

**The Hashemite Kingdom of Jordan**

**Data Collection Survey on  
Promotion of Trade and Investment  
in the Hashemite Kingdom of Jordan**

**Final Report**

**October 2021**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**PADECO Co., Ltd.  
Deloitte Touche Tohmatsu LLC**

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## Contents

<b>Chapter 1. Background and Purpose of the Research .....</b>	<b>1</b>
1.1 Background .....	1
1.2 Objective .....	2
1.3 Contents.....	2
1.4 Survey Methodology .....	4
1.4.1 Transition of Survey Methodology .....	4
1.4.2 Overview of the Field Survey .....	5
<b>Chapter 2. Current Status and Issues of Each Promotion Policy .....</b>	<b>7</b>
2.1 Industrial Promotion Policy .....	7
2.1.1 Overview of Policies, Systems, Structures, and Strategies .....	7
2.1.2 SME Development Framework, and Issues .....	15
2.2 Trade Promotion Policy.....	21
2.2.1 Overview of the Policies, Systems, Promotion Systems and Strategies .....	21
2.2.2 Issues and Future Prospects Related to Trade Promotion .....	25
2.3 Investment Promotion Policy .....	26
2.3.1 Overview of Policies, Systems, Promotion Systems and Strategies .....	26
2.3.2 Issues and Future Prospects for Investment Promotion .....	31
2.4 Overview of Jordan's Economy and Industry .....	33
2.4.1 Economic Overview .....	33
2.4.2 Domestic Labor Population and Employment Structure .....	35
2.5 International Competitive Environment Surrounding Jordan .....	41
2.5.1 Trade Environment Surrounding Jordan (Trade Agreements, Investment Agreements, etc.).....	41
2.5.2 Trends in Markets in Neighboring Countries .....	43
<b>Chapter 3. Identification of the Focus Sectors.....</b>	<b>47</b>
3.1 Sectors Gaining Attention in the COVID-19 Pandemic.....	47
3.2 Candidates for the Focus Sectors (Longlist) .....	49
3.3 The Focus Sectors (Shortlist) .....	64
3.3.1 The Perspectives of Shortlisting.....	64
3.3.2 Analysis of the Focus Sector (Shortlist).....	68
<b>Chapter 4. Issues and Solutions of the Focus Sectors based on the Field Survey.....</b>	<b>107</b>
4.1 Food Processing .....	107
4.2 Dead Sea Products / Wellness Cluster.....	109
4.3 Pharmaceuticals and Medical Supplies .....	125
4.4 ICT (Tech-Based Startups).....	127
4.5 Summary .....	132
<b>Chapter 5. Information Collection on Aqaba .....</b>	<b>134</b>
5.1 Issues Related to Aqaba SEZ and JICA Support Measures.....	134
5.1.1 ASEZA and ASEZ Master Plan.....	134
5.1.2 Necessity of Updating Master Plan .....	137

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5.1.3	Toward Solving Urban Problems .....	139
5.1.4	Prospects for Smart City Approach .....	139
5.2	Aqaba Port Perspective .....	140
5.2.1	Aqaba Port Redevelopment.....	140
5.2.2	Trends in ACT Container Terminal .....	141
5.2.3	DX Outlook at Aqaba Port .....	143
5.3	Aqaba Airport Perspective .....	143
5.4	Direction of JICA Support.....	145



## List of Figures

Figure 1-1	Overview of the Survey (Plan)	4
Figure 1-2	Study Flow	5
Figure 2-1	Organization Chart of JEDCO	16
Figure 2-2	Trade Facilitation Indicators	23
Figure 2-3	Foreign Direct Investment, Net Inflows (BoP, Current USD)	27
Figure 2-4	Foreign Direct Investment, Net Inflows (% of GDP)	27
Figure 2-5	JIC's FDI Promotion Strategy	28
Figure 2-6	FDI Regulations for Foreign Investors	28
Figure 2-7	Minority Shareholder Protection Relative to Comparative Economic Countries	29
Figure 2-8	Quarterly GDP Growth Rate	33
Figure 2-9	GDP Contribution by Industry	33
Figure 2-10	GDP Growth Rate by Industry	34
Figure 2-11	GDP Contribution Rate by Industry	34
Figure 2-12	Composition Ratio of Labor Force by Industry	35
Figure 2-13	Labor Force Population Composition by Age Group (2013-2017)	36
Figure 2-14	Labor Force Population Composition by Age Group (2018-2019)	36
Figure 2-15	Unemployment Rate by Age Group	37
Figure 2-16	Employment Rate (Jordanian Nationals)	37
Figure 2-17	Employment Rate (Non-Jordanian Nationals)	38
Figure 2-18	Jordanian Labor Force by Nationality and Gender	38
Figure 2-19	Sector of Employment by Nationality	39
Figure 2-20	Number of Bachelor's Degree Graduates by Major (2016)	40
Figure 2-21	Interregional FTAs (Light Blue) and Bilateral FTAs (Dark Blue)	42
Figure 2-22	Changes in GDP in the MENA Region	43
Figure 2-23	Comparison of GDP of MENA Countries (2018)	43
Figure 2-24	Breakdown of Jordan Trade and Export Destinations by Country (2018)	44
Figure 2-25	Breakdown by Item of Export from Jordan to Saudi Arabia	44
Figure 2-26	Growth Rate by Export Items to Saudi Arabia (from 2013 to 2018)	45
Figure 2-27	Country Share of Saudi Arabia Biopharmaceutical Imports (2018)	46
Figure 2-28	Growth Rate by Country in Saudi Biopharmaceutical Imports (from 2013 to 2018)	46
Figure 3-1	Export Value of Agricultural Products from Jordan (USD)	50
Figure 3-2	Import Trends in Saudi Arabia (Vegetables and Fruits)	51
Figure 3-3	Export Value of Foodstuffs from Jordan (USD)	52
Figure 3-4	Import Trends in Iraq (Foodstuffs)	53
Figure 3-5	Export Value of Fertilizers from Jordan (USD)	54
Figure 3-6	Import Trends in India (Fertilizers) in USD	55
Figure 3-7	Export Value of Inorganic Chemicals from Jordan (USD)	56
Figure 3-8	Import Trends of Inorganic Chemicals in India (USD)	57
Figure 3-9	Export Value of Organic Chemicals from Jordan (USD)	58
Figure 3-10	Import Trends in China (Organic Chemicals)	59
Figure 3-11	Export Value of Cosmetics from Jordan (USD)	60
Figure 3-12	Export Value of Garments from Jordan (USD)	61
Figure 3-13	Import Trends in the US (Garments)	62
Figure 3-14	Export Value of Medicines from Jordan (USD)	63
Figure 3-15	Import Trends in Saudi Arabia (Pharmaceuticals)	64
Figure 3-16	Export Value of the Dead Sea Cosmetics (Jordan)	79
Figure 3-17	Export Value of the Dead Sea Cosmetics (Israel)	80
Figure 3-18	Export Destinations from Jordan (Proportion)	81
Figure 3-19	Export Destinations from Israel (Proportion)	81
Figure 3-20	Internet and Mobile Penetration 2006-2018	98

Figure 3-21	Telecom Revenues (Million USD) .....	99
Figure 3-22	Telecom Employment 2007 - 2018.....	99
Figure 3-23	IT Revenues 2002 - 2018 (Million USD).....	100
Figure 3-24	IT Domestic vs. Export Revenues 2002 - 2018 (Million USD) .....	100
Figure 3-25	IT and ITES Revenues 2018.....	101
Figure 3-26	IT and ITES Export TOP 10 Countries 2018.....	103
Figure 4-1	The Concept of Wellness Cluster Development in Jordan .....	116
Figure 4-2	Challenges and Potential Support for Dead Sea Products .....	120
Figure 4-3	Challenges and Potential Support for Wellness Cluster Development.....	122
Figure 5-1	Current Master Plan (ASEZA) .....	136
Figure 5-2	Marsa Zayed Development in Aqaba .....	136
Figure 5-3	Aqaba Port Master Plan (2018) (ADC).....	141
Figure 5-4	Aqaba Container View (ADC) .....	143
Figure 5-5	Aqaba Airport Elevated View.....	144

## List of Tables

Table 1-1	List of Survey Contents.....	2
Table 1-2	List of Interviews .....	5
Table 2-1	Policy Documents Related to Jordan's Growth Strategy.....	8
Table 2-2	Focus Industries and Direction at JEGP.....	9
Table 2-3	List of Prioritized Policies during 2020-2021 .....	10
Table 2-4	Horizontal Reform Pillars and Major Policies .....	12
Table 2-5	Vertical Reform Pillars and Major Policies.....	12
Table 2-6	Major Stakeholders Related to Industry and Trade Overall .....	13
Table 2-7	Major Stakeholders Related to Each Sector.....	14
Table 2-8	Definition of Jordan SMEs (Definition Used by CBJ) .....	17
Table 2-9	Definition of Jordan SMEs (Definition Used Other than CBJ) .....	17
Table 2-10	List of JEDCO's Support Programs .....	19
Table 2-11	List of Target Countries by Region (Bilateral Agreements).....	21
Table 2-12	List of Countries that have signed BITs and DTPTs .....	21
Table 2-13	Outline of TFI Indicators and Evaluation Results of Jordan.....	24
Table 2-14	Doing Business – Minority Shareholder Protection.....	29
Table 2-15	Projects and Programs for Investment Promotion.....	30
Table 2-16	Ongoing PPP Projects .....	31
Table 2-17	Dominant Segments of the Labour Force by Sector .....	39
Table 2-18	List of Trade Frameworks .....	41
Table 3-1	Top Export Destinations in 2018 (Vegetables).....	51
Table 3-2	Top Export Destinations in 2018 (Fruits).....	51
Table 3-3	Top Export Destinations in 2018 (Foodstuffs).....	52
Table 3-4	Top Export Destinations in 2018 (Fertilizers).....	54
Table 3-5	Top Export Destinations in 2018 (Inorganic Chemicals) .....	56
Table 3-6	Top Export Destinations in 2018 (Organic Chemicals) .....	58
Table 3-7	Top Export Destinations in 2018 (Cosmetics) .....	60
Table 3-8	Top Export Destinations in 2018 (Knitted or Crocheted) .....	62
Table 3-9	Top Export Destinations in 2018 (Not Knitted or Crocheted) .....	62
Table 3-10	Top Export Destinations in 2018 (Pharmaceuticals).....	63
Table 3-11	Market Viewpoint (Trading Partners).....	65
Table 3-12	Jordan's Competencies Viewpoint .....	65
Table 3-13	Comparative Advantages Viewpoint.....	66
Table 3-14	The Issues and Countermeasures (Food Processing) .....	71
Table 3-15	Major Manufacturing Companies in Dead Sea Products Sector.....	73

Table 3-16	The Issues and Countermeasures (Dead Sea Products) .....	82
Table 3-17	Major Pharmaceuticals Manufacturing Companies .....	84
Table 3-18	The Challenges of the Pharmaceuticals Sector .....	90
Table 3-19	The Issues and Countermeasures (Medical / Wellness Tourism) .....	96
Table 3-20	Assessment for Jordan's Innovation Hub Potentials .....	104
Table 3-21	Public Institutions Related to ICT Industrial Development .....	104
Table 3-22	The Issues and Countermeasures (ICT) .....	106
Table 4-1	Shortlisted Focus Sectors .....	107
Table 4-2	Entry barriers to Japan and China (Voices from Different Companies).....	115
Table 4-3	Tenant ICT Companies Headquartered in Jordan .....	127
Table 4-4	Major Startup Support Organizations in Amman.....	128

### **List of Boxes**

Box 1	SME Development Projects apart from JEDCO .....	18
Box 2	Potential Risks regarding the Export of Raw Materials .....	75
Box 3	Export Value and Destinations of the Dead Sea Cosmetics (Jordan & Israel) .....	79
Box 4	Adventure Tourism and Aqaba Tourism Plan .....	95
Box 5	Overview of Jordan Exports (JE) .....	109
Box 6	Geographical Distribution of Supply Chain .....	112
Box 7	Master Plan of the Dead Sea Development Zone .....	118

## Abbreviations and Acronyms

Abbreviations	Official name
ACI	Amman Chamber of Industry
ADC	Aqaba Development Corporation
ASEZA	Aqaba Special Economic Zone Authority
CBI	Centre for the Promotion of Imports from Developing Countries
CBJ	Central Bank of Jordan
C/P	Counterpart(s)
DSPMA	Dead Sea Products Manufacturers' Association
EBRD	European Bank for Reconstruction and Development
EU	European Union
FDI	Foreign Direct Investment
GCC	Gulf Corporation Council
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GMP	Good Manufacturing Practice
ILO	International Labour Organization
IMF	International Monetary Fund
int@j	Information Technology Association of Jordan
ITC	International Trade Centre
JAPM	Jordanian Association of Pharmaceutical Manufacturers
JE	Jordan Exports
JEDCO	Jordan Enterprise Development Corporation
JEPG	Jordan Economic Growth Plan 2018-2022
JFDA	Jordan Food and Drug Administration
JFDZG	Jordan Free and Development Zones Group
JIC	Jordan Investment Commission
JICA	Japan International Cooperation Agency
JIEC	Jordan Industrial Estates Company
JTB	Jordan Tourism Board

KOICA	Korea International Cooperation Agency
KHBP	King Hussein Business Park
MENA	Middle East and North Africa
MICT	Ministry of Information and Communications Technology
MoDEE	Ministry of Digital Economy and Entrepreneurship
MoITS	Ministry of Industry, Trade and Supply
MoPIC	Ministry of Planning and International Cooperation
ODA	Official Development Assistance
OECD	The Organisation for Economic Co-operation and Development
SEZ	Special Economic Zone
SME	Small and medium-sized enterprise(s)
TBS	Tech-Based Startups
TRC	Telecommunications Regulatory Commission
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development



## **Chapter 1. Background and Purpose of the Research**

### **1.1 Background**

Jordan is located at the transportation hub connecting West Asia, North Africa, and Europe, and has an advantage in trade promotion and investment promotion because it maintains stable national management even amid the unstable Middle East situation. On the other hand, due to the influence of the political situation in neighboring countries, the domestic economic growth rate is low, the export value trade deficit has accumulated. COVID-19 exacerbated the situation since 2020, and the unemployment rate is as high as 25 percent as of the first quarter of 2021 (Department of Statistics, Jordan).

Before 2011, the value of exports of goods and services exceeded 46 percent of the country's GDP but, after the Syrian crisis, exports declined due to border closures and market stagnation in the Gulf countries, and fell to about 24 percent of GDP in 2020 (World Bank). Even now, after the borders with Iraq and Syria have reopened, a short-term recovery could not be observed, and there is an urgent need to strengthen trade competitiveness.

On the other hand, with the recovery of the situation in Iraq and Syria, Jordan is expected to be a business hub for the reconstruction of both countries, and investment is progressing with a view to reconstruction demand. Utilization of Free Zones and Development Zones in Jordan is extremely important in trade and investment promotion. Furthermore, under Japan's initiative of "The Corridor for Peace and Prosperity," Palestinian products of the Jericho Agricultural Processing Complex (JAIP), which is being developed in neighboring Palestine, are to be sold in the Jordanian market and exported to the Gulf countries via Jordan. In other words, the promotion of trade and investment in Jordan is leading to lateral support for the promotion of the concept, which in turn is a significant initiative from the perspective of peace building in the Middle East.

The Jordan Economic Growth Plan 2018-2022 (JEGP) announced by the Jordanian government has set an annual economic growth rate of five percent of GDP for the five years, from 2018 to 2022. Tourism, agriculture, manufacturing, electricity and water, transportation, ICT, and construction are listed as the industries required for growth. But considering that the actual economic growth rate remained at only 1.9 percent in 2018 and got worse to -1.5 percent in 2020 (World Bank), further identification of the industries with high growth potential and the policies to attract investment and encourage exports for those focus industries is needed.

In 2015, the Jordanian government announced Jordan 2025, the social and economic development program for the next 10 years. In fields of business, it aims to improve trade and competitiveness, the business environment, and access to financial services, and to strengthen the development of entrepreneurs and SMEs. JEGP, which is another mid-term program, has also set the main themes of trade and competitiveness, business environment, and capital investment for growth and support for start-ups and SMEs. In addition, the government is working to improve the business environment, such as calling on the international community to actively invest in the private sector at the London Conference held in February 2019 with the aim of promoting investment in Jordan. This project is in line with the above-mentioned policy of the government.

Although Jordan's business environment has improved, with the World Bank's Doing Business ranking rising from 104th in 2018 to 75th in 2019, improvements are still needed in many areas, including the high cost of business development, complexity of licensing, lack of transparency, and access to financial services.

This survey collects and analyzes the information necessary for trade and investment promotion in Jordan. Investment promotion through strengthening the export competitiveness of Jordanian

domestic companies and improving the business environment is expected to contribute not only to revitalizing industries that are expected to grow, but also to creating employment opportunities, which is an important item on the agenda of the country.

In addition, the COVID-19 pandemic that has spread all over the world since the beginning of this survey has brought about major changes in the economies and societies of all countries including Jordan. In order to take into account the impact of COVID-19 on Jordan and neighboring countries and reflect it in the direction of support for the growth industries after the pandemic subsides, information on the situation caused by the pandemic will be collected.

## 1.2 Objective

The survey is to provide basic information on investment promotion and promotion of trade-related industries in Jordan from three perspectives, (1) trade expansion potential including new market development, (2) identification of industries with growth potential, (3) the business environment such as trade promotion policy and investment incentives and systems, and licensing procedures, etc., and thus clarify the current situation and issues in trade and investment promotion.

In the potential analysis of (1) and (2), the influence of the COVID-19 pandemic, which is currently underway and is causing major changes in the world economy and society, will be taken into consideration.

## 1.3 Contents

The following is the list of the contents of this survey.

**Table 1-1 List of Survey Contents**

No.	Survey Contents
<b>(1) Information organization and analysis of existing materials, and confirmation of information that needs to be collected in field survey</b>	
①	Collecting and analyzing information on the economic and industrial conditions of Jordan as a whole and the structure of government agencies including relationships and division of duties with each ministry and agency and its affiliated public corporations and state-owned enterprises
②	Collecting and analyzing information such as reports and results of projects and surveys conducted by JICA, other donors such as the World Bank and IMF, and foreign governments
③	Collecting and analyzing information on major trade items, major export partners, competing neighboring countries, etc.
④	Collecting and analyzing information on Jordan's market size, labor force / employment structure, production cost competitiveness, industrial human resources, and markets in neighboring countries
⑤	Identifying Jordan's comparative advantage and analyzing trade expansion and growth potential including new market development, based on the results of items ③ and ④
⑥	Narrowing down and prioritizing industrial sectors to focus on, based on the potential analysis
⑦	Collecting and analyzing information on policies, systems, promotion systems and strategies related to trade promotion and investment promotion surrounding high-priority industries



- 
- ⑧ Collecting information on the outline, development status, organization and implementation system of operating entity of Free Zone and Development Zone
  - ⑨ Selection of local companies to be interviewed and preparation of questionnaires
- 

**(1') Survey in Japan on the impact of COVID-19**

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- ① Outlook of the Post-COVID
  - ② Financial Situation of Jordan
  - ③ Impact on Employment
  - ④ Industrial Position of Jordan
  - ⑤ Demands of Major Trading Partners and Trends in Neighboring Countries with Many Residing Jordanians
  - ⑥ Changes in Physical Distribution and Supply Chain
  - ⑦ Scale and Content of Financial Mobilization for Emergency Response
  - ⑧ Health policy
  - ⑨ Public works
  - ⑩ Refugee policy
  - ⑪ Changes in Industrial Needs and Trends in Human Resource Development Needs
  - ⑫ Entrepreneurship Support Environment
  - ⑬ Trends in Advisory Support for SMEs and the Impact on the Credit Guarantee System
  - ⑭ Vulnerability Analysis: Public Finance, Industry and Business, and National Security
  - ⑮ Summary of the impact of COVID-19: Classification of Vulnerability, Concept of Focus Industry and Recommendations for Response to Vulnerabilities and Support for Industrial Promotion
- 

**(2) Organize and analyze additional information to be collected in the field survey**

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- ① Interviews with related organizations and private companies regarding matters that require detailed information and confirmation as the result of survey in Japan
  - ② Confirmation with each administrative agency on implementation status, implementation system, issues, related to (1) ⑦
  - ③ Confirmation of operational status, needs, issues of the Free Zone and Development Zone in Jordan
  - ④ Hearing of needs and issues related to trade promotion and investment promotion for chambers of commerce, industrial conferences, local companies, etc.
- 

**(3) Proposal of JICA's candidate projects (technical cooperation, financial cooperation) that contribute to trade and investment promotion based on the results of organizing and analyzing the collected information**

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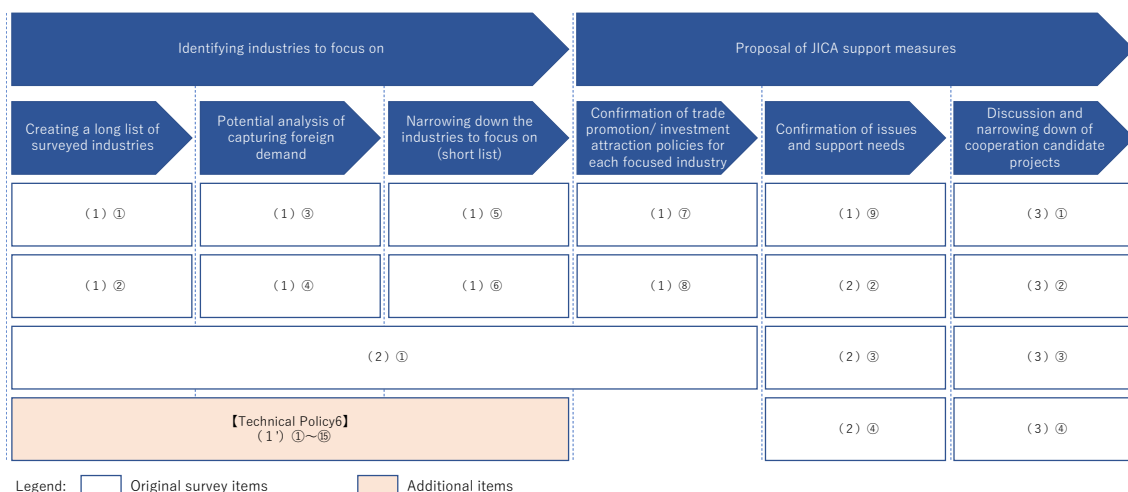
- ① Organize the information collection results of (1) and (2), and report to / discuss with JICA
  - ② Summary of issues and initiatives related to policies, systems, procedures, costs and human resource development regarding trade and investment promotion, that are desired to be improved, and proposal of support measures through technical cooperation and financial cooperation for these improvements
  - ③ Selection of high-priority projects, proposals for sectors, counterpart agencies, components, periods, etc.
  - ④ Preparation of draft final report based on the above, and preparation of final report based on comments from JICA and the Government of Jordan
- 

Source: JICA Study Team

## 1.4 Survey Methodology

### 1.4.1 Transition of Survey Methodology

In carrying out this work, based on the layout shown in the figure below, a deductive investigation procedure was envisioned to narrow down the candidates for the cooperation project in order. Each survey item was set to narrow down the priority industries according to the proposed technical policies, identify issues, derive support candidate measures, and confirm needs.



**Figure 1-1 Overview of the Survey (Plan)**

However, as a result of the continued inability to conduct field surveys due to the COVID-19, the field surveys originally planned three times were finally reduced to one. As for, almost all the study tasks needed for narrowing down the industries to focus on and grasping the issues had to largely rely on the desktop research and information obtained through the local research assistant. While the timing of on-site verification in primary issues was delayed, as a result of the extension of the preparation period before the mission, JICA Study Team was able to hear the concrete support request from the Jordanian government first. Here, the basic survey method was changed to an approach that verifies the support needs by field surveys based on the request from the Jordanian government.

In this survey, in addition to solutions to the issues identified in the industries to be focused on, which were born from the initial deductive approach, draft support for AI strategies was raised in areas related to the focused industries. In a slightly different context, JICA Study Team also conducted a field survey to verify specific support measures that were requested by the Jordanian government last year, such as support for renewal of the Aqaba Special Economic Zone Master Plan. The overall flow of the final survey is shown in the figure below.

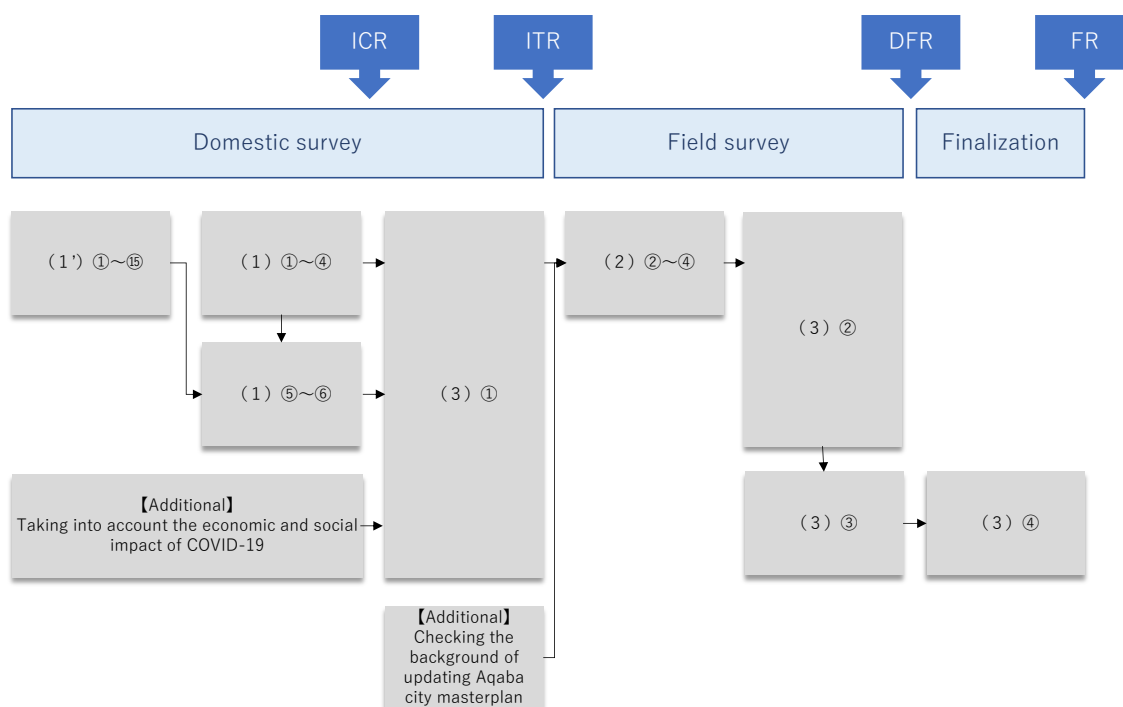


Figure 1-2 Study Flow

### 1.4.2 Overview of the Field Survey

For the sectors shortlisted at the time of the Interim Report, the research team listed the candidates for interviews and made appointments with those with higher priority, for the purpose of verifying the hypothesis and comprehending the latest situation and information.

Among the short-listed sectors, we conducted interviews focusing on Dead Sea products and wellness-related sectors, which are considered to have high potential and needs for support through discussions, as well as the ICT sector which is related to a request from MoDEE. Interviews were also conducted for the food processing sector and the pharmaceutical / medical supplies sector by narrowing the points to confirm.

The team also confirmed the overview and efforts of each sector, and the need for support, with the ministries, cross-cutting support organizations (JEDCO, JIC, etc.) and donor organizations.

Below is a list of interviews in the field survey (see Appendix for schedule).

Table 1-2 List of Interviews

#	Sector	Category	Name
1	Cross-cutting	Ministry	Ministry of Industry, Trade and Supply (MoITS)
2	Cross-cutting	Public agency	Jordan Enterprise Development Company (JEDCO)
3	Cross-cutting	Quasi-public agency	Jordan Exports (JE)
4	Food processing / Cross-cutting / Investment	Development Zones	The Jordan Industrial Estates Co (JIEC)

#	Sector	Category	Name
5	Investment	Investment organization	Jordan Investment Commission (JIC)
6	Pharmaceuticals / Medical	Industry Organization	Jordanian Association of Pharmaceutical Manufacturers (JAPM)
7	Pharmaceuticals / Medical	Organization related to a committee	Jordan Food and Drug Administration (JFDA)
8	Dead Sea products / Cross-cutting	Chamber of Commerce / Industry	Amman Chamber of Industry (ACI): Department of Industrial Development
9	Dead Sea products	Industry organization	Dead Sea Products Manufacturers' Association (DSPMA)
10	Dead sea products	Enterprises	Company A-
11	Dead Sea products	Enterprises	Company B
12	Dead Sea products	Enterprises	Company C
13	Dead Sea products	Enterprises	Company D
14	Wellness tourism / products	Development Zone-related organization	The Jordan Free and Development Zones Group (JFDZG)
15	Wellness tourism / products	Industry organization	Jordan Tourism Board (JTB)
16	ICT	Ministry	Ministry of Digital Economy and Entrepreneurship (MoDEE)
17	ICT / Investment	Business park	King Hussein Business Park Company (KHBP)
18	ICT	Incubator	iPARK
19	ICT	Venture capital	Oasis500
20	ICT	Industry organization	int@j
21	ICT	Incubator	Zain Innovation Campus (ZINC)
22	Donors	Donors	GIZ
23	Donors	Donors	EBRD
24	Aqaba	Governing Authority	ASEZA (Aqaba Special Economic Zone Authority)
25	Aqaba	Aqaba development developers	ADC (Aqaba Development Corporation)
26	Aqaba	Industrial zone developers	PBI Aqaba International Industrial Estate LL
27	Aqaba	Service Provider	Nafith

## **Chapter 2. Current Status and Issues of Each Promotion Policy**

### **2.1 Industrial Promotion Policy**

#### **2.1.1 Overview of Policies, Systems, Structures, and Strategies**

##### **Focus of Economic Development Strategy**

With economic growth in 2000 and the subsequent economic stagnation, job creation and economic recovery and inclusion were important priorities for Jordan in developing economic strategies, and the government announced various agendas and reform policies. As for the growth agenda, various strategies are presented for priority private-sector growth.

#### **(1) National Agenda 2020**

National Agenda 2020 (2005) focuses on capacity building in Jordan's economy, government, and workforce in preparation for greater structural changes. The national agenda initiatives were developed in three main areas:

##### **Government and Policies**

These proposals revolve around creating a favorable investment environment, fiscal discipline, lower trade barriers, internal social solidarity, administrative development, justice, accountability, transparency, a more inclusive labor policy that enhances vocational training, employment support, the minimum wage, statutory controls on working hours, and support for small and medium-sized enterprises. Quality education is also a cornerstone. Government and policy reforms will contribute to the stimulation of economic development and the improvement of social welfare and security.

##### **Basic Rights and Freedoms**

Proposals in this area are meant to expand social inclusion, religious freedom, political and cultural development, equality under the law, access to health care, freedom of assembly, freedom of speech and a free and responsible media sector.

##### **Services, Infrastructure and Economic Sectors**

This includes the development of a safe transportation network, affordable public transport, adequate water sources, a cost-effective energy supply, environmental sustainability, universal access to information and communications technology (ICT), industrial development and job creation, sound financial services, and access to adequate health care services.

#### **National Agenda Implementation Impact and Key Performance Indicators (KPIs).**

Initiatives are measurable through clear sets of performance indicators.

- Will ensure all Jordanians are covered by medical insurance by the year 2012
- Will reduce unemployment from 12.5 percent to 6.8 percent, creating 600,000 jobs by 2017
- Will reduce the number of Jordanians living in poverty from the current 14.2 percent to 10 percent
- Will increase GDP per capita from JOD 1,532 to JOD 2,540
- Will remove all forms of discrimination against women in laws and legislation by 2015
- Will convert the public deficit from 11.8 percent of the GDP into a surplus of 1.8 percent in 2017

- Sets mechanisms for tax reforms to ensure fairness and equality, reduce tax evasion and improve revenue collection procedures
- Will achieve real GDP growth of 7.2 percent over the next ten years
- Will achieve public debt reduction from 91 percent to 36 per cent of the GDP
- Describes how to increase spending on scientific research from 0.34 percent to 1.5 percent of GDP by 2017
- Establishes monitoring and evaluation units at ministries and public departments and institutions, to design and track performance indicators and present progress reports to the Council of Ministers and the public

## (2) Jordan's Growth Strategy after National Agenda

The following three policy/strategy documents to identify the Jordanian government's priorities for industrial development.

**Table 2-1 Policy Documents Related to Jordan's Growth Strategy**

Document name	Outline	Year of documentation
Jordan 2025	Long-term national strategy and vision for 2015-25 set by the Jordanian government	2014
Jordan Economic Growth Plan (JEGP)	Medium-term strategic document that spans the economy, finance, and industry from 2018 to 2022, prepared by the Economic Policy Committee, which includes individual industrial policy	2017
Two-Year Priority Plan for 2019-20	Short-term plan set by the government in November 2018 that shows priority measures for the next two years	2018
Five-Year Reform Matrix	Reforms that should be given special priority in order to achieve the goals of Jordan 2025 and JEGP, set out by the Government of Jordan with the support of the World Bank and other donors	2016

Source: JICA Study Team

The positioning of the four documents has changed from a macroscopic perspective to a microscopic perspective as the number goes down, and in response to more-specific policy progress.

### **Jordan 2025**

In terms of industrial promotion policy, Jordan 2025 is evaluated as taking a cluster approach that anticipates the growth of related industrial fields and complementary sectors centering on the existing strong industrial fields. Among them, Jordan 2025 identifies the following eight industrial clusters as growth areas.

1. Construction and Engineering	5. Bio Science
2. Logistics	6. Digital/Business Services
3. Tourism and Event	7. Educational Service
4. Health Care	8. Financial Service

As another feature of this long-term policy, it aims to increase the composition ratio of Agriculture, Industry, and Construction in GDP toward 2025.

## **Jordan Economic Growth Plan**

At JEGP, the priorities are mainly focused on the infrastructure and economic sectors, and the focus industries are agriculture, electricity and water, construction, manufacturing, transportation (logistics), ICT, tourism, and hospitality. In addition, the health care sector is mentioned in the section on social development, and institutional arrangements for promoting medical tourism are mentioned.

**Table 2-2 Focus Industries and Direction at JEGP**

Focus industry	Overview	Target growth rate during 2018-2022
Agriculture	<ul style="list-style-type: none"> <li>Improving agricultural productivity through hydroponics and ICT utilization (Jordan imports many crops, putting pressure on finances)</li> </ul>	10%
Electricity & Water	<ul style="list-style-type: none"> <li>Invest in renewable energy and water resources programs to reduce external dependence vulnerabilities</li> </ul>	13%
Construction	<ul style="list-style-type: none"> <li>Strengthen infrastructure (schools, hospitals, housing, etc.) to support the growing population and create employment at the same time</li> </ul>	15%
Manufacturing	<ul style="list-style-type: none"> <li>Investment to comply with quality requirements for export to the EU market, strengthening of trade partnerships and credit lines</li> <li>Diversification of products exported to the United States</li> </ul>	10%
Transport	<ul style="list-style-type: none"> <li>Enhancement of infrastructure facilities and logistics infrastructure at Aqaba Port, which is the cornerstone of trade and logistics, and upgrade of public transportation</li> </ul>	12% (Combined)
ICT	<ul style="list-style-type: none"> <li>Adoption of open data policy and security / information protection policy, promotion of investment in ICT sector, efforts for e-government</li> </ul>	
Hospitality & Tourism	<ul style="list-style-type: none"> <li>Marketing to existing target markets and new markets, upgrading tourism resources</li> </ul>	5%

\*Growth rate required for each industry when GDP aims for annual growth of five percent (equivalent to 1.8 billion USD)

Source: Created by the research team based on JEGP 2018-2022

As shown in the table above, most of the target growth rates of each industry calculated back from the GDP growth target are set at double-digit high levels and, considering the past trends, for sectors other than agriculture and construction, those targets require considerable effort.

## **Two-year Priority Plan for 2020-2021**

The feasible work plan as the priority plan is developed to achieve Jordan 2025. This includes strengthening exports, supporting home-based businesses, strengthening industrial sectors such as manufacturing, improving the investment environment, strengthening the tourism industry, and strengthening energy fields (securing electricity, reducing costs, promoting renewable energy, etc.). Specific measures are summarized in the table below.

**Table 2-3 List of Prioritized Policies during 2020-2021**

1. Strengthening exports	<ul style="list-style-type: none"> <li>• Export support to the service sector</li> <li>• Export support to the industrial sector, including the companies that have not yet realized exports</li> </ul>
2. Development of new export markets (diversification of export destinations)	<ul style="list-style-type: none"> <li>• Strengthen front and back links between local factories and facilitate the network with market suppliers for UAE, Saudi Arabia, Qatar, Kuwait</li> <li>• Reduce export costs through financial support and promote exports to African countries (Kenya, Djibouti, Ethiopia, Gabon, South Africa)</li> </ul>
3. Regulation and expansion of home, micro, innovative businesses	<ul style="list-style-type: none"> <li>• Implementation of support and development programs for home-based businesses</li> <li>• Installing a platform for commercializing ideas</li> </ul>
4. Establishing and strengthening public-private partnerships	<ul style="list-style-type: none"> <li>• Responding to procedural challenges in the industrial and commercial / service sectors</li> <li>• Providing investment and infrastructure projects based on public-private projects (PPPs)</li> <li>• Establishing a holding company where Jordanians, expatriates, unions, civil society organizations and Arab / international investment funds can hold shares (Funding infrastructure projects and other key investment priorities through a holding company)</li> </ul>
5. Launching a program to support the sustainability of small projects	<ul style="list-style-type: none"> <li>• Expansion support for small projects</li> <li>• Investing in small and medium-sized projects with growth potential through investment funds</li> <li>• Collaboration with projects under the support program for the companies exporting for the first time</li> </ul>
6. Strengthening the competitiveness of the industrial sector	<ul style="list-style-type: none"> <li>• Analysis of competitiveness of the industrial sectors</li> <li>• Identifying sectors with high growth opportunities</li> <li>• Medium-term (three-year) strategy formulation and support for strengthening the competitiveness of the relevant sector</li> </ul>
7. Investor procedure facilitation	<ul style="list-style-type: none"> <li>• Registration phase (establishment of registration portal)</li> <li>• Licensing phase (establishment of license portal)</li> <li>• Inspection (delegation and coordination of authority)</li> <li>• Smooth settlement and installment payments</li> <li>• Execution of the “Integrated Investment Window” (Investment One-stop Service Window) project</li> <li>• Application of investor complaint handling system</li> <li>• Reorganization and strengthening of roles of investment-related institutions</li> </ul>
8. Continuation of the government's economic program	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
9. Promotion of tourism and the tourism investment sector	<ul style="list-style-type: none"> <li>• Promote investment in the tourism sector through public-private partnerships (increase tourism revenue and extend the length of stay of tourists)</li> <li>• Development of competitive and sustainable tourism products (religion, domestic tourism, ecotourism, family tourism, medical tourism, etc.)</li> </ul>



10. Improving the efficiency of the tourism sector	<ul style="list-style-type: none"> <li>• Creating an integrated tourism database</li> <li>• Development of security system for tourist spots</li> <li>• Development of "Golden Triangle" (promotion of tours between tourists Petra, Wadi Rum and Aqaba)</li> <li>• Development of an integrated online event calendar</li> </ul>
11. Optimizing energy costs	<ul style="list-style-type: none"> <li>• Confirmation of electricity purchase contracts</li> <li>• Strengthen existing electrical interconnection projects with neighboring countries and establish new interconnection projects</li> <li>• Introduction of smart meter system, gradual introduction of charges according to usage time, expansion of the scope of projects to install solar power generation system, including a wider segment of low-income earners</li> <li>• Reduction of energy costs for local governments and camps (replacement with energy-efficient streetlights, installation of solar power generation systems)</li> <li>• Continuing support of renewable energy systems for citizens, follow-up of implementation of 100 MW of electricity allocation from renewable energy for industry</li> <li>• Development of investment in the field of compressed gas marketing to enable SMEs to switch to natural gas and reduce fuel costs</li> <li>• Reduction of electricity prices in some industrial sectors</li> <li>• Promotion of investment in the construction of charging stations for electric vehicles</li> </ul>

Source: 2021-2020 اولويات عمل الحكومة (Government priorities for 2020-2021), Prime Minister (The Cabinet)

In addition, the indicators (targets) for the implementation of priority measures are as follows: focusing on improving the business environment and promoting startups, promoting trade and investment, and focusing on the tourism industry.

1. Improve the Doing Business ranking from 75th to 55th by the end of 2021.
2. Improve the World Competitiveness Ranking from 70th to 50th by the end of 2020
3. Increase the number of start-up companies established.
4. Increase export volume by more than 5 percent annually.
5. Increase tourism revenue by 10 percent annually.
6. Increase the value of Foreign Direct Investment by 20 percent annually.

### **Five-Year Reform Matrix**

The Five-Year Reform Matrix has nine components, which consist of the six horizontal reform areas of 1. Macroeconomic reform, 2. Business environment improvement, 3. Investment and trade promotion, 4. Financial access improvement, 5. Employment market improvement and 6. Social security expansion, and three vertical reform areas of 7. Improving efficiency of and access to public transportation, 8. Improving energy efficiency/access, and 9. Promoting water security and agribusiness.

**Table 2-4 Horizontal Reform Pillars and Major Policies**

1. Macroeconomic adjustment (reducing imbalance and improving public sector efficiency)	Implementation of financial measures in line with the IMF program, expansion of tax base, promotion of public sector efficiency (e-government), PIM / PPP reform, etc.
2. Business cost reduction, regulatory quality improvement, and promoting competition	Improving the predictability of the business environment, reforming inspections and business registration / licensing, regulations for promoting competition (including policies in major sectors such as ICT, electricity, and trucking)
3. Promoting FDI and strengthening exports	Strengthening JIC's investment promotion functions and services to investors, upgrading trade infrastructure / facilities (simplification of border crossing procedures, etc.), strengthening the digital economy, etc.
4. Deepening access to finance from banks and non-financial institutions	Improvement of credit infrastructure framework, diversification of funding sources for SMEs, strengthening of support functions for SMEs, strengthening of legal and regulatory framework for institutional investors, etc.
5. Creating a more flexible labor market for job creation	Increasing access to employment opportunities for women (removal of workplace restrictions, access to affordable childcare), reducing informal sector, regulation and deregulation for foreign workers (immigrant workers to informal work), improving access to employment opportunities for young people through TVET, etc.
6. Expansion and improvement of social safety nets, more appropriate protection of the poor and vulnerable	Expansion of cash transfers to the poor, implementation of mitigation schemes for uprising utility charges such as water and electricity, expansion of the scope of economic inclusion programs, etc.

Source: Turning the Corner, JORDAN'S PATH TO GROWTH

**Table 2-5 Vertical Reform Pillars and Major Policies**

7. Improving public transport efficiency and access	Strengthening the role of private sector management and financing, integrated scheduling and ticketing and fare setting, service standards, development of new road infrastructure programs through public-private partnership (PPP), etc.
8. Energy efficiency and improved access	Establishing a competitive electricity market, ensuring an efficient grid electricity supply, strengthening regulatory processes, addressing excessive and costly contract obligations, ensuring natural gas energy security, efficient use of electricity, etc.
9. Water security and agribusiness	Improving water tariffs, adjusting tariff levels, identifying and addressing potential welfare impacts of tariff adjustments, improving sustainability of investment in the water and agricultural sectors, water allocation and security strategies, as well as communication on agriculture and agribusiness, etc. (including the introduction of new technologies to farmers, the establishment of laws and regulations to promote access to markets using ICT, and the promotion of agriculture with high water efficiency)

Source: Turning the Corner, JORDAN'S PATH TO GROWTH

The London Initiative, which was held in London at the end of February 2019 and was attended by donor institutions and the private sector, focused on four sectors in which Jordan has a comparative advantage in the Middle East: tourism, technology, logistics and professional services. It also became a place to raise funds for the implementation of the Five-Year Reform Matrix.

### (3) Jordanian Government's Implementation Structure Related to Industrial Promotion

The following ministries and organizations are related to industry and trade promotion.

**Table 2-6 Major Stakeholders Related to Industry and Trade Overall**

Chambers of Commerce	These are participating members of the Economic Policy Council (ECP), which has jurisdiction over JEGP, and play a central role in promoting economic and industrial policy proposals and implementation efforts. The Jordan Chamber of Commerce (JCC), and the Amman Chamber of Commerce are participating in the ECP.
Chambers of Industry	Similar to the above, chambers of industry also play a central role in policy and implementation efforts. Among them are the Jordan Chamber of Industry (JCI), the Amman Chamber of Industry, and the Zarqa Chamber of Commerce.
Ministry of Industry, Trade and Supply (MoITS)	MoITS includes many industry- and trade-related organizations. The Industrial Development Directorate (IDD), which works on the formulation and implementation of industrial policy, oversees a wide range of fields such as SME support, trade policy and regulation, quality control, and cooperation with industrial zones.
Companies Control Department	This is an independent organization related to MoITS and has jurisdiction over the registration and monitoring of companies.
Jordan Enterprise Development Corporation (JEDCO)	JEDCO has a mission to support the establishment of new companies and the growth of SMEs and implements programs to support entrepreneurs and SMEs.
Jordan Investment Commission	JIC's mission is to increase the effectiveness of domestic and foreign investment and ensure financial sustainability by promoting infrastructure development, investment opportunities, and exports.
Higher committee under the Prime Minister newly established in April 2020 (the higher-level organization of the three committees of the focus industries)	The committee is responsible for aligning national priorities with the three (sub-)committees of focus industries, approving production plans, and providing requirements for implementing plans. Led by the Prime Minister, the members are Adviser to His Majesty for Policies and Media; the Minister of Industry, Trade, and Supply; the Minister of Health; the Chairman of the Joint Chiefs of Staff; the Chairman of the Social Security Investment Fund (SSIF); the Director-General of the Jordan Food and Drug Administration; and the Secretary-General of the Higher Council for Science and Technology (HCST).

Source: Created by JICA Study Team based on publicly available information.

**Table 2-7 Major Stakeholders Related to Each Sector**

Agriculture	Ministry of Agriculture	The Ministry of Agriculture is responsible for the agricultural sector, promoting self-sufficiency and rural development. It is responsible for agriculture-related policies such as the National agricultural development strategy.
Food	Food production committee (newly established in April 2020)	A new committee was established during the COVID-19 pandemic at the direction of the king, to implement short-term and long-term food production plans, quality improvement, and efforts toward export expansion. It is headed by the Chairman of the Board of Directors of The Jordan Industrial Estates Co. (JIEC).
Medical supplies including PPE and devices	Committee for manufacturing medical devices and supplies, and sterilizers (newly established in April 2020)	The committee implements the same approach as described above. The CEO of King Abdullah II Design and Development Bureau (KADDB) is the head of the board.  PPE such as masks and protective clothing is considered part of the garment industry by the HS codes, and masks are currently manufactured in some Jordanian garment factories.
Pharmaceutical	Pharmaceutical manufacturing committee (newly established in April 2020)	The committee implements the same approach as described above. It is headed by the Director of the Jordan Food and Drug Administration.
ICT and Entrepreneurship	Ministry of Digital Economy and Entrepreneurship (MoDEE)	MoDEE has been reorganized from the former Ministry of Information and Communications Technology to formulate policies for the transformation of the digital economy. It has jurisdiction over entrepreneurship, digital skills, digital financial services, and support for digital infrastructure platforms. It also works with other government agencies to develop plans to overcome the challenges faced by entrepreneurs, such as access to markets, access to funds, regulatory challenges, and access to human capital.
	Telecommunications Regulatory Commission (TRC)	Established under Telecommunications Law No. 13 of 1995, it is responsible for regulating the telecommunications, ICT, and postal sectors as an independent judiciary. TRC also supervises the licensing of mobile carriers and the allocation of radio bands.
	Information Technology Association of Jordan (int@j)	The organization plays a supporting role in the formulation of national ICT strategies, information gathering, and industry lobbying.
	Oasis500	Oasis500 is an entrepreneur support organization (accelerator) backed by the government.

	Startup Council	This is an institution established with the support of int@j, mentioned above.  From universities, incubators and accelerators to governments, the private sector, and investors, it aims to support the Jordanian entrepreneurship ecosystem through stakeholder collaborations and strategic partnerships. Members of the council are elected from Jordanian start-ups.
Tourism and Hospitality	Ministry of Tourism and Antiquities (MoTA)	By strengthening the role of cultural heritage in the overall vision of tourism sector development, the ministry will work with the private sector and take responsibility for tourism development that contributes to economic revitalization.
	Jordan Tourism Board (JTB)	This is an organization established through public-private partnership that has jurisdiction over branding and promotion of tourist destinations in Jordan.  Work involves planning and executing programs for international promotional activities as part of its marketing strategy.
	Jordan Inbound Tour Operators Association (JITOA)	This is an industry association in the tourism sector, established as an organization that links various stakeholders in the value chain. It aims to support the growth, sustainability, and adaptability of Jordan's inbound tourism sector. It provides tour operators with the knowledge, resources and support the companies need in an increasingly competitive market, while improving inbound tourism services.

