and Impacts

Both the social and environmental risks are rated 'Moderate'. The Environmental and Social Standards (ESSs) that apply are ESS1, ESS2, ESS3, ESS4, and ESS10. The Project involves training public servants, minor civil works for digital interconnectivity infrastructure (including minor fiber-optic cabling) in ministries' buildings, health facilities, and educational sites, and the acquisition of IT equipment such as PCs, printers, servers, routers, and switches. The associated risks are not significant, as most of the fiber network has already been installed in the Beirut area where the ministries' and other public buildings are located. Other environmental risks include occupational health and safety (OHS) risks and the generation of construction and e-waste. The main social risks are associated with the exclusion of some digital services end users who do not have reliable access to internet connectivity; sexual exploitation and abuse/sexual harassment (SEA/SH) as there are female and male project workers working in proximity with limited supervision; communication of project-associated activities not reaching all end users; a weak grievance mechanism and low Borrower E&S capacity. These risks will be effectively mitigated through the strengthening of the existing grievance mechanism of the Borrower, E&S stakeholder consultations, the signature of codes of conduct, hiring of a qualified E&S specialist as part of the PIU and the implementation of Good International Industry Practice (GIIP) as per the WB's Environmental and Social Framework (ESF) and Environmental, Health, and Safety (EHS) requirements and e-waste management measures.

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