Source: Publicly available information and the Oxford business group report

## 2.1.2 SME Development Framework, and Issues

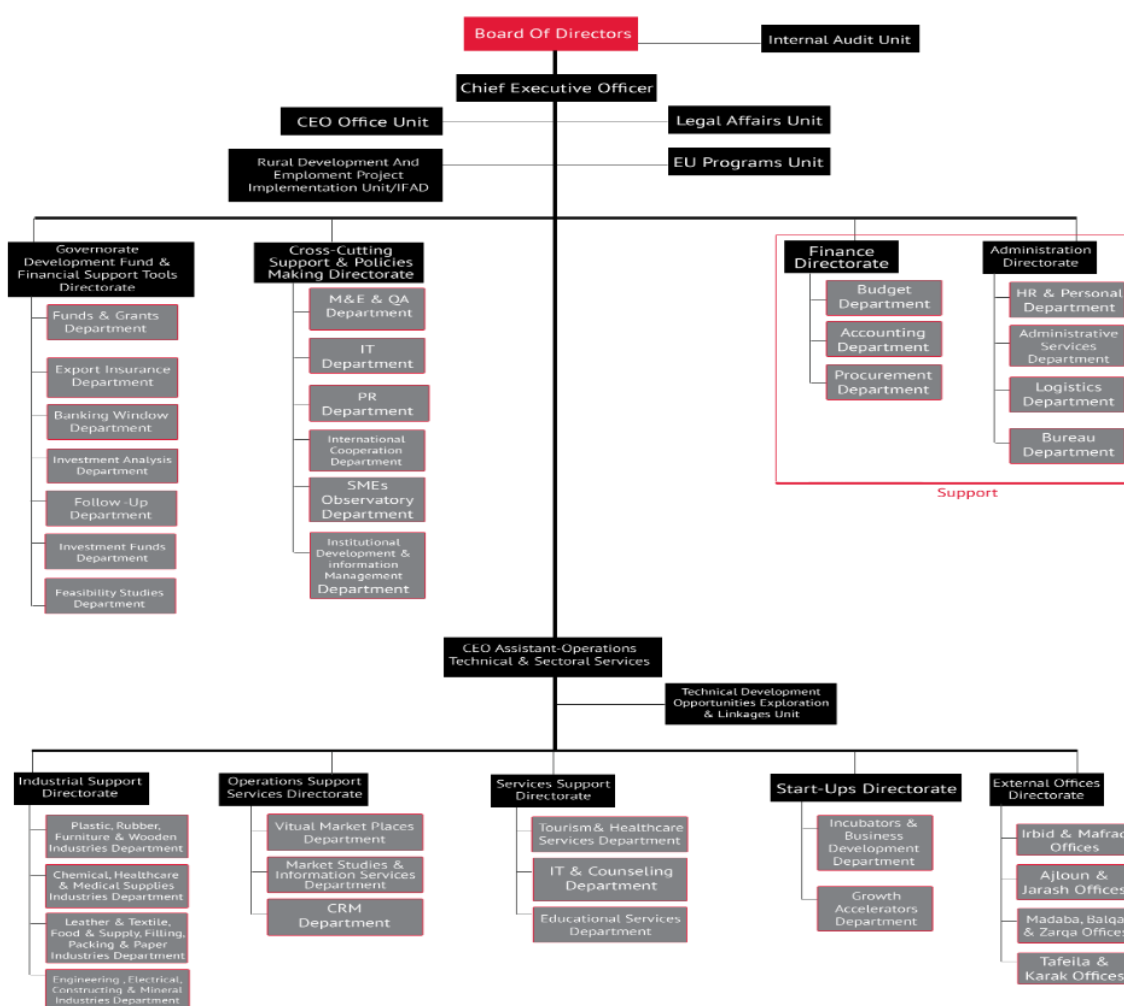
### (1) JEDCO and SME Development

The Jordan Enterprise Development Corporation (JEDCO) was founded in 2003 through a decree promulgated by the Council of Ministers. As a new entity dedicated to developing the SME sector's performance nationally and globally, JEDCO replaced the Jordan Export Development and Commercial Centers Corporation, which was established in 1972.

JEDCO has a mission to expand the services to SMEs in particular, eradicate the constraints and accelerate the growth, and in terms of export development, increase cost competitiveness and productivity. JEDCO is to support the creation of the market in and outside Jordan through the capacity development of SMEs and the development of new products.

Its mission is to be a distinguished corporation in providing comprehensive services to support pioneers, startups, and medium-sized and small enterprises.

It has a vision for achieving growth in startups and SMEs by improving the work environment, encouraging and supporting startups and entrepreneurial institutions enhancing the competitiveness of SMEs, and concentrating on the creative and technological components of these enterprises.



Source: JEDCO Website

**Figure 2-1 Organization Chart of JEDCO**

JEDCO's shareholders are the Ministry of Industry and Trade, the Jordan Federation of Chambers of Commerce, and the Amman Chamber of Industry. Its Supervisory Board is chaired by the Minister of Industry and Trade. The board is made up of 15 members, from the public sector and from the private sector. The CEO of JEDCO reports to the Board and manages the daily activities of JEDCO.

The CEO is supported by a team of qualified staff members as the business support organization that builds on accumulated experience in supporting the upgrading, modernization and development of start-ups and SMEs by providing specialized and focused technical assistance, and access to finance. It employs over 80 staff members (currently 110), many of whom are engineers who work with hundreds of start-ups and SMEs on the upgrading of technology, IT systems, production and services processes, technology, machinery, certification (CE, HACCP, ISO, GMP), quality assurance, marketing, innovation implementation, and access to finance. JEDCO's activities cover trade development and promotion, trade fairs, trade-required information services, and human resource development. JEDCO also provides specialized support services and advice in areas of packaging, export finance and in the implementation of trade agreements, and market development.

JEDCO seems to be an SME policy development and coordination body, yet the act is not well enacted. To foster the creation and growth of SMEs, the Jordanian government has developed a draft National Entrepreneurship and Small and Medium-Sized Enterprise Growth Strategy for 2016-2020 (SME Strategy), whose implementation action plan identifies a set of measures to address major constraints on SME development in the country. The Jordan Enterprise Development Corporation (JEDCO) is the institution identified by the SME Strategy as the main coordinator of SME support in the country. The SME Strategy, which is yet to be adopted, also cites a number of constraints limiting SME development potential. Some of those constraints reflect the economic structure and level of development. The revenue is based on the projects supported by the donors.

As for the revenue, while the revenue is specified by the government for the activities, JEDCO must develop more projects for revenue generation, and work for the SME development.

The definition of Jordanian small and medium-sized enterprises (SMEs) is shown in the following two tables, and it is noted that the final definition of SME is to be made.

**Table 2-8 Definition of Jordan SMEs (Definition Used by CBJ)**

Sector	Category	Micro	Small	Medium
Industry Sector	Number of workers	below 5 persons	below 20 persons	below 100 persons
	Sales	below JOD 100,000	below JOD 1 million	below JOD 3 million
Sales Sector	Number of workers	below 5 persons	below 10 persons	below 50 persons
	Sales	below JOD 120,000	below JOD 150,000	below JOD 1 million
Service Sector	Number of workers	below 5 persons	below 25 persons	below 50 persons
	Sales	below JOD 200,000	below JOD 500,000	below JOD 1 million

Source: Central Bank of Jordan

**Table 2-9 Definition of Jordan SMEs (Definition Used Other than CBJ)**

Type of Enterprise	Number of workers	Sales
Micro	1 ~ 4	Below JOD 100,000 (below EUR115,438)
Small	5 ~ 19	Below JOD 1 million (below EUR1,154,382)
Medium-sized	20 ~ 99	Below JOD 5 million (below EUR5,771,912)

Source: Jordan National Entrepreneurship and Small and Medium Enterprise Growth Strategy 2016 ~ 2020, p. 36.

### SME Development Projects

They have been participating in various development for the SME development It should be highlighted that JEDCO has been engaged in the coordination body for the WB) (Second Equitable and Inclusive Growth) as the participating agency (2015-ongoing). In addition, JEDCO has been appointed as the coordination and implementation agencies for many projects.

- Jordan Upgrading and Modernization Program (2012-2013) funded by the EU
- Jordan Export Promotion Program (funded by the EU) (2013-2019)
- Jordan Service Sector Modernization Project (2013-2018) funded by the EU
- MENA Transitional Funds for technical assistance and capacity development for SMEs

- SME Growth Program (2015-2019)
- SME Policy Effectiveness in Jordan (2016-2019)
- Development of SMEs Exports through Virtual Market Places (Jordan)(2014-2018)
- Accelerate with JEDCO program (2016-) MENA Transition Fund project The program is supporting the establishment of a program aimed at supporting high-potential firms. This program provides comprehensive business diagnostics to help SMEs and start-ups managers to identify barriers to growth as well as business coaching support to overcome these barriers. At the time of writing, Accelerate with JEDCO had received 373 applications from all governorates in Jordan, an initial diagnostic had been made for 313 companies, 124 growth plans had been developed, 70 business managers had been coached, and 15 employees from JEDCO had become growth managers.

In terms of the grant and loan facilities, they work as the intermediary and providers.

- Jordan Growth Capital Fund (2011) (EIB)
- Venture Capital fund (EIB)
- GDF (Governorate Development Fund) (Governmental Fund)

JEDCO has received technical assistance from Japan for developing Kaizen consultants and the mechanism for the dissemination to JEDICO for SME productivity improvement (2010-2013). In addition, in recent years, with the support of JO-F-C1( 2021) (Japan Program Loan 2021) , it is expected that the Government will implement the three-fold reform summarized in 2021 to improve financial access to SMEs.

### **Box 1 SME Development Projects apart from JEDCO**

Apart from JEDCO, several projects are taking place in Jordan with the various stakeholders.

- Jordan Local Enterprise Support Project LENS (USAID) (2013-2019)
- Competitiveness Project (USAID) (2013-2019)
- The Tatweer project is a second initiative funded by USAID, and it is managed by the Business Development Centre, with the aim of boosting SMEs' competitiveness and export capacity.
- The USAID Jordan Economic Development Program (SABEQ)
- The National Fund for Enterprise Support (NAFES), which is a program established jointly between the governments of Jordan and Japan, aimed at providing support to small and medium-sized enterprises (SMEs) by assisting in the implementation of development projects.
- ISSF is managing the Innovative Startups Fund Project for Jordan is to increase private early-stage equity finance for innovative small and medium-sized enterprises.



### **JEDCO Programs (as of 2020)**

In addition to the export-strengthening support that has been implemented in the past, JEDCO has launched several programs to support companies affected by COVID-19.

**Table 2-10 List of JEDCO's Support Programs**

<p>Enhancing Services SMEs for Export (2019~, Second Phase)</p>	<p>The program is the second phase of the export support program and will sign contracts with 21 local companies. The budget is JOD 12.1 million.</p> <p>Targeting export-ready SMEs operating in the following sectors: tourism / hospitality, government, finance/law/training, consulting, healthcare, treatment, energy, engineering and building services, and information technology (ICT).</p> <p>*This program is the second phase of the program that was implemented in September 2019 for the service sector.</p>
<p>Support program for industrial companies for export for the first time - technical and financial support (2020)</p>	<p>The program provides financial assistance in the form of grants up to JOD 40,000.</p> <p>Companies registered with the Jordan Food and Drug Administration in the pharmaceutical, cosmetics, and food sectors are eligible.</p>
<p>Program to support industrial companies through single services (e-commerce or remote work): (2020)</p>	<p>There are the following two types of services, and the applicant company chooses either from:</p> <p>(1) Support for online marketing and sales through online stores, or (2) Support for remote work of companies through automation.</p> <p>The program provides 40 SMEs with a JOD 7,000 grant per company. The program is budgeted at JOD 280,000 and has received 92 applications. As of September 17, 11 companies have been selected.</p>
<p>Program to support industrial companies to export medical supplies, equipment, and general safety clothing to combat COVID-19 (2020)</p>	<p>The program provides financial assistance in the form of grants up to JOD 40,000.</p> <p>It is intended for SMEs that can manufacture and export medical supplies/equipment and safety clothing to combat COVID-19, and the grants are expected to be used for changing production lines and purchasing machinery necessary for manufacturing.</p> <p>Fifty-six applications have been received.</p>
<p>Program to support freight charges for industrial companies (2020)</p>	<p>The program provides financial support in the form of grants up to JOD 10,000. It subsidizes SMEs' transportation costs to new export markets.</p> <p>Target sectors: food industry, pharmaceutical industry, plastic industry, home appliances, equipment and appliances, furniture, aluminum industry, jewelry, chemical industry, purifiers, and fertilizers.</p> <p>Target export countries: African countries (excluding Arab countries), Eurasian countries (Russia, Belarus, Armenia, Kyrgyzstan, and Kazakhstan), Singapore, Azerbaijan.</p>

Source: JICA Study Team

### **Latest Ongoing Projects and Pipeline**

- IPMED (2020-) with EU to develop the funding arrangements for the sector to be competitive.
- ITC competitiveness project (2020-) where JEDCO is partnering to develop and train garment sector companies for exporting. JEDCO is implementing 249 grant agreements through the Rural Finance Development and Employment Program, which is funded by the International Fund for Agricultural Development (IFAD). As for pipeline projects, this is to be investigated by means of interviews with JEDCO.

### **JEDCO and Sector Development**

JEDCO supports SMEs in general, and JEDCO conducts sector development surveys to identify development issues and formulates sector strategies in collaboration with sector stakeholders. Especially the following interventions are well noted:

- ICT sector: ICT profiles have been jointly developed with ICT stakeholders.
- Food sector: GIZ and develop Jordan's Processing Sector Analysis and Strategy (2019), and recently made an agreement for food sector SMEs to connect to the investment funds.
- Textiles: upgrading design capacity through the design center owned by JEDCO (The leather industry as part of the fashion industry is also covered by JEDCO).
- Chemicals and cosmetics: schemes from JEDCO (financing programs, in particular) have helped several players in the three subsectors under study to expand their product portfolio and access international markets. International Exports Events and technical support by CBI are coordinated by JEDCO.
- Tourism (medical tourism): green tourism is jointly managed by the Ministry of Environment (2020), and several grants and supports were issued to the tourism sector under the Service Modernization Project (2013).
- Pharmaceuticals: no direct intervention; however, various reports by GIZ quoted JEDCO for export development.
- Agriculture: supporting the agricultural sector in the context of rural economic development and upgrading agricultural techniques under the various projects under the Support to Enterprise and Export Development Program in international trade areas and issues related to enhancing the competitiveness.

## 2.2 Trade Promotion Policy

This section summarizes the current status and issues of the policies, systems, promotion systems, and overall strategies related to trade promotion, and leads to suggestions for examining measures to resolve the issues provided in the later chapters.

### 2.2.1 Overview of the Policies, Systems, Promotion Systems and Strategies

Table 2-11 is a list of target countries that have signed bilateral agreements with Jordan. Treaties have been signed with countries all over the world, but the number of those in the EU is relatively large.

**Table 2-11 List of Target Countries by Region (Bilateral Agreements)**

Bilateral Investment Treaties	In effect	<b>【Europe (part of EU)】</b> France (1978) Netherlands (1997) Germany (2007) Austria (2001) Poland (1997) Czech Republic (1997) Slovakia (2008) Croatia (1999) Hungary (2007) Spain (1999) Portugal (2009) Greece (2005) Cyprus (2009) Finland (2006) Lithuania (2002)	Estonia (2010) Romania (1992) Bulgaria (2002) <b>【Europe (not part of EU)】</b> UK (1979) Switzerland (2001) Azerbaijan (2008) Armenia (2014) Russia (2007) Bosnia Herzegovina (2006) Kazakhstan (2006) Ukraine (2005) Belarus (2002)	<b>【Middle East】</b> Turkey (1993) UAE (2009) Yemen (1996) Qatar (2009) Oman (2007) Lebanon (2002) Kuwait (2001) Syria (2001) Bahrain (2000)	<b>【Asia】</b> South Korea (2004) Thailand (2005) Singapore (2004) India (2006) Indonesia (1996) Malaysia (1994) Japan (2020)
	Signed, not in effect	Saudi Arabia (2017) Turkey (2016)	Iraq (2013) Palestine (2012)	China (2001) Tanzania (2009)	Congo (2004)
Treaties with Investment Provisions		Singapore FTA (2004) EFTA FTA (2001) US FTA (2000) EU Cooperation	Agreement (1997) Energy Charter Agreement (1994) OIC Investment	Agreement (1981) Arab Investment Agreement (1980) Arab Federation	Investment Agreement (1970)

Source: UNCTAD, Investment Policy Hub

Table 2-12 shows a list of countries that have signed bilateral investment treaties and double taxation prevention treaties.

**Table 2-12 List of Countries that have signed BITs and DTPTs**

Signatories to Bilateral Investment Treaties	In effect	Germany (2007) Austria (2001) Czech Republic (1997) Slovakia (2008) Hungary (2007) Spain (1999) Portugal (2009)	Greece (2005) Cyprus (2009) Finland (2006) Lithuania (2002) Estonia (2010) Switzerland (2001) Armenia (2014)	Russia (2007) Bosnia Herzegovina (2006) Kazakhstan (2006) Belarus (2002) UAE (2009) Qatar (2009)	US (1997) Thailand (2005) Singapore (2004) Japan (2020) Sudan (2000)
	Signed, not in effect	Saudi Arabia (2017) Iraq (2013)	Palestine (2012)	China (2001) Tanzania (2009)	Congo (2004)
Signatories to BITs and Double Taxation Prevention Treaties		Algeria Bahrain Egypt Kuwait Tunisia Lebanon Morocco	Oman Syria Yemen Azerbaijan Bulgaria Canada Croatia	France Netherlands India Indonesia Ukraine Malaysia Poland	Romania South Korea Turkey UK
Signatories to Double Taxation Prevention Treaties		Iran Pakistan			

Source: JETRO, Trade and investment-related legal systems in Middle Eastern and North African countries (Kingdom of Hashemite, Jordan)

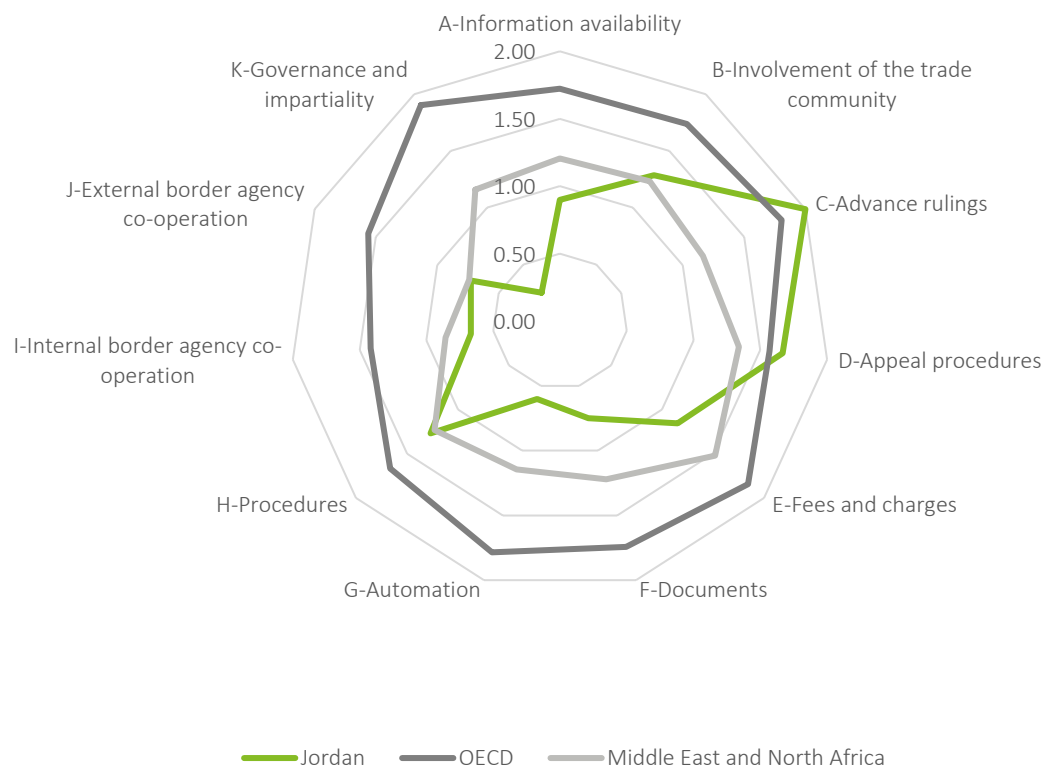
As incentives for foreign direct investment (FDI) under the jurisdiction of the Jordanian Investment Commission, the creation of special economic zones in multiple fields and various incentives have been established. The incentives set up by the committee include industry (manufacturing), agriculture, hotels, hospitals, marine transportation and railroads, leisure and entertainment facilities, conference halls and exhibition halls, water / gas and oil transportation, and distribution. The incentives can be used in industrial sectors such as call centers and R&D centers. “Free zone”, “Development zone”, and “Aqaba Special Economic Zone” have been established according to the characteristics of these industrial sectors, and tax exemption and tax reduction measures are stipulated for each area.

The preferential treatment agreement includes the equal treatment of Jordanian and non-Jordanian business investors. As an investment guarantee measure of non-Jordan business investors, the profit and invested capital generated for the business carried out in Jordan, the profit from the settlement of the investment, and the profit from the sale of all or a part of the business can be transferred overseas without delay. In addition, as a tax incentive, the Jordanian government has signed a number of double taxation prevention treaties with Arab countries and other countries that are promoting investment. In addition, the Jordanian government has signed bilateral investment agreements with 50 countries and has signed with seven countries, including Japan. Many agreements, including investment regulations and multilateral treaties and agreements, have been concluded, and it can be said that the legal basis for investment acceptance is in place.

In addition, as mentioned above, the background of the large number of EU countries is the Jordanian government's efforts to promote FDI. The Jordanian government signed an easing of the Agreement on Rules of Origin for exports to the EU in 2016. The initiative applies to the tariffs on the export of approximately 50 categories of goods to the EU, in addition to Jordanian products manufactured in the Qualified Industrial Zone (QIZ) and Development Zone and is valid until 2026. The QIZ and Development Zone that is the subject of the Agreement on Rules of Origin with the EU, includes the King Hussein Bin Talal Development Area (Mafraq), Irbid, Ma'an, Al-Muwaqar Industrial Estate, and Al Hassan Industrial Estate and other industrial zones.

The Trade Facilitation Agreement (TFA) was adopted in 2014 by all WTO member countries and regions to revitalize trade throughout the world. The agreement aims to increase the transparency and speed of trade procedures. In response to the agreement, the OECD has set “Trade Facilitation Indicators (TFIs)” as benchmarks for governments to promote the improvement of their own trade procedures and reduction of trade costs, and bilateral trade and trade in each country. It is used as an index to objectively measure the cost situation. In this report, we will use this index as an index to measure the institutional level of trade promotion in Jordan.

Figure 2-2 shows the results of TFI comparing Jordan, OECD countries, the Middle East, and North Africa. The results indicate that Jordan needs improvements in areas such as trade procedures, governance and equity, information availability, and trade community involvement.



Source: Compareyourcountry.org, Trade Facilitation Indicators, Jordan.

**Figure 2-2 Trade Facilitation Indicators**

**Table 2-13 Outline of TFI Indicators and Evaluation Results of Jordan**

Indicator	Explanation of Indicators	Jordan's Evaluation Results
A-Information availability	Enquiry points; publication of trade information, including on Internet	Improve the availability of information on the rate of duties Improve the availability and user-friendliness of information on agreements with third countries Provide access to rules and examples of Customs classification
B-Involvement of the trade community	Structures for consultations; established guidelines for consultations; publications of drafts; existence of notice-and-comment frameworks	Improve the availability of information on advance rulings Publish the average issuance time for advance rulings
C-Advance rulings	Prior statements by the administration to requesting traders concerning the classification, origin, valuation method, etc., applied to specific goods at the time of importation; the rules and process applied to such statements	Improve the availability of comprehensive information on applicable fees and charges on the Customs website Reduce the number and diversity of fees and charges collected Reduce the fees charged for services during normal working hours
D-Appeal procedures	The possibility and modalities to appeal administrative decisions by border agencies	Expand the acceptance of copies of documents Reduce the number of documents required for import and the time necessary to prepare such documents
E-Fees and charges	Disciplines on the fees and charges imposed on imports and exports; disciplines on penalties	Complete the development of automated risk management procedures Improve the capacity of IT systems to exchange data electronically Improve the quality of telecommunications and IT supporting the automation of border processes
F-Documents	Acceptance of copies, simplification of trade documents; harmonization in accordance with international standards	Complete the development of the Single Window currently under elaboration Further reduce the percent of physical inspections Promote pre-arrival processing of import documentation Expand the possibility to have goods released prior to final determination and payment of Customs duties for all goods Expand the use of Authorized Operator programs Further simplify procedures in terms of associated costs
G-Automation	Electronic exchange of data; use of automated risk management; automated border procedures; electronic payments	—
H-Procedures	Streamlining of border controls; single submission points for all required documentation (single windows); pre-arrival processing; release of goods separated from final determination and payment of Customs duties; treatment of perishable goods; post-clearance audits; authorized operators	—
I-Internal border agency cooperation	Control delegation to Customs authorities; institutionalized mechanism supporting co-operation between various border agencies of the country; coordination / harmonization of data requirements and documentary controls; coordination of inspections; coordinated / shared infrastructure and equipment use	—
J-External border agency cooperation	Co-operation with neighboring and third countries; alignment of procedures and formalities; coordination / harmonization of data requirements and documentary controls; risk management co-operation; joint controls	—
K-Governance and impartiality	Customs structures and functions; accountability; ethics policy	—

Source: Compare your country, Trade Facilitation Indicators, Jordan.

### **2.2.2 Issues and Future Prospects Related to Trade Promotion**

From an international perspective, Jordan's trade promotion ranks 75<sup>th</sup> (Doing Business 2020, Trading across Borders), which is an advanced situation in both indicators when compared to neighboring Middle Eastern and North African countries. However, when compared with the average value of OECD countries, the result showed a large gap. The following two points can be cited as the main factors.

The first point is the conclusion of a trade agreement. While Jordan's free trade agreements are proceeding smoothly, bilateral trade agreements tend to be delayed. The benefits of concluding a bilateral trade agreement on Jordan's growth and economic revitalization are significant, and it is desirable to further promote the conclusion of the agreement in the future. One example is the bilateral trade agreement with Iraq. Although it was a difficult agreement, an agreement on trade, energy, transportation, and industry was signed in 2019, establishing economic ties between the two countries. The agreement will enable the import of crude oil from Iraq at a preferential price and deregulation of importers and exporters from both countries when crossing the border. Jordan and Iraq are also planning to expand their joint special economic zone, which is expected to create thousands of jobs in both countries. It is expected that this agreement will contribute not only to the promotion of industry in both countries but also to the stabilization of diplomatic relations and regional conditions. On the other hand, there are some trade agreements that are difficult to conclude. The Deep and Comprehensive Free Trade Area (DCFTA) with the EU is imposing on the Jordanian government on the condition of proof of origin and employment of Syrian refugees, which is a problem in intergovernmental agreements. For further trade promotion in Jordan in the future, it is expected that the conclusion of trade agreements with DCFTA, neighboring countries, African countries with remarkable economic growth, etc. will be an issue for the progress of trade. To that end, it is essential to strengthen the organizational functions of the Jordanian government, which is the key to concluding the agreement, as well as trade-related organizations such as MoITS and the National Committee for Facilitation of Transport and Trade.

The second point is in the facilitation of trade. As Figure 2-2 shows Jordan faces multiple challenges in facilitating trade, including customs clearance and crossing borders. To resolve these issues, the national government received research and support from donors, including the Aid for Trade (AFT) by the WTO, the Trade Facilitation Support Program (TFSP) by the World Bank, and the Trade and Transport Facilitation (TTF) Program by the EU. As part of the AFT, the Aid for Trade Initiative for Arab States was developed to drive trade reforms and bring about economic growth in Arab countries in the Middle East and North Africa, including Jordan, in 2011. At that time, an AFT of USD 919 million was provided to Jordan. Most of the aid was allocated to energy (39 percent), business and other services (16 percent), trade policies and regulations (12 percent), and manufacturing (11 percent). As a result, it led to the strengthening of trade competitiveness, the improvement of trade openness, and the diversification of export items, but the government aims to continue working on economic reforms to eliminate market distortions and improve technological capabilities for further facilitation. In addition, as part of an effort to reform customs administration, the government has introduced UNCTAD's Automated System for Customs Data (ASYCUDA), made it a one-stop service in collaboration with and integrated with trade-related organizations, streamlined procedures, and digitized trade procedures. This succeeded in simplifying and streamlining customs procedures, which also led to a reduction in the time required for import and export. On the other hand, there are many issues for further trade facilitation, such as the development of laws and regulations in Jordan related to administrative procedures.

Based on the above points, it is desirable that Jordan continue to work on trade promotion under the government-led REFORM MATRIX toward the conclusion of trade agreements and the

facilitation and liberalization of trade. Regarding trade promotion, especially export promotion in Jordan, issues will be examined in terms of industrial promotion policy.

## **2.3 Investment Promotion Policy**

This section summarizes the current status and issues of investment promotion policies, systems, promotion systems, overall strategies, etc., and leads to suggestions for studying measures to resolve the issues provided in the later chapters.

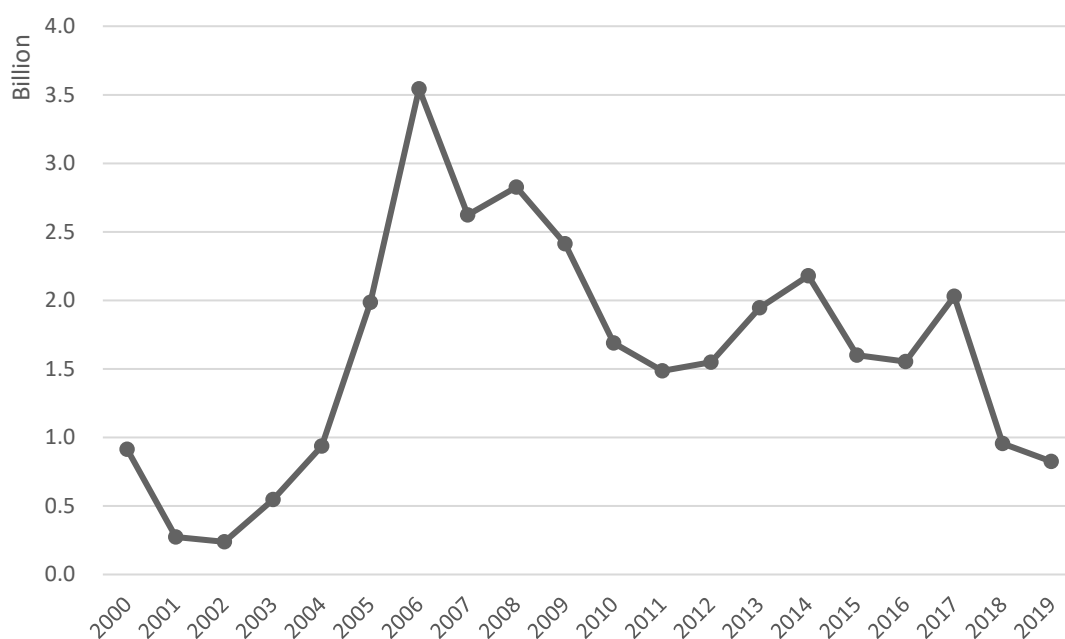
### **2.3.1 Overview of Policies, Systems, Promotion Systems and Strategies**

The major investment promotion policies of the Jordanian government include privatization of major state-owned enterprises, promotion of partnership-type enterprises that connect domestic enterprises and foreign capital, and the creation of special economic zones in multiple fields. The Investment Law and Investment Promotion Law of 2003 stipulate FDI in Jordan, where it enabled both foreign and domestic companies to receive equal tax incentives. In addition, the Jordanian Investment Commission (JIC) controls special and preferential investment procedures. Regulations on foreign capital investment are stipulated by the Regulations for Non-Jordan Investment (No. 54, 2000), and banned / regulated businesses are stipulated for various businesses such as commercial activities, services, and transportation businesses. In 2020, the JIC issued the “National Investment Strategy (NIS)” on the Jordanian government's investment promotion, which provides a review of the Jordanian government's investment promotion policy and prospects. NIS is working with the government to improve the investment environment, establish a competitive advantage in Jordan, and promote excellent long-term investment.

Jordan's special economic zones can be divided into three types, Development Zone, Aqaba SEZ, and Free Zone, depending on the investment incentives given to businesses and the differences in operating entities. Information on these three special zones is provided by the Jordanian Investment Commission (JIC). As the different areas are under the jurisdiction of separate entities, details of each zones need to be confirmed separately; the Development Zones by the Development and Free Zones Commission (DFZC), Aqaba SEZ by the Aqaba Special Economic Zone Authority (SEZA), and the six free zones by the Jordanian Free Zone Co.

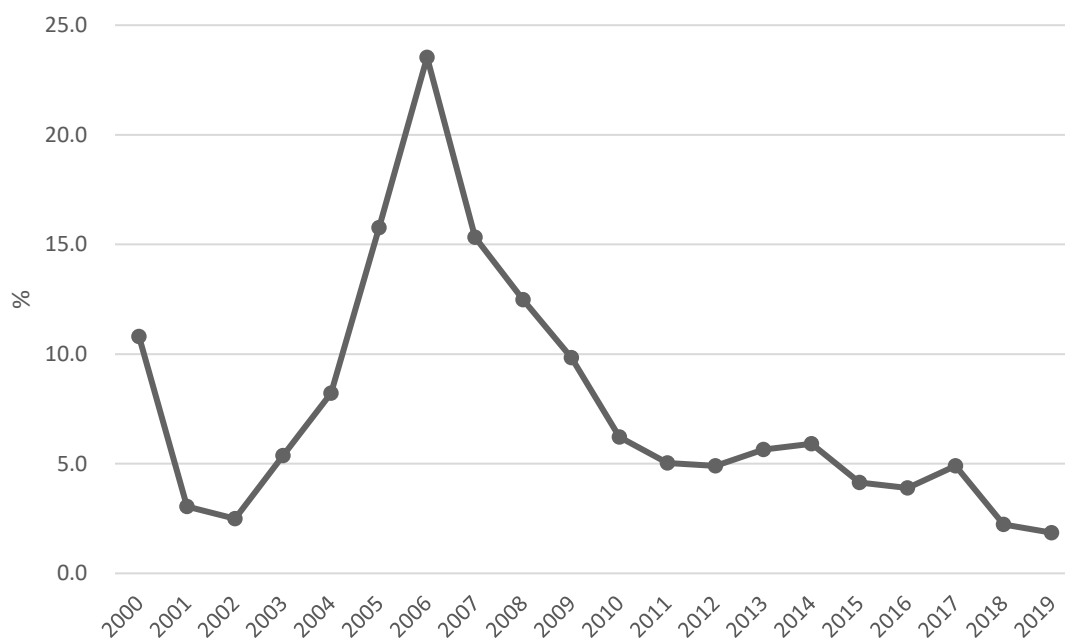
The changes in the amount of foreign direct investment (FDI) received by Jordan since 2018 are as follows. Despite receiving USD 300 million in FDI in the first quarter of 2020, the total amount of FDI is declining year by year. Of course, the values in the second and third quarters of 2020 after COVID-19 are low, but the values in the third quarter of 2019 before the crisis were also low. It can be inferred from this that the damage from COVID-19 is not the only factor in the decrease in FDI amounts.





Source: International Monetary Fund, Balance of Payments database, supplemented by data from the United Nations Conference on Trade and Development and official national sources.

**Figure 2-3 Foreign Direct Investment, Net Inflows  
(BoP, Current USD)**



Source: International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates.

**Figure 2-4 Foreign Direct Investment, Net Inflows  
(% of GDP)**

Investment promotion strategies in Jordan are mainly organized by the Jordan Investment Commission (JIC), a government agency. In order to promote FDI, the JIC has set the following vision, mission, and target, and has created a pamphlet (Select Jordan) that describes investment promotion measures. It mainly describes the benefits for foreign investors, including tax incentives within the Free Zone and Development Zone.

Vision	“Create a sophisticated, attractive and quality business environment for investments”
Mission	“Working on the development of the business environment and creating an attractive investment climate for quality investments and the strengthening of Jordanian exports within an appropriate legislative framework”
Target	<ol style="list-style-type: none"> <li>1. “Attraction of local and foreign investments”</li> <li>2. “Promoting Jordanian exports and holding exhibitions”</li> <li>3. “Activate the economic movement and distribution of development gains in all governorates of the Kingdom”</li> <li>4. “Guarantee of an attractive and modern investment environment”</li> </ol>

Source: Jordan Investment Commission, Select Jordan, 2018, p.2.

**Figure 2-5 JIC’s FDI Promotion Strategy**

In promoting FDI, the Jordanian government is attempting to promote investment by minimizing restrictions on non-Jordanian national investors. Except for the following regulations, the treatment of foreign investors is equivalent to that of domestic investors.

<p><u>Foreign Nationalities Holding Limit 50%</u></p> <p><b>【Trade】</b></p> <ul style="list-style-type: none"> <li>• Purchase of goods for rent to a third party</li> <li>• Purchase of goods or other movables for resale to a third party</li> <li>• Wholesale business</li> <li>• Retail business</li> <li>• Franchise</li> <li>• Import / Export</li> <li>• Logistics</li> <li>• Supply services</li> </ul> <p><b>【Transportation / Transportation Assistance Services】</b></p> <ul style="list-style-type: none"> <li>• Marine transportation / Marine transportation assistance services</li> <li>• Air transportation services</li> <li>• Railway transportation assistance services</li> <li>• Land transportation / Land transportation assistance services</li> <li>• Customs clearance services related to the above transportation services</li> </ul>	<p><b>【Services】</b></p> <ul style="list-style-type: none"> <li>• Engineering related services (building / construction / inspection)</li> <li>• Land transportation / Audiovisual equipment maintenance / Repair services</li> <li>• Photo services</li> <li>• Audiovisual service (movies / videotape distribution services)</li> <li>• Personnel allocation and supply services</li> <li>• Brokerage services</li> <li>• Currency exchange services</li> <li>• Advertising services</li> <li>• Commercial / Insurance agencies</li> <li>• Restaurant / Café / Cafeteria</li> <li>• Tourism / Travel related food services</li> <li>• Travel agency / Tour operator</li> <li>• Exhibition services</li> <li>• R&amp;D services related to natural science</li> <li>• Operator-less leasing and rental services related to ships, machinery and equipment</li> <li>• Printing / Publishing</li> <li>• Related science and technology consulting services</li> <li>• Garbage disposal services</li> <li>• Services associated with agriculture and manufacturing</li> <li>• consulting</li> </ul>	<p><u>Foreign Nationalities Holding Limit 49%</u></p> <ul style="list-style-type: none"> <li>• Regular and non-regular passenger / freight / postal air transportation services</li> <li>• Aircraft rental services including that of operators</li> </ul> <p><u>Prohibition on Holding of Foreign Nationalities</u></p> <ul style="list-style-type: none"> <li>• Passenger and freight transportation services including taxis, buses and trucks</li> <li>• Quarry of natural sand and stone used for construction purposes</li> <li>• Security / investigation services</li> <li>• Sports clubs (including holding sports events and services)</li> <li>• Clearance services</li> <li>• Geological value-related science and technology consulting services related to exploration, surveying, development, and mapping</li> <li>• Real estate services</li> <li>• Pension consulting services</li> <li>• Dental services</li> </ul>
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Source: Jordan Investment Commission, Select Jordan, 2018.

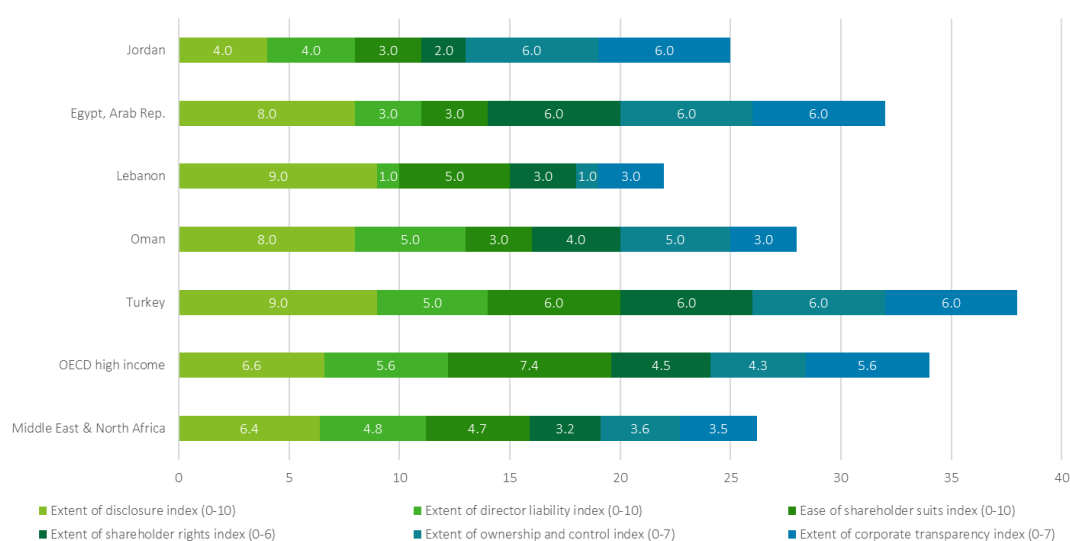
**Figure 2-6 FDI Regulations for Foreign Investors**

Regarding regulations on minority shareholder protection, Jordan is ranked 105<sup>th</sup> with a score of 50.0 in Doing Business 2020. This figure is slightly below the average score of 51.9 in the Middle East and North Africa. Below is a comparison of each indicator by Jordan, the Middle East / North Africa region, OECD high-income countries, and the countries with the highest performance in each indicator, as well as comparison charts with each country in the Middle East / North Africa region. Doing Business is an annual survey issued by the World Bank on regulations that strengthen and restrict business activities.

**Table 2-14 Doing Business – Minority Shareholder Protection**

Indicator	Jordan	Middle East & North Africa	OECD high income	Best Regulatory Performance
Extent of disclosure index (0-10)	4.0	6.4	6.5	10 (13 Economies)
Extent of director liability index (0-10)	4.0	4.8	5.3	10 (3 Economies)
Ease of shareholder suits index (0-10)	3.0	4.7	7.3	10 (Djibouti)
Extent of shareholder rights index (0-6)	2.0	3.2	4.7	6 (19 Economies)
Extent of ownership and control index (0-7)	6.0	3.6	4.5	7 (9 Economies)
Extent of corporate transparency index (0-7)	6.0	3.5	5.7	7 (13 Economies)

Source: World Bank, Doing Business 2020, Economy Profile: Jordan, p.35.



Source: World Bank, Doing Business 2020, Economy Profile: Jordan, p.36.

**Figure 2-7 Minority Shareholder Protection Relative to Comparative Economic Countries**

In addition, the projects and programs shown in the figure below are scheduled to be implemented as part of Jordan's investment promotion measures. These are included in the Jordan Economic Growth Plan 2018-2022 and will be achieved in the medium to long term.

**Table 2-15 Projects and Programs for Investment Promotion**

Axioms	Projects & Programs
Enhance legislative framework for economic growth	Issue a new separate law to enable GP/LP – Investment Limited Partnership (ILP) legal setup (for PE and VCs)
	Amend law to allow virtual office registration
	Amend law to remove Goodwill Tax
	Amend law to allow tax deductions on individuals' investments in start-ups < 3 years old
	Amend Jordan Securities Commission and Companies laws to grant securities commission more discretion in issuing instructions to set policy (at the parliament)
	Enforce corporate governance stipulated in laws on public shareholding companies
	Issue bankruptcy and company insolvency law
	Amend law to allow for annexation and enforceability of Shareholders Agreements – except for PLCs (at the parliament)
	Ratify Moveable Assets Law
	Issue a medical liability law
Judiciary reform to facilitate economic growth agenda	Approve bylaw amendments to enact Exchange Traded Funds (ETF) and Mutual Fund
	Establish an economic chamber in Amman's Court of First Instance, to be specialized in trade and investment disputes
	Use modern technology to advance both the litigation and notice serving processes, and enhance electronic connections between all necessary institutions
	Simplify the litigation processes and speed up the pace of adjudication within a reasonable timeframe
	Enforce the concept of judges' specialization, and enhance the capacity of judges and prosecutors
	Establish a specialized criminal court to look into certain disputes, particularly those committed using modern electronic means
	Remove all obstacles slowing down legal proceedings, without detracting from the guarantees provided to litigants
	Encourage the use of alternative means of civil litigation, and facilitate the means of doing so
	Update, regulate and facilitate the procedures for communicating judicial papers in order to expedite dispute resolution
	Modernize procedures for the liquidation of companies and bankruptcy of traders
Enhance and update judicial police procedures, and improve their performance	

Source: The Economic Policy Council, Jordan Economic Growth Plan 2018-2022, p.37-38.

In May 2020, the Jordanian government revised the PPP law to strengthen the existing public-private partnership (PPP) framework. Jordan has been actively implementing PPP projects for some time and has been positioned as a pioneer of PPP in the region. Behind the amendment of the existing law is the need to increase the number of staff in project screening and investigating the feasibility of the PPP model due to the increase of PPP projects. The 2020 PPP Law stipulates the following contents for the purpose of implementing more transparent PPP projects.

- Under the law, the Ministerial Board is held responsible for organizing the project phase and developing the law necessary to arrange bidding.
- The law prohibits high-ranking committee members, technical committee members, or members of the Prime Minister's Office (as well as spouses, descendants, and second-class relatives of these members) from participating in PPP projects.
- The law prohibits the spread of confidential information for the purpose of eliminating the transfer of money, etc. by unjust means.

In addition, the Project Preparation Development Facility (PPDF), a government agency, was established with the aim to make more decisions, develop a strong pipeline for implementing PPP projects, and increase capacity within the government. The PPP projects currently underway are as follows, and it can be seen that domestic infrastructure development is the main target.

**Table 2-16 Ongoing PPP Projects**

Project	Sector	Financial Closure Year	Investment (USD mn)
Attarat Oil Shale-Fired Power Plant	Electricity	2017	2,109
Disi-Amman Water Conveyer	Water and Sewerage	2009	951
Al Manakher Tri-Fuel Power Plant (IPP3)	Electricity	2013	812
Aqaba Container Terminal Concession Contract	Ports	2006	705
Queen Alia International Airport	Airports	2007	675
Orange Jordan	ICT	2000	558
Zarqa CCGT Power Plant	Electricity	2016	475
Al-Qatrana Power Project	Electricity	2009	465
AES – Diesel IPP	Electricity	2012	350
Amman East Power Project	Electricity	2007	300

Source: PPP Knowledge Lab, Jordan.

### 2.3.2 Issues and Future Prospects for Investment Promotion

Jordan has been focused on attracting FDI for the past 20 years. The results measure the legal restrictions on FDI in each country from four perspectives: (1) restrictions on foreign capital, (2) discriminatory screening or approval systems, (3) restrictions on the employment of foreign human resources in key positions, and (4) other operational restrictions. The FDI Regulatory Restrictiveness Index (FDI Index) also shows that the FDI Index in Jordan is 0.220 points, which is lower than the average value of OECD member countries (0.064), and the investment environment is considered to be relatively well-developed. In addition, although it has increased considerably since 2000 due to the focused efforts related to FDI, the amount of FDI inflow has been on a downward trend in the recent years due to the deterioration of the economic situation in the Middle East and the effects of security problems. The inflow, which was only USD 274 million in 2001, increased to USD 3.5 billion at the peak of 2006 due to the introduction of garment-related FDI in industrial parks from the 2000s. However, investment has been declining since 2006, halving year-on-year in 2018 and dropping to USD 825 million in 2019, which is about a quarter of the amount in 2006 (refer to Figure 2-3). The decline in FDI was triggered by the global financial crisis of 2008, further declining due to a series of regional conditions including the “Arab Spring” in 2011, the closure of the border with Iraq in 2015, the closure of the border with Syria, etc. More recently, the decline of oil prices has had a further impact on investment from GCC countries. For the recovery of FDI and promotion of investment, it is considered that the development of legal frameworks and the strengthening of organizational functions are important issues.

Focusing on the legal and institutional framework for investment promotion, Jordan 2025, Jordan's national strategy, places the recovery of significantly reduced FDI and strengthening of competitiveness as a main focus of the national strategy. In order to do so, a National Investment Strategy has been established. The OECD has developed the Jordan Competitiveness and Investment Project with the aim of promoting investment and job creation in Jordan as one of the supports for the Jordanian government's efforts to promote investment, alongside the above-mentioned efforts. The project focuses on recommendations on deregulation for investment and strengthening the national and international legal framework for investment by the Jordanian authorities, including the World Bank, JIC, Ministry of Planning and International Cooperation, and Ministry of Trade and Industry. Technical advice and awareness reform for efforts such as enactment of investment law, establishment of Investment Promotion Agency, relaxation of restrictions on FDI, which are part of investment reform in Jordan, carried out in collaboration with related organizations contribute to capacity building. On the other hand, policy reforms in a wider range of fields are required to improve the investment environment, such as tax and trade measures, anti-corruption measures, and the establishment of sound competition rules.

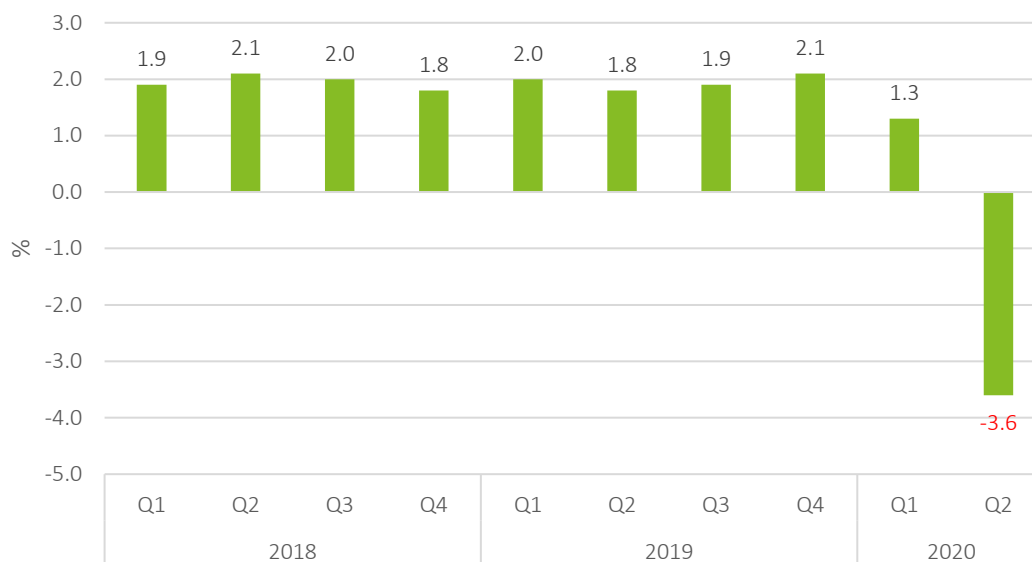
As a result of various efforts such as the reforms mentioned above, JIC is currently playing a central role in providing services and activities related to investment promotion in strengthening organizational functions. They are also responsible for accrediting, promoting and regulating Free Zones and Development Zones. Furthermore, although it holds export promotion events in collaboration with JEDCO, some find it problematic, as JIC is not an export promotion organization. In relation to FDI, it is expected that privatization and infrastructure development by PPP will progress in the future, but the role of JIC is limited, and it is conceivable that infrastructure-related ministries and agencies will take the lead. On the other hand, infrastructure development has a great impact on private trade and revitalization of FDI, so efforts by the Jordanian government and the World Bank are required.

As pointed out in the OECD's report on investment in the MENA region during COVID-19, a rapid increase in FDI cannot be expected due to the global economic downturn caused by the world-wide health crisis. Therefore, it is desired to set a long-term National Investment Strategy in addition to tackling the above-mentioned issues. At this point, the World Bank's Investment Attraction Strategy Development and Implementation for the Jordan Investment Commission has been proposed in connection with JIC's capacity building from a long-term perspective. In the future, it is expected that donors will be required to develop similar projects in conjunction with the Jordanian government's efforts to improve the investment environment and advance the FDI attraction policy.

## 2.4 Overview of Jordan's Economy and Industry

### 2.4.1 Economic Overview

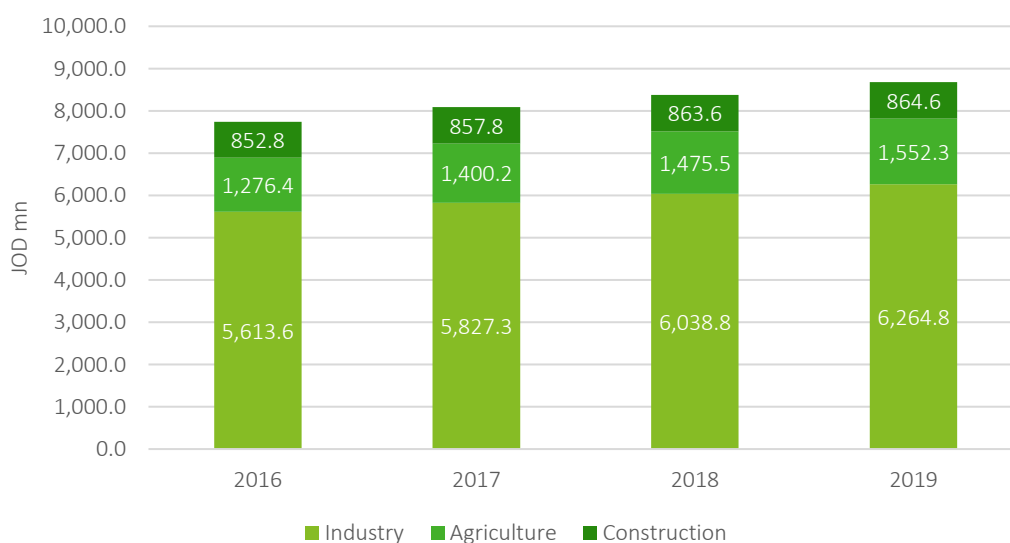
According to the Central Bank of Jordan, although not as high as previous years, the GDP growth rate for the first quarter of 2020 was positive. As can be seen, the rate dropped significantly in the second quarter. It is predicted that each industry was affected by COVID-19, including the government's continuous nation-wide lockdown in order to prevent the spread of the pandemic.



Source: Central Bank of Jordan.

**Figure 2-8 Quarterly GDP Growth Rate**

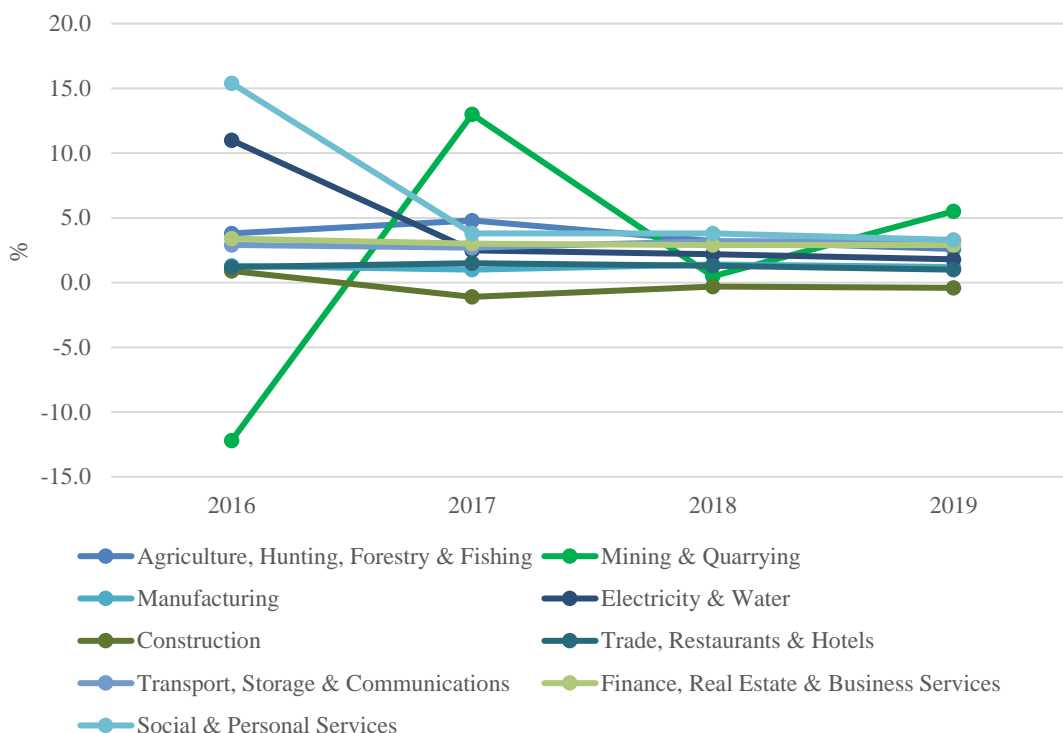
The Central Bank of Jordan, in addition, has extracted three industries, manufacturing, agriculture and construction, and calculated the GDP contribution rate of each industry, as shown in the figure below. It can be seen that the amount of contribution has been increasing every year for the four years between 2016 and 2019 in all three industries.



Source: Annual Report 2019, Central Bank of Jordan, p.11~.

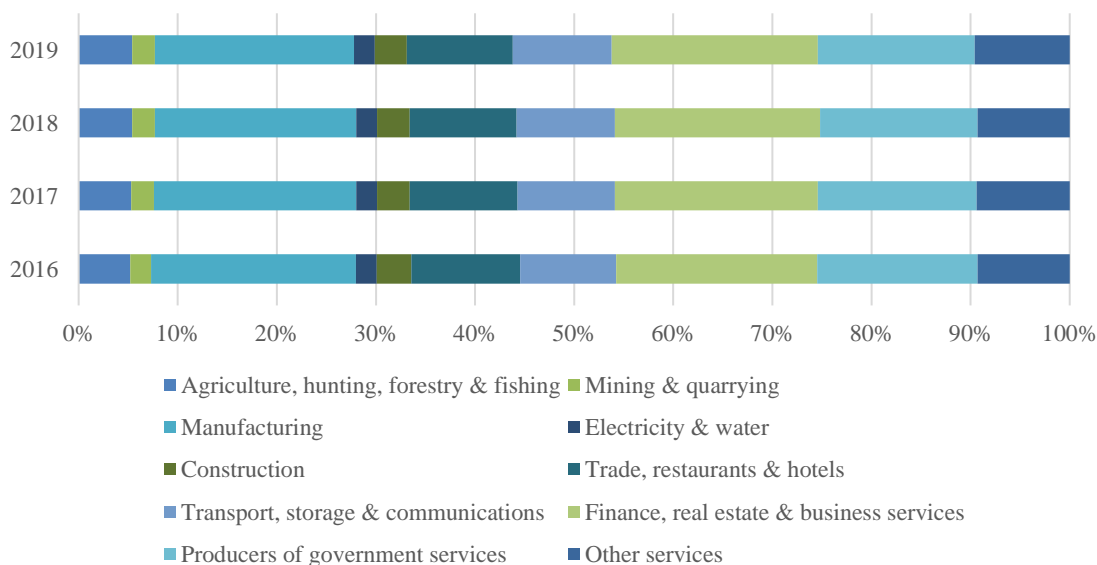
**Figure 2-9 GDP Contribution by Industry**

The GDP growth rate by industry and the relative importance of each industry before COVID-19 are shown in the figures below. While the relative importance of each industry has not significantly changed since 2016, there is a large difference in the GDP growth rate by industry. It can be seen that, although there are differences in growth rate, each industry except construction has achieved positive growth since 2017.



Source: Annual Report 2019, Central Bank of Jordan, p.9.

**Figure 2-10 GDP Growth Rate by Industry**



Source: Annual Report 2019, Central Bank of Jordan, p.10.

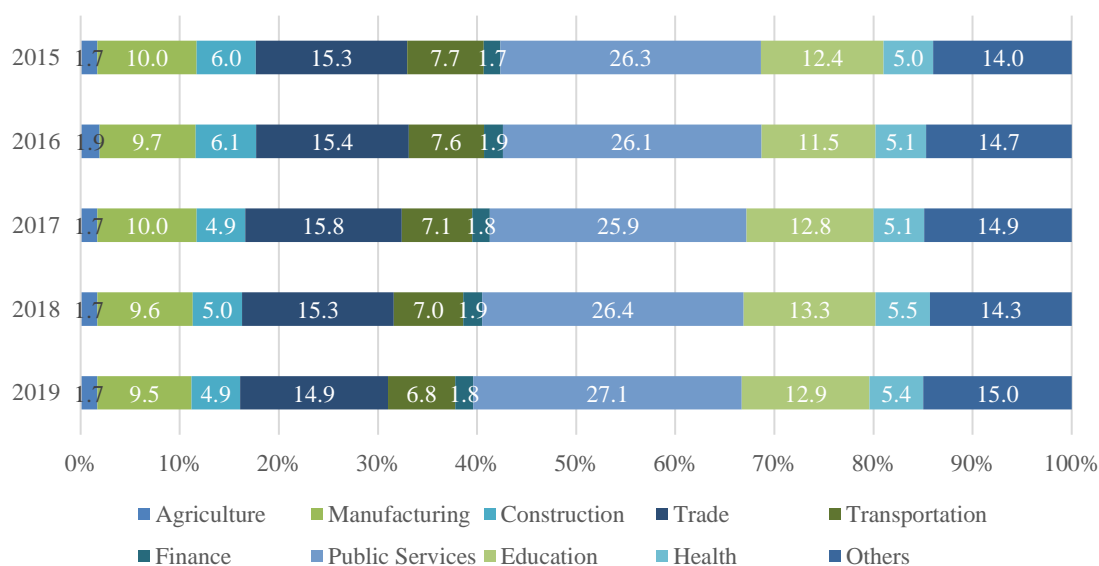
**Figure 2-11 GDP Contribution Rate by Industry**



## 2.4.2 Domestic Labor Population and Employment Structure

In Jordan, approximately 30 percent of the labor force population is engaged in the administrative and defense industries, meaning that the ratio of workers in public institutions is higher compared to other countries. It can be said that, in addition, the GDP contribution rate by industry is high compared to the ratio of the labor force population engaged in the agriculture and manufacturing industries. The labor force distribution rate in the manufacturing, construction, and transportation industries is decreasing year by year, while that in the administration/defense, education, and health/welfare industry is increasing.

Here, it should be noted that those in the informal sector are not included in the labor force population distribution survey conducted by the Central Bank of Jordan. According to a survey by the UN, the informal sector made up approximately 44 percent of the working population as of 2010, accounting for approximately 51 percent of the entire private sector. The Jordan Strategy Forum<sup>1</sup> conducted a survey, where the GDP composition of the informal sector in 2015 amounted to 15.2 percent, which is around 4 billion JOD. The overall picture is not clear, however, as a survey on the entire informal sector led by an international organization has yet to be conducted, as of today.

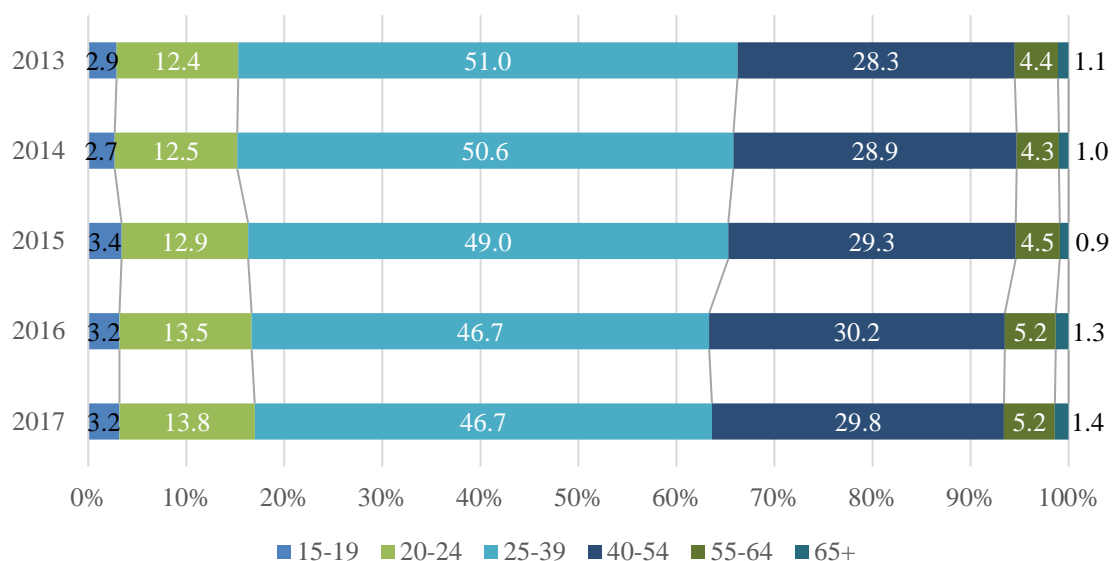


Source: Annual Report 2019, Central Bank of Jordan, p.20.

**Figure 2-12 Composition Ratio of Labor Force by Industry**

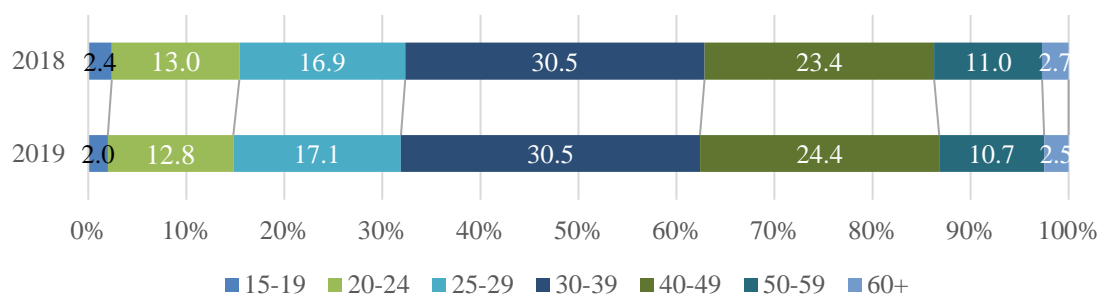
Looking at the distribution of the labor force population by age, it can be determined that, from 2013 to 2019, the number of workers aged 39 and under is on the decline, while the number of workers aged 40 and above is on the rise. The number of youths under the age of 24, in addition, continued to increase yearly until 2017, but has decreased significantly since 2018. Here, it should be noted that the age classification has changed since 2018 in the labor survey conducted by the Jordanian government's Department of Statistics.

<sup>1</sup> Jordan Strategy Forum is a leading think tank on economic development in Jordan, founded on August 30, 2012. It consists of a variety of companies from start-ups to medium-sized firms and established companies, in addition to scholars and specialists of the Jordanian economy.



Source: Statistical Yearbook (2013-2017), Department of Statistics.

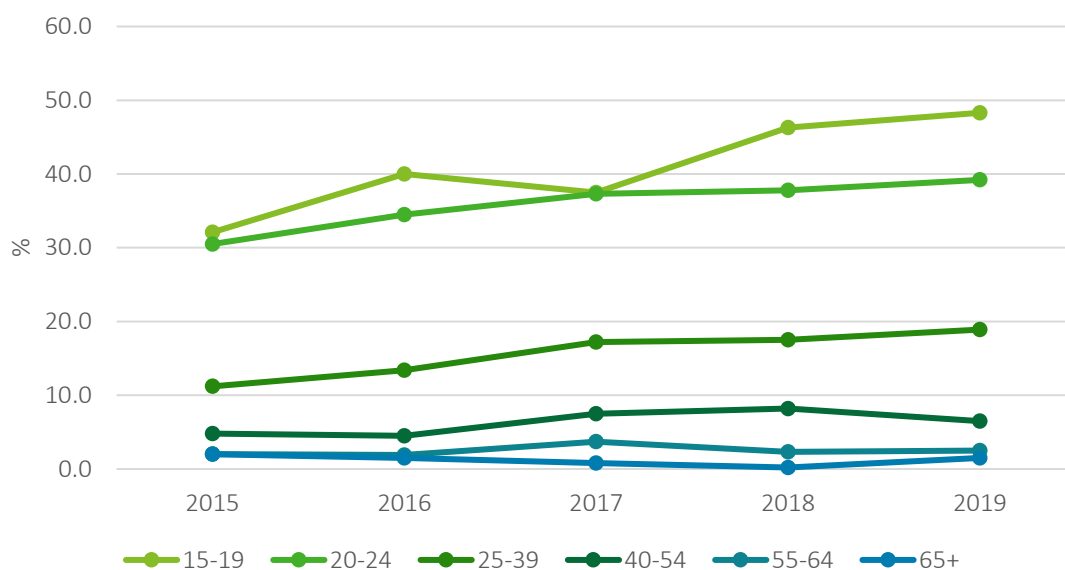
**Figure 2-13 Labor Force Population Composition by Age Group (2013-2017)**



Source : Statistical Yearbook (2018-2019), Department of Statistics.

**Figure 2-14 Labor Force Population Composition by Age Group (2018-2019)**

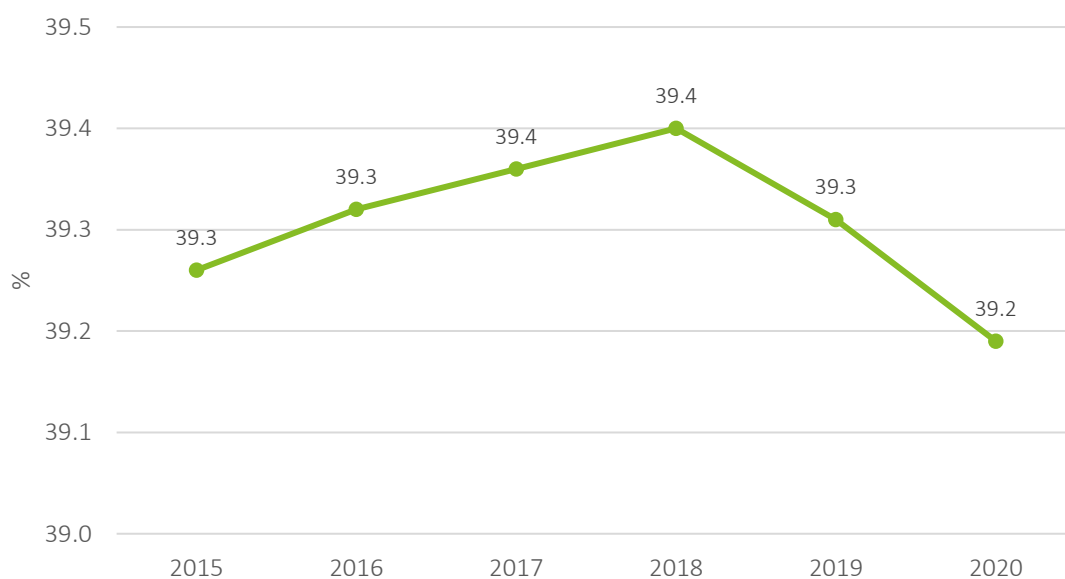
The unemployment rate under age 39 and under is increasing year after year, albeit moderately, in relation to the decrease of the labor force population composition for the same age group. Among them, the unemployment rate of youth under the age of 19 increased by approximately 20 percent between 2015 and 2019, and that of the 20-24 age group and 25-29 age group also increased by about 10 percent. On the other hand, the unemployment rate is declining for those aged 40-54, and remains flat for those aged 55 and above.



Source: Annual Report 2019, Central Bank of Jordan, p.19.

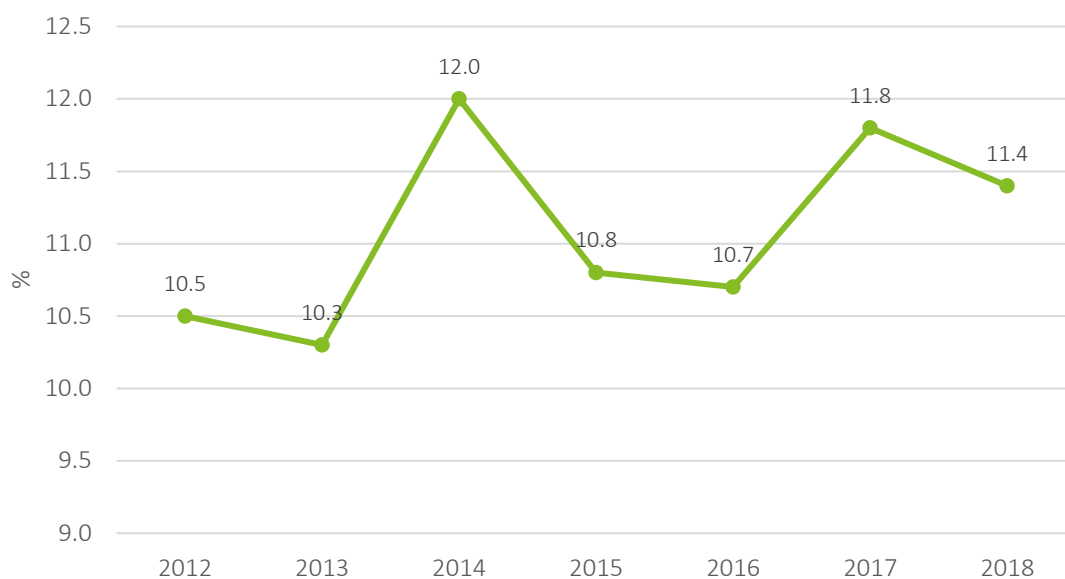
**Figure 2-15 Unemployment Rate by Age Group**

In Jordan, the employment rate of Jordanian nationals has remained at a relatively steady rate, but has been slightly decreasing since 2018. In contrast, the number of non-Jordanian workers has increased between the period of 2012 and 2018, albeit with some ups and downs in the rates.



Source: ILOSTAT Database.

**Figure 2-16 Employment Rate (Jordanian Nationals)**

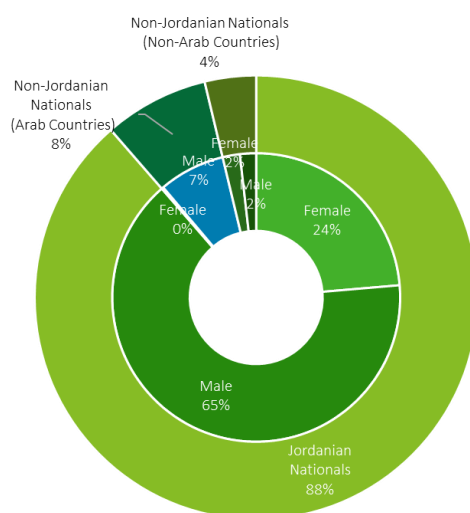


Source: Statistical Yearbook (2012-2018), Department of Statistics.

**Figure 2-17 Employment Rate (Non-Jordanian Nationals)**

Figure 2-18 shows the composition of the Jordanian labor force by nationality and gender. By nationality, approximately 90 percent of the workers are Jordanian nationals, while 10 percent are non-Jordanian residents. Many of the non-Jordanian workers are labor migrants and Syrian refugees.

The nation’s population is easily affected by the situations surrounding the Middle East. While the number of refugees accepted into the nation have gradually increased year by year through the deterioration of the situation in Syria, and is becoming a more prominent and important labor force in the Jordanian economy, it has proven to become a threat to Jordanian employees during the pandemic.



Source: Department of Statistics, Jordan. (2019). Statistical Yearbook of Jordan 2019

**Figure 2-18 Jordanian Labor Force by Nationality and Gender**

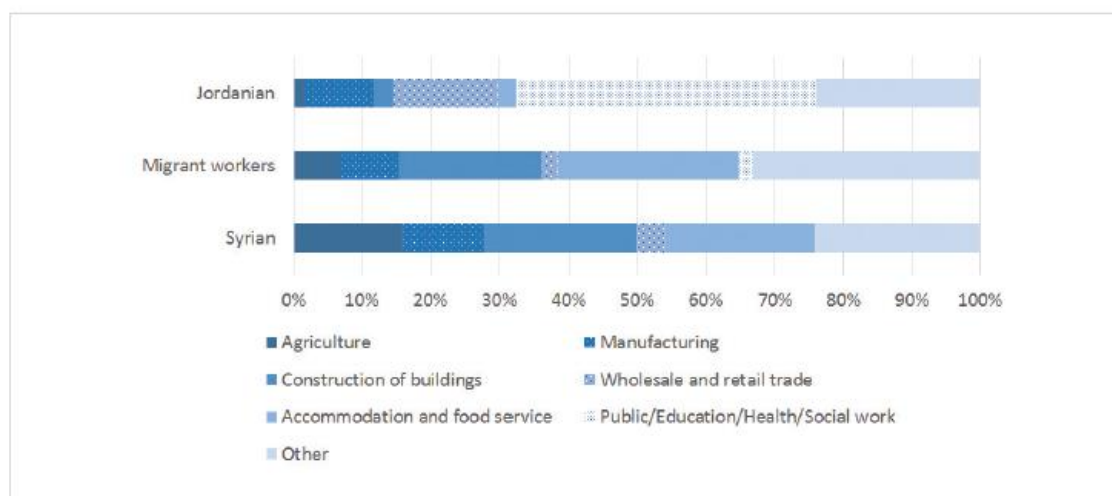
The dominant segments of the labor force by sector are as shown in Table 2-17. Although Jordanians are the main segment within the tourism sector, it differs in other industries (agriculture, manufacturing, construction, and domestic work).

Industries with a high percentage of foreign workers are agriculture, consisting of many Syrian refugees and Egyptian migrants, construction, service (restaurants, cleaning, etc.), and textiles within industrial parks, which mainly includes workers from South Asia (Bangladesh, Sri Lanka, India and Nepal).

**Table 2-17 Dominant Segments of the Labour Force by Sector**

Sector	Dominant segments of the labour force	Tradeability
Agriculture	Migrant workers (Egyptian men) and Syrian refugee families	Partly traded
Manufacturing	Migrant workers (South Asian women) and Jordanian men	Traded
Construction	Jordanian men, migrant workers (Egyptian men), male Syrian refugees	Non-traded
Tourism	Jordanian men, with more recent entry of male Syrian refugees in the restaurant sub-sector	Traded
Domestic work	Primarily migrant workers (South and East Asian women)	Non-traded

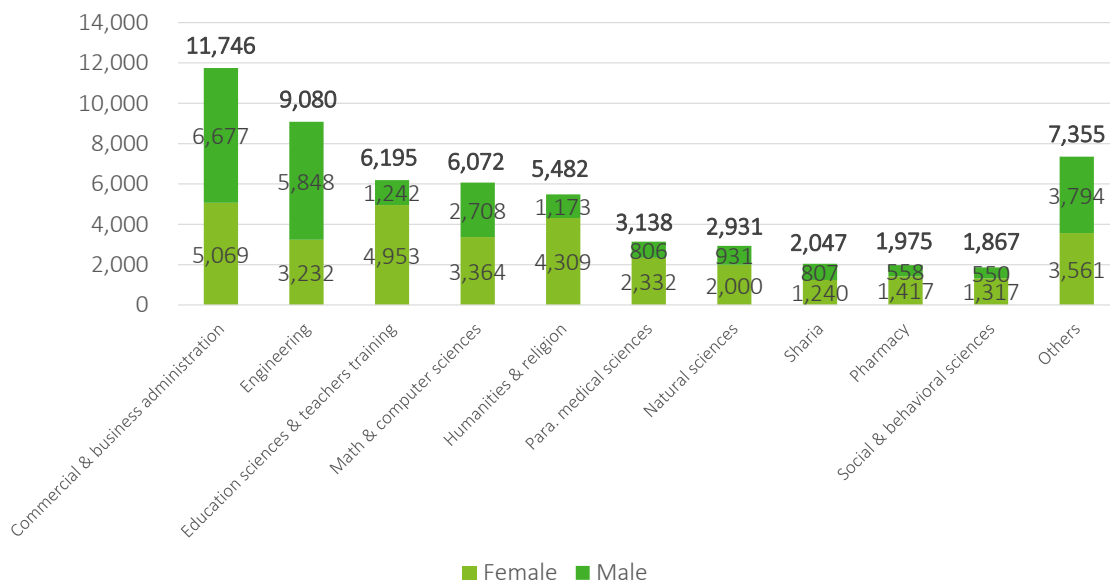
Source: ILO. (2017). A CHALLENGING MARKET BECOMES MORE CHALLENGING: Jordanian Workers, Migrant Workers and Refugees in the Jordanian Labour Market.



Source: ILO. (2017). A CHALLENGING MARKET BECOMES MORE CHALLENGING: Jordanian Workers, Migrant Workers and Refugees in the Jordanian Labour Market

**Figure 2-19 Sector of Employment by Nationality**

Regarding the human resources production capacity of domestic educational institutions, the number of bachelor’s degrees obtained through the universities in Jordan will be analyzed. The top five majors consisted of faculty of commerce and business administration, faculty of engineering, faculty of education, faculty of mathematics and computer science, and the faculty of humanities and religion.



Source: Department of Statistics, Jordan. (2016). Jordan Statistical Yearbook 2016.

**Figure 2-20 Number of Bachelor's Degree Graduates by Major (2016)**

## 2.5 International Competitive Environment Surrounding Jordan

### 2.5.1 Trade Environment Surrounding Jordan (Trade Agreements, Investment Agreements, etc.)

The following table shows the trade frameworks surrounding Jordan as of today.

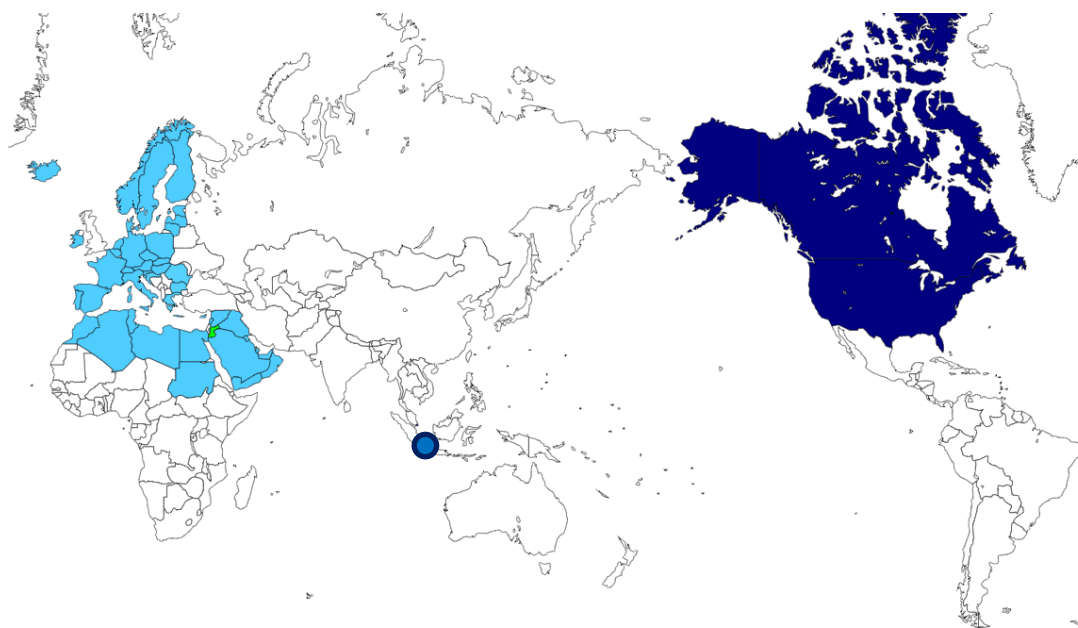
**Table 2-18 List of Trade Frameworks**

Category	Organization	Year in Effect	Member States	Notes
WTO	World Trade Organization	1995	164 countries	Became a member state in 2000
Regional Economic Partnership	Great Arab Free Trade Area Agreement (GAFTA)	1998	18 countries (Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Palestine, Tunisia, UAE, Yemen, Jordan)	The tariff rate in the region has gradually declined since 1998, reaching 0 in January 2005 (Palestine is excluded from the obligation to reduce tariffs)
	Jordan-EU Union Agreement	2002	28 EU member states, Jordan	Agreement to phase out tariffs and barriers on industrial products, agricultural and marine products, dispute resolution, trade in services, establishment of companies, government procurement, intellectual property rights and investment protection
	Jordan-European Free Trade Association (EFTA) Free Trade Agreement	2002	5 countries (Switzerland, Norway, Iceland, Liechtenstein, Jordan)	Agreement to phase out tariffs and barriers on industrial products, agricultural and marine products, government procurement, intellectual property rights, competition, government assistance and dispute resolution
	Agadir Agreement	2007	4 countries (Egypt, Tunisia, Morocco, Jordan)	Aim to revitalize intra-regional trade and promote exports to the EU market by applying cumulative rules of origin among the 4 countries
Bilateral Economic Partnership	Jordan-US Free Trade Agreement	2001	2 countries (Jordan, US)	-
	Jordan-Singapore Free Trade Agreement	2006	2 countries (Jordan, Singapore)	-
	Jordan-Canada Free Trade Agreement	2012	2 countries (Jordan, Canada)	-
REP in negotiation	Jordan-Southern South America Common Market (MERCOSUR) Free Trade Agreement	-	-	-

Source: Created by JICA Study Team

## Trade Agreements

Jordan has signed free trade agreements (FTAs) with the following regions and countries.



Source: JICA Study Team

**Figure 2-21 Interregional FTAs (Light Blue) and Bilateral FTAs (Dark Blue)**

[Interregional FTA (effective)]

- GAFTA (Great Arab Free Trade Area)
  - 18 countries / regions of Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Palestine, Tunisia, Arab Emirates, and Yemen
  - The tariff rate in the region has been gradually reduced since 1998, and the tariff rate has been zero since January 2005. (However, at the time of customs clearance in the UAE, tariffs are still being applied, and there is no actual situation.)
- EFTA (European Free Trade Association)
  - Iceland, Norway, Switzerland, Liechtenstein)
- EU
- Agadir Agreement (Tunisia, Morocco, Egypt, Jordan)

[Bilateral FTA (effective)]

- USA
- Singapore
- Canada

[Under negotiation or expiration]

- Pakistan (under negotiation)
- Turkey (expired in 2018)

For countries and regions that are planning to conclude economic agreements in the future, we plan to conduct hearings at the time of the field survey.



## 2.5.2 Trends in Markets in Neighboring Countries



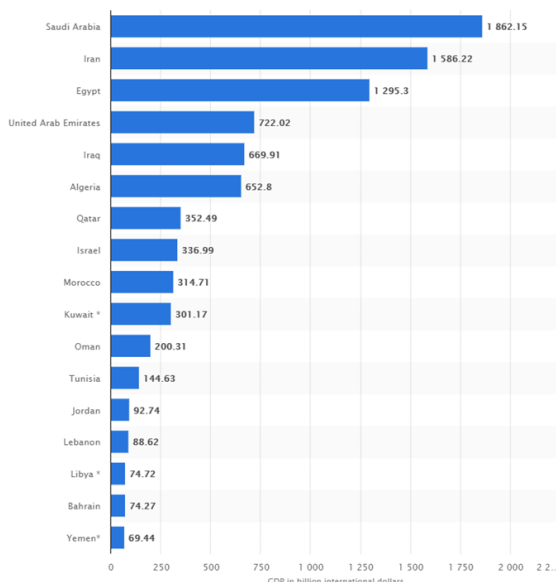
The MENA region, which means the Middle East and North Africa, including Jordan, will be surveyed as a market for neighboring countries with close economic ties. In addition to the widespread belief in Islam, the region is characterized by its abundant energy resources, with 60 percent of the world's oil reserves and 45 percent of its natural gas reserves, and as a post-BRICS. It is a region that is drawing attention for economic growth.



The region's GDP showed high growth between 2000 and 2012, except in 2009, which was affected by the economic stagnation caused by the Lehman shock. The rate of economic growth has been declining since 2012 due to the collapse of oil prices, but it has begun to rise again and will reach \$0.7 trillion in 2018.

Source: World Bank

**Figure 2-22 Changes in GDP in the MENA Region**

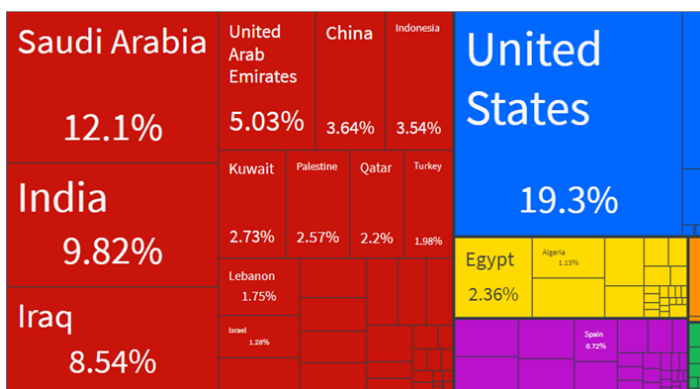


Source: Statista

**Figure 2-23 Comparison of GDP of MENA Countries (2018)**

As shown in the figure on the left, when comparing the MENA region by country GDP, Saudi Arabia has the largest, followed by Iran and Egypt in the top three, followed by the United Arab Emirates, Iraq, and Algeria on a similar scale. Jordan has the 13th largest economy in the region and is about the same economic size as Lebanon.

In these neighboring markets, the countries of the MENA region also hold an important position as Jordan's trading partners.



When paying particular attention to export indicators from the perspective of Jordan's industrial promotion, neighboring Saudi Arabia accounts for 12.1 percent of the total in MENA, making it the second most important destination country after the United States. This is followed by Iraq, also a neighboring country, at 8.54 percent, followed by the United Arab Emirates at 5.03 percent.

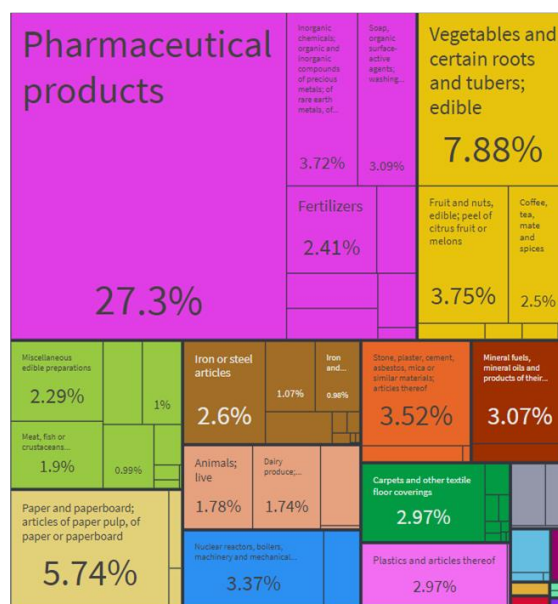
Source: OEC

**Figure 2-24 Breakdown of Jordan Trade and Export Destinations by Country (2018)**

It seems unavoidable that neighboring Syria, which is still in the process of recovery from the civil war, is less than 1 percent of its export destinations. But considering the distance between countries and the economic scale of the partner country, the exports to Egypt remaining at 2.36 percent and to Iran at 0.13 percent seem unsatisfactory, leaving great potential and room for future trade promotion.

### Saudi Arabia

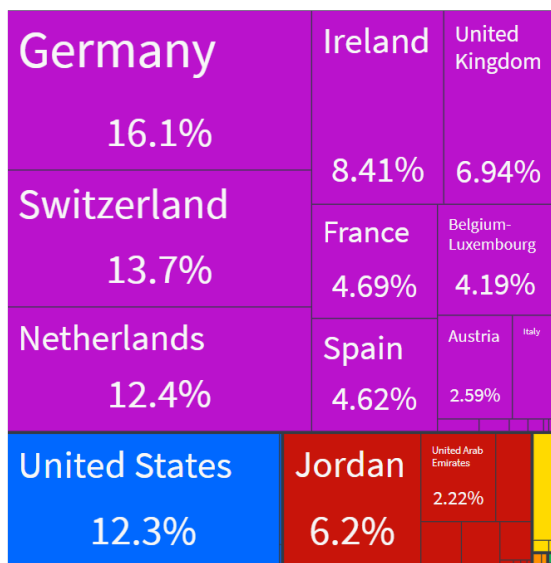
Looking at the breakdown of the value of exports to Saudi Arabia, which is the most important export destination country among neighboring countries, pharmaceutical-related goods account for 27.3% at the largest proportion. Chemical products containing fertilizer account for more than 10%, fresh foods such as vegetables, fruits and nuts account for about 15%, processed foods account for about 7%, and paper products such as tissue paper and toilet paper account for about 6%.



Source: OEC

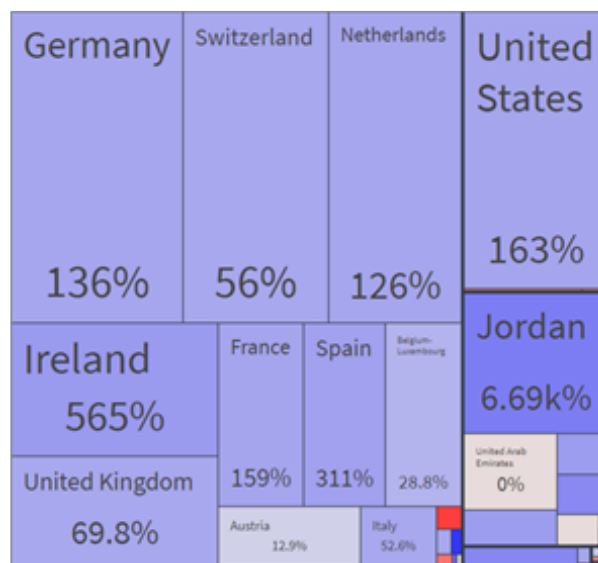
**Figure 2-25 Breakdown by Item of Export from Jordan to Saudi Arabia**





Source: OEC

**Figure 2-27 Country Share of Saudi Arabia Biopharmaceutical Imports (2018)**



Source: OEC

**Figure 2-28 Growth Rate by Country in Saudi Biopharmaceutical Imports (from 2013 to 2018)**

The imported biopharmaceuticals market in Saudi Arabia continues to grow, with Western countries such as Germany, Switzerland, the Netherlands and the United States dominating most of its share today. Due to the growth of the market itself, not all countries have reached the stage of international competition and are increasing the value of exports to Saudi Arabia, but even in that situation, Jordan is rapidly increasing its presence. It can be said that it is a noteworthy export segment because it has the potential to become a significant export base in the future due to the spread of the COVID-19 crisis.

## **Chapter 3. Identification of the Focus Sectors**

### **3.1 Sectors Gaining Attention in the COVID-19 Pandemic**

Firstly, at the stage of the inception report, we added an analysis of the effects of the COVID-19 and created a long list of candidates for notable industries that include agriculture, food processing, garments and textiles, pharmaceuticals, ICT, tourism, and medical services. The details of the inception report can be found in the Appendix.

#### **(1) Agriculture**

The agricultural sector, along with the construction sector, is an industrial sector that originally has a higher proportion of foreign workers than Jordanians. One of the effects of the COVID-19 crisis is the return of the foreign workers who were engaged in this sector, and the shortage of labor is now a problem.

It is often pointed out that agriculture has relatively low added value, which makes it not an attractive employment environment for Jordanian workers. On the other hand, the exports of agricultural products with relatively high added value were increasing in the recent trade statistics before COVID-19. The items that are driving the increase are fresh produce such as tropical fruits, lettuce, and melons. Expanding exports of this produce, including dates, which are a strategic agricultural product, could be one of the future measures. In addition, organizing (incorporating) producers in agricultural production, increasing the sophistication of plant factories, and digital transformation (DX) can be other measures. By taking such measures, it is thought that increasing the added value of agricultural production and raising the engagement rate of Jordanians will lead to overcoming vulnerabilities.

It is thought that the COVID-19 crisis will have a significant impact on the food service industry in each country, and that the consumption structure will also have some changes that have not been reflected in the export data so far. However, at the same time, it is thought that consumers at or above a certain level of income have further raised their interests in health consciousness and safe and secure foods, and that high-value-added produce exports may receive a tailwind.

#### **(2) Manufacturing Industry (Food Processing)**

As mentioned above, exports of agricultural products are strong in Jordan, so the food processing industry will be reviewed as the next related manufacturing sector. A value chain formative scenario is envisioned in which the added value is increased by processing even if the primary agricultural product production alone has low added value. Also, as mentioned above, if the awareness of food safety and security is raised due to the impact of COVID-19, it can be predicted that the needs for advanced processed food products will increase.

However, it should be noted that agricultural products are traded at the highest prices not when they undergo food processing, but when they are shipped and consumed as fresh products, as Jordan currently does. In most cases when food processing leads to an increase in added value, non-standard products that cannot be shipped as fresh products are used as raw materials, or the distant consumption market is made accessible by extending the shelf life and making it possible to endure the long transportation time.

Currently, Jordan's main market for agricultural exports is the neighboring Middle Eastern countries where the products can be provided as fresh food. If Jordan wishes to extend the reach and sell processed food, efforts to develop new markets will be needed. Of course, to overcome the fierce cost competition in the field, efficiency and automation using the latest technology will be required, and the hurdle will not be low.

### **(3) Manufacturing Industry (Garments)**

The garment industry is a representative sector of Jordan's major industries that has been adversely affected by the COVID-19 crisis. As pointed out in the case of vulnerabilities, the United States accounts for about two-thirds of the total export destination share. In terms of employment and labor, it is also a matter of concern that the outflow of foreign workers has reduced the operation of factories.

As measures for rehabilitating the sector and overcoming vulnerabilities in the future, diversification of export destinations and expansion into niches and high-value-added markets can be considered, but neither of these will be an easy path.

### **(4) Manufacturing Industry (Pharmaceuticals)**

Like the garment industry, the pharmaceutical industry is a typical export sector in Jordan, where the manufacturing industry is relatively weak, and it is also an important industrial field because it promotes the employment of Jordanian women. Since Jordan's pharmaceutical industry is basically the manufacturing of generic drugs whose patents have expired, it does not necessarily benefit from the direct impact of COVID-19 like the drug discovery field, but at least it does not have to worry about market shrinkage.

### **(5) Service Industry (ICT)**

Although the ICT (information and communications technologies) industry is not currently the main player for foreign currency acquisition, it is a sector that the Jordanian government is putting a lot of effort into developing.

One of the effects of the COVID-19 pandemic is the rapid progress in the digitization of government services such as benefit administration and remittances, and the development path can be considered to focus on fostering domestic ICT companies and start-ups while capturing such demand. In addition, the growth of the ICT industry will promote digital transformation in other industries and lead to the improvement of the international competitiveness of other industries, which will be an important initiative.

### **(6) Service Industry (Tourism)**

Prior to the COVID-19 crisis, tourism was one of Jordan's best-performing industries in terms of earning foreign currency. Most of the tourism revenue came from receiving private travel from neighboring countries, but the sector was hit hard by the decline in overseas customers as the outbreak of the COVID-19 crisis restricted people's movement.

The Jordanian government has announced emergency support for the sector and, in addition to stimulating domestic demand, it is promoting online support such as digital promotion and provision of experience-based content, and it will generate a certain amount of income even in the absence of inbound overseas customers. However, such an online solution is centered on the promotion effect that invokes the actual travel experience and leads to repeats, and there is skepticism as to whether it can be converted into content on which customers will spend money.

When the previous level of personal travel will return is still unpredictable, considering the ever-increasing infection situation in Jordan. In addition, as pointed out in the section on vulnerability analysis, the high degree of dependence on the tourism industry itself is a factor that creates vulnerability in the country's industrial structure. Therefore, the growth strategy must include mitigation measures against the downside risks. For example, not only the mass market of individual travel, where international competition is advancing, but also specialization in niche markets such as promotion of medical tourism can be considered.

## (7) Service Industry (Medical Services)

In the medical field, Jordan, supported by a high level of education, has been highly evaluated in neighboring countries. The outbreak of COVID-19 is currently putting a heavy burden on medical infrastructure, but even after the infection has subsided, there is room for Jordanian medical services to grow as a means of earning foreign currency due to heightened health consciousness.

As a concrete measure, in addition to the development of advanced medical centers, it is possible to strengthen healthcare services such as for preventive medicine and beauty. In particular, the healthcare field is expected to spread to peripheral industries such as expanding domestic consumption of high value-added products in Jordan and promotion of sales of Dead Sea cosmetics, which are the subject of a national promotion.

### 3.2 Candidates for the Focus Sectors (Longlist)

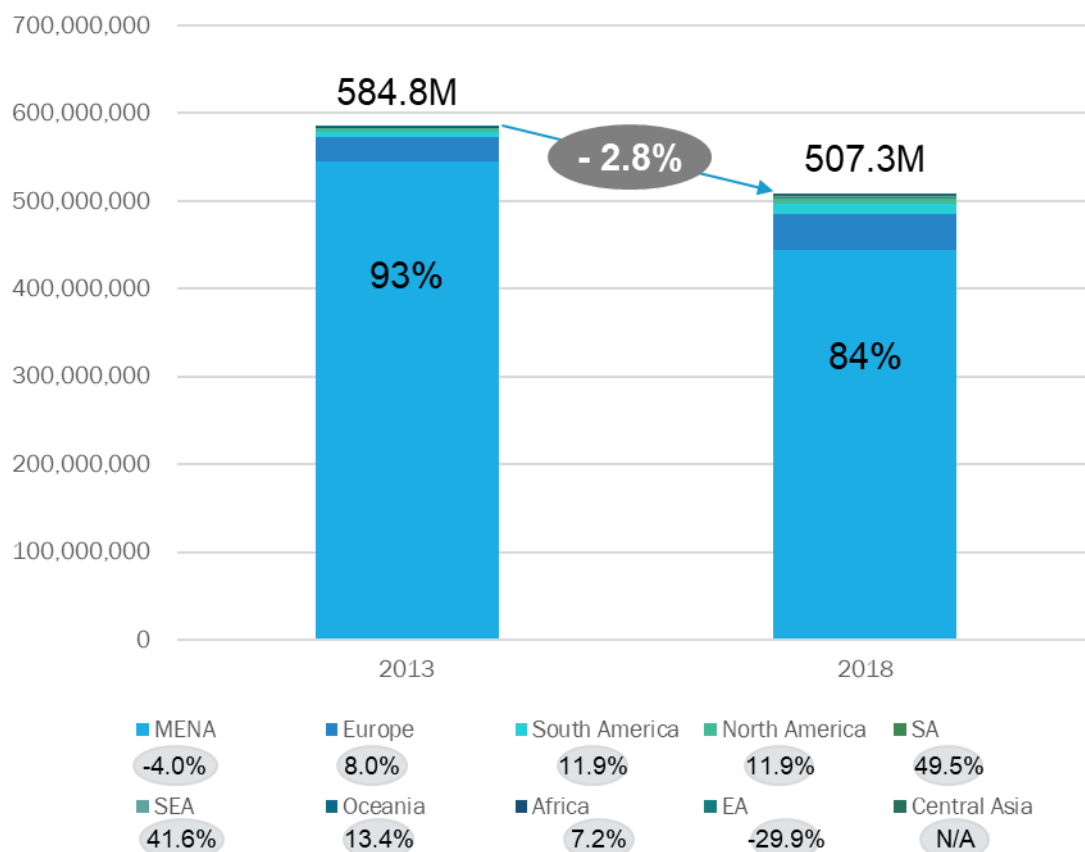
In the subsequent Interim Report, agriculture, food processing, garments and textiles, pharmaceuticals, ICT, tourism, medical services, were listed as the industries gaining attention as above. In addition to these, the chemical sector (including fertilizers, chemicals, cosmetics), which is the major export industry of Jordan, was added to the long list. Tourism and medical services have been integrated into medical and wellness tourism, which is considered promising as a niche tourism sector.

Category	Sectors (Longlist)	Rationale of Shortlisting
Goods	Agriculture	Industries will be shortlisted from the perspectives of trade markets, competitors, and Jordan's relative advantages and spillover effects
	Food processing	
	Chemicals (fertilizers, chemicals, cosmetics)	
	Garment and Textiles	
	Pharmaceuticals and medical supplies	
Services	Medical / Wellness tourism	The two sectors in the services were added to the shortlist from the perspectives of the impact of COVID-19, the demand for DX (export potential), spillover effects on the other industries and employment
	ICT	

Firstly, regarding "Goods", information on the potential for trade expansion, domestic supply capacity, employment effect, and comparative advantages to competitors are considered from the three perspectives of markets, Jordan, and competitors for each candidate sector.

#### (1) Agriculture

The world's major markets for agricultural products (vegetable products section) include China, Germany (Europe), and the United States, and global demand is on the rise as the population grows. As shown in the figure below, most of the exports from Jordan are to the MENA region, and vegetables (USD 280 million) and fruits (USD 124 million) are the main categories (2018). Looking at the average annual growth rate from 2013, exports to the MENA region decreased by 4 percent, but exports to Europe increased by 8 percent. Although the volumes were low, exports to South Asia and Southeast Asia increased by 49.5 percent and 41.6 percent, respectively.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

\* SA = South Asia, SEA = Southeast Asia, EA = East Asia market. The numbers in the gray circle indicate the compound annual growth rate (CAGR). The same applies thereafter.

**Figure 3-1 Export Value of Agricultural Products from Jordan (USD)**

As for vegetables, more than 50 percent of the export was tomatoes, and the others were peppers, cucumbers, cabbages and lettuce exported for a total of USD 280 million. As for fruits, peaches, melons, dates, strawberries, apricots, and avocados were among those exported for a total of USD 124 million.

As shown below, the top two export destinations for both vegetables and fruits are Saudi Arabia and Kuwait, and the main export destinations are the neighboring countries of Jordan.



**Table 3-1 Top Export Destinations in 2018 (Vegetables)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
<b>Saudi Arabia</b>	<b>28.2%</b>	<b>\$78.7M</b>	<b>12.7%</b>	<b>\$618M</b>	Egypt 21.9%, UAE 10.3%, China, Netherlands, India, Turkey, etc.
<b>Kuwait</b>	<b>21.6%</b>	<b>\$60.5M</b>	<b>17%</b>	<b>\$355M</b>	Iran 18.4%, India 12.5%, Egypt, UAE, Netherlands, etc.
<b>UAE</b>	<b>18.9%</b>	<b>\$52.7M</b>	<b>5.76%</b>	<b>\$916M</b>	India 15.9%, Canada 10%, China 7.39%, Netherlands, Iran and many others

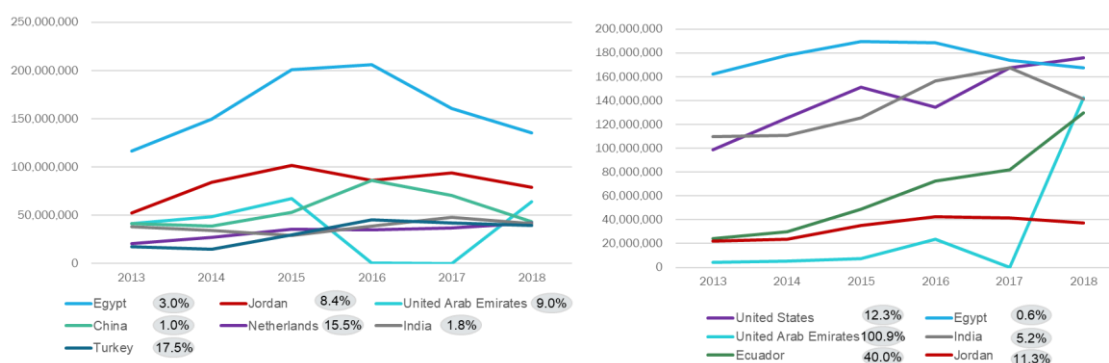
Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Table 3-2 Top Export Destinations in 2018 (Fruits)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
<b>Saudi Arabia</b>	<b>30.3%</b>	<b>\$37.5M</b>	<b>2.48%</b>	<b>\$1.51B</b>	US 11.7%, Egypt 11.1%, UAE 9.41%
<b>Kuwait</b>	<b>22.1%</b>	<b>\$27.4M</b>	<b>5.98%</b>	<b>\$458M</b>	US 11%, Ecuador 10.6%, UAE 10.2%
<b>Qatar</b>	<b>10.6%</b>	<b>\$13.1M</b>	<b>4.87%</b>	<b>\$270M</b>	India 13%, US 7.8%, South Africa 6.98%

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

Saudi Arabia imports vegetables from MENA such as Egypt and Jordan, as well as from Asia and Europe, and imports fruits from countries such as Egypt, the United States, and India. In the five years 2013-2018, Jordan's average growth rate is also strong at 8.4 percent (vegetables) and 11.3 percent (fruits).



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

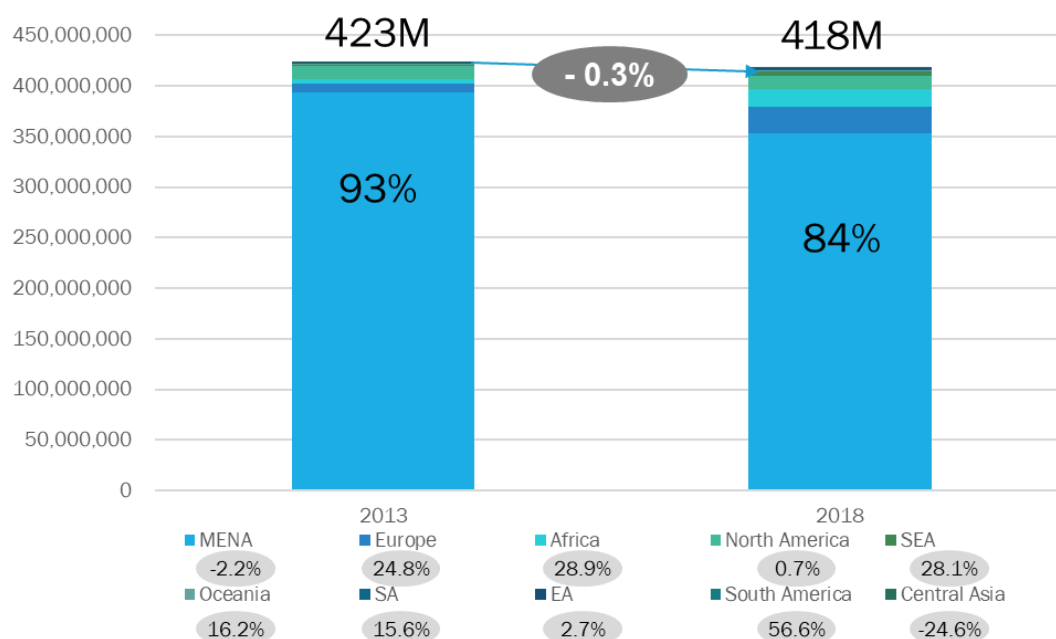
**Figure 3-2 Import Trends in Saudi Arabia (Vegetables and Fruits)**

The agricultural sector, along with the construction sector, is an industrial sector that originally has a higher proportion of foreign workers than Jordanians. One of the effects of COVID-19 is the drain of foreign workers, which caused a shortage of labor. Efforts for decent work have begun to secure the Jordanian workforce, but it is expected that it will take some time before the employment environment becomes attractive to Jordanian workers. The agricultural sector will be described in detail in the Appendix.

## (2) Food Processing

Jordan exports a variety of products from tobacco to prepared foods, livestock feed, processed vegetables and meat products, nuts, confectionery, and beverages.

The world's major markets are the United States, Europe, China, Japan, etc., and demand is steadily growing, with the United States, Europe, China being the main exporters. Exports from Jordan have remained almost unchanged between 2013 and 2018. Most of the export destinations are the MENA market, but in the last five years, exports to the Latin American, African and European markets have increased (see the figure below).



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

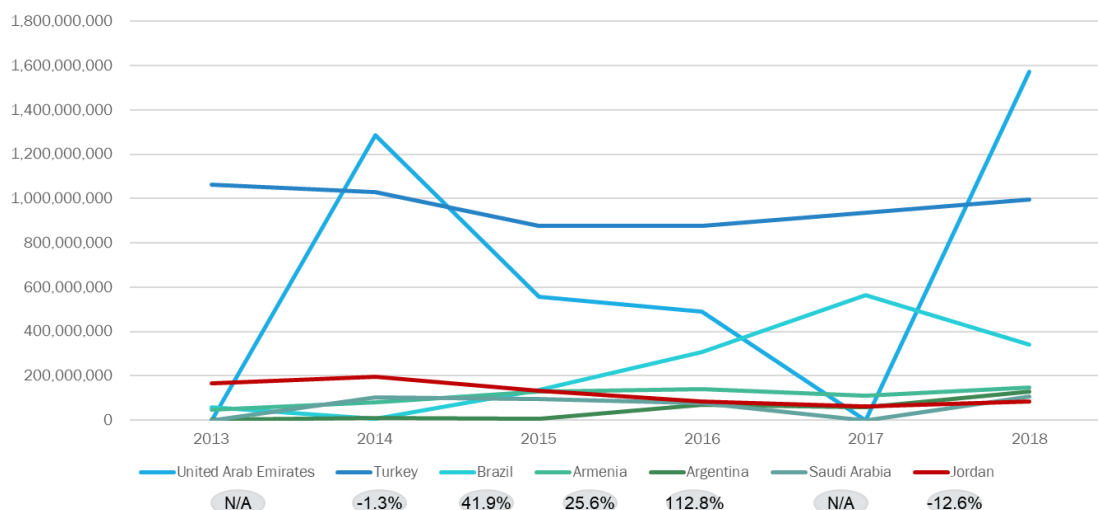
**Figure 3-3 Export Value of Foodstuffs from Jordan (USD)**

More than half of the export value is to Iraq, Saudi Arabia and the UAE, but Turkey has a large presence in the Iraqi market, and imports from Jordan are declining.

**Table 3-3 Top Export Destinations in 2018 (Foodstuffs)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
<b>Iraq</b>	20.2%	\$84.2	2.03%	\$4.16B	UAE(37.8%), Turkey(23.9%), Brazil(8.17%) Armenia, Argentina, Saudi Arabia
<b>Saudi Arabia</b>	18.5%	\$77.3	1.26%	\$6.15B	UAE(11.2%), Brazil(8.11%), US(6.6%) Turkey, and the EU like Netherlands, Denmark
<b>UAE</b>	13%	\$54.3	0.87%	\$6.26B	Brazil(8.6%), US(7.5%), and the EU like the UK, France mainly, Others: Saudi Arabia

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-4 Import Trends in Iraq (Foodstuffs)**

### (3) Chemicals (Fertilizers, Chemicals and Cosmetics)

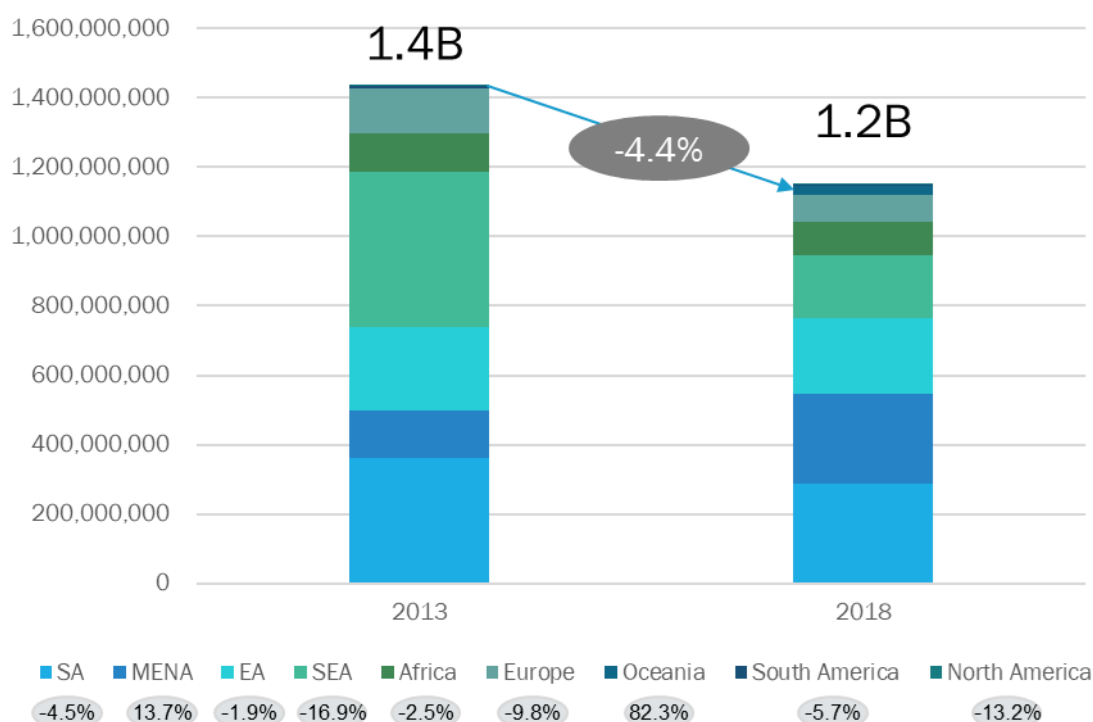
The main categories of chemicals exported by Jordan include fertilizers, inorganic and organic chemicals, and cosmetics (beauty products).

#### Fertilizers

Jordan exports fertilizers such as potassium chloride, potassic fertilizers, diammonium phosphate, and nitrogenous fertilizers.

According to data from 2013 to 2018, although consumption is increasing, the global transaction value is declining due to falling prices, and exports from Jordan are also declining. The major markets in the world include Brazil, the United States, and India, and the major export destinations from Jordan are Russia, China, and Canada, along with Indonesia, Malaysia, Japan, Africa, EU, and Australia.

Looking at export trends by region on a value basis, as shown in the figure below, exports to the MENA are growing, but those to other areas remain unchanged or declining.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-5 Export Value of Fertilizers from Jordan (USD)**

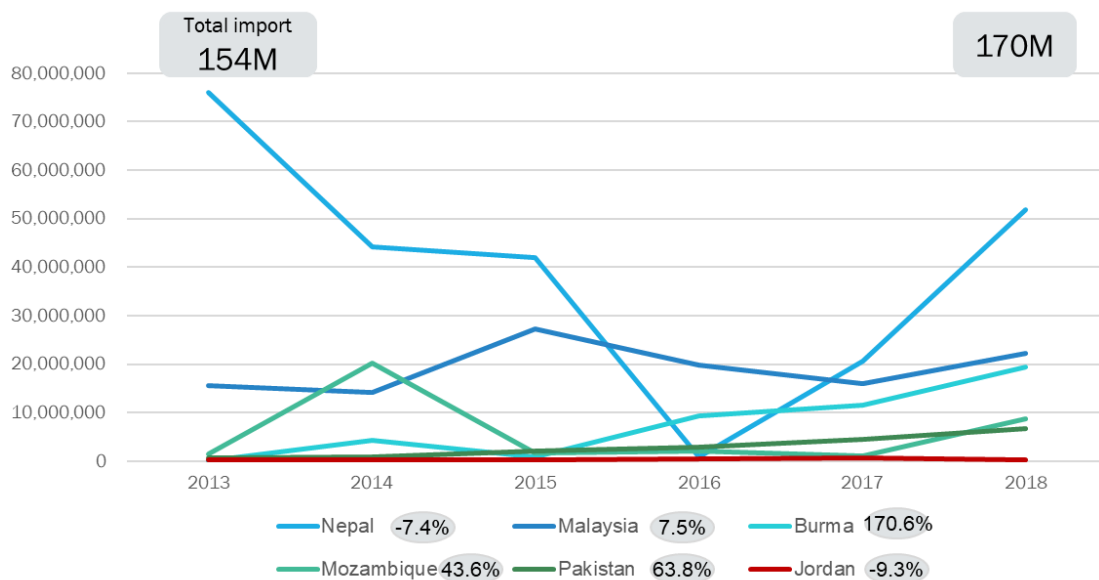
In addition, as shown in the figure below, in the top three export destination markets, fertilizer exports from Jordan have reached a market share coming next after Egypt and Russia in the Turkish market, but they do not have much presence in India and China.

**Table 3-4 Top Export Destinations in 2018 (Fertilizers)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
<b>India</b>	<b>23.4%</b>	<b>\$269M</b>	<b>4.74%</b>	<b>\$5.67B</b>	China 28.4%, Saudi Arabia 14.5%, Oman 7.67%
<b>China</b>	<b>14.1%</b>	<b>\$162M</b>	<b>5.45%</b>	<b>\$2.97B</b>	Canada 28.6%, Russia 18.9%, Belarus 13%
<b>Turkey</b>	<b>9.68%</b>	<b>\$111M</b>	<b>9.5%</b>	<b>\$1.17B</b>	Egypt 31.4%, Russia 8.19%, (Jordan)

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

In India, which is the top export destination from Jordan, the fertilizer market is growing from USD 154 million in 2013 to USD 170 million in 2018. India imports fertilizers mainly from Nepal and other countries such as Malaysia and Myanmar. Imports from countries such as Myanmar, Pakistan, Mozambique and Malaysia are growing, but imports from Jordan are limited and have been declining at a compound annual growth rate of -9.3 percent over the past five years (see chart below).



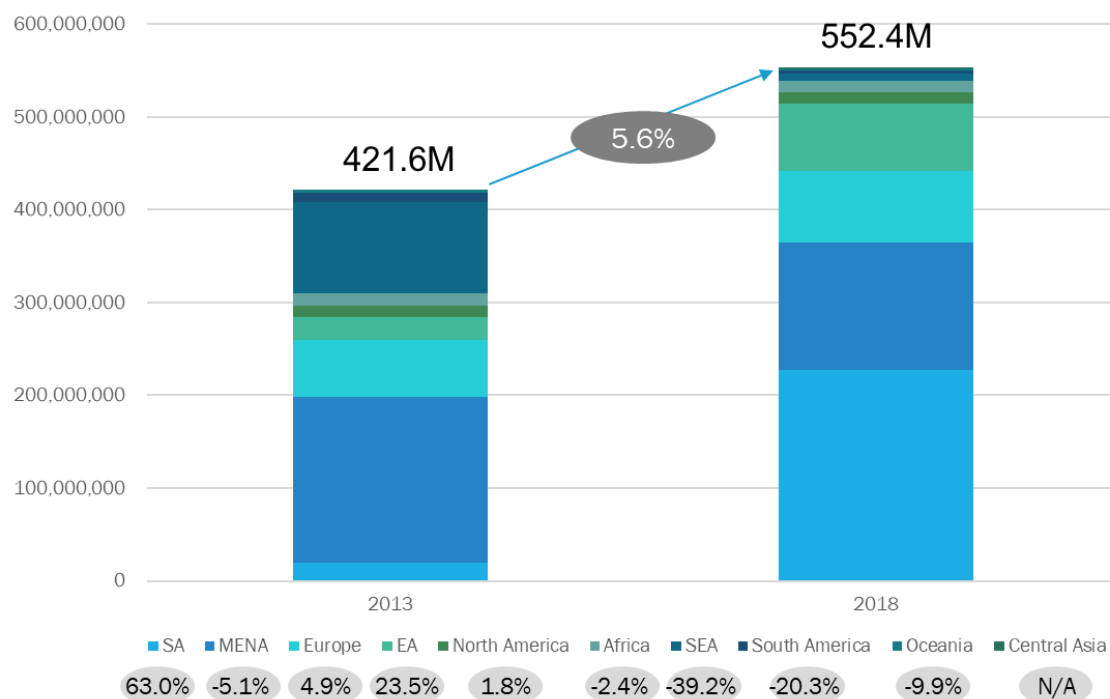
Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-6 Import Trends in India (Fertilizers) in USD**

**Inorganic Chemicals**

Inorganic chemicals with the export value next to that of fertilizer include phosphoric acid and polyphosphoric acids, potassium nitrate, fluorine (bromine), Inorganic acids, bromides and bromide oxides of non-alkali metals.

Similar to that of fertilizers, the export destination portfolio of inorganic chemicals such as phosphoric acids based on phosphorus resources existing in their own country has changed significantly from 2013 to 2018, and the share of South Asia is rapidly increasing. In addition to growth, exports to East Asia have been increasing, and the Central Asian market has been newly developed (see the figure below).



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-7 Export Value of Inorganic Chemicals from Jordan (USD)**

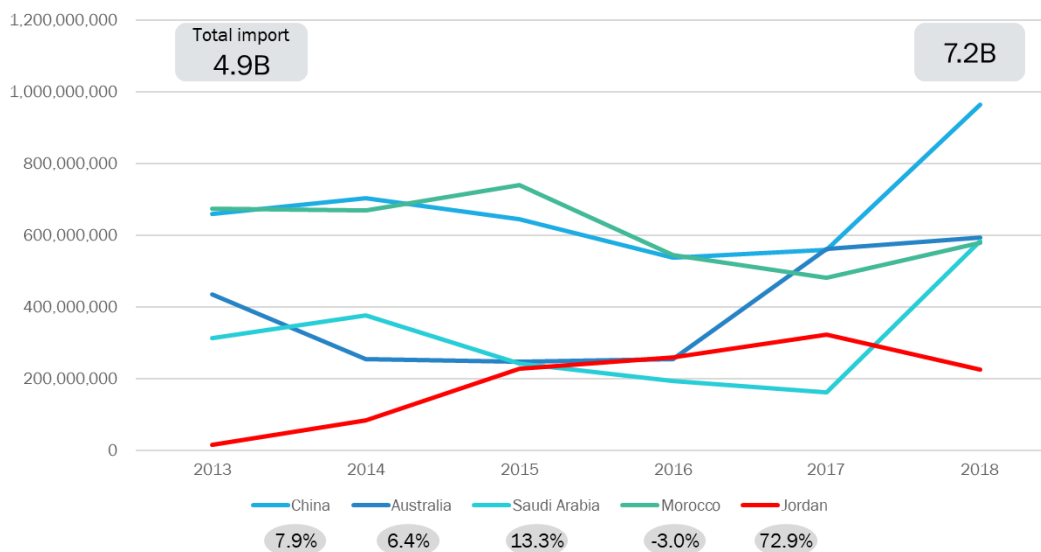
Jordan's main export destinations are India and China, which are similar to the destinations for fertilizers, with the UAE as the third-largest destination. Jordan also exports to Saudi Arabia, Israel, and EU countries such as Spain.

**Table 3-5 Top Export Destinations in 2018 (Inorganic Chemicals)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
<b>India</b>	<b>40.8%</b>	<b>\$225M</b>	<b>3.14%</b>	<b>\$7.17B</b>	China 13.5%, Australia 8.27%, Saudi Arabia 8.14%, Morocco 8.08%
<b>China</b>	<b>11.8%</b>	<b>\$65.2M</b>	<b>0.68%</b>	<b>\$10.1B</b>	South Korea 23.2%, Kazakhstan 10.4%, Germany 9.85%, Japan 9.78%, US 9.54%
<b>UAE</b>	<b>7.63%</b>	<b>\$42.2M</b>	<b>1.64%</b>	<b>\$2.56B</b>	Australia 45%, India 12.5%, China 9.76%, Qatar, Vietnam, Indonesia, Saudi Arabia

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

Inorganic chemicals such as phosphoric acid have a wide range of uses and are used in various secondary products such as food additives, pharmaceuticals, detergents, and industrial applications such as metals and semiconductors. Therefore, there is thought to be a lot of room for growth in the global market. The inorganic chemicals market in India has been growing, and exports from Jordan are growing significantly.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-8 Import Trends of Inorganic Chemicals in India (USD)**

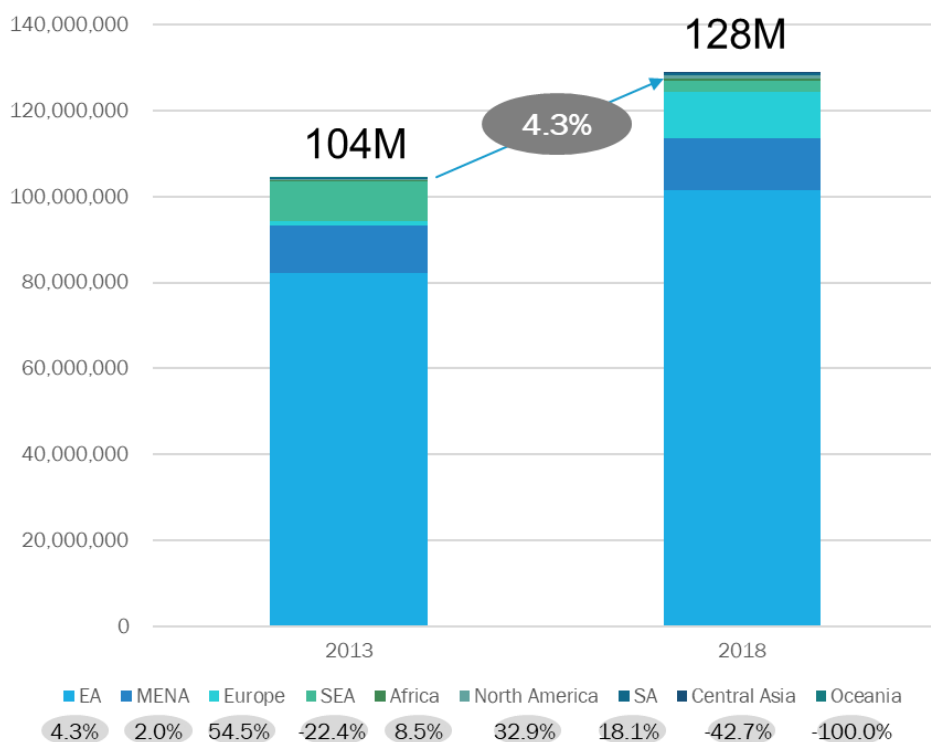
### Organic Chemicals

Most of the organic chemicals exported from Jordan are halogen phenols and include other organic compounds and vitamins. Although global demand for organic chemicals as a whole has been volatile, it is on a gradual growth trend in the long run, with China, the United States, and Germany being the main markets.

The exporters and importers of halogen phenols are fairly concentrated, and Jordan has a large share of the world market.

The largest exporters (share): Israel (23.6%), U.S. (22.7%), Jordan (19.9%)  
 The largest importers (share): China (30.3%), Taiwan (18.9%), South Korea (20.7%)

Regarding halogen phenols, Jordan is one of the world's three largest exporters, and most of the exports are to East Asia. From 2013 to 2018, exports to Southeast Asia decreased, but exports to Europe increased, leading to the overall annual growth rate of 4.3 percent.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-9 Export Value of Organic Chemicals from Jordan (USD)**

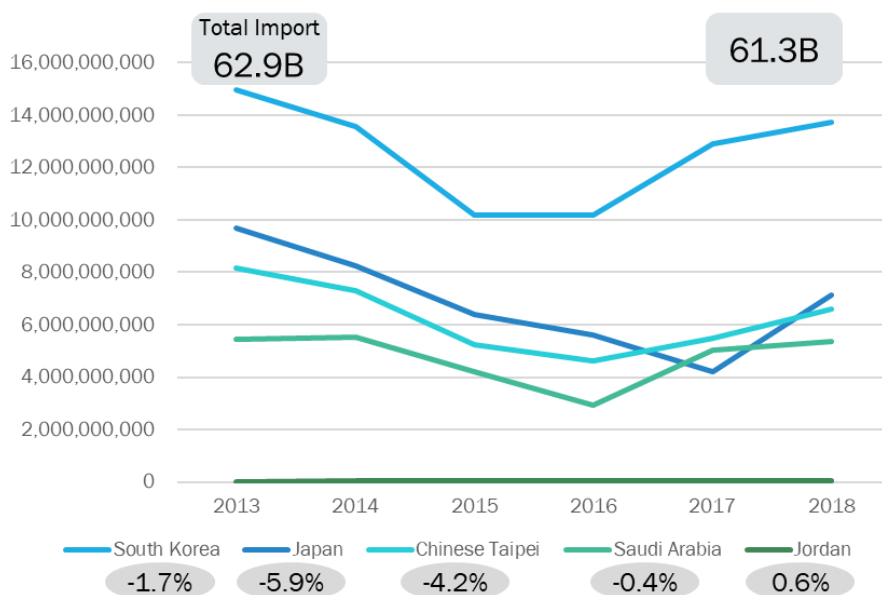
Although Jordan exports to countries such as Saudi Arabia, Japan, and Portugal, the three major export destinations, China, Taiwan, and South Korea account for more than 70 percent of the total exports. The organic chemicals exported by Jordan are limited to halogen phenols, and the presence of the share in the organic chemicals market as a whole is difficult to estimate. China imports organic chemicals from various countries such as South Korea, Japan, Taiwan, Saudi Arabia, and Singapore, but Jordan does not have a large presence in the Chinese market, with the average growth rate from 2013 to 2018 limited to 0.6 percent.

**Table 3-6 Top Export Destinations in 2018 (Organic Chemicals)**

	Share as an export destination	Export Value	Jordan's share	Market size (Total import)	Competitors in the market
China	28.1%	\$36.1M	0.059%	\$61.3B	South Korea 22.4%, Japan 11.6%, Taiwan 10.7%, Saudi Arabia, Singapore, India, US
Taiwan	24.6%	\$31.6M	0.31%	\$10B	N/A
South Korea	21.5%	\$27.6M	0.2%	\$14.1B	China 26%, Japan 19.8%, US 17.8%, Germany, Taiwan, Saudi Arabia

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data





Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

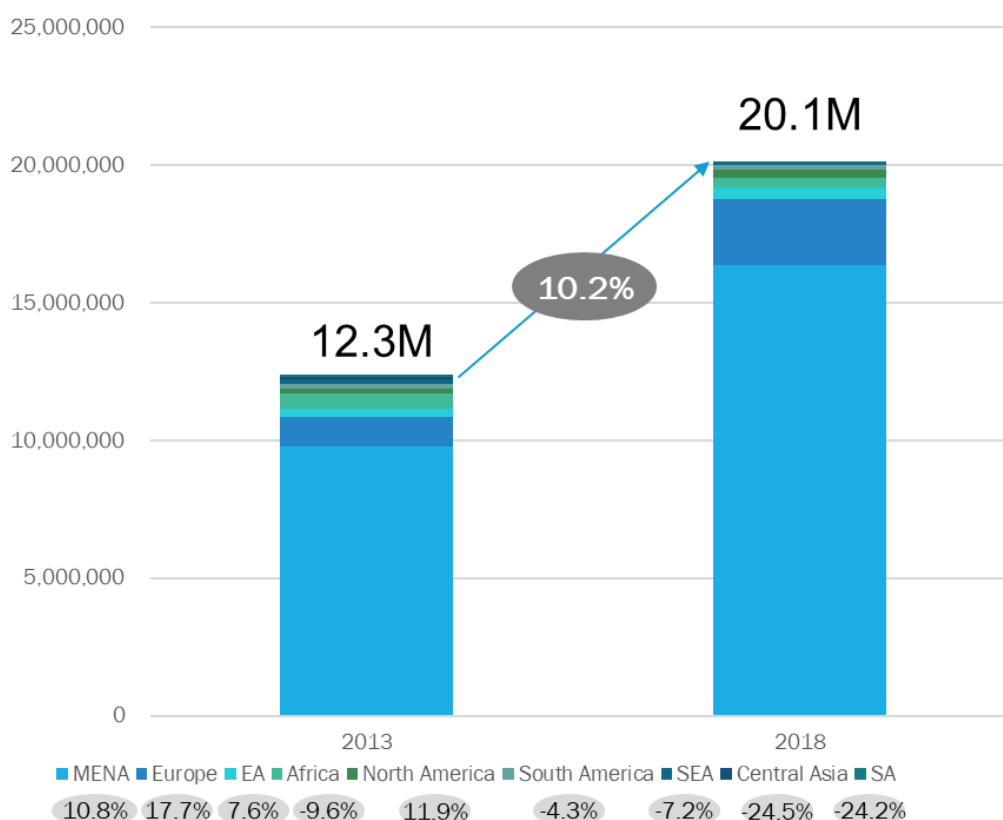
**Figure 3-10 Import Trends in China (Organic Chemicals)**

The market for halogen phenols is concentrated for both importers and exporters, and no major structural changes are expected. Therefore, it is considered that developing new organic chemicals is necessary.

### **Cosmetics (Beauty Products)**

Although its share of chemicals is small, Jordan exports cosmetics centered on Dead Sea-originated skin and hair care products. Only two countries, Jordan and Israel, can manufacture Dead Sea cosmetics products, which are unique. However, Jordanian Dead Sea products lag behind those of Israel, which has spread its brands in the global market.

In regard to the cosmetics sector, the world's major markets are growing steadily, with the largest importers in Asia such as China, Hong Kong, Singapore, South Korea, and Japan. The United States, Germany, UK, and the UAE in the MENA region are the driving force of the importers. On the other hand, Jordan's main export destinations are Saudi Arabia, Iraq, and Algeria, and exports to other MENA countries, the EU, and the Asian market including Japan are relatively small, so it can be seen that Jordan has not yet penetrated the largest markets in the world.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-11 Export Value of Cosmetics from Jordan (USD)**

However, exports from Jordan from 2013 to 2018 showed a high growth rate of 10.2 percent (above figure), and by region, Europe (17.7 percent), North America (11.9 percent), MENA (10.8 percent). East Asia (7.6 percent) has been growing. Considering the size of the world market and recent export trends, it is considered that there is potential for further growth.

**Table 3-7 Top Export Destinations in 2018 (Cosmetics)**

	Share as an export destination	Export Value	Jordan's share	Market size (Total import)	Competitors in the market
<b>Saudi Arabia</b>	33.6%	\$6.75M	1.22%	\$554M	UAE 50.2%, France 9.99%, Germany 6.43%, Other EU countries, US, Australia
<b>Iraq</b>	11.7%	\$2.35M	2.8%	\$83.8M	UAE 31.4%, Turkey 13.8%, France 8.43%, Lebanon 7.99%, Germany 7.45%
<b>Algeria</b>	8.95%	\$1.8M	4.28%	\$42M	France 68.1%, Spain 6.58%, Germany 3.46%, China 3.32%, Turkey 2.92%

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

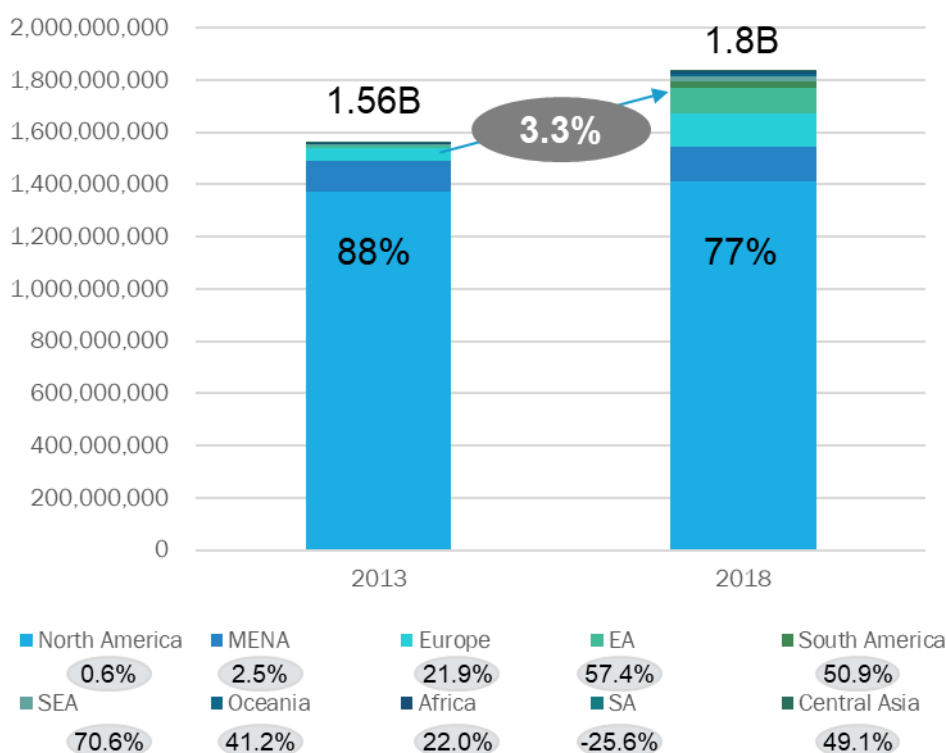
As of 2018, Saudi Arabia and Iraq, which are the main markets, import cosmetic products mainly from the UAE, and Algeria imports a large proportion from Europe including France.

In addition to the existing major export destinations, it is assumed that Jordan should focus on new market development such as UAE and Singapore, which have trade agreements with Jordan, large markets, and global hub airports.

Most of the Dead Sea products are sold to foreigners with little domestic consumption. The need for and importance of expanding exports are increasing as COVID-19 caused the loss of domestic sales to tourists in Jordan.

#### (4) Garment & Textiles

The world's major markets of the garment industry are Germany, Europe, the United States (14.5 percent), Japan (4.49 percent), and other Asian countries. The major exporters are China, which accounts for 30 percent, followed by Southeast Asia, South Asia, Turkey, and Europe. Most of the exports from Jordan are to the US market, but other markets have grown in the last five years (especially Europe and East Asia). As an export destination next to the United States, the European market has high potential, but at present, the clients of the garment industry in Jordan are mainly the US brands and retailers (Gap, JCPenney, Levi Strauss & Co., Liz Claiborne, Calvin Klein, Tommy Hilfiger, Walmart, Kmart, Limited, Sears, Columbia, Victoria's Secret, etc.).



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-12 Export Value of Garments from Jordan (USD)**

**Table 3-8 Top Export Destinations in 2018 (Knitted or Crocheted)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
United States	67.8%	\$850M	1.79%	\$47.6B	China 33.3%, Vietnam 15.5%, Indonesia, Honduras, Cambodia, India, Bangladesh
Canada	6.39%	\$80.1M	1.56%	\$5.13B	China 32.1%, Cambodia 13.2%, US 11.1%, Bangladesh 10%, Vietnam, India, Indonesia
Netherlands	3.59%	\$45M	0.58%	\$7.77B	China 21.2%, Bangladesh 9.67%, Turkey 6.64%, EU: Germany 14%, Belgium-Luxembourg 10.7%, Italy 3.52%

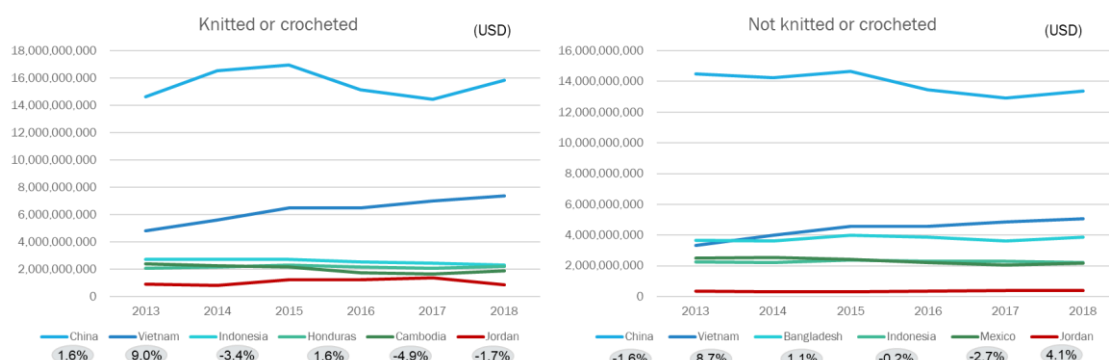
Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Table 3-9 Top Export Destinations in 2018 (Not Knitted or Crocheted)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
United States	85.9%	\$415M	1.06%	\$39B	China 34.3%, Vietnam 13%, Bangladesh 9.92%, Indonesia, Mexico, India
Canada	3.61%	\$17.4M	0.38%	\$4.61B	China 35.5%, Bangladesh 12.9%, US 12.5%, Vietnam, Cambodia, Italy, India, Indonesia
Israel	1.59%	\$7.69M	0.81%	\$948M	China 37.6%, Turkey 18.8%, Spain 7.23%, Bangladesh, Italy, Morocco, India

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

The main export destinations are North America: the United States and Canada. In particular, the US market share as an export destination of Jordan is very high at 70-80 percent. On the other hand, the US imports from many countries such as China, Vietnam, Bangladesh, and Indonesia, and Jordan has a low share of 1-2 percent. The import volume from China remains almost at the same level, while imports from Vietnam are increasing. Regarding imports from Jordan, "knitted or crocheted" decreased slightly, but "non-knitted clothing" grew at a compound annual growth rate of 4.1 percent, which is relatively strong, but the transaction level is small compared to the other competing markets.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-13 Import Trends in the US (Garments)**

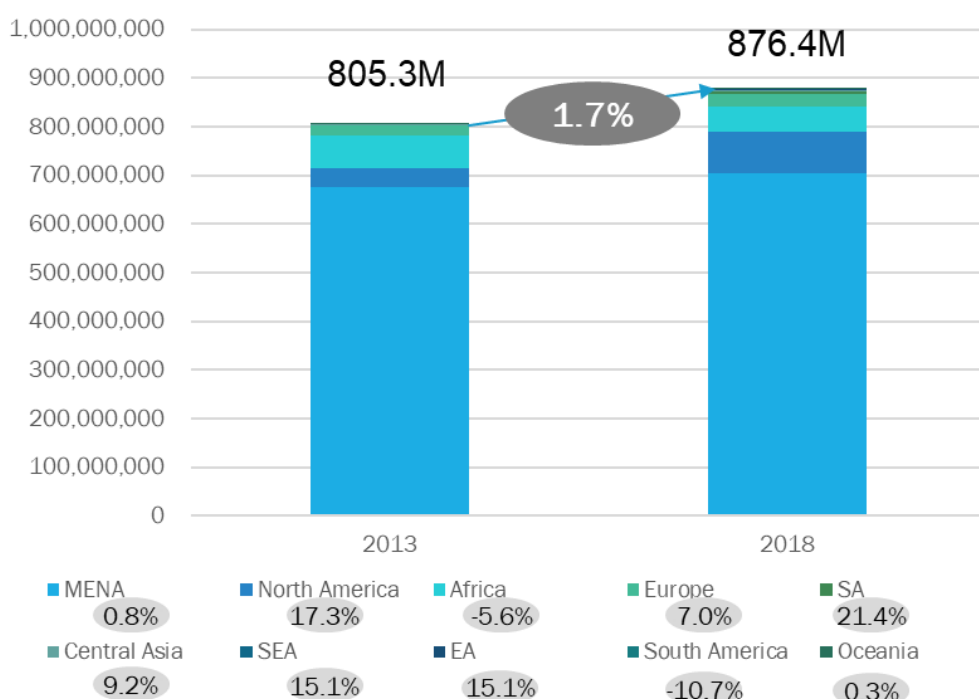
The RCA (Revealed Comparative Advantage) index, which indicates the comparative advantage of Jordan, is very high at 7.15, but the degree of economic complexity (ECI) linked to added value is low. The labor force relies on foreign workers, and the workers returning to their home countries due to COVID-19 affected the supply capacity; also, the industry is not likely to secure the employment and decent work of Jordanians. The garment sector will be described in detail in the Appendix.

## (5) Pharmaceuticals and Medical Supplies

Like the garment industry, the pharmaceutical industry is a typical export sector in Jordan, where the manufacturing industry is relatively weak, and it is also an important sector because it leads to the promotion of employment of Jordanian women.

The world's major pharmaceutical markets are Europe and the United States, as well as China and Japan, and the global demand is steadily rising. The world's major exporters are Europe, centered on Germany and Switzerland, but Jordan has a strong presence in the MENA market.

Most of the main export destinations are the MENA market, but from 2013 to 2018, it grew in all markets except Africa and South America, and exports to the United States remain strong.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-14 Export Value of Medicines from Jordan (USD)**

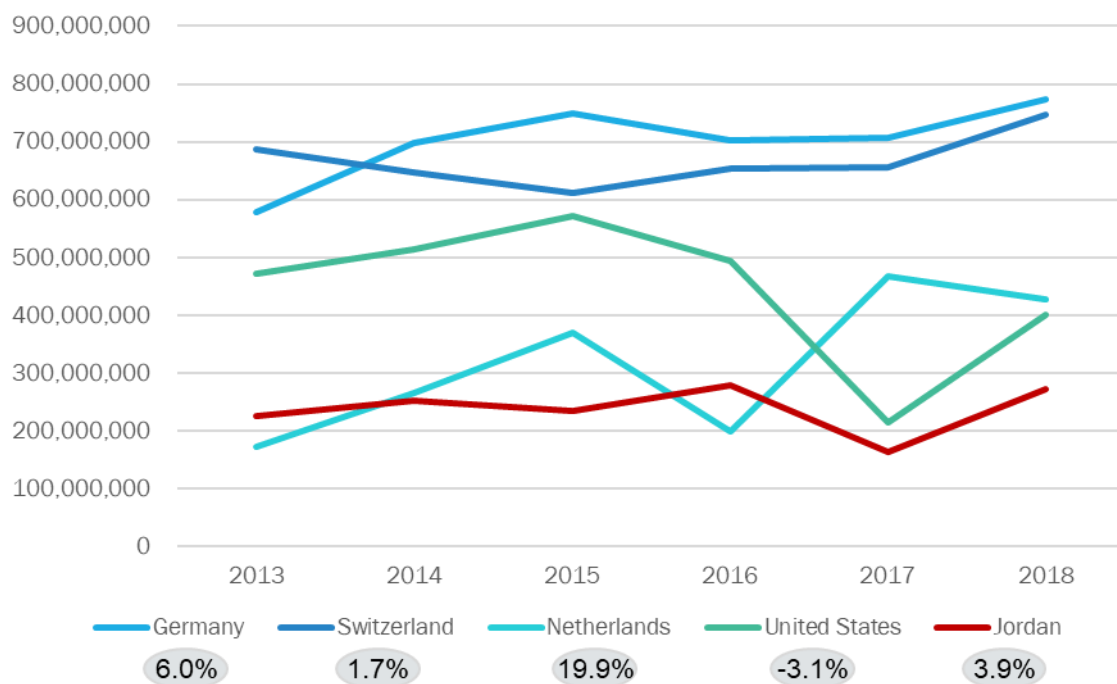
The top three export destinations are Saudi Arabia, Iraq, and the United States, and the competitors in the markets are Europe, UAE, and India.

**Table 3-10 Top Export Destinations in 2018 (Pharmaceuticals)**

	Share as an export destination	Export Value (2018)	Jordan's share	Market size (Total import)	Competitors in the market
<b>Saudi Arabia</b>	<b>31.1%</b>	<b>\$272M</b>	<b>4.97%</b>	<b>\$5.48B</b>	Mostly from Europe like Germany 14.1%, Switzerland 13.6%; US 7.33%, Jordan ranks the 1st in Asia/MENA
<b>Iraq</b>	<b>13.8%</b>	<b>\$121M</b>	<b>9.18%</b>	<b>\$1.32B</b>	Switzerland 15.9%, UK 10.5%, France 9.22%, UAE 9.19%, India 8.35%
<b>United States</b>	<b>9.67%</b>	<b>\$84.7M</b>	<b>0.072%</b>	<b>\$118B</b>	Ireland 26.5%, Germany 14.8%, Switzerland 9.94%

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

In the Saudi Arabian market, Jordan is the top exporter in the Asia / MENA region, and it can be said that Jordan has acquired the position as a main pharmaceutical manufacturing country in the MENA region.



Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Figure 3-15 Import Trends in Saudi Arabia (Pharmaceuticals)**

### 3.3 The Focus Sectors (Shortlist)

#### 3.3.1 The Perspectives of Shortlisting

As a result of evaluating each industry (excluding services) from the viewpoint of the market, Jordan's competence, and competitors, the following three sectors have been short-listed: food processing, cosmetics (Dead Sea products), and pharmaceuticals and medical supplies.

**Table 3-11 Market Viewpoint (Trading Partners)**

Industry	Market Trends (Value)	Export Trends (Value)	Jordan's export trends at the main export destinations	Potential of Trade Expansion	
Agriculture	Scale growth as the population grows	Exports to MENA decreased	Strong in Saudi Arabia	Strengthening the existing market (veg) New market dev.(fruit)	
Food Processing	Scale growth as the population grows	Export value is sluggish, but export destinations are diversified	Declining in Iraq	New market dev. New product dev. (nutrition food)	
Chemicals	Fertilizers	Volatile (Indian market is growing)	Exports decreased	Exports except MENA, Oceania decreased	Lower competitiveness due to commoditization
	Inorganic	Volatile (Indian market is growing)	Diversified markets (East/South/ Central Asia)	Strong growth in India	Strengthening the existing market, New market dev.
	Organic	Volatile (Chinese market remains flat)	Leading the world with halogenated phenols	Flat as well as the market trends	New product dev. other than phenols
	Beauty products	Soaring mainly in Asia	Highest growth rate (CAGR 10%)	Volatile in Saudi Arabia, flat in the med term	New market dev.
Garments	Scale growth but hit by the COVID-19 impact	Mostly for the US, but increasing exports to the EU and East Asia	Flat ~ increased in the US	Potential to attract European brands (without COVID-19)	
Pharmaceuticals, Medical supplies	Growth in both global / Saudi Arabian markets	Export growth is low compared to demand growth	Strong in Saudi Arabia	Strengthening the export including new market development	

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data

**Table 3-12 Jordan's Competencies Viewpoint**

Industry	Policy focus	Supply capacity (Human resources vol.)	Added-value, Employment	
Agriculture	Focus industry from the perspective of food security and export	Dependence on foreign workers; Production decreased due to COVID-19	High hurdles for Jordanian's decent work; Low complexity	
Food Processing	Focus industry along with agriculture	Sufficient human resources	Higher added value than agriculture; Labor intensive	
Chemicals	Fertilizers	No major movement	Sufficient human resources	Low economic complexity
	Inorganic	No major movement	Sufficient human resources	High economic complexity
	Organic	No major movement	Sufficient human resources	High economic complexity
	Beauty products	Expansion of exports of Dead Sea products was mentioned	Sufficient human resources (Production)	Employment scale is small, but high-added value in the chemicals
Garments	No major movement	Dependence on foreign workers; Production decreased due to COVID-19	High hurdles for Jordanian's decent work; Low economic complexity	
Pharmaceuticals, Medical supplies	Focus industry as the healthcare field	Sufficient human resources (Brain drain)	High added-value and job creation	

Source: JICA Study Team based on the Observatory of Economic Complexity (OEC) data about Economic Complexity and other published information

\* Economic Complexity correlates with high income level, economic growth, small income disparity, and low emissions, so it is adopted as one viewpoint to identify industries that have higher added value and contribute to economic growth.

**Table 3-13 Comparative Advantages Viewpoint**

Industry	RCA Index (Ranking in MENA)	Jordan's advantages	Jordan's disadvantages
Agriculture	1.63 (5th) <small>*Vegetables</small>	High vegetable yield level compared to competitors such as Egypt	Fruit yield levels could be improved; Dependence on foreign labor
Food Processing	1.42 (3rd)	Domestic agricultural and livestock products can be used as input	Production process obsolete (Need to improve productivity)
Chemicals	Fertilizers	Domestic phosphorus resources are available	(Not in particular)
	Inorganic	Domestic phosphorus resources are available	(Not in particular)
	Organic	One of the world's leading exporters of phenols	Products other than phenols are underdeveloped
	Beauty products	Domestic Dead Sea resources are available	Small scale, weak marketing capabilities
Garments	7.15 (1st)	Strong export ties with US companies; ROO relaxation to the EU	Underdeveloped supply chain to EU; Dependence on foreign workforce
Pharmaceuticals, Medical supplies	3.8 (N/A)	Specialized in generics, strong position in MENA	R & D capability is underdeveloped

Source: JICA Study Team based on the OEC data, World Bank, WITS (RCA in MENA region) and UNCTAD stat  
\*RCA index means Revealed Comparative Advantage

## **Summary**

### **Agriculture:**

Global demand is strong, and agriculture is a noteworthy industry for which strengthening measures are taken by the government from the aspect of food security. On the export side, it seems that there is potential for strengthening exports of fruits and dates. On the other hand, it relies heavily on foreign labor such as Egyptians and Syrian people, and it is difficult to attract Jordanian youth and women. The industry shows relatively low economic complexity as well. Considering these factors, it would be better to focus on the food industry by linking agriculture with food processing. Therefore, in this report, priority is given to food processing, which is an industry with higher added value.

### **Food processing:**

In the food processing industry, which processes agricultural products and livestock products to produce food, global demand is growing as in agriculture, and it is designated as a focus industry after COVID-19. Although the value of exports from Jordan has been sluggish in recent years, export destinations other than the MENA region have diversified, and there is potential for further development of new markets and new products focusing on nutrition. In addition, it is easier to create high-value-added products than agriculture, and employment creation is expected since it is labor intensive. Therefore, in anticipation of building a value chain connected to agriculture, the food processing industry will be included in the shortlist of focus sectors.

### **Chemicals (Fertilizer):**

As for fertilizer, Jordan can utilize domestically minable phosphorus resources and has strong international competitiveness, but the fertilizer sector is commoditized as a product, and it is considered that large growth cannot be expected in the long term.



**Chemicals (Inorganic Chemicals):**

Jordan also has strengths in a wide range of chemicals manufactured by processing phosphorus resources. There is room for growth in both existing and new markets, and steady growth is expected, depending on global demand.

**Chemicals (Organic Chemicals):**

Phenols make up the majority of the exports, making Jordan one of the top three exporters in the world. However, other organic chemicals are weak and new products would need to be developed to strengthen the sector.

**Chemicals (Cosmetics):**

It is a rapidly growing sector with an annual average growth rate of 10 percent, which is the highest among all categories in the listed "Goods", and global demand is also growing significantly, mainly in Asia. Although small in scale, Jordan has its own Dead Sea products, and if it succeeds in establishing its brand in Asia, Europe, and the United States, it can be expected to grow as a bigger industry. Furthermore, since the strengthening of the sector is indicated by the Jordanian government, it will be included in the shortlist.

**Garment and Textiles:**

It is a major industry in Jordan and has a high comparative advantage in the MENA region due to its strong ties with US companies and tax incentives. However, the industry relies heavily on the foreign labor force and is unlikely to lead to the employment of Jordanian youth and women.

**Pharmaceuticals and medical supplies:**

The sector is of high added value and is attracting a great deal of attention due to COVID-19. Global demand will continue to be strong, and the proportion of women in the labor force is high, so the effect of creating jobs for highly skilled human resources and women is also high. Considering these factors, the sector will be included in the shortlist.

Regarding the service industry, the shortlist will cover two sectors; medical tourism, which is considered to be promising in the tourism sector, and the ICT industry, which is considered to have a promising impact on other industries through innovation and DX.

**Medical / Wellness Tourism:**

The entire tourism industry has been hit hard by COVID-19, but the niche sectors such as trails (tourism targeting nature such as adventure tourism), medical tourism, and film tourism are expected to be recovered first after the COVID-19. His Majesty King Abdullah has also indicated Jordan's intention to focus on the niche sectors. Jordan has advantages in medical tourism, which is closely related to the pharmaceutical and medical supplies sector. Also, wellness tourism is considered to be compatible with Dead Sea cosmetics, therefore medical and wellness tourism is included in the shortlist.

**Information and Communications Technology (ICT):**

The sector is of high added value and the proportion of women in the labor force tends to be high. Since Jordan-based companies such as Maktoob, which was acquired by Yahoo in the US, have shown their presence in the Middle East from an early stage, the government has high expectations as a pillar of a new industry. In addition, there are some companies such as Aumet, which develops medical supplies sales services that utilize IT, that greatly increase sales during the COVID-19 pandemic and tech-based startups are expected to improve the quality of life in post-COVID. For these reasons, the ICT sector will be included in the shortlist.

### 3.3.2 Analysis of the Focus Sector (Shortlist)

The following section will summarize the overview, policies, and issues for each focus sector that were collected and analyzed in the desktop research.

#### I. Manufacturing

##### (1) Food Processing

The food processing industry is expected to grow as the population grows in the MENA market and Jordan. The food processing industry is a sector that is regularly monitored and regulated by the Jordanian Food and Drug Administration (JFDA) because it has a direct impact on human health, both in nutrition and food hazards. The sector is made up of several informal small businesses, including home businesses, farm businesses, dairy products, small shops selling Arabic sweets, jams and more. Food processors tend to hire more women in quality control activities and production activities that require patience and intensive labor.

The food processing sector has 11 sub-sectors, employs approximately 49,935 workers as of 2017, most of which are Jordanian. Revenues in 2016 were JOD 4,112 million, equivalent to 6.3 percent of gross domestic product (GDP). The export value is 524.8 million dinars (2017), which is 10.2 percent of Jordan's total industrial exports. It accounts for 25.9 percent of net added value in Jordan's industrial economy. Therefore, the food processing industry is a strategically important sector along with agriculture.

The food and beverages industry consists of the following subsectors:

- Processing, preserving of meat and meat products
- Canning and preserving of fruits and vegetables
- Manufacture of vegetable oil and fats
- Manufacture of dairy products
- Grain mill products
- Manufacture of prepared animal feed
- Manufacture of bakery products
- Manufacture of cocoa, chocolate, and sugar confectionaries
- Manufacture of other food products
- Distilling, rectifying and blending of spirits; ethyl alcohol production from fermented materials, and manufacture of malt liquors malt
- Manufacture of soft drinks.

About 99 percent of Jordan's industry is micro enterprises, and more than 95 percent of the food processing industry is SMEs. Jordan's food processing industry is made up of more than 3,500 operating companies that employ approximately 30,000 people. There are more than 30 major players in the food processing industry registered with the Jordan Chamber of Industry.

The food processing industry is one of Jordan's major export sectors and has grown rapidly since the early 2000s, primarily through the Middle East and North Africa (MENA) markets. The food processing industry accounts for 15 percent of the total number of industrial facilities in Jordan, with a maximum of 2,645 industrial facilities. According to data from the Jordanian Food and

Drug Administration, the total export value in 2019 was JOD 530 million. Dairy and poultry products are self-sufficient, and Jordan's food exports have reached 70 markets around the world.

Jordan's population is growing rapidly, and its self-sufficiency rate is low except for dairy sub-sectors. The fact that Jordan imports 90 percent of its food supports this claim, but most of the imports are basic items, such as sugar and wheat, which Jordan does not produce (or for which it does not have a comparative advantage). The proportion of processed products consumed in the domestic market is increasing, and the market is expected to expand.

According to a Jordan Investment Commission (JIC) study, the food industry supplies 47.2 percent of market needs. Jordan has signed trade agreements with the European Union (EU), Arab countries, the United States, etc., and the environment for trade promotion is in place, but the competitiveness of Jordanian products needs improvement to utilize these agreements. Jordan's traditional export market is around MENA, with exports to MENA in 2016 accounting for 28.76 percent of Jordan's total exports. The crisis in Syria and Iraq not only reduced direct exports, but also indirectly reduced exports to other countries as it affected logistics due to border closures and instability. Nevertheless, the Arab market still accounts for about 75 percent of Jordan's processed food exports, and the regional Arab market remains Jordan's main export market, accounting for more than 75 percent of processed food exports. The remaining 25 percent is mainly in North America and Europe, with Arabian sweets, processed fruits and vegetables, and ready-to-eat meals being exported to new markets such as Europe.

The opportunities for exports are created with the adoption of an “orchard-to-market approach” such as to consolidate production and establish economical packaging, storage, and marketing functions for the post-harvest stage of fruits and vegetables. Efforts are being made towards high-value-added products such as foods for children, frozen foods, and packaged products with vitamins added, the use of by-products of dates palms, and fruit concentrates (fruit jam, pickles) are also considered. Dealing with organic foods, ethnic foods, and foods that contribute to health and nutrition, which are popular trends in the international market, is an opportunity to expand exports to the global market. For example, dried dates stuffed with nuts have nutritional benefits.

As a new move, some SMEs and NGOs are developing brands such as “Tuneib” and “Jordan River”. These brands utilize micro businesses, consisting of mainly women, to develop products that are sold as homemade products. In addition, the sale of dried and stuffed dates using e-commerce is promising because it can be exported quickly without a large investment. In addition, Agri / food-tech start-ups such as Decapolis (a startup company from Jordan that enables food safety and quality assurance using the blockchain method) are also emerging, combining agriculture and food processing. It is also expected that there will be a move to promote innovation in the entire food supply chain.

### **(Employment Effect)**

Since fruits and vegetables processing requires not only manual workers but also university education, both unskilled and skilled personnel can provide employment opportunities for women. In addition, in areas such as pickling, dates processing and RTE foods, small production entities can be established near agricultural areas, providing easier access to the rural population. The general participation rate of women in the food processing industry is about 15 percent, but at Al Durra, a major company with more than 250 employees, more than 50 percent of the employees and three out of five food professionals are women (2017).

### **(Donor Support to Food Sector)**

- In the industrial promotion of this sector, support is also provided by donors, and JEDCO.
- GIZ conducted a survey by Jordan's Food Sector Analysis and Strategy (2019), although it is the entire sector, and the sector supports Kaizen and lean management practices for the food processing industry and overall management capacity. He also points out cluster development and value chain formation.
- JEDCO is providing support to food processing sector companies, such as capacity building for continuous trade promotion and distribution costs for exports, although not by the overall food sector. Furthermore, in recent years, SMEs have formed MOUs with investment institutions to receive funding from investment funds. (2020)

### **(Measures in response to COVID-19)**

As concerns such as food security have been expressed, and in response to COVID-19, the government set out the food production committee (newly established in April 2020). The committee was established under the direction of the King to implement short-term and long-term food production development for quality improvement, and efforts to expand exports. The Chairmanship is headed by the Jordan Industrial Estates Co (JIEC.) In the course of this, various market research is conducted, and investment projects are also being considered. In response, JEDCO's activities shown above are likely to be carried out. It is noted that the support projects and initiatives continue to unfold.

In the recovery from COVID-19, the government is considering measures focused on this sector and is expected to formulate a strategy for growth along with food security. Furthermore, it was reported from the results of the various surveys that the export capacity in food processing is more in the range of about USD 50 million. On the other hand, there is the issue that agricultural production, which is the source of raw materials in food processing, is still import-dependent. For example, about 25 percent of dairy products are import-dependent, and includes low-priced alternatives such as powdered milk. Structural problems such as the penetration of foodstuffs is pointed out, so that it is necessary to reconstruct and enhance the value chain of specific foodstuffs in relation to the agriculture sector. The table below shows the issues and countermeasures.

### **Policy and Issues**

In the recovery from COVID-19, the government is considering measures focused on this sector and is expected to formulate a strategy for growth along with food security. Furthermore, it was reported from the results of the various surveys that the export capacity in food processing is more in the range of about USD 50 million. On the other hand, there is the issue that agricultural production, which is the source of raw materials in food processing, is still import-dependent. For example, about 25 percent of dairy products are import-dependent, and includes low-priced alternatives such as powdered milk. Structural problems such as the penetration of foodstuffs is pointed out, so that it is necessary to reconstruct and enhance the value chain of specific foodstuffs in relation to the agriculture sector. The following table shows the issues and countermeasures.

**Table 3-14 The Issues and Countermeasures (Food Processing)**

<b>Subjects</b>	<b>Issues</b>	<b>Countermeasures</b>
Productivity Improvement	It is important to improve the productivity of the food industry to secure profits and invest capability in SMEs, and it is necessary to improve the overall productivity of each region and sub-sector. It is also clear that productivity needs to be improved and made more sophisticated, and management capabilities must also be enhanced.	The measure is to redevelop the value chain in industrial clusters and support business development services (BDS) in this sector. The introduction of methods for companies such as Kaizen to increase productivity on site.
Human Resource	The SMEs face challenges such as lack of skilled workers, reliance on traditional methods, lack of international certification, low involvement of women and lack of professional hygiene. The lack of skilled and educated professionals has delayed the application of food safety systems at the production site level. There is also a need to address the lack of marketing strategies for exports and the capacity building of workers and managers.	It is necessary to improve efforts such as BDS for small and medium-sized enterprises, capacity building for support organizations such as the Chamber of Commerce, and vocational human resources education.
Securing Technological Capabilities	There is room to adopt the latest production technologies and technologies to strengthen the value chain that integrates agriculture and food processing, and to improve competitiveness and promote innovation in the entire food supply chain that combines agriculture and food processing. In addition, SMEs continue to produce according to traditional production techniques and processes, lacking innovative culture and application.	It is also necessary to respond to investment to improve the sophistication of production. In addition, measures such as matching support between startups and SMEs that are emerging in Jordan may be effective.
Formulation of Marketing Strategy	To expand exports, it is necessary to develop new products, as well as market research and marketing strategy by region and sub-sector to meet demand mainly in existing and developed countries.	Since there is no organization that represents the food industry, it is possible to formulate the strategy with the support of a public executing agency. It is conceivable to further improve cost competitiveness such as through productivity improvement and market expansion, and to improve the provision of BDS to strengthen the capacity for trade promotion.
Building Value Chains with Agriculture	Agricultural production, which is the source of raw materials in food processing, is low, and raw materials are still import-dependent, so it is necessary to rebuild a value chain that is integrated with agriculture.	Measures such as cluster development and building a value chain with agriculture in the region can be considered.

Source: JICA Study Team

## **(2) Cosmetics (Dead Sea Products)**

The committee, which was launched in April 2020 during the COVID-19 pandemic, plans to increase investment in the pharmaceutical industry, dietary supplements, and cosmetics such as Dead Sea cosmetics.

The cosmetics market category includes skincare, makeup, haircare, and fragrances. Jordan has small and medium-sized brands centered on Dead Sea skincare and haircare products that utilize the ingredients contained in Dead Sea minerals. The products are targeted mainly at visiting tourists from overseas and most of the products are exported. Specifically, the representative products include face masks using mud or the Dead Sea minerals, toner, face/body/hand/foot cream, bath products such as bath salts, body scrubs, and shower gel. Many brands also handle skincare products and fragrances other than the Dead Sea mineral-based lineups (e.g., olive oil, pomegranate, lavender), and the term “Dead Sea Products” in this report refers to "Dead Sea-related cosmetics".

The world's major markets are mainly in Asia such as China, Hong Kong, Singapore, South Korea, and Japan, as well as the United States, Germany, and the United Kingdom, and UAE is the largest importer in the MENA market. On the other hand, Jordan's major export destinations are Saudi Arabia, Iraq, and Algeria, with the top three being MENA. In addition to MENA, it also exports to EU markets such as France (8.31 percent) and Asia, with those to (Japan at 0.14 percent; but exports to UAE, East Asia, and Singapore, which are the major cosmetics markets in the world, are still small. It is thought that there is room for export expansion in the future.

Saudi Arabia mainly imports from UAE, EU countries such as France and Germany, and Turkey. When the scope is narrowed to Dead Sea cosmetics, Israel, which also has the Dead Sea in its territory, is the competitor. Also, raw material export destinations (Turkey, China, etc.) can be potential competitors in the low-price range. This section organizes information by focusing on Dead Sea cosmetics, which drew the attention of the government after COVID-19, and the sector in which Jordan has uniqueness and potential for export competitiveness.

Jordan's main Dead Sea cosmetics brands include Trinitae and Rivage, but the Dead Sea cosmetics brand of Israel such as SABON and AHAVA have succeeded in establishing brands in the international market including Japan.

Jordan's Dead Sea products sector has more than 25 companies, comprised of small and medium-sized enterprises with low-volume production and small market shares. Only three players are considered large in terms of supply capacity, and even Rivage, one of the major companies, employs only about 100 workers. The Dead Sea Products Association (DSPA) exists as an industry group and has jurisdiction over legal and regulatory efforts and research support to meet the needs of the members of the Dead Sea products manufacturing sector.

There are 28 companies registered with DSPA as of 2018, although this number does not cover all companies in the industry as smaller ones are not registered. It is pointed out that the Dead Sea products sector is relatively developing, there are no economies of scale among most players, and the industry group had not been able to build partnerships among manufacturers.

According to an interview with major Dead Sea product manufacturers conducted by Euromonitor International, the industry employs about 380 people, with about half full-time and half-time workers. In terms of geographical distribution, the production of Dead Sea products is scattered throughout the country and there is no specific development hub.

Some players focus primarily on the domestic market and do not focus much on exports, while some players mostly focus on the export market, and the attitude towards having one's own brand differs, as shown in the table below.

**Table 3-15 Major Manufacturing Companies in Dead Sea Products Sector**

Company name	Domestic / Export orientation	Features
The Jordanian Egyptian Company	Focusing on export markets	Produce predominantly for domestic and foreign private label and give less emphasis to their own brands (strong in private label manufacturing)
Rivage	Focusing on export markets	Own brand positioned at the higher end of the market
Trinitae Cosmetics	Focusing on export markets	Own brand with a flagship store in Amman as well as in international markets positioned at the premium segment
Dead Sea Fortune	Predominantly on the local market	Own brand
Haifa	Predominantly on the local market	Own brand

Source: GIZ Report (Value Chain Analysis of the Chemicals Industry in Jordan)

All cosmetics manufactured in Jordan (including Dead Sea products) must meet the requirements set by the Jordanian Food and Drug Administration (JFDA) for registration, testing, and compliance with Good Manufacturing Practices (GMP). In addition, the Jordanian government frequently revises its tax system and investment incentives, and the Dead Sea products sector pointed out that mineral taxes, taxation on cosmetic products, and taxation on exports burden their profitability.

### **Overview and Issues of the Value Chain**

The following table shows the average cost share and profit margin of the Dead Sea production.

**Average Cost and Profit Margin**

Metric	Share of Cost
Labor & Fixed Costs	19%
Raw Materials	30%
Packaging	23%
Transportation & Clearance	5%
Maintenance	8%
Research & Development	3%
Profit Margin	12%

Source: Euromonitor International from trade interviews via GiZ report

At first glance, the profit margin seems to be around the same level as that of the general cosmetics industry. However, it is noteworthy that the number does not include marketing expenses (advertising / PR), which usually accounts for about 20 percent of the price in the cosmetics industry. Many companies are thought not actively engaged in marketing due to their small scale, and if marketing expenses reach 10 percent of sales, the profit margin will almost be lost in the current structure.

The section will organize the overview and issues of the value chain from R&D to sales and human resources.

### **(i) Research and Development (R&D)**

R&D includes activities such as testing new formulations, testing new ingredients, and adjusting existing formulations to meet the needs of consumers in different markets. Expenditures are capitalized and amortized but are a significant additional cost to the enterprise. R&D costs for the industry on average are very low due to the small number of large companies.

There are many private research institutes in Jordan, but only three or four have the necessary conditions (equipment, for example) and certifications to effectively provide the necessary services. One of the most reputable laboratories with the necessary equipment is the Royal Scientific Society (RSS) but the research and testing costs are high. Hence, some companies began to outsource R&D activities to overseas research institutions to remain cost competitive.

Many companies in the Dead Sea products sector of Jordan lack the means to carry out R&D activities by themselves and the financial capacity for product testing. There is also a lack of know-how regarding best practices for conducting R&D activities to develop cosmetics from Dead Sea raw materials. Therefore, as alternatives, the companies use outsourcing of R&D lab services, imitation of existing prescriptions, and modifying prescriptions to the extent of not violating intellectual property.

In response to these R&D issues, the high costs of conducting R&D and testing in Jordan, the return of investment costs, and the lack of financial capacity are the main constraints of R&D activities. Therefore, cost subsidies and measures as below can be considered as options.

- Set up a centralized R&D lab available to companies (with subsidies)
- Providing services from government research institutes or research institutes of higher education institutions (with subsidies)
- Funding research programs (developing new ingredients / formulations and promoting innovation)
- Providing subsidies for R&D expenses

### **(ii) Raw Materials Procurement**

Only one company, AlNumeira, which is a former state-owned company, has exclusive rights to extract and sell mud and salt, the raw materials for Dead Sea products, making it the only supplier. AlNumeira has been under private control since the Jordanian government sold a majority stake in AlNumeira's parent company, Arab Potash Co, in 2003, but the company remains an exclusive supplier.

Due to its monopoly position, there is difficulty improving QCD (quality, cost, delivery), which imposes additional costs on manufacturers. For example, the manufacturing company needs to perform additional processing, which increases the cost, due to insufficient quality of raw materials, and it takes six months to deliver after procurement, and the price continues to rise. Most of the companies interviewed by Euromonitor International told they have experienced “continuous rises in raw material prices” over the past few years.

AlNumeira prioritizes the export market over the domestic market, so delivery to domestic companies tends to be delayed. There are also structural problems in that the monopoly position of the supplier disincentivizes improving quality, price, and delivery. However, it is difficult to improve this problem in a short time frame and lobbying by the industry group, management and regulation by the Jordanian government will be required.



### **Box 2 Potential Risks regarding the Export of Raw Materials**

Turkey, China, and Syria are said to procure Dead Sea mud and salt from Jordan and Israel to produce Dead Sea products locally. Israeli Dead Sea product companies source some of their major raw materials (Dead Sea mud and salt) from Jordan but have succeeded in keeping raw material prices low with volume discounts when purchasing raw materials. In 2019, the supplier Al Numeira and its parent company Arab Potash Co announced a partnership with a major Chinese cosmetics company to strengthen its mining business from the Dead Sea in Jordan, trying to strengthen overseas exports of raw materials.

However, the export of raw materials (salt, mud, etc.) from the Dead Sea to countries such as China carries the potential risk of intensifying competition with low-priced finished products made overseas. Inexpensive competitors have been identified as a risk factor for the development of Jordan's Dead Sea products sector, as the low-price products reduce Jordan's Dead Sea cosmetics opportunities in the international market.

#### **(iii) Production**

The Dead Sea products companies, which are mostly SMEs, have a production capacity issue in which supply cannot keep up if they receive large orders from overseas customers.

According to an interview, a mid-sized company received an inquiry from the US retailer Walmart about prices and quantities, but none of the companies in the sector (neither individual nor combined) could meet the enormous demand; therefore, the proposal had to be declined (Euromonitor International).

Packaging, which has an important position in the cosmetics industry to enhance product attractiveness, is also an important cost factor in the manufacturing cost, and accounts for about 20 percent of revenue. Dead Sea product companies are procuring packaging from overseas suppliers because high-quality packaging is not available in Jordan. Jordanian companies that provide high-end Dead Sea products usually procure packaging from the EU, while middle-to-low-end companies import from countries like China, Taiwan, and South Korea. Problems when procuring packaging from overseas suppliers include delays in customs clearance of imported products and minimum order lot requirements, making timely procurement more difficult than domestic sourcing.

In order to mitigate these risks, major companies in the industry have taken measures such as maintaining an inventory of packaging and placing orders in bulk, but small companies often have no means to deal with the issues, which hinders timely production and delivery.

In addition to these delays and uncertainties in the supply of raw materials and packaging, the finished products (Dead Sea products) do not have a long shelf life, making it extremely difficult to maintain optimal inventory levels. Most manufacturers choose to keep inventories to a minimum or not have inventories, but they cannot handle sudden orders, which hurts sales. The inventory level of Dead Sea product companies ranges from 0 percent (such as companies that do not keep stock and produce on an order basis) to 10 percent (mainly major companies with large overseas clients, which makes it important to maintain the service level and ability to fulfil orders quickly). Therefore, improving the efficiency of production planning and inventory management to meet demand is considered to be a significantly important issue. As a countermeasure, support for optimizing production and procurement plans based on the sales forecast can be considered.

Also, inconsistency in the implementation of GMP programs by JFDA is pointed out as an issue in the certification process. Although the introduction of GMP provides quality standards that facilitate access to regulated markets such as the US and EU, there are voices of dissatisfaction that the involvement of multiple government agencies results in inconsistent requirements, communication, and practical application. Especially for SMEs, the lack of financial capacity required to introduce the GMP program puts a heavy burden on the companies.

Although it is an issue for the entire manufacturing industry, not limited to the Dead Sea products sector, an increase in utilities costs such as water, electricity, and communication is also a factor pushing down profits, and cross-industry measures such as improving energy efficiency and cost reduction are required.

#### **(iv) Distribution**

Finished products for export are distributed directly to export agents or overseas shops, retail stores, and spas. Delivery is usually handled by the manufacturers with an additional fee. This cost would be higher if an intermediary such as a wholesaler is involved and can be lower if a manufacturer has a contract with a retailer, or if a manufacturer operates its own shop.

In recent years, e-commerce (EC) has been attracting attention as a new channel for global sales of Dead Sea products. Trading through e-commerce channels is still only a small part of the total, but it can become an important channel for sales and branding as part of a comprehensive marketing strategy.

One of the issues related to exports is a large tax burden.

In addition to the 16 percent sales tax, the “mineral tax (JOD 50 per kilogram of minerals used)”, the 25 percent tax on cosmetics including Dead Sea products, and the 25 percent income tax on exports add to the total cost of Dead Sea product manufacturers. It can reach up to 50 percent of the tax, which can lead to a decrease in product competitiveness in the international market (Jordan Industrial Council).

#### **(v) Marketing and Sales**

Demand for Dead Sea products in Jordan is concentrated in retail stores in Amman and the “Dead Sea Spa” in Amman and the north coast of the Dead Sea. Most Jordanian consumers buy regular soaps and cosmetics at low prices, but Dead Sea products are primarily targeted at high-end markets, and their main target will continue to be overseas consumers or foreigners visiting Jordan.

However, marketing activities for export depend on promotion at international exhibitions, and there are no consistent branding and marketing activities.

Jordanian Dead Sea Products companies participate in trade fairs and exhibitions in such countries as Poland, Morocco, the United Arab Emirates, and the United States, but many of the efforts are generally ineffective, regarding targeting and positioning products, and have not led to building global branding and marketing strategy.

Most companies lack the technical and financial capacity needed for marketing activities and lack highly skilled marketing and sales personnel (generally college graduates do not have the work experience needed for marketing). For this reason, it is considered that there is a limit to marketing activities by industry and individual companies. It creates a necessity for capacity building, human resource development, or intervention of trading/marketing companies that externally reinforce marketing functions.

#### **(vi) Human Resources**

In competition at the global level, the number of specialists with advanced skills, especially in fields such as R&D (necessary for innovation and prescription development), marketing and sales, is limited, which is a major obstacle to international business development. The current situation is that the Dead Sea product industry is trying to solve the problem by seeking human resources with the necessary skills from the international human resources market rather than investing in human resource development inside the companies.

As a measure to strengthen human resources, multiple vocational training programs were held by many stakeholders including the Chamber of Commerce, but these programs had little effect on the sector development as they did not meet the specific needs and skill level required by the sector, according to an interview with a Dead Sea product company (by Euromonitor International).

The following measures can be considered for providing skill training required at each stage of the value chain.

- Production site: Implementation of vocational training programs for youth
- R&D and Marketing Sales:  
Considering the introduction of career paths connected to the university curriculum (e.g., cosmetic science, global marketing), combined with career counseling
- Providing practical training in collaboration with companies and higher education institutions
- Planning and implementation of in-house training (after the capacity building of industry groups/stakeholders)

#### **The Impact of COVID-19**

Due to the sharp decrease in tourists due to COVID-19, sales of company-owned stores and spas in Jordan, which depended on inbound tourists, decreased, and some factories were shut down. As a result, the Dead Sea products sector is expected to see a decrease in exports by 60 percent.

The consumption of cosmetics, especially Dead Sea products, is either for product exports or inbound tourism. Most companies in the sector rely heavily on inbound tourism, and sales have fallen to near zero as the products are not a necessity for domestic consumers. In addition, restrictions and regulations imposed during lockdown have slowed product exports. Also, during the first months of the lockdown related to COVID-19, permission to reopen factories was not guaranteed, so some Dead Sea product factories switched to manufacturing personal disinfectants and personal care products.

Operations resumed in mid-May 2020, but it is reported that the production volume is about 25 percent of the conventional level, and many companies have unsold products in the warehouse.

#### **Countermeasures**

Since the Dead Sea products sector is composed of a small number of large companies and a large number of SMEs, access to finance is an issue. Another issue for exporters is a lack of technical and financial capacity to hedge foreign exchange risk.

Medium-sized Dead Sea products companies have evaluated JEDCO's grants and loan support measures, in an interview with Euromonitor International, thus financial support will continue to be needed.

Jordan's Dead Sea products face intensifying competition from Israel, which has successfully established its brand, and from Dead Sea products manufactured in other countries (China, Switzerland, Turkey, etc.). Jordan must aim to establish a position in the global market. Therefore, branding and marketing activities aimed at expanding export destinations (new markets) and expanding exports to existing markets are indispensable. Specific measures include comprehensive marketing strategies including PR and branding to raise awareness of Jordan Dead Sea products, strengthening EC channels, and strengthening marketing and sales functions (intervention of human resources or trading companies). Generally, cosmetics companies invest heavily in advertising, but small and medium-sized companies in Jordan do not have the financial capacity, hence it is of great significance to provide public support in this part. It is also possible to consider policies to link wellness tourism and Dead Sea products, which will be described later.

According to an industry interview, the top export destinations for Dead Sea products include the United States, EU, Russia, China, and GCC countries (Euromonitor International). From 2013 to 2018, companies focused on expanding exports to the Asian market, and it is said that demand for Dead Sea products in China, Indonesia and Singapore has been particularly strong.

Therefore, it is desirable to strengthen marketing activities mainly in the UAE, the United States, Europe, and Singapore, the countries that have already signed trade agreements with Jordan. In particular, the UAE and Singapore have international hub airports that are used by many international passengers, so marketing at airport duty-free shops may be effective. Secondly, the Chinese market, which has a huge market size, could be a promising target market, as it is increasing imports of Dead Sea products from Israel but has a low share of Jordanian Dead Sea products.

### Box 3 Export Value and Destinations of the Dead Sea Cosmetics (Jordan & Israel)

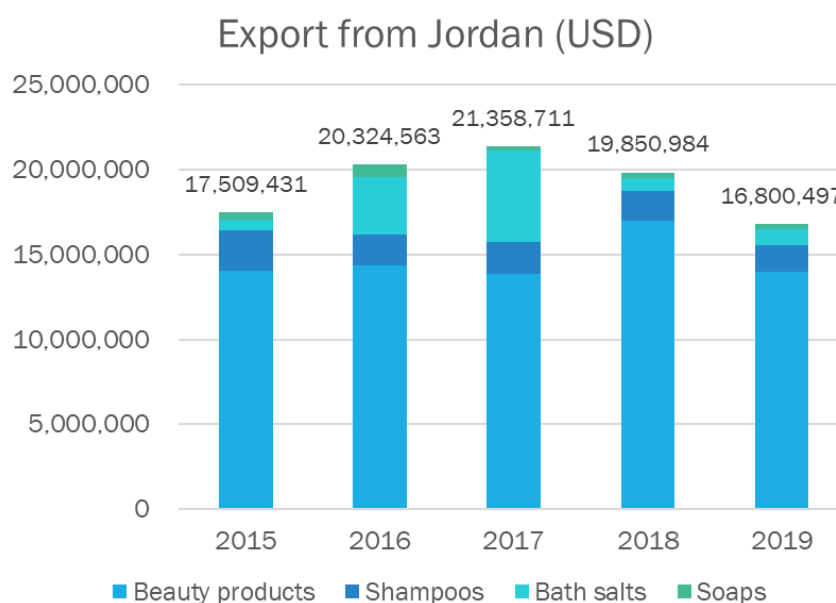
The data was collected based on the HS Code to estimate the export market size and the export destinations of skincare/haircare/bath products from Jordan and Israel, including Dead Sea-related cosmetics. The figures are estimated using the HS Codes that include Dead Sea-related Cosmetics, so the figures include products other than the Dead Sea products, rather than the "Dead Sea products" category itself.

The following HS Codes were covered in the calculation.

- HS330499\_Beauty, makeup and suntan preparations nes
- HS330510\_Hair shampoos
- HS330730\_Perfumed bath salts and other bath preparations
- HS340119\_Soaps for purposes other than toilet soap, solid

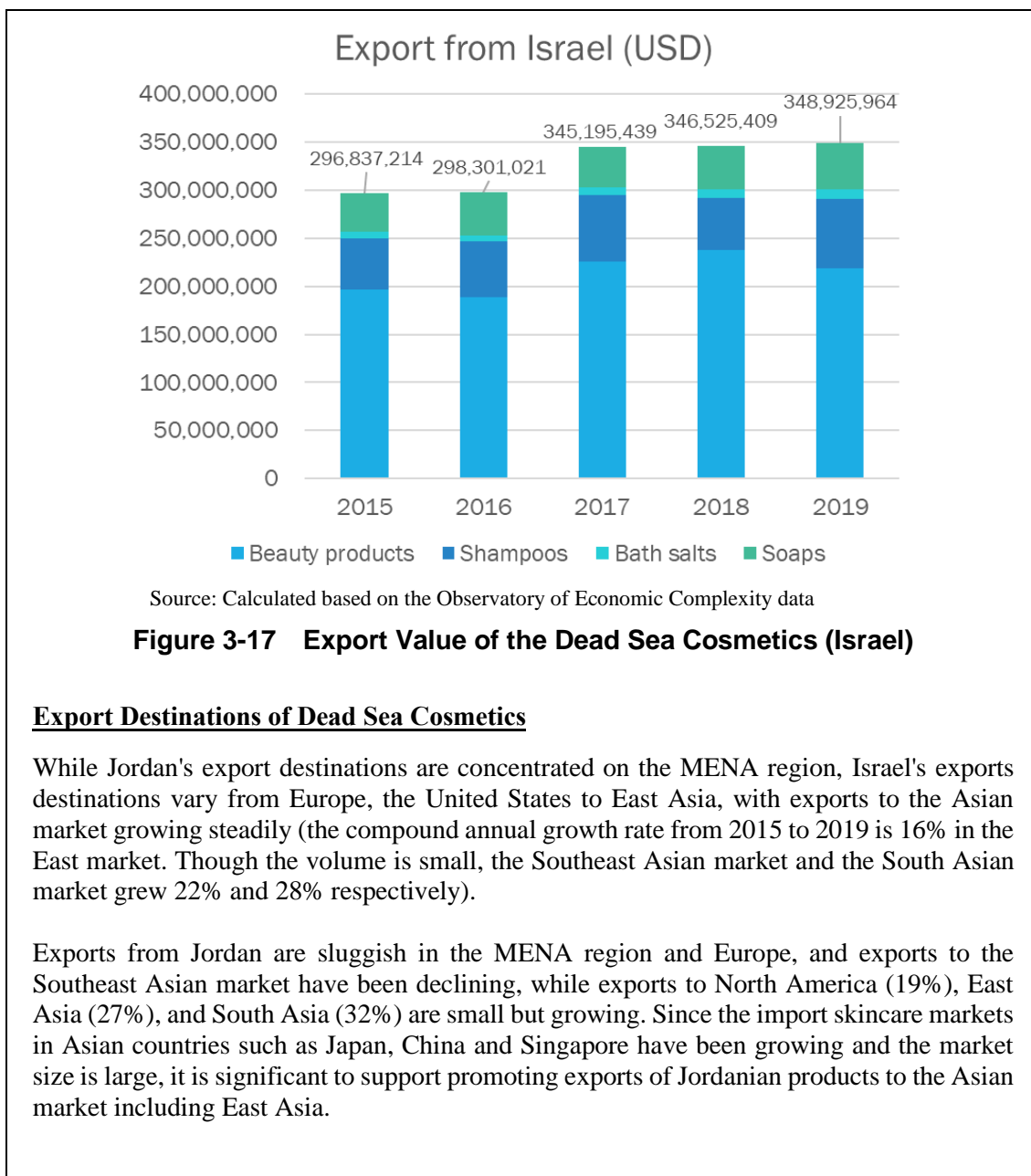
#### Export Value of Dead Sea Cosmetics

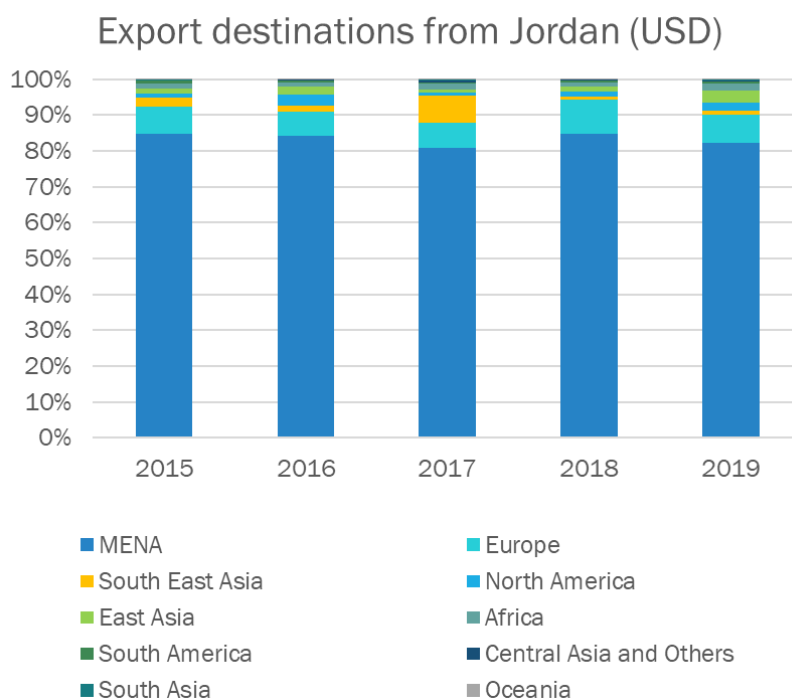
Jordan's export value (based on the amount of USD) has been about 17 to 20 Million USD, while Israel exports about 20 times of that amount, reaching to 350 Million USD.



Source: Calculated based on the Observatory of Economic Complexity data

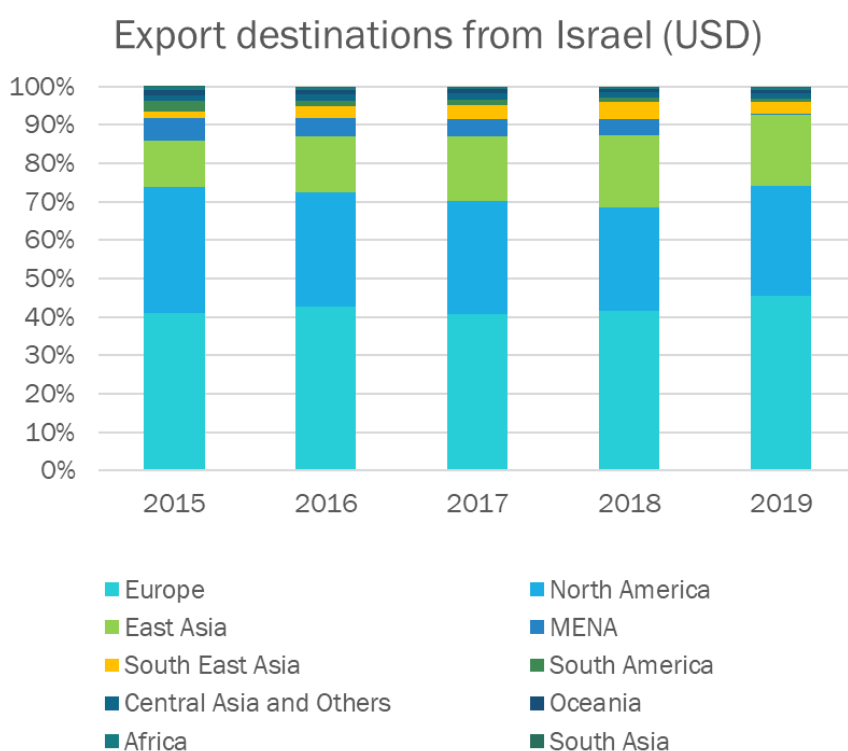
**Figure 3-16 Export Value of the Dead Sea Cosmetics (Jordan)**





Source: Calculated based on the Observatory of Economic Complexity data

**Figure 3-18 Export Destinations from Jordan (Proportion)**



Source: Calculated based on the Observatory of Economic Complexity data

**Figure 3-19 Export Destinations from Israel (Proportion)**

## **Policy and Issues**

His Majesty King Abdullah II's remarks on post-COVID-19 industrial promotion included increasing investment in cosmetics (Dead Sea products), but a comprehensive industrial promotion policy for the sub-sector has not been published. The issues of the Dead Sea products sector by the value chain are summarized in the table below.

**Table 3-16 The Issues and Countermeasures (Dead Sea Products)**

<b>Category</b>	<b>Issues</b>	<b>Possible Countermeasures</b>
R&D	<ul style="list-style-type: none"> <li>R&amp;D activities are restricted by the high cost of conducting R&amp;D and testing in Jordan, investment costs, and the lack of financial capacity.</li> </ul>	Setting up R&D labs that provide services or facilities to companies, subsidies for R&D costs, etc. (low priority)
Raw material procurement	<ul style="list-style-type: none"> <li>The monopoly structure with a sole supplier (Al Numeira) causes problems with quality, cost, and development of procurement.</li> </ul>	(Support as a project is not applicable as government intervention is required.)
Production	<ul style="list-style-type: none"> <li>Limited production capacity</li> <li>Inconsistency in the implementation of the certification process and GMP program</li> <li>Cost of utilities such as water, electricity, and telecommunications</li> </ul>	Streamline production planning and inventory management to meet demand, support for facilitating program implementation at JFDA, which is in charge of certification (medium priority)
Distribution	<ul style="list-style-type: none"> <li>Heavy tax burden on exports</li> </ul>	(Support as a project is not applicable as governmental intervention is required for the taxation system.)
Marketing and sales	<ul style="list-style-type: none"> <li>Lack of technical and financial capacity and human resources required for conducting marketing activities</li> </ul>	Capacity building of marketing functions of support organizations, human resource development, strengthening of EC / digital marketing for the entire industry (high priority)

Source: JICA Study Team

Since most manufacturers are small and medium-sized enterprises, R&D, production management, and financial support are relevant but, first, the strengthening of marketing/branding would be the most crucial step. In particular, inbound demand has almost disappeared due to COVID-19 (the Dead Sea products sector was recognized as the sector most affected by COVID-19 as of August 2020), and a V-shaped recovery in tourism is not likely in the short term. For this reason, the enhancement of cross-border EC (export of products) is an urgent issue.

In Israel, which is the biggest competitor of Jordan, the sector is comprised of many small companies as in Jordan (AHAVA has about 200 employees, and SABON has about 100 employees), but government agencies actively provide export support for Israeli Dead Sea products.

For example, the Foreign Trade Administration under the Ministry of Economy implements a program that provides subsidies for marketing and the use of professional services. Likewise, the Israel Export and International Cooperation Institute (IECI) engages in initiatives such as promotion to the global market (e.g., financial support for national pavilions at trade fairs), business matchmaking, and promotion of networking among stakeholders (diplomatic forces, commerce, and academia).



Jordan's Dead Sea product manufacturers do not allocate a sufficient budget for promotion and marketing, and do not have access to the latest information on the global market. Although international exhibitions are a very important channel, they are underutilized as the companies are often not well prepared. Furthermore, the companies have their websites but search engine optimization (SEO) and the use of social media have not been actively utilized. GIZ conducted a market analysis of Dead Sea products in the Chinese market in 2019 and published a market report, but it is desirable to have Jordanian organizations that could regularly conduct such market research.

Possible countermeasures include training human resources with marketing skills and collaborating with companies that have marketing functions (e.g., establishing joint ventures with trading companies, agencies, marketing companies, etc.). However, the companies in the Dead Sea cosmetics sector, in general, are said to be reluctant to train human resources in Jordan, as they are concerned that the trained talent with invested time and cost might move to another company.

Therefore, the following measures can be considered as public support: marketing function support through public support organizations, export support, capacity building of support organizations, and enhancement of promotion for Jordanian Dead Sea products overseas (not limited to B2B exhibitions, but for B2C online marketing including social media).

### **(3) Pharmaceuticals and Medical Supplies**

The pharmaceutical industry has been growing since the 1960s, and its export value in 2018 was USD 876.3 million, which is one of the major industries accounting for 10.6 percent of the total export value. Jordan exports to about 70 countries, and its main partners are Saudi Arabia, Algeria, Sudan, and the UAE. Twenty-seven countries, including the United States, Switzerland and Germany, have conducted clinical trials in Jordan.

Morocco is emerging as a new player in the pharmaceutical market, and there are other moves toward in-house production in countries such as Saudi Arabia, Sudan, and Algeria. In the MENA region, the pharmaceutical market is expected to grow further through an increase in the number of individuals covered in private health insurance and the development of medical tourism.

Jordan is considered a pioneer in the pharmaceutical industry in Arab countries, producing high-quality, cost-effective generics, with an estimated USD 1.2 billion market in 2018. The share of generic medicines is 85 percent in terms of quantity, but the price is much lower than that of the original medicines, so its share on a value basis is about 40 percent.

It exports more than 75 percent of domestically produced medicines including antibiotics and vaccines, and half of them are said to be generic medicines. The pharmaceutical sector is divided into two markets: (1) prescription drugs (drugs prescribed by doctors) and (2) over the counter (OTC) drugs (face-to-face sales at pharmacies). An estimated 70 percent of the medicines manufactured in Jordan are prescribed by doctors and 30 percent are OTC medicines. Jordanian pharmaceutical companies have strong ties with the FDA in Arab countries, offering high-quality OTC brands and generics to the Arab market at competitive prices. Jordanian pharmaceutical companies strive to supply medicines in the GCC countries, the Levant region and the North Africa region with timely delivery times and efficient logistics management.

The pharmaceutical industry has created about 26,000 direct and indirect jobs (as of 2016) and is indispensable for solving the high domestic unemployment rate. In addition, women are said to account for 40 percent of the labor force, making it a promising source of employment for Jordanian women.

In Jordanian pharmaceutical companies, pharmacists work in all departments, including R&D, quality control, legislation, sales, and marketing, but they generally manage inventory and pharmacy. The wages paid to unskilled workers in the packaging and distribution sectors are low (minimum monthly JOD 280), which also contributes to the cost competitiveness of the pharmaceutical industry.

As of 2018, 23 companies in the pharmaceutical industry are registered with the Jordan Pharmaceutical Manufacturers Association (JAPM), primarily producing out-of-patent generic drugs. Both public and private healthcare systems source from these manufacturers, and doctors, hospitals and pharmacies typically purchase medicines directly from manufacturers or through distributors.

The major pharmaceutical companies are below:

**Table 3-17 Major Pharmaceuticals Manufacturing Companies**

Hikma Pharmaceuticals (HIKMA)	A multinational company established in 1978, listed on the London Stock Exchange since 2005, Hikma was the first Arab drug manufacturing company to successfully pass FDA inspection and obtain FDA approval for some of its products and the first Arab company to obtain British MHRA (Medicines and Healthcare Products Regulatory Agency approval to register and export one of its products to the UK. The company develops, manufactures, and markets a broad range of solid, liquid and injectable generic and licensed pharmaceutical products, based principally in the MENA region.
MS Pharma/ United Pharmaceutical Manufacturing	United Pharmaceuticals was founded in 1989 in Jordan, and since then it has been working on developing, manufacturing, and marketing a wide range of high-quality brands in the local market and exporting them to more than 20 countries worldwide. MS Pharma manufactures and markets branded–generic medicines via strategic markets across the Middle East, Turkey, and Africa.
Dar Al Dawa Development and Investment Company (DADI)	The company was established in Amman in 1975. It was one of the first pharmaceutical companies to enter the Jordanian market; the company specializes in the development and manufacturing of pharmaceutical products, both own-brand products and licensed products through partnerships and alliances.
Pharma International Company (PIC)	It is a leading biopharmaceutical corporation established in 1994, in Jordan. The company’s product portfolio addresses therapeutic classes that includes anti-infectives, nervous system, respiratory system, cardiovascular and lifestyle conditions.
Arab Pharmaceutical Manufacturing Company (APM)	APM, which was founded in 1962, is a pharmaceutical and healthcare company based in Amman. It operates two main production facilities, in Al Salalem and Buhayra. APM produces dozens of products and is listed on the Amman Stock Exchange’s (ASE) Weighted Index, and is now listed under the AL-Hikma Group.
The Jordanian Pharmaceutical Manufacturing (JPHM)	This Jordan-based company was established in 1978 and is listed on the Amman Stock Exchange. The Company’s principal activity is the manufacture and production of medicine, medical appliances, and cosmetics.
Middle East Pharma and Chemical Industries and Medical Appliances Company (MPHA)	The company was founded in 1993 and is engaged in the distribution and manufacture of pharmaceuticals.
Hayat Pharmaceutical Industries Company (HPIC)	This Jordan-based company was established in 2007. It specializes in the manufacture, import, export, and marketing of general medicinal products.

Arab Center for Pharmaceuticals and Chemical Industries (APHC)	The company was established in 1983 and is a leading manufacturer of empty hard gelatin capsules. It is currently owned by Middle East Pharma and Chemical Industries and Medical Appliances Company.
Philadelphia Pharmaceuticals (PHIL)	The company, established in 1993, started commercial production in 1997 and was listed on the ASE in May 2010. The company produces 69 pharmaceutical products, specializing in generic drugs used for human medications.

Source: GIZ Report (Value Chain Analysis of the Pharmaceutical Sector in Jordan)

The main players are large companies, as HIKMA has 2,000 employees, MS Pharma has 213, DADI has 900, and Pharma International has 1,000 employees.

As of 2018, Hikma had the top market share (value basis) of 23.1 percent, United Pharmaceutical Manufacturing (part of MS Pharma) had 15.9 percent, Dar al DAWA had 14 percent, Pharma International had 12 percent, and APM had 10.2 percent and the remaining 24.8 percent was held by the other companies (Euromonitor International Trade Analysis 2019 via GIZ report). Jordanian pharmaceutical companies such as MS Pharma are entering biotechnology through partnerships with other companies rather than direct manufacturing in Jordan.

Drug prices are fixed by the Jordanian Food and Drug Administration (JFDA), so companies are trying to differentiate themselves by building their brand. Manufacturing companies also allocate about 5 percent of their production capacity to outsourced manufacturing by global pharmaceutical companies.

In Jordan's pharmaceutical industry, specialization in generic drugs is one of its strengths, but generic drugs are also a difficult category to differentiate. Therefore, the industry may need efforts to diversify products (especially categories not produced in other GCC countries) and to develop new export destinations. Existing research suggests that new market development is promising in sub-Saharan Africa, non-EU Eastern Europe, and the Caucasus, and measures such as trade and research training can be considered options.

### **Challenges at Each Stage of the Value Chain and Direction of Support Opportunities**

#### **(i) Research and Development (R&D)**

Due to the predominant production of generic drugs in Jordan's pharmaceutical industry, investment in R&D is limited, and the industry invests in the formulation and manufacture of non-patented drugs. However, investment in innovation and brand differentiation is not common for most manufacturers. R&D costs for pharmaceutical companies are less than 1 percent of revenue due to a lack of funding and a full focus on cost-effective operations. Jordanian pharmaceutical lab teams are investing primarily in product development through formulation and stability. Regarding drugs that require bioequivalence studies (a test to prove that a generic drug has the same efficacy and effect as the original drug) the studies are conducted by Contract Research Organizations (CROs).

Jordan enacted a law in 1999 to conduct bioequivalence testing through CROs, with seven CROs in the country providing clinical and bioanalytical services to the pharmaceutical industry.

Manufacturers can manufacture domestically registered medicines, even if the patent has not expired, within five years from the date of data registration (except when the patent is registered in Jordan).

Although Jordan's specialization in generic drugs is one of its strengths, it is difficult to create differentiating factors. In the future, diversification of products such as higher value-added products and highly profitable alternative drugs such as super generics and biosimilars is desirable. Therefore, support such as research funding, financial assistance for new product development, and support for the development and provision of specialized training on innovation and cutting-edge technology can be considered.

### **(ii) Sourcing (API and Additives)**

Pharmaceutical companies mix drug substances and additives to produce the final product (the drug). A drug substance (manufactured via a compound of raw material) is called an active pharmaceutical ingredient, or API. Most of the APIs are imported primarily from China and India. According to JFDA, manufacturing companies can have up to three suppliers, and they can select one from the three companies according to the lead time to procure and register the API. The criteria that pharmaceutical companies consider when choosing an API supplier are quality, effectiveness, and price. Additives are available at low prices from Europe and have shorter lead times compared to APIs supplied from India and China, so there are no particular procurement issues. Jordanian companies often import APIs from India and China, and additives from Europe. Due to the small size of the Jordanian market and economies of scale, there is no domestic procurement of APIs, and imports are cheaper. However, this does not mean Jordan lacks the technical know-how for API manufacturing, and Hikma is the only pharmaceutical company in Jordan that owns an API plant, specializing in oncology.

There are many product conditions imposed by JFDA for API approval, such as stability data, impurity data, analysis methods, analysis method verification, and synthetic route diagram specifications. From 2019, all API manufacturers will be required to register with JFDA and, if they do not register, they will have to pay an additional 35 percent of the API cost.

Countries around the world rely heavily on two countries, China and India, for API procurement. In the United States, in March 2020, the impact of COVID-19 disrupted the supply chain of Chinese APIs, resulting in a shortage of some pharmaceutical supplies. In addition, against the backdrop of growing concerns over API shortages, India issued restrictions on the export of some APIs (equivalent to 30 percent of the country's export capacity) in the same month, exacerbating concerns about further drug shortages.

Although API manufacturing in Jordan is not cost-effective, it would be necessary to build a strong and flexible API procurement supply chain from abroad to Jordan from the viewpoint of a stable supply of medicines.

### **(iii) Registration**

The drug registration process is very long and complex and is one of the most prominent challenges faced by pharmaceutical companies. According to the JFDA, the registration process officially takes six months, in 2018, which is comparable to the registration process in other markets such as Saudi Arabia, Algeria and Tunisia. However, according to the companies, the registration process actually takes more than two years in total.

Challenges faced by the JFDA during the registration process include a shortage of full-time assessors and inadequacy of submitted registration documents. The assessor is a scholar who works part-time (less than 8 hours a week) and the evaluation process is inconsistent. In addition, there are many deficiencies in the CTD (Common Technical Document) submitted by companies, which requires additional time for assessment.

On the other hand, the challenges faced by manufacturing companies include legal compliance costs, R&D, and lack of regulators. Due to the frequent imposition of changes by regulators, compliance with legislation is burdensome, requiring additional time, expense and effort. Also, the persons in charge of submitting the documents required for registration often lack the technical know-how for preparing the necessary documents and are not aware of the latest information on laws and regulations.

Therefore, it is necessary to improve the efficiency of the registration process to streamline the sales of pharmaceutical products by manufacturing companies. USAID has already started a support program in 2019 in this field, through the Jordan Competitiveness Program (JCP) 2019 that provides JFDA with support for rationalization and automation of the drug registration process in Jordan. This aims to shorten the time it takes to bring pharmaceutical products to market from more than two years to just over a year and to enhance the competitiveness of exporting companies.

#### (iv) Production

##### Share of costs in the production of pharmaceuticals in Jordan in 2018

Metric	Share of Cost
Labor & Fixed Costs	15%
Raw Materials	5-15%
Packaging	6%
Utility Costs	4%
Transportation & logistics	3%
Research & Development	1%
Registration	1%
Export & Agent fees	20%
Marketing	20%
Profit Margin	15%

Source: Euromonitor International trade analysis, 2019 via GIZ

Manufacturing costs are relatively low and profit margins are high, but export costs account for a large proportion so, if these costs can be reduced, profitability is expected to improve further.

Most of the packages are sourced from China with a lower production cost. There are no special packaging requirements to distinguish between OTC and prescription drugs, but packaging depends on the type of API used in the drug and the country of sale. Most companies produce an additional 10-15 percent of their inventory in addition to their orders to avoid overstocking and reduce storage costs and waste levels.

As in the other industries, the issue in the production phase is increasing utility costs such as electricity and water costs, and investment in renewable energy and improved access will be required.

#### (v) Distribution and Sales (Export)

The main players in the export supply chains are Jordanian manufacturers and exporters, export agents handling export licenses (Aramex, DHL, AL Naseer Company), customs officers permitting the transportation of medicines, importers in the destination country for customs clearance.

Key challenges in the export process include lack of knowledge of destination country registration requirements, export costs and rules of origin (ROO).

Destination country registration requirements: Registering a new product with an overseas FDA can be time-consuming and difficult, especially when exporting to African countries where rules tend to change depending on government and customs / FDA officials.

Tax increase and export cost: At the time of export customs clearance, it will be necessary to pay a large fee to the government customs for the test and issuance service of the certificate of origin.

Rules of Origin (ROO): Jordanian exporters find it difficult to assess suitability for ROO, and authorities are perceived to lack ROO-related comprehensive knowledge, capabilities and resources. This delays the document preparation process and poses a challenge in obtaining ROO certificates of origin for export to partner countries.

In addition, Jordan's traditional export markets were GCC countries such as Saudi Arabia, Iraq, Algeria, Sudan, and Yemen, but deteriorating safety situations, drug import restrictions and policy shifts to pharmaceutical production locally increase the need to develop new export destinations, and export support measures through the Chamber of Commerce, the Chamber of Industry, and JEDCO are considered as effective.

#### **(vi) Human Resources**

In Jordan, where the unemployment rate is high, high school graduates and skilled bachelor's workers can be hired at low labor costs. The supply of talent exceeds demand, with an average of 400 students graduating with a pharmaceutical major each year. However, due to skill mismatches, it is often said that graduates and existing staff are dispatched overseas to receive training, and human resources from overseas are often placed in important positions. In particular, the industry lacks technical capabilities and human resources skills at the R&D stage, which is one of the bottlenecks of innovation. Most pharmaceutical degree holders work in pharmacies and very few work in manufacturing sites.

Most companies in the industry employ unskilled workers, but low-cost production models alone cannot expect innovation, higher added value, or improved profitability, so investment in human resources to strengthen the workforce is required.

#### **The Impact of COVID-19**

As awareness of health-related issues grows, so does the demand for quality, cost-effective medicines. Besides, nutritional supplements and foods that are not pharmaceuticals but contribute to maintaining health may also attract more attention.

In addition to the traditional industry of pharmaceuticals, the manufacturing of medical supplies (e.g., masks and disinfectants) has been newly started in response to COVID-19. Since mid-March, the Jordanian government has been focusing on improving the productivity of medical supplies and equipment as an effort to combat the COVID-19 pandemic. Under the direction of the King and the command of the former Prime Minister Razzaz, the production capacity of these products was strengthened, aiming to become an important hub at the regional level.

Before COVID-19, three factories produced less than 30,000 masks, but the expansion of the factory has increased the production system to produce about 4 to 6 million masks. Demand for masks has skyrocketed since the onset of COVID-19, but recently, profits from mask manufacturing and sales in Jordan have declined due to replacement by imports from China, decreased demand due to lockdown measures, and an increase in domestic mask manufacturers.

Concerning medical supplies and equipment, the demand for specific medical equipment such as respirators increased with the construction of COVID-19 compliant beds. Jordan has 1,200

companies specializing in medical devices and consumables, of which 200 companies specializing in masks, gloves, disinfectants, and ventilators have seen increased sales (according to an interview with the representative of the medical device syndicate by the Jordan Times).

The Jordanian government is aiming to serve as a drug supply hub for COVID-19 measures, including vaccine manufacturing. It is also active in producing vaccines, with a cumulative investment of approximately USD 1.8 billion, and preparations for mass production of the vaccine are steadily underway, according to Jordan's statement at the vaccine summit. Also, it is stated that Jordan's pharmaceutical industry has the potential to increase its R&D capabilities in the Arab region with foreign support.

Along with the expansion of growth and exports due to the increase in demand due to COVID-19, the promotion of employment of women can also be expected. Medical startups such as Aumet (a sales platform of medical products for medical professionals) and private sector efforts to promote startups are also being implemented, and further revitalization is expected in the future.

### **Policy and Issues**

Pharmaceuticals has been one of Jordan's major industries, and committees have been established for pharmaceuticals and medical supplies such as PPE as the focus sector post-COVID-19, to enhance exports.

In the recent initiative “Program to support industrial companies to export medical supplies, equipment and general safety clothing to combat Coronavirus (2020)”, JEDCO provides subsidies for small and medium-sized enterprises that can manufacture and export medical supplies/equipment and safety clothing. The subsidies are for the change of production lines and the purchase of machinery necessary for manufacturing the products.

Also, the pharmaceuticals industry is included in the target of programs such as: subsidies for transportation costs to new export markets; technical and financing support for non-exporting companies.

New factories were established to manufacture PPE such as masks in response to COVID-19, but the pharmaceuticals industry is composed of large companies including multinational companies, so it is assumed that the industry has a strong enough foundation for export. On the other hand, taking COVID-19 into an opportunity and aim to become an investment hub in the Middle East will require full-scale efforts to form a medical-related industry cluster, which will be described later.

The challenges in the pharmaceuticals industry are shown in the table below.

**Table 3-18 The Challenges of the Pharmaceuticals Sector**

Category	Challenges	Possible countermeasures
Product portfolio (new product development)	Specializing in generic drugs is one of its strengths, but differentiation may be difficult. Developing higher value-added products and highly profitable alternatives such as super generics and biosimilars (Diversification of portfolio) will be the issue.	Financial support for research funding and new product development, development and provision of specialized training on innovation and cutting-edge technology
R&D	Although the supply of human resources is sufficient in volume, skill mismatches exist. Lack of human resources with technical skills is one of the bottlenecks of innovation in the industry.	Support for human resources development, facilitating industry-academia collaboration
Procurement of APIs / Additives	Is it necessary to build a strong and flexible API procurement supply chain from home and abroad, especially from the viewpoint of security of stable supply of medicines in COVID-19 (Hypothesis)	Since Jordan has the technical know-how of API manufacturing, it is possible to aim for an API hub in the Middle East if necessary (Hypothesis).
Registration	The registration process for medicines is long and complicated.	Streamline the registration process for manufacturing companies' medicine sales (*Supported by the USAID).
Production	Utility costs such as electricity and water costs (same as the other industries)	Investing in and improving access to renewable energy
Distribution and Sales (export)	Lack of knowledge of destination country registration conditions, export costs and rules of origin (ROO)	Support for trade facilitation for new market development such as facilitating ROO and FDA registration overseas (JEDCO and industry group capacity can be considered.)

Source: JICA Study Team

Jordan's traditional export markets were GCC countries such as Saudi Arabia, Iraq, Algeria, Sudan, Yemen, but the deteriorating safety situation, drug import restrictions and policy shifts to pharmaceutical production locally increase the need to develop new export destinations, and export support measures through the Chamber of Commerce, the Chamber of Industry, and JEDCO are considered as effective.

Currently, there are no major issues in this sector, but it is important to attract FDI to aim for a position as a hub for healthcare in the post-COVID timeframe. Taking COVID-19 as an opportunity, the formation of a medical industry cluster including companies and education institutions, and formation of a vision and strategy may be required.

In addition to the existing pharmaceuticals industry, the newly established committee plans to expand investment in vaccine manufacturing, bio pharmacy, and R&D and production of dietary supplements.



### Major stakeholders

Pharmaceutical manufacturing committee (established in April 2020)	Headed by the Director of the Jordan Food and Drug Administration
Committee for manufacturing medical devices and supplies, and sterilizers (established in April 2020)	Headed by the CEO of King Abdullah II Design and Development Bureau (KADDB)
Ministry of Health	It has jurisdiction over the administration and supervision of health and medical services.
Jordanian Food and Drug Association (JFDA)	It has jurisdiction over production and permission of import / export licenses.
Jordanian Association of manufacturers of Pharmaceuticals and medical Appliances (JAPM)	The industry group of pharmaceutical companies, engaged in activities to improve the business environment and quality
Jordan Pharmacists Association (JPA)	It encourages professional development and scientific research of pharmacy, with the aim of developing pharmacy practices and services.

## II. Services

Regarding the service industry, the information will be organized by targeting medical tourism, which is considered to be promising in the tourism sector, and the ICT sector, which is considered to have a promising impact on other industries through innovation and DX (digital transformation).

### (4) Medical / Wellness Tourism

The global COVID-19 pandemic has hit the entire tourism industry hard, and recovery of normal tourism is expected to take some time. In Jordan's tourism-related measures, the intention to focus on domestic travel, trails (tourism for nature such as adventure tourism), medical tourism, and overseas promotion to attract movie locations were mentioned by the King.

Since the niche sector is expected to recover a little earlier than general tourism, this section describes an overview and issues regarding medical tourism, which Jordan originally has strengths and is closely related to the pharmaceutical and medical supplies sector. It also mentions wellness tourism, which is open to more general consumers and is considered to be compatible with Dead Sea cosmetics.

In the medical field, Jordan has been highly evaluated in neighboring countries, supported by a high level of education. The outbreak of COVID-19 currently puts a heavy burden on the medical infrastructure, but after the pandemic is over, there is room for Jordanian medical services to grow as a means of earning foreign currency due to increased health consciousness.

As a concrete measure, in addition to the development of advanced medical centers, the strengthening of healthcare services such as preventive medicine and beauty care can be considered. In particular, the healthcare field is expected to spread to peripheral industries such as expanding domestic consumption of high value-added products in Jordan and promoting sales of Dead Sea cosmetics, the sector which is being promoted as a nation.

There are various definitions of the term medical tourism, but in this report, "medical tourism" is used for medical examination and treatment, and more entertaining services without medical treatment are defined as "wellness tourism".

Thailand is attracting many tourists in medical tourism, followed by Singapore, India, and Malaysia, which are actively accepting medical tourists from overseas. South Korea is recognized

as a destination for medical tourism such as plastic surgery and cosmetic surgery, Europe for hip and knee replacement, the Philippines and Thailand for cosmetic surgery, and India for cardiac surgery. The main reasons for the general success of medical tourism are 1) high medical level, 2) sufficient language support and good amenities, and finally 3) support in terms of tourism soft infrastructure. Other motivations for medical tourists include a short waiting time (compared to their home country), good cost performance, and specialized advanced medical care. Regarding support in terms of 3) tourism soft infrastructure, the key is to develop agents in charge of medical coordination and highly specialized human resources.

According to the Jordanian Private Hospital Association, patients from 48 countries are visiting for treatment in Jordan. According to the Al Khalidi Medical Center, 40 percent of patients treated in hospitals are foreigners, and many patients come from the United States. Patients from Libya, Iraq, Palestine, Sudan, and Yemen are visiting for advanced cardiovascular and cancer treatment, kidney transplantation, and in vitro fertilization.

Jordan received the Medical Destination of the Year award from the IMTJ Medical Travel Awards in 2014 for accepting 250,000 patients from abroad and generating more than USD 1 billion in revenue. In 2017, about 300,000 people visited, but the number of visitors decreased due to the worsening situation in Libya, Yemen, and Sudan, which are the main countries of medical tourists. Jordan has medical institutions, advanced medical facilities, and specialized hospitals (cancer specialty treatment centers such as King Hussein Cancer Hospital), so it can be said that Jordan already has the foundation for medical tourism.

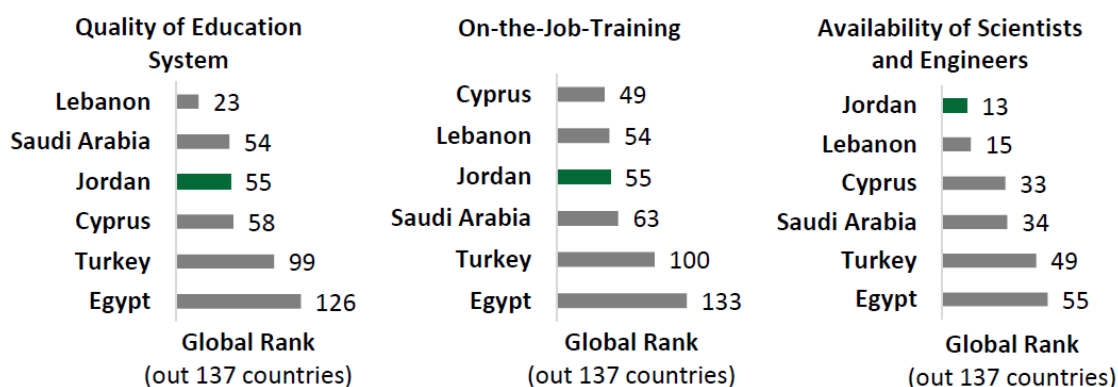
Jordan has become one of the major destinations for medical tourism due to its accessibility, safety, quality healthcare services and government support for facilitating visits (visas, etc.). The following cases can be cited as illustrations of typical medical tourism (Anshasi, Rami & Alsyouf, Adi. (2020). Views on Medical Tourism: Jordan as a Medical Hotspot. International Medical Journal (1994). 25. 2001-2008.).

- Libyan woman: Travel to Jordan to get a dental veneer and visit Ma'in Hot Springs and the Dead Sea.
- Yemeni patients: Visit Jordan for state-of-the-art hip arthroplasty by a reputable Jordanian orthopedic surgeon.
- Lebanese woman: Takes a child to Amman for specialized eye surgery at only a fraction of the price in Lebanon. Her family visits tourist destinations such as Petra after surgery.

The workforce of healthcare workers in Jordan ranks high in the quality of higher education and on-the-job training compared to other countries in the MENA region. It ranks first in the availability of scientists and engineers and is one of the top countries in the world in terms of per capita number of engineers, doctors, and nurses.

Occupation Category	Human Resources (number)	Ratio per 10,000 People
Physicians	26,019	27.3
Dentists	6,806	7.1
Nurses	12,872	13.5
Pharmacologists	12,076	12.7
Total	57,773	60.3

Source: Ministry of Health, 2017



Source: World Economic Forum, Global Competitiveness Report 2017

The Gulf Arab countries rely on medical professionals from Jordan and, from the Jordanian side, many highly skilled personnel are lost to neighboring countries. The World Economic Forum data organizes an index on perceptions of the degree of brain drain, with rating 1 having the highest degree and rating 7 indicating that most highly skilled personnel remain in their own country. In this index, the Jordanian value is 2.6, so it is recognized that the degree of brain drain is high.

One of Jordan's development zones, the Irbid Development Zone, focuses on attracting healthcare opportunities and services by providing a high-quality infrastructure and business environment, as well as incentives for companies doing business in the area. Although the development zone was established in 2009, the occupancy has not progressed except for research and educational institutions at present, and the development of infrastructure development is scheduled to start from now on.

There is a website named MedX (<https://www.medxjordan.com/>) where medical tourists (patients) can find medical institutions and make reservations, along with transportation and accommodation arrangements. MedX has been reported to have had some success as a "one-stop shop" for healthcare tourists, but its usage is still limited and there is room for increased enrollment of healthcare providers and potential patient users. Therefore, it will be necessary to strengthen MedX-related marketing measures. The advertising of Jordan as a medical tourism destination is handled by the industry group, the Private Hospitals Association (PHA).

Concerns about promoting medical tourism include the potential for higher prices for medical services available to Jordanians and impairing access to quality medical care for the general population of Jordan. Also, private hospitals for medical tourists attract many excellent specialists from public hospitals and university hospitals due to better payment, which may cause the problem of uneven distribution of skilled personnel. Therefore, it is necessary to keep in mind that medical tourism should be promoted without sacrificing medical services for the Jordanian people.

Jordan's medical tourism is cheaper than those of Singapore and Thailand, and is said to be internationally competitive, but UAE and Turkey are examples of medical tourism competitors in the MENA market. For the same Arabic-speaking UAE, medical tourism revenue in 2015 exceeded 1 billion dirhams, and a large network of hospitals in Dubai, Abu Dhabi and Ras Al Khaimah has been established as a medical tourism center. The United Arab Emirates is said to be rapidly gaining popularity as a destination for medical tourism due to its cost competitiveness, English-speaking medical staff, and short waiting time, as well as introducing specific medical tourism visas and advertising activities. The majority (43 percent) of tourists visiting Dubai for treatment in 2015 came from Asian countries, 29 percent from the Gulf Cooperation Council

(GCC) countries, 15 percent from European countries, 7 percent from African countries, and 5 percent were from North and South America, focusing on osteoporosis, fertility treatment, dermatology, and plastic surgery. In Dubai, there is a "Dubai Healthcare City" with a shopping mall centered on a hospital and a medical education center, and it is developed as a special free economic zone for healthcare. A more comprehensive vision and strategy are expected to further solidify its position as a medical tourism destination in the increasingly competitive MENA region.

### **【Wellness Tourism】**

The Dead Sea area, which is a distinctive tourism resource of Jordan, has been used as a resort since ancient times because it has the lowest altitude in the world and therefore has high atmospheric pressure and high oxygen concentration. Not only the Dead Sea minerals but also the geographical characteristics of the Dead Sea are said to have high relaxation, health and beauty effects, and are considered to be promising assets in wellness tourism. Israel, on the other side of the Dead Sea, has a concentration of wellness facilities for allergies, rheumatism, neuralgia, asthma, and health and beauty.

In Jordan as well, spas, wellness centers, physiotherapy, and Dead Sea cosmetics can meet the needs of tourists visiting for wellness tourism. Furthermore, forming a wellness cluster (supplement, health food, Dead Sea cosmetics, etc.) around the Dead Sea will lead to sales promotion of Dead Sea cosmetics for tourists, thus a combined effect is expected.

Since wellness tourism has a wider base than medical tourism, inbound tourists from a wide range of countries can be expected depending on the marketing.

### **The Impact of COVID-19**

The number of medical tourists has decreased significantly due to the impact of COVID-19 and, according to the chairman of the Private Hospital Association, it has decreased by 60% (as of the end of November 2020). In addition to the decrease in demand, the pandemic has put a heavy load on Jordan's overall medical services so, in the short term, the expansion and stability of the medical service system will be prioritized, while becoming the hub of medical tourism will be a prospect for the medium to long term. In that respect, initiatives related to wellness tourism (Dead Sea Spa, etc.) that do not involve medical treatment are considered to have a lower risk.

The World Bank report summarizes the following insights regarding the impact of COVID-19 on the healthcare system.

- The COVID-19 pandemic overwhelmed the supply capacity of the national healthcare systems and highlighted the need to move scarce healthcare resources across international borders.
- Cross-border e-health services such as digital technology, data, and telemedicine have become important support mechanisms in responding to the pandemic.
- Allowing the temporary movement of health care professionals may also help ease the capacity constraints of the national health care system.
- In the short term, measures to alleviate the domestic shortage of healthcare providers and promote the use of telemedicine by facilitating the movement of healthcare workers can be taken.
- In the medium term, it is necessary to strengthen the global health system and build resilience for future crises: (i) allow healthcare suppliers to enter from abroad, (ii) increase cross-border coordination and cooperation between research centers for disease

prevention and control, and (iii) improve the digital environment (connectivity) that supports healthcare systems.

As suggested above, the pandemic may be an opportunity to strengthen cooperation with GCC countries and facilitate the cross-border crossing of Jordanian healthcare workers to mitigate constant brain drain. In addition, it is expected that the need for investment and research strengthening in health technologies such as telemedicine will increase in the future.

In Jordan, the demand for mental health and health counseling services is growing significantly due to the impact of COVID-19. Strict measures imposed as COVID-19 measures, such as curfews, lockdowns, and closure of commercial facilities, are said to have hurt the mental health of citizens, summarized by the statement, “The pandemic and related measures caused fear, anxiety and stress in particular, resulting in an increase of about 50% in the number of local and international clients seeking professional help” (from an interview with Hiba Jindi, Certified Life Coach in the Jordan Times.). Gyms have been closed, and stress has led to overeating and anorexia nervosa, and the demand for health counseling is increasing. Dietitians provide health and nutrition consultation services through telephone consultations. There is believed to be room for further development of these medical services for citizens in Jordan by combining them with telemedicine.

The quality and cost of existing medical tourism in Jordan are considered sufficient for considering measures for medical and wellness tourism. Therefore, the direction of measures to promote medical / wellness tourism is to utilize existing capabilities (established specialized fields such as cancer treatment, Dead Sea health therapy, etc.). Both (1) environmental improvement, the formation of medical / wellness industry clusters and investment promotion, and (2) strengthening of marketing measures including new market development can be considered. In particular, the formation of industrial clusters is thought to contribute to enhancing innovation of the industry beyond existing generic pharmaceuticals, such as strengthening preventive healthcare utilizing ICT technology and advanced medical centers.

On the marketing side, it is possible to consider measures such as strengthening the one-stop medical tourism service, which is a soft infrastructure for facilitating tourism, such as improving the usability of MedX and promotion for acquiring more users. Targeted new markets include Kazakhstan, Chad, Nigeria, Iraq, Oman, and Saudi Arabia. Patients in Oman and Kazakhstan tend to fly directly to Turkey, so measures such as expanding Jordanian routes are being taken. Generally, in the case of medical tourism, the language barrier is a concern, so it is expected that it will be harder to attract tourists from Kazakhstan, which is linguistically close to Turkey, but the surrounding Arabic-speaking countries and English-speaking countries in Africa seem to be promising. USAID provides support in this field under the Jordan Competitiveness Program.

#### **Box 4 Adventure Tourism and Aqaba Tourism Plan**

Tourism Economic Commission (ASEZA): In line with the royal vision of making Aqaba a global tourism destination, it implements the following efforts:

- Royal Maritime Sports Federation develops effective plans to revitalize marine sports and sports tourism
- Arousing investment trends and interest in adventure and promotion of the Golden Triangle (Aqaba, Petra, Wadi Rum)
- Research to establish an integrated sports city in Aqaba

In addition, ICT for Tourism is indispensable from the viewpoint of recovery of the tourism sector of With COVID and Post-COVID, and it is hoped that ICT / startups will contribute to resolving the problems.

While the timeline of accepting tourists from abroad is uncertain, the government is implementing tax easing and financial support for the survival of the tourism industry and, for the time being, measures to promote domestic demand and remedies will be the main effort.

However, for post-COVID-19, it is necessary to consider a start-up way of thinking and a new way of tourism utilizing digital technology. Even before COVID-19, local travel agencies have pointed out that digital technology needs to be a pillar of tourism strategy, and investment in online marketing instead of traditional marketing through exhibitions should be made. With this pandemic, digital technology-based startups are developing COVID-19 countermeasures and new businesses such as developing apps that minimize contact between staff and customers at hotels and online travel tours using augmented reality (AR).

In addition, EBRD has announced tourism support to 13 countries including Jordan in response to the impact of COVID-19 on the tourism sector, and the main support areas are economic recovery, marketing and promotion, institutional strengthening and resilience building. USAID, which has continued to provide support in the tourism field, also provides short-term financial support related to COVID-19 within the framework of the Sustainable Cultural Heritage Through Engaging Local Communities Project (SCHEP), as well as continuing support in community tourism (development of lesser-known tourism resources located in rural areas).

### **Policy and Issues**

Medical tourism is considered a priority sector as “development of competitive and sustainable tourism products (such as religious tourism, domestic tourism, ecotourism, family tourism, and medical tourism)” in the Two-year priority plan for 2020-2021.

The issues of medical and wellness tourism are summarized in the table below.

**Table 3-19 The Issues and Countermeasures (Medical / Wellness Tourism)**

<b>Category</b>	<b>Issues</b>	<b>Possible countermeasures</b>
Human resources	Brain drains of many highly skilled human resources to neighboring countries (Factors such as salary level, career path may be relevant)	Mitigate constant brain drain by strengthening cooperation with GCC countries and facilitating cross-border movement of Jordanian healthcare workers
Marketing of Medical Tourism	MedX has been reported to have had some success as a "one-stop shop" for medical tourists, but its usage is still limited and there is room for increase in healthcare providers and potential medical tourists.	Strengthen MedX-related marketing measures. * Potential counterpart institutions could be the Private Hospitals Association and JTB (Jordan Tourism Board)
Promotion of investment for medical cluster formation	(Full-scale efforts to build a position as the medical hub in the MENA region are required.)	Aim to promote investment and innovation by forming medical clusters centered on existing advanced medical centers and development zones. (Strengthening preventive medicine using ICT technology, advanced medical center / human resources education, development of new bio products that go beyond existing generic pharmaceuticals, etc.)

Category	Issues	Possible countermeasures
New market development	The number of tourists is unstable due to the deteriorated situation in traditional markets (such as Sudan, Yemen, Libya). àNeed to develop new markets	Strengthen marketing measures to develop new markets. (Specific measures focused on specific target countries)
Wellness cluster formation	Lack of consistent marketing measures utilizing tourism assets (such as the utilization of the Dead Sea in Israel), lack of landmark facilities	Form a wellness (supplement, health food, Dead Sea cosmetics, etc.) cluster around the Dead Sea + strengthen consistent marketing measures.

Source: JICA Study Team

The quality of services in medical tourism is evaluated high, so the remaining issue is mainly marketing including new market development. Also, support measures and investment promotion for the formation of medical and wellness clusters are also considered to be promising.

In particular, wellness tourism's potential has been drawing attention from donor organizations such as JTB (Jordan Tourism Board) and USAID, but specific measures do not seem to be implemented yet. The USAID report (Building Economic Sustainability Through Tourism Project: An Assessment of Jordan's Wellness Tourism Potential) provides short-term opportunities for stakeholders such as spas, medical and tourism operators to develop packages that can be prescribed to potential patients. The development of a coordinating organization, the strengthening of hardware (capacity of facilities) and software (human resources) and raising awareness of the Dead Sea and its health effects (advertising/promotion) are mentioned. In the medium to long term, scientific research on the effects of the Dead Sea and natural hot springs, investment in the development of comprehensive infrastructure for wellness tourism, and development of more medical treatment-oriented facilities and holistic treatment packages have been pointed out as future possibilities.

Towards cluster formation, it is necessary to form a consensus while confirming the intentions of the parties concerned based on the policy and situation of the Dead Sea development zone where development is scheduled to proceed, in addition to cooperation with the Dead Sea products sector and the tourism/hospitality sector.

In the "Two-year priority plan for 2020-2021", the development of the "Golden Triangle" (promotion of trips between Petra, Wadi Rum, and Aqaba) is mentioned as a measure. It is also possible to aim for a synergy effect between these "golden triangles" and wellness tourism based on the Dead Sea.

In addition to the Dead Sea products, Orjan soaps from the Ajloun Forest (a nature reserve established by the Royal Society for the Conservation of Nature of Jordan), are made from local ingredients such as olive oil, mint, pomegranate, and lavender. The 100% natural soap crafted by women in the village of Orjan has helped promote the employment of women in the community and the local economy. Packaging tourism routes and experiences that contribute to regional economic development as such can be linked with wellness tourism for a synergy effect.

## **(5) Information and Communications Technology (ICT)**

Regarding the ICT industry, while the telecommunications network infrastructure influences the competitiveness of each country in industrial promotion, it is possible to improve the infrastructure to some extent if an investment is secured, except for island countries and countries with extremely mountainous terrain.

Also, since it is a knowledge-intensive service industry, the industry is relatively immune to domestic geographical factors such as access to clean water and the geopolitical factors such as logistics of raw material procurement and product exports that should be taken into consideration as factors influencing the competitiveness of each country in agriculture and manufacturing. Hence, it is a characteristic of analyzing this industry that every country seems to have some development potential.

The expansion of communication networks and deregulation that began in the early 2000s has boosted mobile phone penetration and internet usage, and the ICT sector has been regarded as the potential to be Jordan's main industry.

In this section, we will mainly focus on the potential to develop as a pillar of future foreign currency acquisition means in the analysis of the ICT industry. Potential target sub-sectors will be identified after an overview of trends in major sub-sectors and the underlying infrastructure environment.

### **Telecom Sector**

In the ICT industry in a broad sense, the telecommunications sector accounts for about 65.4 percent of total revenue. The sector also has the aspect of infrastructure that is essential to support Jordan's socio-economic development toward a knowledge-intensive economy.

Communication services in Jordan are broadly divided into public telephone networks, mobile phones, the internet, and others.

The penetration rate of the internet and mobile phones is as shown in the figure below.



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

**Figure 3-20 Internet and Mobile Penetration 2006-2018**

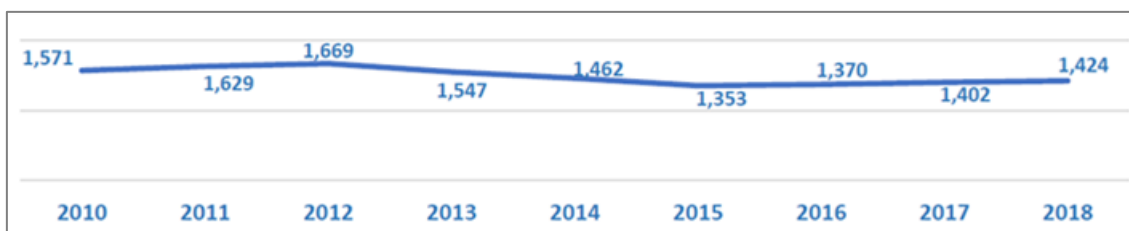
There are three major carriers in Jordan. The first is the Jordan Telecom Group (JTG), which was privatized in 2000. Now the Jordanian state owns only 30 percent of its shares and the remaining 70 percent is owned by Orange, of France. It operates under the brand “Orange Jordan” in the market and has the second largest share of 31 percent in the mobile market. In addition to the mobile phone business, it also develops fixed-line and internet connection services.

Zain Jordan has the largest share, of 40 percent, in the mobile market and belongs to the Kuwait Zain Group. The company first launched a GSM mobile service in the country in 1995.

Umniah has the third largest share, which is a subsidiary of Batelco in Bahrain. It entered the Jordan market in 2005, the latest entry. The Telecommunications Regulatory Commission (TRC) made a bid in 2013 intending to introduce the fourth company, but no new entrant was selected.



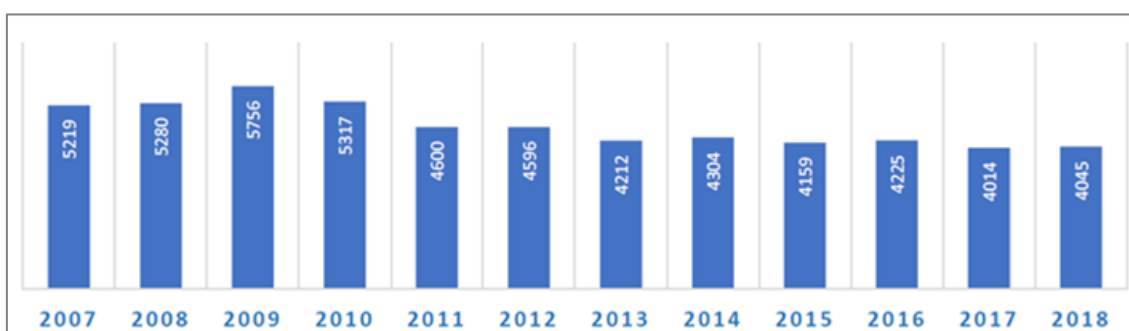
Although the telecommunications sector accounts for as much as 65.4 percent of the income of the ICT industry in general and is currently an important sector that has directly created 4,045 jobs, the growth rate of the sector has slowed down as shown in the figure below.



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

**Figure 3-21 Telecom Revenues (Million USD)**

The figure below shows the transition of the employment scale of the telecommunications sector, and this low growth of the telecommunications sector is also reflected in employment. In recent years, employment has remained at just over 4,000. The innovation of communication technology itself is still progressing, and the communication infrastructure will be further improved by further expanding the coverage of 4G and 5G communication networks, but it is unlikely that the scale of the communication business itself will grow dramatically.



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

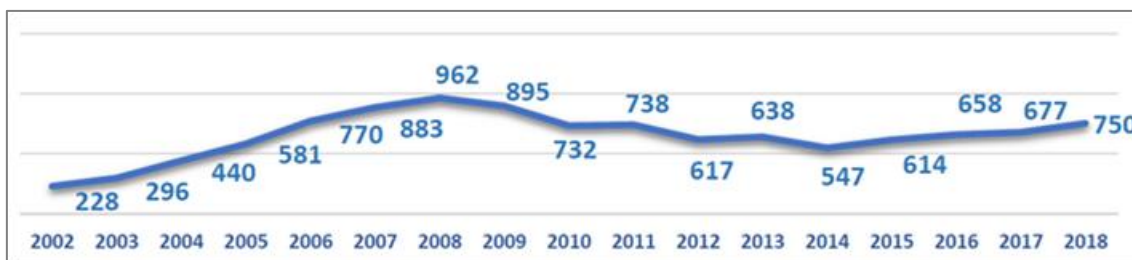
**Figure 3-22 Telecom Employment 2007 - 2018**

From the perspective of the composition of telecommunications carriers, it is difficult to see a scenario in which Jordanian telecommunications carriers expand telecommunications businesses across national borders, in the current situation in which Jordanian telecommunications carriers are dominated by foreign capital.

### **Software Development Sector**

From the ICT industry in a broad sense, economic activities excluding the telecommunications business are classified as the IT & ITES sector. The sector is characterized by a particularly large proportion of service exports.

According to the report by the Jordanian Information Technology Association (int@j), which supports national ICT strategy formulation, collects data, and lobbying from industry, Jordan's IT revenues reached about USD 750 million in 2018. As shown in the figure below, while it can be said that it showed an astonishing 37 percent increase in the five years since 2014 when it bottomed out at USD 547 million, the level of USD 692 million recorded in 2008 before the Lehman shock has not yet been recovered.



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

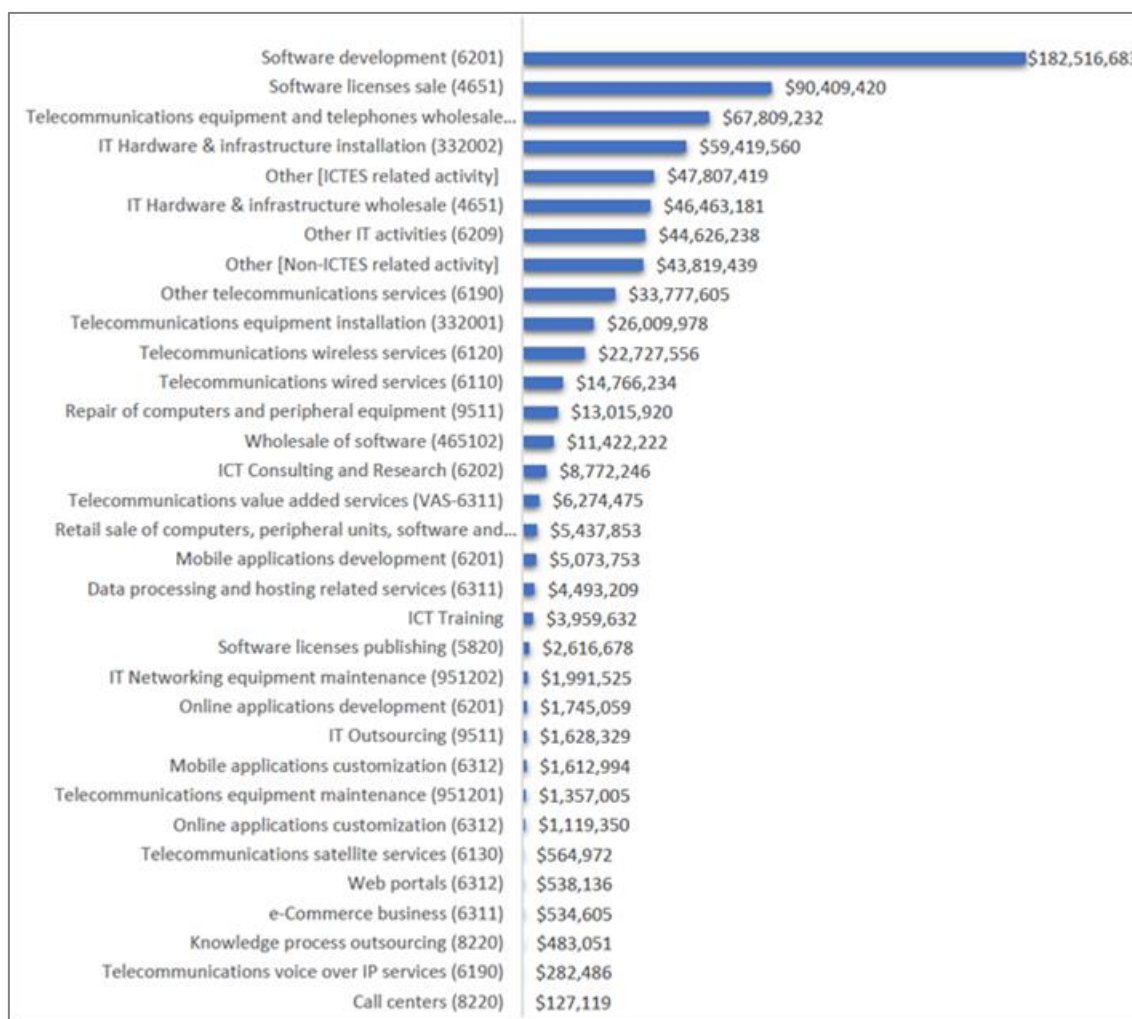
**Figure 3-23 IT Revenues 2002 - 2018 (Million USD)**

The graph below classifies the sources of IT revenue into domestic and overseas. Although IT service exports have been declining since 2013, when regional instability became more intense, the degree of decline is small compared to domestic demand. The decline in the performance of the IT sector as a whole can be said to mainly reflect the slowdown of the domestic economy. In that sense as well, it can be said that exports of IT services will become the core of Jordan's industry.



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

**Figure 3-24 IT Domestic vs. Export Revenues 2002 - 2018 (Million USD)**



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

**Figure 3-25 IT and ITES Revenues 2018**

Although the available data is not referring only to software development service exports, the top five IT service export destinations from Jordan are Saudi Arabia (21.55 percent), United Arab Emirates (15.09 percent), Kuwait (12.62 percent), the Netherlands (7.64 percent) and the United States (7.56 percent). It can be inferred that this is so-called offshore development, as it is generally offered to higher-income countries than Jordan.

The approach of promoting offshore development as an entry point to become an ICT nation is widely seen in South Asia, Southeast Asia, and Africa. On the other hand, the countries that have been showing a strong presence in such offshore development in recent years, including Vietnam and the Philippines, are generally lower-middle-income countries with a per capita GNI of USD 3,975 or less (based on the classification of the United Nations and the World Bank as of 2019). It is undeniable that offshore development is inadequate as the driver to lead the future growth of Jordan, which has come to be classified as an upper-middle-income country. Offshore development is ultimately a cost competition. Although the demand from the Gulf countries, which have relatively higher income levels and are culturally and linguistically homogeneous, is expected to continue for the foreseeable future, it is expected to taper off as Jordan's economy grows and the domestic income level rises. It should also be noted that offshore development is a supporting industry, so the supply capacity of workers is also an important factor, and there is a large difference in population-scale from the countries in Southeast Asia, South Asia, and Africa

mentioned above. In the case of Jordan, which has a small population of about 10 million, it is assumed that engineers will only flow out to overseas offshore development bases, which are superior to the working population, rather than being concentrated as offshore development bases.

Even in the Jordanian government's national growth strategy and ICT industry promotion policy, there are relatively few descriptions that the offshore development field is treated as a growth driver. Hence offshore software development will be excluded from the shortlist of this survey.

### **Tech-based Start-ups (TBSs)**

Jordan's National ICT Strategy, which will be introduced in Chapter 3, aims for a future in which Jordan will attract investment as a regional IT hub and the digital industry will develop and expand in scale supported by the emergence of small and medium-sized technology companies including startups. Looking at the actors of these small and medium-sized technology companies from an activity perspective, software design and development activities will be central.

To become a base for software design and development, it is necessary to have advantages in terms of the business environment, including a substantial communication infrastructure. Below, we will introduce four other fields in which Jordan is said to have an advantage.

#### <Energy and Clean Technology>

Jordan has a history of effectively utilizing scarce resources and building an urban environment that can withstand living in the desert, so it is expected as an ideal demonstration site for digital solutions that promote effective energy utilization and water resource management related to this. The natural condition of being blessed with fine weather for more than 300 days a year is also expected to be advantageous for energy technology-related development in the next-generation low-carbon society such as solar power generation. Although not in the IT field, Japanese company Mitsui & Co. has entered the solar power generation business in Jordan with AES, a major American power generation business, and Nebras Power, a state-owned power generation and water production company in Qatar.

#### <Transportation>

Even in the capital city of Amman and its suburbs, the public transportation system is relatively underdeveloped, and as such, incentives for improving the public transportation network and making it a smart city are working strongly. Advances in Amman's smart city initiative are expected to provide opportunities to develop new technologies such as digital transportation systems, IoT sensors, and the use of big data.

#### <Financial sector and Fintech>

With the widespread use of the Internet, the fact that 75 percent of the population does not have a bank account is said to provide Jordan with great market development potential for mobile payment services. Jordan is expected to become a regional hub for fintech solutions.

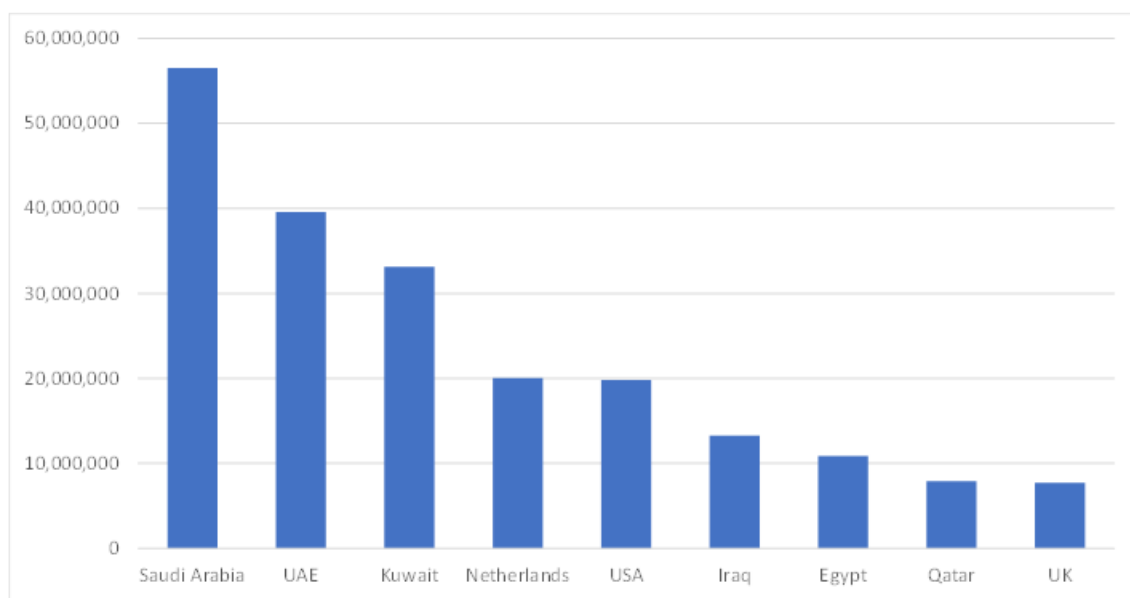
#### <Telecoms and Security>

Jordan has strong incentives to establish digital security technology and network connections in remote areas. Development potential for such communications includes simple online and mobile payments. The conflict in neighboring Syria and Iraq is also a factor in Jordan's need for ICT-based security-related solutions. In this regard, the introduction of smart IDs with electronic signatures that can be used in public applications is currently underway.

<Summary>

The above is an overview of the potential of Jordan as a base for software design and development and the environment that enables it in four fields.

On the other hand, looking at the IT service export destination market, the Middle East region is currently dominant as shown in the figure below. The scenario in which Jordan becomes a global hub in the short term is unrealistic at this stage and establishing its position as a regional hub will be the first goal.



Source: ICT & ITES INDUSTRY STATISTICS AND YEARBOOK 2018 (int@j)

**Figure 3-26 IT and ITES Export TOP 10 Countries 2018**

Judging by the scenario of whether Jordan could be a hub in the Middle East, the evaluations of the above four sectors are classified as follows. The study team believes that Jordan has a relatively well-established business environment, especially in the development of digital technology related to finance and fintech, and then communication and security, and that it is effective to promote and support TBSs in these fields.

**Table 3-20 Assessment for Jordan’s Innovation Hub Potentials**

Fields	Evaluation	Overview
Energy and Clean Tech	Neutral	Although Jordan has surely some development potential, it is a matter common to the entire Middle East and MENA region, and there is little reason to expect Jordan to become a hub in the region in the foreseeable future.
Transportation	Negative	Although Jordan's intrinsic incentives are strong, few factors give Jordan a particular advantage for tech companies.
Finance and Fintech	Very Positive	Jordan's business environment, with its high internet penetration and a large population without bank accounts, makes it an attractive market for fintech companies. Also, the influx of refugees from Iraq and Syria has a great social significance, and the foundation for attracting investment from donors is in place.
Security	Positive	The expansion of identity security services for refugee communities evacuating to the country has great social significance and is a basis for investment incentives.

Source: JICA Study Team

### **Policy and Issues**

The following institutions are major public institutions involved in the promotion of the ICT industry in Jordan.

**Table 3-21 Public Institutions Related to ICT Industrial Development**

Ministry of Digital Economy and Entrepreneurship (MoDEE)	It is reorganized from the former Ministry of Information and Communications Technology to formulate policies for the transformation into a digital economy. It has jurisdiction over entrepreneurship, digital skills, digital financial services, support for digital infrastructure platforms, etc., and works with other government agencies to overcome the challenges faced by entrepreneurs such as access to markets, access to funds, regulatory challenges, access to human resources.
Telecommunications Regulatory Commission (TRC)	Established under Telecommunications Law No. 13 of 1995, it is responsible for regulating the telecommunications, ICT, and postal sectors as an independent judiciary. TRC also supervises the licensing of mobile carriers and the allocation of radio bands.
the Information Technology Association of Jordan (int@j)	It plays a supporting role in the formulation of national ICT strategies, information gathering, and industry lobbying.
Oasis500	It is an entrepreneur support organization (accelerator) backed up by the government.
Startup Council	It is an institution established with support from the above-mentioned int@j. It aims to support the Jordanian entrepreneurship ecosystem through stakeholder collaborations and strategic partnerships, from universities, incubators, and accelerators to government, private sector, and investors. Members of the Council are elected by Jordanian start-ups.

Source: The Report Jordan 2018, Oxford Business Group

In the following, we will delve into the industrial promotion policies and their effective issues promoted by MoDEE, which is particularly relevant in the context of technology startup promotion, which has been short-listed as an industrial field to focus on.

Based on Reach 2025, which set the necessity, direction, and strategic goals of digitalization of the Jordanian economy under its predecessor MoICT, after its launch MoDEE announced the Jordan Digital Transformation Strategy in 2020, which showed more concrete drivers for transformation. The Jordan Digital Transformation Strategy has a strategic goal of "achieving integrated data-based digital transformation to improve quality of life, gain knowledge and open information access," and underscores the initiative to achieve the goal. The document is positioned as not a policy that shows Jordan's steps to become an ICT industry hub in the Middle East nor an action plan as a government, but rather a policy to transform the whole Jordanian society into digital technology-adapted one from such perspectives as technology and infrastructure. In synchronism with startup and entrepreneurship being touted as one of the main elements of Reach 2025, the Jordanian government's "Youth, Technology, and Jobs Project", which is being implemented in five years from 2020, deals with the entrepreneurial environment improvement. The project consists of two components: support for the development of digital skills in Jordan, and support for promoting the digital businesses and government services digitization. For example, the plan to open the workspace in the local community that help entrepreneurs to utilize digital skills is introduced.

Regarding the promotion of IT startups, which is a sub-sector that should be particularly focused on as a shortlist in the ICT industry, the major challenge to the vision of becoming a regional hub is that the number of entrepreneurs in Jordan is currently declining. According to the results of a survey conducted by GIZ in 2019, the main reason is that Jordan does not have a favorable business environment for startups. As a result, not only startups targeting the markets outside Jordan, but also Jordanian entrepreneurs and the startups targeting the Jordanian domestic market select to be registered overseas or move the registration to overseas.

Since IT startups are mainly capitalized by human resources and knowledge and are the most open business format from capital investment, they have the characteristic that outflows across national borders easily occur. Also, the degree of freedom in selecting a cadastral country is relatively high because it is possible to develop services overseas as long as the license is obtained and the communication infrastructure is in place. For these reasons, while themes such as entrepreneurial human resource development for start-ups originating in Jordan and incubation and acceleration that realize the scale of startups are also important, the primary task is to create an attractive business environment for startups and to secure a number of active startups in Jordan.

The table below summarizes the problems and issues of the Jordanian business environment for IT startups and the direction of the Jordanian government's countermeasures.

**Table 3-22 The Issues and Countermeasures (ICT)**

Category	Issues	Possible countermeasures
Regulation	Insufficient institutional support for new technologies and business models. Operation is arbitrary and unstable due to an insufficient understanding of relevant laws and regulations of government agencies.	Establishment of a specialized administrative agency to oversee IT startups
Tax and Social Security	There is high uncertainty due to unstable taxation on IT startup business models. While the companies are in the early stages, the burden of social security is severe for IT startups.	Introduction of tax incentives and social security burden reduction and exemption systems for IT startups
General administrative support	Support for IT startups is dispersed.	Establishment of special economic zone focusing on IT startups
Access to finance	IT startups have difficulty raising capital due to underestimation of corporate value, lack of understanding of the SU growth model, and high due diligence costs.	Introduction of investment incentives for Jordanian startups Introduction of investor protection measures Government financial support for the startup ecosystem
	Bank loan valuation scheme does not fit to IT startup growth model.	Strengthening loan valuation capabilities in line with IT startup growth model
Access to human resources	Competition with major companies for talented Jordanian talent is fierce. There is a lack of skills among Jordanian professionals and managers.	Strengthening the development of human resources required for startups through industry-academia collaboration (increasing supply)
	Employment of foreigners is limited even if it is difficult to find Jordanian personnel with the required advanced skills.	Introduction of foreign worker quota in IT startups
Investment attraction	The potential and attractiveness of Jordan as an IT startup hub <sup>2</sup> are not fully recognized by entrepreneurs and VCs (hypothesis).	Identifying sectors where Jordan can be a hub for IT startups and actively attracting them to be recognized by entrepreneurs and VCs

Source: JICA Study Team

<sup>2</sup> An overall preferable environment with market opportunities, business support, financial access, legislation, and incentives



## Chapter 4. Issues and Solutions of the Focus Sectors based on the Field Survey

In the Interim Report, industries (manufacturing) were shortlisted from the perspectives of trade markets, competitors, and Jordan’s relative advantages and spillover effects. The two sectors in the services were added to the shortlist from the perspectives of the impact of COVID-19, the demand for DX (export potential), and spillover effects on the other industries and employment.

**Table 4-1 Shortlisted Focus Sectors**

Manufacturing	Food Processing	<ul style="list-style-type: none"> <li>Potential for further development of new markets and new products focusing on nutrition</li> <li>Value chain connected to agriculture to create high-value-added products, and employment creation is expected</li> </ul>
	Dead Sea Products	<ul style="list-style-type: none"> <li>Cosmetics is a rapidly growing sector in the global market.</li> <li>Jordan has its unique Dead Sea products, and if it succeeds in establishing its brand in Asia, Europe, and the US, it can be expected to grow as a bigger industry</li> </ul>
	Pharmaceuticals and Medical Supplies	<ul style="list-style-type: none"> <li>High added value and attracts a great deal of attention due to COVID-19.</li> <li>The effect of creating jobs for highly-skilled human resources</li> </ul>
Service	Wellness Tourism	<ul style="list-style-type: none"> <li>The entire tourism industry has been hit hard by COVID-19, but the niche sectors are expected to be recovered first.</li> <li>Wellness tourism is compatible with Dead Sea cosmetics</li> </ul>
	ICT (Tech-based startups)	<ul style="list-style-type: none"> <li>High expectation to be a new industry in the post-COVID</li> <li>Tech-based startups are expected to improve the quality of life</li> </ul>

In the above sectors, the importance of challenges/issues, the need for public intervention, and the feasibility of support from Japan were considered as the points to narrow down the focus. As a result of the discussions, it was decided to focus the field survey on verifying the hypotheses of the Dead Sea-related Cosmetics, which have distinct challenges/issues with the need for public intervention. Also, synergistic effects with wellness tourism are expected, and past knowledge of Japan such as industrial promotion, cluster development, and market expansion through collaboration with MUJI, can be applied to future projects. Wellness tourism is integrated into the Dead Sea Products / Wellness Cluster section.

Also, regarding the ICT sector, the potential as a sector is high, and there was a request from MoDEE regarding AI technology. Therefore, JICA Study Team conducted the field survey focusing on understanding the current situation of the local startup ecosystem. Although the Dead Sea Products/Wellness Cluster and ICT were prioritized, the team also collected information on food processing, pharmaceuticals and medical supplies to verify the hypotheses, needs for support and existing initiatives.

### 4.1 Food Processing

The food processing sector is comprised of many different sub-sectors such as fresh products, spices, meat, dairy, and other processed products. The food processing sector has manufacturing sites in various locations, including the industrial zones in Irbid, Sahab, Muwaqar, Madaba and Salt. The leading companies of the sector are in Sahab, which is the oldest industrial zone (Abdullah II Ibn Al-Hussein Industrial Estate). Frozen food, vegetable oils, and ground meat like sausages are exported through Aqaba Port or by truck to GCC countries.

Organizations like the Amman Chamber of Industry and Jordan Investment Commission recognize that food processing is a very important and promising sector, which can target a niche market like ethnic communities overseas. Olive oil and dates are also said to have a potential market in China where the Muslim population is large.

An integrated value chain with local agricultural products is an issue as Jordan imports a large proportion of food and raw materials necessary for the food processing sector (ACI Interview). For example, fresh tomatoes are produced in Jordan, but concentrated tomato paste is imported from China to produce canned tomatoes. Similarly, beans for hummus are imported. The shortage of water also makes the linkage of food and agriculture more difficult. It is pointed out that the strategy/policy including use of agricultural lands is not aligned well with manufacturing sectors including the food processing sector.

Several organizations/donors are working on the initiatives related to the food processing sector. The newly established Jordan Exports (JE), which is a semi-governmental corporation, has been conducting a pilot project to promote exports (See the box below for an overview of the organization). JE's role in the food processing sector is to generate demand and it aims to promote exports of meat, dairy products (goat cheese, etc.) and fresh produce (strawberries, tomatoes, peppers, etc.) to the EU market. In addition, proposals of 11 projects related to the food processing sector have been submitted to GIZ.

Among some key priority projects of Jordan Exports, the one related to the food processing sector is a blockchain- and IoT-enabled solution set and framework for exports, named "Jordan Food Trust". The project aims to increase the exports of Jordanian Dairy and Meat products and reach the US and EU markets by improving the traceability system and thus meet global standards while also taking into consideration different levels of SMEs and to work on both safety standards (minimum standards) and export standards (maximum standards). The project will work through a technical task force to coach and build the SMEs' capacity to increase their exports using new and innovative export channels and create a business-enabling environment for e-commerce. The collaboration partners are market leaders in meat/poultry, dairy and fresh produce, as well as value chain related SMEs in ICT / services, labs, regulatory bodies, developmental agencies, international tech leaders (including IBM) and sponsors (source: Jordan Exports presentation material).

In addition, EBRD has conducted research about the food processing sector and dates and olive oil as strategic/promising export products.

GIZ is supporting capacity building initiatives along with Public Private Dialogue. GIZ published its report on the food processing sector as "Jordan's Food Processing Sector Analysis and Strategy for Sectoral Improvement, GIZ Jordan, Employment-Oriented MSME Promotion Project (MSME) & Trade for Employment Project (T4E), May 2019." Their approach is more for the whole food processing sector rather than focusing on specific sub-sectors within it. GIZ collaborates with other organizations like the Jordan Chamber of Industry and JFDA to identify common challenges and solve them collectively. More specifically, the initiatives include supporting MSMEs with a lead firm approach (aggregate firms for collective support), improvement of food licensing procedures, and capacity building of service providers to prepare for the participation of Jordanian pavilion and international promotion (e.g., food exhibitions of dried dates, spices, herbs, sweets, etc.)

The food processing sector is attracting attention from the government, support organizations, and donors, and many initiatives are under way and planned to be implemented. Therefore, it is considered that room for JICA's support is relatively small, but some products that have benefits for health (such as nutritional food, dates, and olive oil) could be incorporated into the wellness cluster in the future.

### **Box 5 Overview of Jordan Exports (JE)**

JE (Jordan Exports) was established in 2019 as a quasi-public corporation and a new implementing agency specializing in export promotion. The 51 percent stake is owned by the private sector including the major chambers of industry and commerce, and the 49 percent stake is owned by MoITS. The board of directors is made up of eight individuals (including MoITS members), and the chairman of the board of directors is the former Minister of MoPIC.

As an umbrella organization for export promotion and development, JE implements projects related to policy recommendations and export promotion with a pilot approach.

Currently, the organization employs 12 staff members, including experts in food science, market intelligence, and logistics. Although the size will expand to some extent in the future, they prefer to keep the number small but with exceptional talent. Team members are assigned on a project basis.

Regarding donors as partners, they are collaborating with GIZ and others, and promoting exports of three sub-sectors in the food processing sector. Although the demarcation with JIC and JEDCO is not clear yet, they are having frequent discussions and are working together closely.

## **4.2 Dead Sea Products / Wellness Cluster**

In the Interim Report, the following possible issues were listed as hypotheses based on desktop research. In particular, branding and marketing were identified as a major issue.

The Dead Sea products sector has been chosen as the most prioritized field survey subject after discussions based on the interim report, with the information collected in depth from many stakeholders including the leading companies, industrial association, and support organizations.

In this section, issues mentioned in the field survey are organized based on 1) the phases of the value chain, including from the viewpoint of expansion to the new market, and 2) the Wellness cluster (diversification of business). The section after that will sort out the issues and examine the direction of potential support.

### **(1) Collected Information on a Value Chain basis**

#### **R&D**

R&D was often mentioned by the interviewees as an important component of the value chain, as well as a weak point of the sector.

The most prominent issue is scientific-based information about the benefits of the Dead Sea products and raising awareness about them. It is said that the Dead Sea minerals on the Jordan side have good quality and are effective in treatment of dermatological conditions such as eczema, atopy, and psoriasis. However, there is a gap in terms of scientific research proving the effectiveness of Dead Sea minerals. Consumers are not provided with information about the benefits for the skin, which should be proved through testing and scientific research.

Innovative scientific research will be the driving force of the sector growth, therefore evidence support from a scientific/medical point of view is required. Use of new additives and the optimum

composition of the formulation needs to be studied well for the consumers' benefit and to gain their trust.

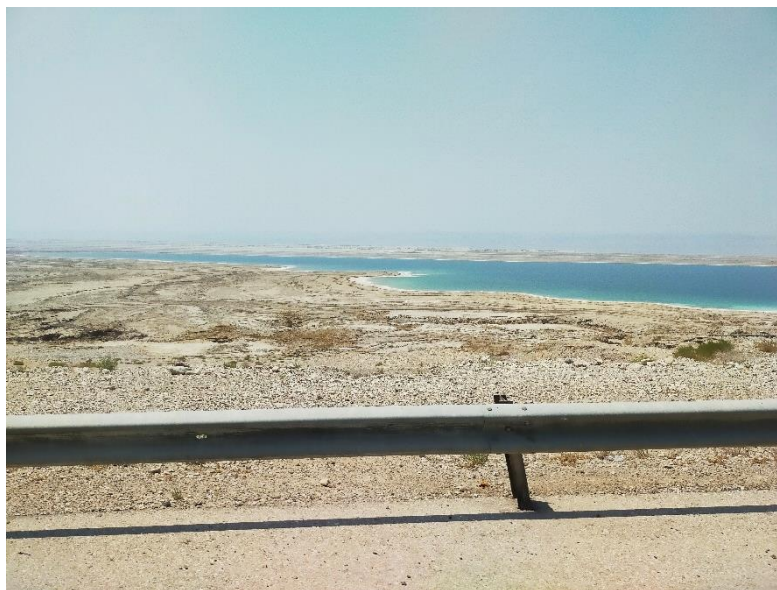
In addition to the importance of increasing evidence and innovation, physical access to R&D facilities and limited budgets are pointed out by the interviewees. Easy access to R&D facilities and experts as well as financial assistance may be necessary for some companies who do not have their own resources.

From the viewpoint of the sector growth, collaboration with academia, not just individual effort of R&D by each company, would be necessary to build up scientific evidence of the benefits of Dead Sea minerals, which can be used for promoting Jordanian Dead Sea products.

### **Sourcing**

Most of the raw materials other than Dead Sea minerals are imported (e.g., Chemical additives such as alcohol, glycerin, and surfactants, fragrances, essential oils, etc.).

Al Numeira is the only supplier of Dead Sea minerals, which is practicing a monopoly, and thus was pointed out that it is causing problems with quality, cost and delivery in procurement. According to interviews with the manufacturing companies, they still have issues with the lead time of Al Numeira, but it is not considered a major bottleneck. Rather, sourcing of Dead Sea minerals has an environmental sustainability issue. The minerals are not infinite and the Dead Sea's coastline is getting farther every year as the water evaporates due to water shortage (dehydration). Therefore, it is necessary to aim for a sustainable model that is different from mass production or mass consumption.



**Photo: A large portion of the Dead Sea has dried up, splitting into two lakes (North and South).**

## **Production**

Manufacturing sites are scattered across the country, but many companies have their factories in the industrial zones such as Sahab, Madaba and Al Hasan (JIEC interview).

Regarding production, manufacturing capacity and GMP/ISO process are the major topics. The manufacturing process has been systematic in major companies, and the interviewed companies mentioned that they do not have problems in the technical aspects of manufacturing or manufacturing capacity. One of the leading companies of skincare products mentioned they have strong manufacturing capacity, which can absorb the volume even if the sales doubled or quadrupled. The company also plans to introduce ERP system (Enterprise Resources Planning system) for better management of the business.

On the other hand, only a part of the Dead Sea product-related companies have received GMP (Good Manufacturing Process) approval, which casts doubt on the quality standard assurance of the sector overall. JFDA controls the licensing and GMP approval, and the cost to obtain a GMP certificate (USD 6 million according to an interview) is a burden for many small and medium-sized companies. When it comes to exporting to new markets, the steps of adopting packages and meeting specific standards/certificates are even more challenging for the companies.

A variety of Dead Sea-related skincare brands and products exist in Jordan, sold in different channels from brand-owned shops and shopping mall kiosks to small souvenir shops. Quality levels and prices also vary from product to product; for instance, while one product from a high-end brand is sold for USD 40, a similar product from another brand which is not necessarily GMP-approved can be sold for USD 6. The concern of the interviewed leading companies was that these cheaper, lower-quality products could damage the reputation of Jordanian “Dead Sea products” as a whole, because some consumers may choose cheaper products without knowing the difference in quality. Many of the interviewees mentioned that they prefer calling themselves skincare product brands rather than Dead Sea product brands in order to be recognized as a more inclusive skincare brand that does not only focus on Dead Sea minerals, and also not to be recognized in the same category of “Dead Sea products” where the good and bad quality are mixed together. The need for regulations and standards will also be mentioned in the section of branding.

## **Distribution / Sales**

Each company has different types of distribution channels such as hotels, B2B channels, directly-owned shops, agents, and E-commerce websites.

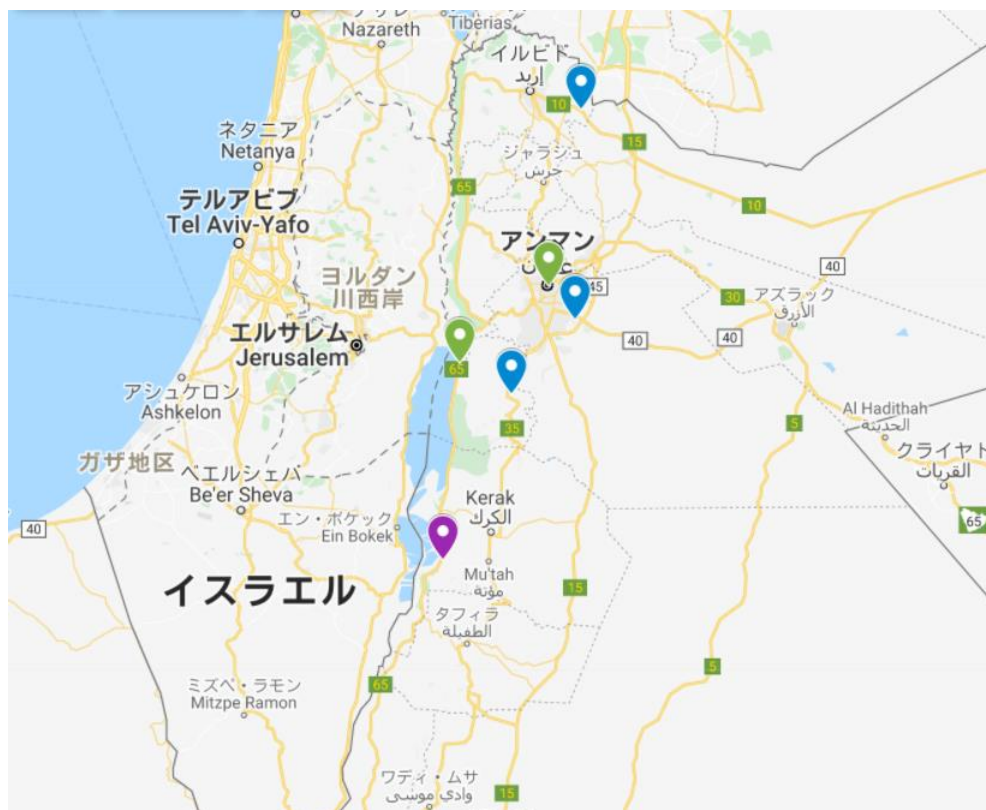
Several issues were mentioned by the interviewees especially concerning E-commerce.

Many companies have been shifting toward E-commerce channels especially after the onset of the COVID-19 pandemic, but most have still just started the path toward E-commerce.

Some companies have already registered under the CPNP (Cosmetic Products Notification Portal) in the EU so the export to the EU should be no problem while, for other countries, exported products could be seized at customs. It is pointed out that shipping costs increased 5 to 10 times due to COVID-19. One interviewed company mentioned their sales to the EU through E-commerce increased but the shipping cost increased as well. Although the disruption of supply chains due to the pandemic will recover in the future, concerns such as export/import procedures, customs, lead time, and high shipping costs would remain as challenges for the companies to export.

### Box 6 Geographical Distribution of Supply Chain

Legend: Purple---Supplying point of the Dead Sea minerals,  
Blue---Manufacturing sites(factories), Green---Sales Area



As shown in the map above, the salt and mud collected in the southern part of the Dead Sea are transported through highways to the industrial zones, including Al-Hassan Industrial Estate near Irbid in the north, King Abdullah II Industrial City in Sahab (located south to Amman) and Madaba Industrial Estate in the south.

The minerals are mixed with other raw materials to become the final product, which will be sold to consumers in brand stores and malls in Amman mainly. Some brands also sell the products through the B2B channel to luxury hotels concentrated on the northern shore of the Dead Sea.

## **Branding / Marketing**

In order to expand exports, it is important to have both branding activities that increase the value of companies / products and marketing activities that effectively convey the product value to the target customers.

Branding and marketing were identified as the most important issues in the desktop research, and this was verified through the field survey as all the interviewees agreed.

Branding, including raising awareness of the benefits of Dead Sea products, building brand recognition and brand trust (for both the sector and the individual company), is the starting point of export promotion of the sector. The R&D section above stated the benefits of Dead Sea products; therefore, this section will describe building brand trust and recognition.

### ***---Brand Recognition***

According to the interviewees, most of their sales are from the segment of people who have visited Jordan before or who already know about Dead Sea products. Jordanian Dead Sea products are not well known to the international market, while Dead Sea products are associated with Israeli brands. “The difference between Israeli products and Jordanian products are exposure / presence (of brands) in the international market”, as pointed out by one of the interviewees, awareness building of Jordanian Dead Sea products at the national level will be necessary. Brand recognition is the important factor and building awareness of “Jordanian Dead Sea products” is required because they are not yet exposed to the international market especially outside the MENA region.

The industrial organization of the sector suggested the stakeholders such as the Jordan Tourism Board; Ministry of Industry, Trade and Supply; and Ministry of Tourism should work together to build one brand image of “Jordan Dead Sea products”. However, this does not mean building an only brand where all the companies are brought altogether under the same umbrella. The sector has many different companies with different positioning from high-end, to the middle range and bulk export, as well as some smaller companies are not ambitious about increasing their exports. All the companies are basically family-run businesses and bringing companies altogether in one body will not be successful considering the mindset of the sector, says the interviewees.

### ***---Brand Trust***

In addition, brand trust is also an important factor in branding.

The Jordanian manufacturers also need to win the trust of consumers outside of Jordan to expand their market. One of the interviewees expressed his view that the company should get trust and loyalty first before venturing into strategic expansion.

A good example is the Jordanian pharmaceutical sector, where companies like Hikma Pharmaceuticals established their brand and expanded all around the world. Jordanian pharmaceutical products are trusted outside of the country because the sector is highly regulated and meets certain quality standards. Similarly, regulations about who can export and who cannot export are demanded by some leading companies. As mentioned in the above section on product quality, cheaper, low-quality products can damage the brand image of Jordan Dead Sea products as a whole, so certain quality standards and regulations may be required.

## **Marketing**

Regarding marketing, which is closely related to branding, the following three points are identified as major challenges.

- 1. Lack of Market Information / Intelligence Functions**
- 2. Promotion of E-Commerce / Digital Marketing**
- 3. Financial Challenges**

### ***1. Lack of Market Information / Intelligence Functions***

The global market is diverse, and each market has different preferences of products. For example, loofa soaps for body (sponges made from plants) are loved in MENA region but not in Canada where people prefer softer materials. Similarly, olive oil product lines are popular in Japan where many consumers have sensitive skin. Market information like this, as well as information about the skincare industry overview and the governmental regulations and registration process, is less accessible for the Jordanian companies especially in the case of non-traditional markets. The companies have a difficulty in accessing to the right information about markets or marketing intelligence function. Non-traditional markets for the sector such as East Asia are like a “blackbox” for which Jordanian companies do not have information such as market opportunities and the local trend.

### ***2. E-Commerce and Digital Marketing***

The importance of e-commerce and digital/social media marketing has become even more important amid the pandemic, but the sector is still in the learning process.

The adoption level differs from company to company, but many leading companies have their own websites. The improvement of e-commerce websites (e.g., user-friendly UX) and digital marketing tools are the issues. One of the companies that has adopted a sales agency model has a social media influencer in Iraq, and it is working very well as a marketing channel. Still, this is up to the agencies rather than based on the company's digital marketing strategy, and it is pointed out that the training for this area is necessary for manufacturing companies that sell directly to consumers.

### ***3. Financial Challenges***

Investment in marketing activities is costly and is another challenge for the sector which is comprised of many SMEs. It costs around USD 12,000 to take part in an exhibition, according to the interviewed stakeholder. The Jordanian Dead Sea sector has participated in exhibitions in 65 countries so far but the exposure volume is small, while the Israeli government is said to be supporting the companies by paying 65 percent of their marketing fees.

## **Specific challenges regarding export expansion**

Related to the above sections, challenges in expansion to new markets include the product registration process (e.g., different formulations are accepted in each country), language differences that hinder access to information/communication, and the distribution strategy (i.e., contracting with multiple distributors or one big distributor).

The following points were raised as challenges from some leading skincare product companies in the sector.



**Table 4-2 Entry barriers to Japan and China (Voices from Different Companies)**

Localization/Lack of Market information	<ul style="list-style-type: none"> <li>• Japan’s uniqueness requires more tailoring (product requirements).</li> <li>• Lack of information about the Chinese market prevent the company from entering the market for now.</li> <li>• The company needs to be strong enough to enter the market, with lots of research and preparation, and with proper planning. “Maintaining the brand is important so we need to be careful and 100 percent certain that we are going in the correct direction before expanding”.</li> </ul>
Registration / Copyright	<ul style="list-style-type: none"> <li>• Their brand name’s trademark was taken by another company in Japan (not skincare products but pet products).</li> <li>• The Chinese market has big potential, but the company worries about the copyright issue.</li> </ul>
Finding local partners (Distribution)	<ul style="list-style-type: none"> <li>• Some companies participated in a beauty exhibition in Japan seven years ago. There were many queries from Japanese companies but due to contract issues, negotiation has not been settled.</li> <li>• A company also considered to use Amazon Japan as a distribution channel, but Amazon requires a company registered in Japan to sell the products.</li> </ul>

### **Measures Planned and Challenges (ACI)**

The Amman Chamber of Industry has been supporting the sector, and it plans to start initiatives such as a study assessment of export readiness, information provision, and financial grants for companies to participate in the exhibitions.

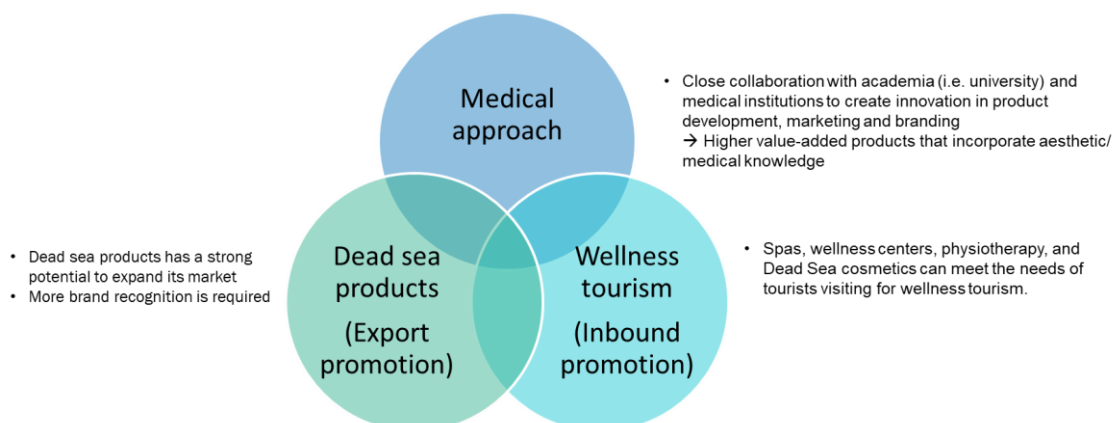
However, there is a strong need from the organization to have market-specific and sector-specific experts (e.g., Chinese market in the field of Dead Sea products).

ACI suggested two-step support for the companies and a technology center to provide integrated services. First, an increase in export readiness is required because the sector has companies at different levels from high export readiness to low readiness. Export readiness assessment and a plan to develop the readiness are needed, which has not been done by the government or any stakeholders. The second step after that would be the international marketing support including export planning and strategy, prior to promotional activities.

Also, a technology center that provides integrated services for the manufacturing companies, such as product design and training (all need to be sector-specific) can be valid. Connecting the parties in industry and academia is also an important approach for the sector’s growth.

### **(2) Wellness Cluster (Diversification of Business)**

Diversification of business is another part of the Ansoff Matrix (new products x new markets) to strategically grow one’s business. This section mainly describes the wellness cluster as a way of diversification strategy.



Source: JICA Study Team

**Figure 4-1 The Concept of Wellness Cluster Development in Jordan**

An idea of wellness cluster, which has been mentioned in the previous chapter, is that forming a wellness cluster including Dead Sea products and wellness tourism with a medical approach, would lead to combined effects (synergy) to promote export, investment and inbound tourists.

Currently, there is no community or industrial association for a wellness cluster and there have been no major initiatives or support, although a wellness tourism strategy has been developed by JTB and USAID.

According to the Wellness Tourism Strategy Paper<sup>3</sup>, one of the major challenges of wellness tourism includes confusion over terminology related to health, medical, wellness and spa tourism at several levels resulting in a lack of understanding about the wellness tourism market and opportunities for Jordan. As a result, travel industry stakeholders were reluctant to invest in wellness tourism until a compelling business case could be made. In addition, Jordan has ceded the Dead Sea to Israel with no defined wellness tourism strategy in place, leaving marketing to the hotel sector. Hotels with spas often offer homogenized services by foreign staff. Quality standards vary in spas, yoga, and meditation with no regulation or certification process in place, presenting significant service gaps. Ma'in Hot Springs has room for further development, but it needs investment to attract more visitors and higher spending.

Despite fierce competition from luxury spa resorts in the MENA region, Jordanian hotels and resort spas have an opportunity to package and promote wellness programs to increase nights and overnight stays. Jordan's wellness tourism opportunities are significant when focusing on the direct health benefits of the Dead Sea and other tourism assets.

One of the interviewed companies already has been pursuing ideas compatible with the wellness cluster, including wellness treatment package and treatment centers.

The interviewed CEO pointed out that there were no treatment packages related to Dead Sea products in Jordan although foreign visitors showed interest in such treatment. There are 4,000 treatments done in a day in Israeli side while the rooms of spa hotels in Jordan are limited. The treatment centers are not spas, and they require partners who by law employ dermatologists.

These treatment centers function as an effective showcase of Dead Sea products. Consumers don't want to make the effort to use the mud at home, but they enjoy receiving the mud treatment package at the treatment center. The treatment center in the Queen Alia International Airport has

<sup>3</sup> Source: Jordan Tourism Board 2020-2023 Wellness Tourism Strategy (January 2020)

received overwhelmingly positive feedback from the customers (from countries like Australia and those in the Far East) and was also mentioned in the letter by His Majesty King Abdullah II as “This is what we call the wellness tourism gate”. Some customers even changed the transit airport from Dubai to Amman because they would like to stop by the treatment center.

Wellness cluster-related businesses will attract medical / wellness tourism investment opportunities to Jordan. On the other shore of the Dead Sea, the Israeli brand AHAVA received USD 77 million in investment from China (we would like to look for huge investment partners like this).

Some leading companies for Dead Sea skincare products have visited Tokyo in the past and some Japanese beauty spas have shown interest in the Jordanian Dead Sea products / wellness sector. They have talked about cooperation, but no progress has been made since then. The Jordanian Dead Sea products sector is looking for partners like Japanese companies for collaboration such as investment and joint ventures in the wellness sector, as well as export promotion.

### ***Wellness tourism and investment in Dead Sea zone***

The Dead Sea is the unique heritage of Jordan, and it can be the heritage of the world as a major wellness tourism destination, with a huge investment opportunity.

It can be a treatment destination utilizing the Dead Sea mud and its oxygen concentration to attract people with health conditions related to the skin, balance, breathing, and heart, for example, from countries like Russia, the U.S., and Europe. And people who have balance-related diseases and cannot swim can enjoy floating in the Dead Sea.

Alongside the Dead Sea Highway are all expensive 5-star hotels, so the development zone company would like to encourage boutique hotels so that the zone will be accessible for all people.

Chinese investors are highly interested in investment in the Dead Sea Development Zone, and the development zone company also welcomes Japanese brands, and hopes that at least one company from Japan would invest in the Dead Sea zone, or that joint ventures of Jordanian and Japanese cosmetic/wellness-related companies are created.

### ***Linkage to Medical tourism***

Dead Sea products can heal some skin diseases, but there is only one professional clinic on the Dead Sea shore. It is possible to collaborate with medical tourism, such as by applying medical insurance to some part of the wellness treatment for those with skin diseases. Post-treatment recovery and rehabilitation can be also be a good intersection of medical and wellness tourism, where medical tourists can receive postoperative medical treatment around the Dead Sea. This point has been also described in the Jordan Tourism Board's Wellness Tourism Strategy 2020-2023 (developed by USAID, Jan 2020) as it describes "Post-treatment recovery of a medical tourism patient focuses on rest and recuperation and is well suited to the Dead and Red Seas". Wellness tourism will also contribute to extend the length of stay and average spending of the tourists.

In order to bring the customers smoothly to clinics or wellness treatment centers, bilateral agreements between Jordan and the target countries (e.g., Russia) about social security / medical insurance are required (The interview with one of the companies).

### Box 7 Master Plan of the Dead Sea Development Zone

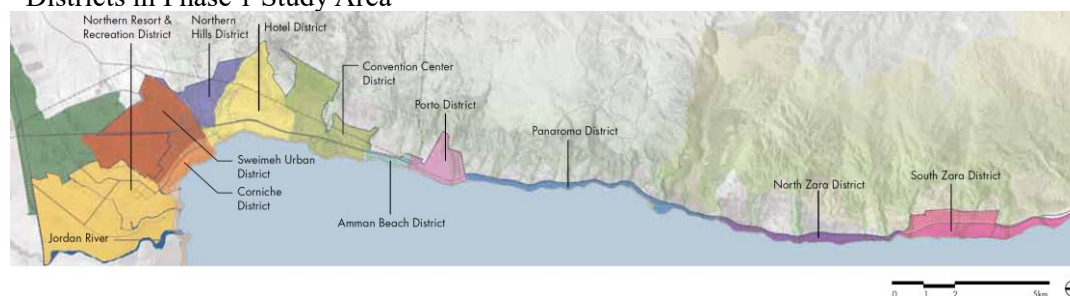
Jordan Free and Development Zones Group (JFDZG) is a state-owned enterprise owned by the Jordanian government and is the developer of free zones and development zones. All free zones are under this jurisdiction and the development zones are owned by the government. In addition to the Dead Sea Development Zone, they plan to develop the Sawan Development Zone (new tourism investment) in Ajloun.

The Dead Sea Development Zone project began in 2009, and they are working towards the implementation of Phase 1. They lease small land areas for small and medium-sized investors and parties in the tourism sector.

Currently, the northern area of the Dead Sea is the focus of their development. It includes the Sweimeh Urban District, which is planned to be a residential area for 5,000 people, and the Corniche District, which is a mixed-use area such as for hotels, houses, shops, restaurants, and public open spaces at the shore of the Dead Sea, as well as a convention center. In addition, a visitor center will be built in the Corniche District. It has been designed and land has been secured. Since JICA is involved in many tourism-sector projects in Jordan, there is also a need to build this visitor center, which will be the centerpiece of Dead Sea tourism development, with Japanese grant funds.

Development is proceeding with the vision of transforming the Dead Sea area into a small city, but there are financial issues such as budget limits and leasing contracts at their own expense. Also, it is desirable to attract further investment from overseas.

Districts in Phase 1 Study Area



Corniche District design and a completed image





### (3) Direction of Potential Support

The interviewees agreed on the need for branding and marketing mentioned in the Interim Report, verifying the hypothesis. (On the other hand, no major problems with production capacity were seen.)

There was also a strong need for medical and scientific research approaches that contribute to branding.

Ministry of Industry, Trade and Supply has positioned the Dead Sea products sector as a priority sector in the Policy Matrix for Japanese policy loans. The need for branding and marketing to promote exports and strengthen the sector is also clear, and it corresponds to their request for marketing-related Japanese advisors. It was confirmed that there is a high level of interest in forming a wellness cluster by collaborating with the medical industry and the travel industry. Activities such as promoting the formation of a collaboration platform involving these stakeholders and creating a roadmap can be part of the tasks of the advisors who will be dispatched from Japan.

The following are examples of potential support measures.

#### Export Promotion of Dead Sea Products: Marketing and Branding

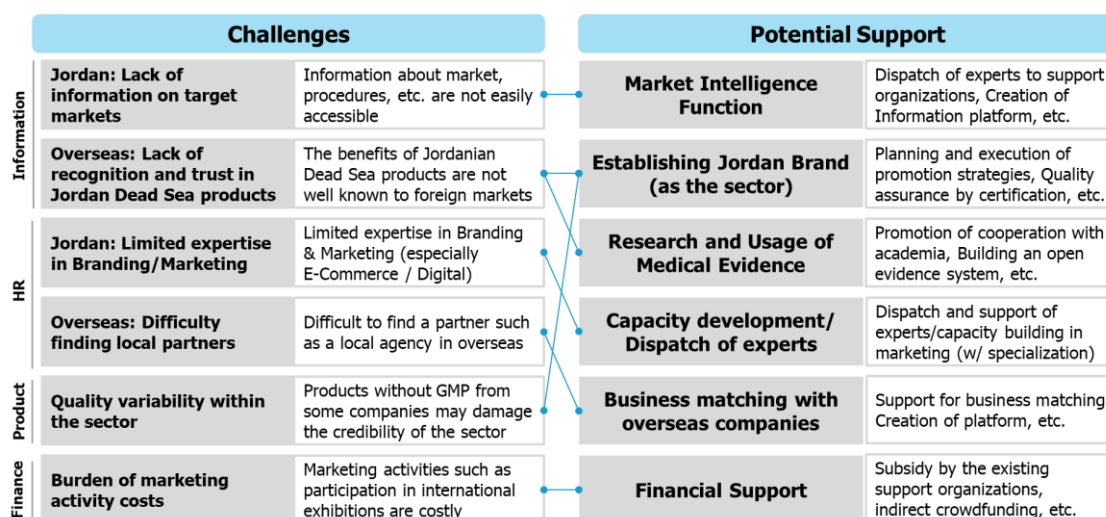


Figure 4-2 Challenges and Potential Support for Dead Sea Products

- **Market Intelligence Function**

Information on markets other than MENA, especially East Asia, is not easily accessible due to language barriers. There is a lack of information necessary for considering whether to enter the skincare market, such as the overview of the local skincare market and regulations to enter. Therefore, dispatching experts to organizations such as JE, JEDCO, and ACI (short-term), establishing an information gathering function (mid-term), and building a platform for collecting and disclosing country-specific market information (similar to the JETRO website of Japan), would be effective.

- **Establishing the Jordan Brand**

External promotion (including online) of the "Jordan Dead Sea brand" is important because the worldwide recognition of Jordan Dead Sea products as a whole and the

trust in the brand are still low. This is to support the entire sector as a country, separately from the branding and marketing activities of each company, and a spillover effect to the entire sector is expected.

In addition, for the problem of quality variation, it is possible to introduce industry certification. However, it will be easier to implement the above promotion after selecting brands at a certain level (i.e., acquired GMP, already exporting).

- **Research and Usage of Medical Evidence**

Since it is important to strengthen R&D from a medical point of view, it is necessary to promote industry-government-academia collaboration, and collect research and evidence, to be utilized for marketing.

As a support, for example, a mechanism of “open evidence” can be created on the effectiveness of Dead Sea minerals accumulated in collaboration with academia and public laboratories, which can be used by Dead Sea products and wellness-related companies.

- **Capacity Development / Dispatch of Experts**

Since many support organizations and companies have limited access to marketing and branding experts, there is a great need for capacity development of the marketing functions, and strengthening EC / digital marketing for the entire sector.

In the short term, it is conceivable to support the formulation and execution of E-commerce strategies for leading pilot companies by dispatching experts to counterpart organizations (support organizations).

The themes can contain D2C utilizing the company's website and social media, or utilization of existing online platforms such as Rakuten and Amazon. In the medium to long term, local experts should be developed through the capacity enhancement of the counterpart institutions and project implementation.

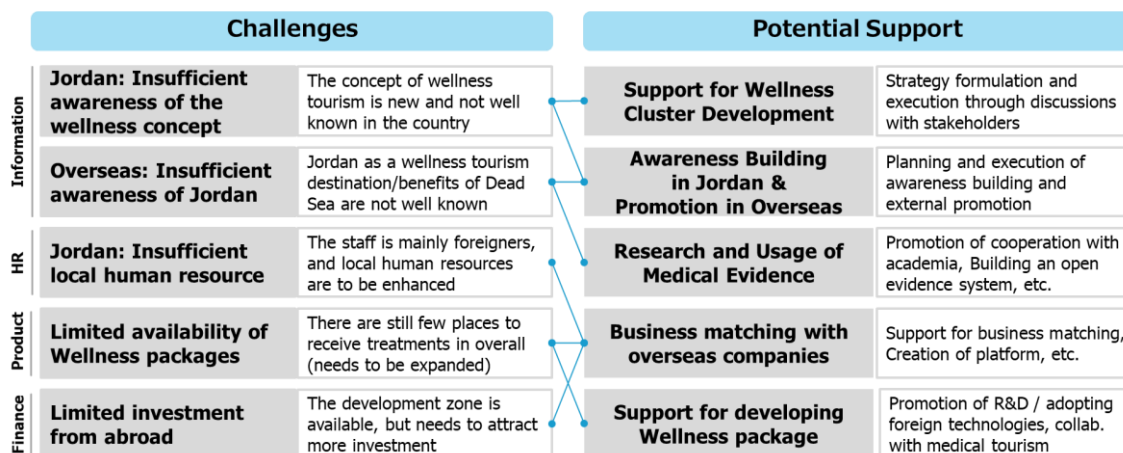
- **Business Matching with Overseas Companies**

Regulations differ depending on the country, but some markets may require the cooperation of import agents and consultants (e.g., company registration in Japan is required). It would be valid to create a mechanism that makes it easier to find such partners. Specifically, in addition to promoting participation in exhibitions and business meetings at conventional international events, the function could be added (in the existing organizations) to promote business matching that facilitates the discovery of agents and JV partner candidates. It is also possible to consider building an online platform for business matching and networking.

- **Financial Support**

Marketing activities such as exhibition participation costs are financially burdensome for SMEs, which compose most of the sector. However, JEDCO and others provide export subsidies to some companies, so the priority of additional support from JICA may be subordinated. Crowdfunding such as Kickstarter would be difficult as it is not approved in Jordan, but there may be an option to indirectly secure funds by crowdfunding overseas to support the sector through Jordan's intermediate organizations.

## Wellness Cluster Development



**Figure 4-3 Challenges and Potential Support for Wellness Cluster Development**

- **Support for Wellness Cluster Development**

Since the concept of wellness tourism is relatively new and has not fully penetrated Jordan, it is expected that careful explanation and consultation will be required to involve stakeholders. For the development of a wellness cluster centered on Dead Sea products and wellness tourism around the Dead Sea, a consultation platform for consensus-building among many stakeholders in academia, private companies, development zones and various support organizations will be required.

The wellness tourism strategy was formulated by the Jordan Tourism Board (JTB) in January 2020 with the support of USAID, but its implementation has been suspended due to the subsequent pandemic. Since the strategy limited to the promotion of wellness tourism has been formulated, JICA may be able to focus on supporting Dead Sea products and comprehensive wellness cluster development in collaboration with USAID and JTB.

- **Awareness Building in Jordan and Promotion Overseas**

Participation can be promoted in a collaborating organization with the pharmaceuticals and tourism industries, for international events and business meetings. Promotion is to be aimed at increasing the recognition of Jordan as a destination for wellness tourism. Domestic awareness building and overseas promotion of wellness tourism are considered a mandate of JTB, and consultation with USAID / JTB is necessary for implementation.

- **Research and Usage of Medical Evidence**

Dead Sea minerals are said to be effective for skin conditions such as eczema, atopy, and psoriasis. People who cannot dive due to diseases of the inner ear can swim, and being the lowest point on earth makes the Dead Sea area high in oxygen concentration.

The area has the optimum characteristics for wellness tourism. To utilize these assets, it is necessary to strengthen and promote their medical evidence and package treatments with a therapeutic approach. As described in the previous section on Dead Sea products, measures such as promotion of industry-government-academia collaboration (long-term human resource development, provision of research results and evidence, etc.) and a mechanism for opening evidence to companies can be considered.



- **Business Matching with Overseas Companies**

Similar to the previous section of Dead Sea products, it can be considered to strengthen collaboration between overseas companies interested in investment in Jordan, joint ventures, Dead Sea products, wellness clusters, and Jordanian companies aiming to expand overseas.

- **Support for Developing Wellness Package**

Besides ordinary spas, it is useful to develop integrated treatment packages that utilize Dead Sea minerals, which have benefits for skin and wellness, from a medical point of view.

It is also possible to consider cooperation with medical tourism (staying in the Dead Sea after treatment of illness or medical treatment) and, in the case of treatment of skin diseases and conditions, some treatments could be covered by insurance. However, it is necessary to involve many stakeholders across sectors and adjust their interests.

Therefore, it would be necessary to form a common platform among stakeholders to discuss strategic development and formulate a wellness cluster strategy that is highly beneficial to the private sector.

### Summary

Considering the support measures above, the feasible ones are considered to be as follows.

The dispatch of experts who supervise the development of wellness clusters, the establishment of a mechanism for research and utilization of medical evidence, and installation of support functions and capacity building by dispatching experts for the Dead Sea and wellness-related companies (market intelligence function, establishment of the Jordan brand, E-commerce, and digital marketing).

The stakeholder and counterpart institution candidates are as follows.

Category	Name of Organization	Comments on their potentiality as C/P
Ministry	Ministry of Industry, Trade and Supply (MoITS)	In the field survey, the Department of Industrial Development accepted and held discussions with JICA Survey Team. The Dead Sea Products / Wellness Cluster was outlined by the team and was included in the Policy Matrix as a priority sector for support. In the next survey / project, consultation on C/P institutions, coordination of stakeholders, and cooperation in policy making could be expected. Still, it is necessary to discuss the sector strategy, specific activity contents, and division of roles again with the Department.
Public / Cross-sector organization	Amman Chamber of Industry (ACI)	It is willing to be the counterpart of a project, but strongly hopes to be involved from the beginning of project design.
	Jordan Investment Commission (JIC)	It is a regulatory and management body for development zones and free zones. It can be a stakeholder in wellness cluster development.
	Jordan Enterprise Development Corporation (JEDCO)	Although the export readiness of the Dead Sea products sector is high, it is recognized that support for SMEs such as marketing is necessary. *They are also interested in initiatives related to ICT and food processing.

Category	Name of Organization	Comments on their potentiality as C/P
	Jordan Exports (newly established. 49% owned by MoITS and 51% by the private sector including the chambers of industry and commerce)	JE is a newly established organization specializing in strengthening exports (although it was established two years ago, it started operation in April 2021). They work closely with JEDCO to make joint efforts. They have specialists in the food processing sector, market intelligence, and logistics. Though they have high professional capabilities, they do not have specialists specializing in the Dead Sea and skincare products (as in other organizations). If necessary, support such as a training of specialists within ACI / JEDCO / JE can be considered.
	Jordan Free and Development Zone Group (JFDZG)	The organization can be a stakeholder and is ambitious to promote investment including the wellness cluster in the development zone in the northern Dead Sea. Also, there is a need for financial support for the visitor center to be constructed around the Dead Sea.
	Jordan Tourism Board (JTB)	Their mandate is the promotion in the tourism field. Although it will not be a C/P institution, it can be a stakeholder in marketing/promotion related to wellness tourism.
Industry Organization	Dead Sea (Products Manufacturers) Association	The association plays the role of bridging the public and private sector, in cooperation with ACI and JCI. They showed interest in participating as a stakeholder rather than a direct counterpart. (Note: many companies of the sector have not joined or left the association.)
	The Natural Body consortium (newly established)	the raw material supplier Al Numeira and other Dead Sea product companies have joined as members. The representative is leading the way in efforts close to the concept of wellness cluster, including the establishment of a treatment center in the Dead Sea development zone.
Company	4 companies were interviewed	Some companies have already started R&D/wellness tourism with medical/scientific grounds. (In general, each company has a different strategy and positioning, and the companies may not be cooperative with each other.)

In addition, cooperation with the medical academia, medical tourism industry, and tourism industry in other promising tourist destinations (e.g., Ma'in, Wadi Mujib, Aqaba) need to be consulted in stages.

Also, it must be noted that the sector is comprised of various SMEs and their speculations are not monolithic, thus there has not been enough cooperation within the industry. Domestic companies are seen as competitors, so it is necessary to consider their interests in the content of support.

### **4.3 Pharmaceuticals and Medical Supplies**

The pharmaceuticals industry is advancing into new fields such as biotechnology-based medicines. In terms of overseas expansion, regulations of the traditional markets have become stricter about making it mandatory to build local factories rather than exporting products from Jordan. Direct investment overseas is becoming mainstream rather than export; thus the employment effect in Jordan would be limited.

Although the pharmaceuticals industry expects government support in terms of taxation and preferential policies, the industry itself is considered to be sufficiently mature. The regulatory body, JFDA, has a need for a support in digitization (e-Government) to improve the efficiency of the certification process. USAID supported streamlining drug registration process but not for medical supplies.

The investment trend in these sectors has been positive during the pandemic, as many investors in 2020 and 2021 were pharmaceutical and medical supply companies including makers of masks, hygiene products, and antibiotics. The impact of COVID-19 created and realized a higher demand for the local production. Sourcing of raw materials requires cash payment in advance and there were long queues for API (Active Pharmaceutical Ingredient) sourcing.

Jordan's pharmaceutical sector has a strong presence in therapeutical categories such as antibiotics and cancer treatment. The newer category to focus on is biological products, derived from cells using cell banks. The cell banks are not in Jordan but are sourced through joint ventures with multinational companies, with technology transfers (e.g., a Korean company with Hikma, a Latin American company with NS Pharma). Marketing authorization is given to the local companies. Jordan also has the largest biological lab for test in the region.

This category is high-end, expansive, and without competition in the region, while the traditional category like generic products have many competitors in the region.

Incentives and localization are the industry's biggest challenge as non-tariff barriers are tough in many markets such as North Africa, and Egypt.

The largest export destinations are Saudi Arabia and Algeria. Algeria decided to enhance their own products so building joint ventures is required to enter the market. Products packaged locally in the country are no longer recognized as local products, forcing Jordanian companies to establish new facilities in Algeria.

However, the companies are facing challenges in the different level of facilities, human talent, and GMP. Considering the threat of investment moving to the other market, incentives for SMEs to build facilities such as compensation through bilateral agreements are required (JAPM interview).

Public-Private dialogue and partnership initiatives have been going on but the challenge for the industry is that cash cycle management becomes too long when they work with some governmental institutions. Also, the industry hopes for more consistency in government policy, such as treating machinery and spares equally (machinery is exempted from customs but spares are not).

Pharmaceuticals are highly regulated with technical requirements, so expansion to new markets will be difficult. Analysis at the firm level and financial support to develop products might be potentially valuable; MoITS, JFDA, Ministry of Finance are the main counterparts.

Regarding donors, USAID has been conducting many projects including process automation. GIZs also support the industry through T4E (Trade for Employment), institutionalizing Public-Private dialogue.

With support in developing the products and joint ventures with international counterparts, expanding markets will be more tangible (but the support must be at the firm level), in addition to capacity building in training of regulations (local, regional, international) / quality / intellectual property.

Supplements and health foods can be included in the wellness cluster, in contrast to pharmaceuticals, which need a prescription. There are around 10 companies specialized in supplements products.

The important factors of the value chain are R&D and manufacturing. Regarding generic products, development of formulations tested in the lab is needed. There are six CROs (contract research organizations) in Jordan. Value-added medicines, such as re-formulation (fewer pills can be taken) are also important factor of growth.

Regarding sourcing, much research recommends the local production of raw materials/API in Jordan but that is not cost effective and not realistic (JAPM interview).

JFDA is the regulator of medicines and medical supplies besides food and cosmetics. It issues certificates to register products, to import and export including GMP certificates, and it conducts inspection of the companies.

Regarding the standards, instructions derive from the drug laws, and the standards are set through collaboration with the stakeholders before obtaining approval of the cabinet.

Every batch of drug and medical supply products are tested by JFDA, which has its own lab directorates. Test labs are only in Amman and Irbid. The lab in Irbid is mainly for food, and there are private labs (in some cases at a university), and a branch in each Governate (used for inspection mainly).

The medical supplies sector grew rapidly due to COVID-19. There were only few companies in the sector before the pandemic, but 50 companies are manufacturing and exporting masks and 60 companies producing sanitizers. JFDA checks the availability and quality of these medical supplies (masks and sanitizers) in the Jordanian market before exporting to avoid a shortage in the country.

One of the interviewed companies, which manufactures Dead Sea products, also started producing sanitizers in response to the COVID-19 demand, although they obtained the necessary certificate eight years ago. They import alcohol from Pakistan and China, currently selling in Jordan only because they were not allowed to export the products due to controls on the national stock level. They are willing to export the products to the markets with large populations like China and India if the regulation is lifted in the future.

JFDA has an IT system already for drug department, but the medical supplies department and cosmetics department need to enhance their IT system (beyond their essential system that is currently in use). USAID intervention is supporting only the drug department so far, thus JFDA is interested in receiving grants for the testing lab/IT system and/or technical assistance if it is applicable to JICA support.

Since the pharmaceuticals and medical supply sector is made up of mature industries that are relatively self-propelled, there seems no particular strong need for JICA support other than JFDA's request for digitization support.

#### 4.4 ICT (Tech-Based Startups)

In the Interim Report, expectations for the spillover effect on employment and economy of TBS promotion in Jordan was mentioned. But on the other hand, the issues related to the legal system and its operation and other aspects of improving the business environment for the startups has also been pointed out in the reports conducted by int@j jointly with GIZ.

In the field survey, the JICA Study Team clarified what kind of issues and public support requirements private actors such as local TBS and startup support organizations currently have, including recovery from the negative impact of COVID-19. The purpose was to understand the location of public intervention initiatives in line with that direction and the room for JICA's support.

##### (1) Start-up Ecosystem in Amman

First, when detailing the business environment surrounding TBS in Jordan, evaluation needs to be done for each city separately. In the field survey, we visited the capital city of Amman, and Aqaba, a special economic zone in the south. The populations of the two cities are about 4 million for the former and about 200,000 for the latter, which is about five percent of the former. Such differences in population size not only affect the absolute number of TBS gathered, but also the network between startups, the frequency of interaction with external companies, the concentration of support organizations such as VCs and accelerators, the ICT infrastructure environment, and the market size of the services provided by TBS. This is to make a decisive difference from the starting point of business environment evaluation.

Regarding Amman's startup investment scale, it is estimated that a total of USD 95 million has been raised to date, guessing on the information obtained from Oasis 500, which invests in seed and post-seed stage startups. In discussing Amman's startup development environment, it is inevitable to mention the role that King Hussein Business Park (KHBP) plays as a location. KHBP is run by a military-owned private company and is built on approximately 1.4 square kilometers of land owned by the Jordanian military. The business park is home to renowned international companies such as Cisco, Microsoft, Oracle, Samsung, Ericsson and Unilever, as well as local companies and a number of TBSs and support agencies under the Grow Startups initiative. It is the main TBS cluster in Amman. The target sectors are set as (1) ICT, (2) healthcare, (3) media, (4) hospitality, and (5) NGOs, but the sympathy and contribution with the community values are evaluated first and judged to become the tenant companies.

**Table 4-3 Tenant ICT Companies Headquartered in Jordan**

Company name	Main business	Employment size
Arabia Weather	Weather information service provider	11-50
Gate to Pay	Payment and fund management services provider	51-200
Arabia Cell	Website, mobile application developer	Unknown
EHS-Hakeem	Electric medical information provider	201-500
Al-Mamlaka TV	News media	201-500
Al Wakeel	Web news media	Unknown

Currently, due to changes in working styles in reaction to COVID-19, it is thought that exchanges between startups and between startups and tenant companies are not as active as before, causing many lost opportunities. But many joint projects and JVs have been created in the past, and

effective collaboration has been created. In addition, it is evaluated that the event held by the KHBP has created contact points with companies outside the business park.

There are eight startup support agencies that have offices in KHBP. In addition to publicly funded incubators, private-sector startup support agencies such as the CSR branch of the three major telecommunications carriers (Orange<sup>4</sup>, Zain, and Umniah) also have offices here. All telecommunications carrier startup support organizations are operated as a part of CSR, not as a profitable business, and do not take fees or equity from startups. It is common with other incubators in terms of providing free office space to startups and entrepreneurs, providing business advice and market acquisition support, and providing business services in terms of tax and legal affairs, but they also contribute to the company's open innovation by holding pitch events and thus bridging startups with their head office. Besides, KHBP also houses Al Hussein Technical University as an academic institution, which plays a part in the startup ecosystem. In the field survey, we interviewed iPark, an incubator that provides business advice to early-stage entrepreneurs, Zain Innovation Campus (ZINC), which supports TBS financing such as searching for investors, and OASIS 500, which is an incubator but invests in equity. For reference, the table below lists the identified major actors in Jordan (Amman) startup ecosystem, including the institutions that could not be visited this time.

**Table 4-4 Major Startup Support Organizations in Amman**

Organization Name	Category
MoDEE	Government
int@j	Industry organization
Oasis500	Incubator, Accelerator
ipark	Incubator, Accelerator
Zain Innovative Campus	Incubator, Accelerator
The Tank by Umniah	Incubator, Accelerator
Orange Digital Village	Incubator, Accelerator
King Hussein Business Park Company	Business Park
Princess Sumaya University for Technology	Academic institution
Al Hussein Technical University	Academic institution
Al-Quds College	Academic institution
Endeavor Jordan	NPO (entrepreneurship training)
TTi	NPO (entrepreneurship training)
ISSF	Start-up Fund
JLGC (Jordan Loan Guarantee Corporation)	Public agency

According to the interview results, although Jordan certainly has policy instability, the promotion of startups in Amman is generally on track. Startup support organizations work together to constantly exchange information about good startups and work to provide effective support. Even on a KPI basis, it is indicated that the achievement level of their internal output indicators of iPark and ZINC are satisfactory. Oasis500 reported that it crossed the break-even point for the first time last year as a VC fund. Also, in terms of the international market expansion of TBSs from Jordan, KHBP has observed some successful cases such as EHSI, which provides electronic medical information services, and NAFITH, which provides digital logistics solutions. In view of these circumstances, the startup development environment in Amman is currently on track, and it seems that private support agencies are generally making positive observations.

The only concern with incubators/accelerators that do not involve equity investment is that startups that are on a growth track sometimes move their headquarters overseas. As pointed out in the previous report, The cause is the lack of predictability in the business environment, such as

<sup>4</sup> Orange has run its accelerator program, the BIG Program, inside KHBP, but is now moving to a corner outside the park as Orange Digital Village.

the government's inconsistent judgment on the suitability of taxation and preferential treatment, and sudden changes in regulations that are detrimental to startups. For example, in August 2019, with the introduction of the online platform for e-commerce customs procedures, the Customs Department reduced the personal tax exemption range for cross-border transactions in e-commerce from JOD 200 per month to JOD 500 per year to protect local manufacturers. In reaction to this event, Jordanian startup Cash Basha, which operates a popular e-commerce site, was expressing their backlash arguing that the consumers buy goods only available from abroad in cross-border e-commerce, and the rule change unfairly put their business in Jordan at a disadvantage. What they expect from the government (especially MoDEE) is a consistent operation of taxation, incentives, and regulations in line with their growth strategy. However, support actors also understand that Jordan is too small for the TBS market, and as long as back-office functions and service development functions remain in Jordan, they are not so pessimistic even if the successful TBSs move their headquarters to another country for sales advantages. It can be said that expectations for maintaining the current business environment in a stable manner are higher than seeking new large investment incentives.

## **(2) Start-up Ecosystem in Aqaba**

While the startup ecosystem in Amman can be evaluated as functioning autonomously to some extent, the situation in Aqaba is evaluated to be far more immature than in Amman. Although the number of startup support organizations based in Aqaba is limited, the JICA Study team visited iPark Aqaba and conducted an interview.

iPark Amman in KHBP provides consulting services for startups that have already opened a business and are preparing for investment from investors as its support target. On the other hand, half of the clients of iPark Aqaba are entrepreneurs in the conceptual stage who have not yet registered their businesses. It is characterized by the fact that the support targets are in the earlier stage than KHBP's. In addition, after formulating a concept and opening a business in Aqaba, iPark Aqaba half-recommends the startups move to Amman from the viewpoint of sales opportunities and does not necessarily stick to the model of expanding the scale in Aqaba. The business model that collects fees from startups that have already opened a business is the same as Amman, but the fees are much lower than in Amman.

Due to its open climate, Aqaba attracts not only Jordanian but also foreign entrepreneurs. Egypt and Canada are included in the actual cases. But iPark Aqaba is now operating as a place for entrepreneurs to develop a concept, and it seems that there is a gap from the regional promotion concept of expanding employment opportunities to the local area with startups as a lever. In addition, there are few educational institutions in Aqaba, thus the local ICT human resources are limited. There are three universities in Aqaba that have IT programs, but Jordan University and Balqa Applied University, not like Aqaba University of Technology, are the branch schools, so it is difficult for them to collaborate in a joint project because the headquarters usually take such initiatives.

Regarding the business environment in Aqaba, because the legal system must eventually follow the movement of the national government, even within Aqaba SEZ, it cannot be expected that only Aqaba can enjoy a more favorable and relaxed legal operation for startups. On the other hand, Aqaba is a smaller community than Amman, so it is easy for anyone to build relationships with key stakeholders, which is an advantage. Furthermore, as a model city nationwide, Aqaba has accumulated a wealth of experience in providing public services through PPP under ADC. The capability of making more dynamic and quicker decisions can be counted as an important advantage of Aqaba.

What is currently most lacking in Aqaba is the market, and if it is possible to create a place (demand) for startups to play an active role, there is a possibility of regional development through the promotion of Aqaba startups.

### **(3) Awareness of Issues of the Private Sector**

Regarding the impact of COVID-19, an interview with KHBP suggested that there are not only negative impacts on startups. For example, while large companies have reduced their business scale by reducing the office space they rent across the board, some startups have even expanded their office space. In particular, strong performance is observed in the fields of E-health and E-payment, and it is also reported that there are TBSs that have entered into service tie-ups with MoH and MoE. In the context of recovery from COVID-19, the JICA Study Team did not see an urgent need for support from the startup community.

On the other hand, issues related to legal regulation and operational instability, which have been raised as issues repeatedly, remain. MoDEE, which has been reorganized as a new ministry, is expected to be the coordinator inside the government to estimate the impact of new rules introduced by each specialized ministry on TBS.

### **(4) The Support Needs from the Public Side**

MoDEE is currently working on the following four initiatives to promote entrepreneurship.

- **National Incubation Program:** Forty knowledge centers throughout Jordan have been transformed into incubation centers, with 3-4 incubation centers in each governorate. In this way, young entrepreneurial people have access to incubation services and foster creative business ideas.
- **Market Access:** Assisting Jordanian companies in attending London conferences aimed at building partnerships with foreign markets, hosting networking events for domestic entrepreneurs and Jordanian expatriate investors in the UAE, and matching selected Jordanian startups with Silicon Valley and UK companies are implemented.
- **Entrepreneurship and Startup Business Promotion Initiative:** They are discussing amendments to the regulations in collaboration with Jordanian Strategy Forum and J-core program participants to remove barriers and improve the Jordanian startup business environment, involving stakeholders from other ministries and agencies.
- **Building a legal framework for social entrepreneurs:** Working with partners such as the international NGO "Plan International", they are working to create legislation for social entrepreneurship that incorporates the definition of social enterprise recognized by the international community.

Last year, MoDEE requested the dispatch of Japanese experts for the draft AI strategy. As the background, MoDEE is planning to develop AI capabilities in anticipation of AI becoming a technological trend in the near future. On the other hand, although there are certainly TBSs in such places likely to be related to AI technology such as gaming and virtual conference platforms, initiatives centered on technological elements including AI are hardly observed in the reality of the movements of private actors.



## (5) Direction of JICA Support

- Dispatch of AI experts
  - The startup support community basically provides start-up support based on needs, and does not have a support initiative focused on a specific technical field or application field.
  - Public actors such as MoDEE and int@j have been raising the level of the industry base such as ICT human resources development, but the demand for AI human resources has not yet become so apparent. Referring to the actual example of a leading company, it seems that having one excellent US university graduate is so far sufficient to develop their AI-related service.
  - Although it is an experimental attempt, Orange Digital Village is trying to start an acceleration program focusing on AI-related startups in collaboration with PSUT. Although the program has not started yet, it is successfully attracting the participants with above 100 applications so far. This shows a high level of interest in AI utilization in Jordan. As the next step, it is required to create a mechanism for industry-government-academia collaboration that promotes the active utilization of AI toward the upgrading of the industries in Jordan, including public services.
- Public-private coordination
  - There is a need to form a platform to consult with the startup support community to measure the impact of policies on startup promotion before the government introduces new legislation.
  - However, according to ZINC, such a public-private dialogue platform has started with the support of other donors, and it is evaluated that it is already functioning. In this regard, GIZ is helping to bring together stakeholders in the startup ecosystem and have a monthly informal roundtable in the "Employment-oriented MSME Promotion Project". The program, called "Collaborative, Open and Rising Entrepreneurial Ecosystem in Jordan (J-CORE)", has involved the government and is now a platform for regular public-private dialogue on startup-related legislation.
  - Since there is no support request from MoDEE's department in charge of entrepreneurship development so far, JICA Study Team estimates that the room for JICA support is low in this field.

## 4.5 Summary

The above sections organized and analyzed information on issues and support measures in the food processing, the Dead Sea Products / Wellness Cluster, pharmaceuticals and medical supplies, and ICT sectors. From the viewpoint of the impact (spillover effect), the necessity and feasibility of support, the following section summarizes the validity of the sector as a subject of support.

Sector	Potential/ Spillover effect	Necessity and Feasibility of Support	Summary
Food Processing	There is an effect of increasing added value and expanding employment by building an integrated value chain with agriculture	Japan has knowledge of smart agriculture and food value chains, so the feasibility of support is high. On the other hand, many donors and institutions are already implementing support and initiatives	Due to the wide variety of sub-sectors, it will be better to prioritize items that can be incorporated into wellness cluster (e.g., olive oil, dates, etc.) rather than collective support for the whole sector.
Dead Sea Products / Wellness Cluster	It is possible to utilize Jordan's unique assets such as the Dead Sea, and the potential is high for trade promotion, inbound tourism, and investment expansion through synergistic effects with wellness tourism	Public support is not sufficient and industry support needs are high. Japan also has knowledge of industrial cluster policy, wellness tourism, and marketing of the cosmetics industry	Recommended as the highest priority sector for support due to the reason on the left, and the fact that it was listed as a priority sector in the Policy Matrix of MoITS.
Pharmaceuticals and Medical Supplies	Medical supplies are growing rapidly due to the COVID-19. On the other hand, pharmaceuticals are switching to direct investment rather than export, making less spillover effect on domestic employment	Although the pharmaceuticals sector expects government support in terms of taxation and preferential policies, the industry is mature enough. Efforts such as public-private dialogue and partnership are underway	Other than JFDA's request for digitization support, the sector is mature and self-propelled, thus the urgency of intervention is low overall.
ICT (Tech-based Startups)	The spillover effect of utilizing ICT on other industries is high. The startup ecosystem is in place to some extent and is expected to grow in the future	There is still a need to improve the business environment for the promotion of TBS, but there is a public-private dialogue platform, and coordination within the government will be the focus to go beyond this.	The dialogue is progressing and securing employment for young ICT human resources to be produced seems a higher priority, thus the urgency of intervention is low as a whole.

Jordan has a relative advantage of having the assets of the Dead Sea (Dead Sea-related Cosmetics, Wellness tourism), and the sector has great potential given the size and growth of the global skincare market as well as the scale and growth potential of wellness tourism. Although it is a relatively new concept, wellness tourism is attracting attention as JTB/USAID formulated the Wellness Tourism Strategy, and the rise in health awareness after COVID-19 may also be a tailwind. By capturing these global demands, the Dead Sea-related cosmetics/Wellness sector is expected to have significant room for growth.

Although the scale of "Dead Sea-related cosmetics" alone is small, it has a spillover effect on the tourism sector (increased number of inbound tourists, length of stay, increased consumption, strengthened community tourism) by combining with wellness tourism assets including the Dead Sea and treatment packages with medical approaches. Synergistic effects may lead to increased employment in the Dead Sea manufacturing companies and the tourism sector, and increased investment in Jordan (especially in the Dead Sea development zone) through joint ventures and partnerships. In addition, Jordanian food products such as dates, pomegranates, and olive oil would align well with wellness tourism if they have effects on health and beauty (e.g., Development of meals with a flavor of local uniqueness and effects on health and beauty, along with treatment, spa, activities, around the Dead Sea).

A comprehensive industrial promotion policy for the sector as cosmetics or Dead Sea Products has not been established although there is a high demand for industry support. The public institutions that support companies also see a shortage of experts specializing in the Dead Sea Products and Wellness tourism and requires the support in the field. For these reasons, JICA Study Team concluded that the Dead Sea Products and Wellness Cluster should be prioritized when considering support measures.

## **Chapter 5. Information Collection on Aqaba**

### **5.1 Issues Related to Aqaba SEZ and JICA Support Measures**

Aqaba, Jordan, borders both Israel and Saudi Arabia, 360 km south of Amman at the northeastern tip of the Red Sea and extends to Egyptian waters. The city is a regional trading center dating back to 4000 BC and has a long tradition of the Aqaba Special Economic Zone (ASEZ) acting as a catalyst for regional development.

Aqaba Port is the only port in Jordan, and the airport has been developed beside the capital Amman, making it a major base for investment and trade. On the other hand, in line with the rapid urbanization, urban problems and issues from the viewpoint of urban and regional development and sustainable urban development need to be dealt with. Regarding Aqaba SEZ, there was a request to JICA by the Government of Jordan to update the master plan and develop it with the smart city concept. In this context, additional investigation and analysis were required and an on-site survey was conducted additionally. DX-related issues including smart port in the context of smart city, the situation of Aqaba airport with COVID-19, and the urban problems were investigated.

#### **5.1.1 ASEZA and ASEZ Master Plan**

ASEZA (Aqaba Special Economic Zone Authority) is a main developer of ASEZ (Aqaba Special Economic Zone), and it also works as the administrative organ of ASEZ in Aqaba Governorate. It was established by absorbing the administration in the ASEZ area of Aqaba Governorate before the establishment of ASEZA in 2001. ASEZ is responsible for the management and development of a special economic zone covering an area of 375 square kilometers, including the entire 27 km Jordan coastline, and as an autonomous municipality stipulated by the Law, reporting to the Prime Minister, ASEZA works on then urban development without the unnecessary interferences by the other ministries. ASEZA is an administrative organization independent of the governmental ministries, responsible for the financial management of SEZ development, providing administrative services within the administrative area, and providing public infrastructures (with suppliers of water, sewage, and electricity). In addition, as a regulatory body for urban development, ASEZA plans and issue planning permissions for ASEZ's development. ASEZA also covers all investment needs, and provides one-stop shop support to investors to secure investment for ASEZ.

ASEZ is to be developed with a special tax exemption, low tax rate, and multi-sector development zone. This master plan development was supported by USAID. The development plan covers a wide range of areas, including port, city, commerce, tourism, academia, and investment sector promotion, and classified into in five regions (Aqaba Town, Port Area, Coral Coastal Zone, Southern Industrial Zone, and Airport Industrial Zone) as illustrated below. Infrastructure investment is a precedent, and land changes are based on private-sector participation and proposals. The master plan works as indicative plan to induce independent private-sector investment. Especially, the investment for tourism and port is expected.

Area	Plan
Aqaba Town	With the aim of providing opportunities for investors for creating a unique cultural environment, modern construction plans for (1) complementing the traditional elements of the old town and (2) developing tourism, commerce and residential areas.
Port Area	The Aqaba port area includes the old port (tourist port) area, container port area, and southern industrial port area. The old port area has been redeveloped as a tourist port by incorporating elements of entertainment, housing, hotels, and cruise service centers. The container port area will be expanded and the South Industrial Port is also expanded as a new logistic facility.
Coral Coastal Zone	Construction of housing, hotels and recreational facilities, including coral reef protected areas, which are tourism resources and nature reserves. Advanced resort development including beach and coral reef protection.
Southern Industrial Zone	Taking advantage of its location on the coastline of the southern industrial area, on the existing old port functions, it has been redeployed by adding new warehouse / transportation functions and new functions, including a railway terminal.
Airport Industrial Zone	Since it is an area around the airport and is an ideal location for airport-related business activities, industrial facilities, logistics and distribution, high-tech industry, warehouses, light industry, showrooms, office buildings, etc. will be prioritized.

Source: Aqaba Special Economic Zone Authority

As a result, the population has increased from 60,000 in 2001 to 200,000 in 2020. The investment amount has increased from the target of USD 6 billion (in 2020) to the one around USD 12 billion (as of 2017). The investment amount for tourism development was planned as 50% of the total amount, (initially and about 30% is for the service industry and 20% for the manufacturing industry), the actual one for tourism development gets to 80% of the total amount.

In tourism development, there are several successful stories for low-density large-scale resort development namely in the Ayla, and Saraya sites near the Aqaba city center. The Ayla (site size is 430 ha) is implemented by a private developer. The construction started in 2006; full-scale development has progressed since 2012, and USD 1.5 billion out of a total planned investment of USD 2 billion has been invested until 2017. It is a mixed-use development of luxury hotels, conference halls, and commercial facilities. Residential development is planned ahead. Since it is a real estate investment, development will proceed depending on demand.

The adjacent Saraya (site size is 63 ha) has been developed since 2005. There was a change of the developer in 2015. Despite the initial setback, a total of USD 1 billion (up to 2017) of the total investment of USD 1.5 billion has already been invested. Condominiums and luxury hotels are located and the water park is being developed. For these two large-scale projects there was a delay due to the selection process and replacement process of the developers. Nonetheless these developments pioneered the development of other large-scale resort developments.

Marsa Zayed, including the former main port area which is to be relocated away from the town center, is owned by a development company based in the UAE and will develop waterfront resort hotel facilities, residences, and commercial facilities starting from cruiser terminal development, with an investment of about USD 10 billion over a period of about 35 years. As the land is sold by the Government to its master plan, the development itself depends on the intentions of the developer and owner. In addition, new Al Matal High Resort is also planned, and in here medical tourism is also aimed at.

In Marsa Zayed, the development proceeds with the intention of the owner and developer because the government sells the land to the developer, making it unclear how land use will progress so that land use regulation has not progressed well. Since it is a luxury-oriented real estate development, it is unclear what will happen due to economic fluctuations although the necessary infrastructure has been supplied according to the requirements. The former cruiser terminal area has also been in the deal packages and the area is now used, as rented free of charge. Regarding the new cruiser terminal, several locational options are considered in other port areas.

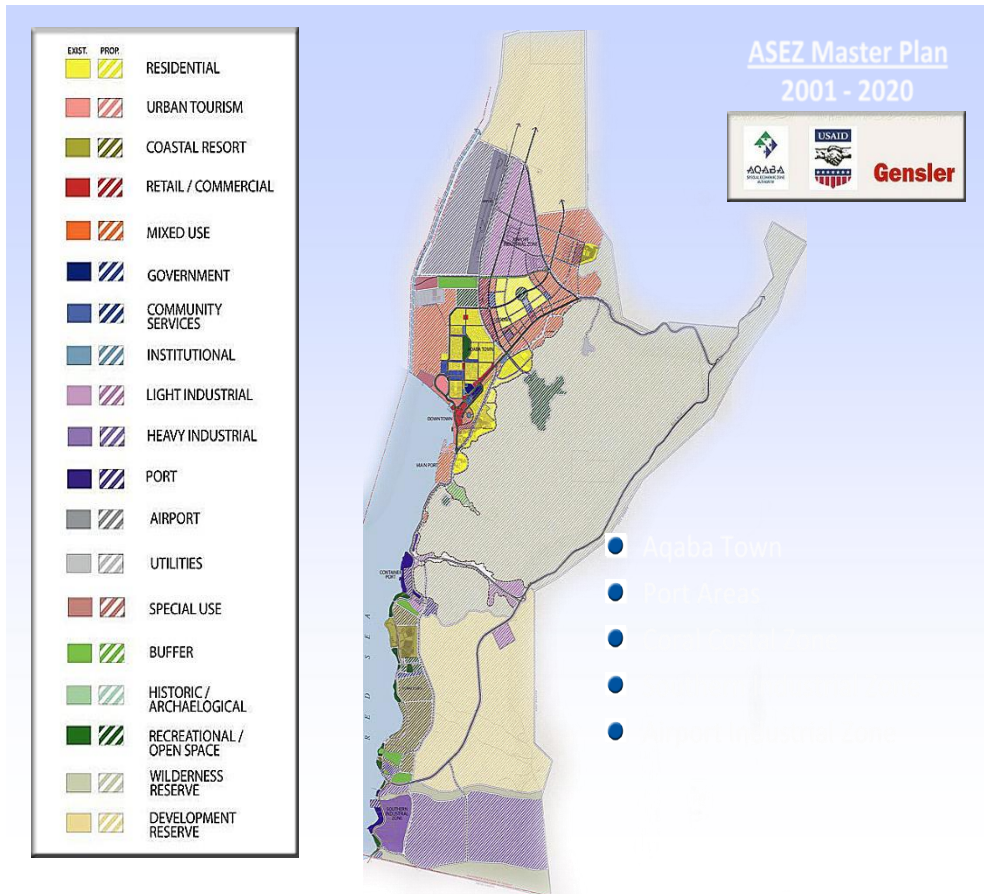


Figure 5-1 Current Master Plan (ASEZA)



Figure 5-2 Marsa Zayed Development in Aqaba

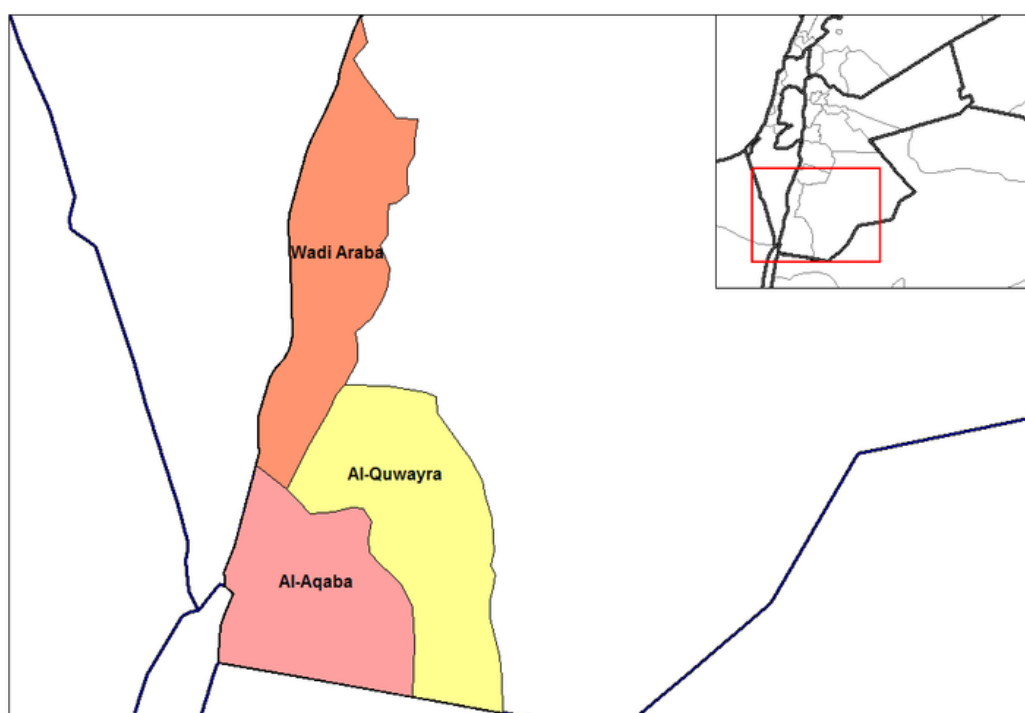
### 5.1.2 Necessity of Updating Master Plan

As with the 2001 masterplan, the necessity of the update is confirmed as the City Planning Act requires renewal about once every 10 years and the ASEZA Law requires renewal for about 10 years, and two more areas have been newly incorporated into the management area of ASEZA, and to cope with the recognized urban problems. In particular, it was confirmed that sustainable urban management by ASEZA is being aimed with using ICT as a starting point and that smart city is the concept in the formulation of urban planning master plan.

As with the newly added areas, although the size of the areas is large, the population is small (Wadi Araba has about 10,000 people, Al Quwayrah has about 30,000 people), and are mostly desert with scattered settlements. They are sub-districts belonging to the former Aqaba Governorate as shown in the figure below. The annexation is a government decision in line with the community development. The development is supposed to be implemented as the SEZ status, and investment promotion and development will be carried out accordingly.

The development policy is currently undecided, and the current concept is being organized:

(1) Wadi Araba is planning to introduce new industries while there are offers for agricultural investments. The problem is how to improve the infrastructure such as water supply to this vast area; (2) Al Quwayrah is developed to build and industrial location with the development of new industrial parks and has also a plan for ecotourism sites, however a comprehensive plan for the area has not been yet evolved.



Source : Aqaba Nahias

The problems of the current master plan were pointed out at the time of the survey, such as how to make the urban configuration, set out a clear development policy (land use approach as expansion or gradual and incremental), and how to make a development management whether being led by the public or whether it will be carried out by a private sector-led system such as PPP, including securing funds and the setting of economic and social development framework is to be well considered and set out. In the review of the current master plan in 2010 which was outsourced to a local city planning consultant to make up a proposal for the direction of renewal

of current the master plan, however, ASEZA made a status quo course deciding to develop a set of large-scale projects. In the proposal, in response to the situation for the past 10 years, it is stated that there are concerns about urban dispersions and the tourism developments are concentrated in some small areas. Therefore, it was suggested that an multi urban core development is set out in other areas for industrial /business agglomeration. The focused development of public beaches near resort sites were also suggested in the proposal, and the forecast of future housing development, and the outlook for housing investment were also made based on the scenario of population growth.

It is also pointed out that the issue of how to develop privately owned land, which is transferred to the private sector, is also a problem that requires political judgment. If the publicly owned land is sold and left to the development of individuals and developers with no contractual requirements for specific development with the investors and owners, there is no restriction on private rights to investors and owners. There is a concern that it will make orderly city planning and development difficult.

On the other hand, due to the influence of the COVID-19 and the recent economic decline, the development plan of Aqaba SEZ in 2001 appear to be not in line with the current situation in some parts. Open spaces, parking problems, urban redevelopment (including urban slums situation), underdeveloped public beaches, and rehabilitation of public facilities become visible. It is also pointed out what to do with the development of the coral area asset to the Aqaba tourism environment. There are also problems such as underdeveloped public transportation. The part of the development is progressing in the northern region, however, with the existence of vast open spaces, there appears to be surplus land for development even in the center of Aqaba. At the time of the field survey, several measures to the response by ASEZA are observed.

- In the city center, vacant land lots and abandoned facilities are scattered, and the City Planning Department is updating the situation of land bank and is also planning to guide the facility to be regenerated. Development procedures are being upgraded to a one-stop shop approach.
- Since the situation is completely untouched in the area adjacent to Aqaba Airport and the designated business area in the north of Aqaba center, new promotion measures are contemplated.
- In order to increase the attractiveness of the city center, plans to develop are under preparation for the renewal of archaeological sites and tourist facilities. However, there is no particular movement at other public beaches.)
- As for urban services, studies on solid waste treatment and public transportation development are in progress. A concept for decent housing development for young people is considered.
- The replacement options for new cruiser terminal is undertaken to increase cruiser tourists.

In the development of large resorts, the speed of development itself has slowed down due to the impact of COVID-19, however, some new facilities are being developed in response to the return of tourists in areas of the Ayla and Saraya. It is noted that with the influence of COVID-19, the hotel was closed due to lockdown, but tourists are gradually returning back to Aqaba.



### 5.1.3 Toward Solving Urban Problems

Regarding the economic and social development framework as an investment, the ambitious goals are set out for employment and economic growth (specifically, by 2025, the number of rooms will be 5,000 to 12,000, and the number of industrial parks will be expanded to two to five). However, urban problems have become apparent due to the increase in urban population due to the progress of development and the overweighted development projects.

In particular, among the problems are those concerning infrastructure systems which include open spaces, lack of green spaces, lack of urban public transportation, and lack of solid waste treatment systems. The revitalization of the central city area and the problem of urban housing have also been pointed out. In addition, the update presents the following perspectives:

- Clarification of urban development policies
- Drafting a comprehensive plan for the two newly incorporated districts (Al Quwayrah was annexed in 2017 and Wadi Araba was annexed in 2018)
- Although the focus is on luxury resort development, the development of various accommodation facilities for budget tourists (there is also a response to an increase in airport users)
- Development of redevelopment in the city center, maintenance of open spaces, and maintenance of public facilities; maintenance in commercial and business districts
- Redevelopment and maintenance policy in coastal areas such as public beaches
- The prospect for inexpensive housing development
- Agricultural policy prospects with agricultural areas having entered urban areas (there is an initiative supported by the Norwegian government)
- Development of a solid waste management system for landfill (with interest by EBRD)
- Ensuring the conservation of the Coral district (with an MOU supported by UNDP)

It is necessary to organize the smart city concept that guarantees sustainable growth as a review method and to advance the method as a master plan development. It also includes the development of detailed district plans in the considerable areas, regulatory guidelines, disaster prevention plans, and mapping.

### 5.1.4 Prospects for Smart City Approach

In the ASEZA City Planning Department, along with changes in investment priorities as SEZ, there are needs for multifunctional efforts, including: the encouragement of investment in land use starting from further tourism development, review of urban structure, housing development, maintenance of hazard maps, and acquisition of a variety of plans and implementation methods that utilize ICT, such as the development of regulatory guidelines for the development of urban planning/urban landscapes, the development of 3D models as city planning, and the development of Urban OS, API (IoT).

The necessity of making use of lessons learned from advanced cases is increasing, in order to secure employments as well as to provide for a good urban life by developing diverse industrial bases through the introduction of the ICT industry. It is also necessary to set detailed zoning systems such as guidance areas and regulated areas that also develop public facilities to promote private financing and detailed development parameters such as the floor area ratio.

There is no national smart city committee, but as an independent organization, ASEZA has a desire to include royal officials such as the crown prince and spread its activities to other governorates in a decentralized and bottom-up manner. In ASEZA the development of a smart city unit is contemplated, and internal consensus building is progressing.

## **5.2 Aqaba Port Perspective**

### **5.2.1 Aqaba Port Redevelopment**

Aqaba Port is the only port in Jordan, and port development focuses on port development in line with the 2002 ASEZA Master Plan (2000-2020) (Land Use Plan). The old main port was abolished, and it is relocated in the south of Aqaba near the Saudi border, developing an industrial area at the new port, and developing specific berths for energy imports.

Under the guidance of ASEZA, ADC (Aqaba Development Corporation), which was established in 2004 as the regional government and public administration entity of the Aqaba Governorate, works as the development entity to invest and manage the port and airport, and some industrial sites. In the development, ADC is promoting the development that is made by the PPP method in a contract partner.

Since 2003, Aqaba Port has been reorganized and redeveloped to eliminate congestion. In addition to strengthening the container terminal, the Aqaba main port has been abolished, and a heavy industry industrial area and a new port area where logistics and warehousing facilities will be installed is being developed in the area adjacent to the Saudi border for consolidation. Other ancillary facilities include NAFITH (in PPP), which manages truck operations. There is also a movement to apply blockchain to customs clearance for cross-border cargo movements. A tracking system for containers and cargo is also under way.

Regarding investment in port facilities, the following are highlighted in recent pipeline projects.

- a) It is expected that there will be a new Ma'an dry port for receiving phosphate ore and a new railway design plan between Aqaba and Ma'an (an agreement with investors has been concluded) as well as a fertilizer complex.
- b) Basra-Aqaba pipeline development for Iraqi oil exports (currently Zarqa receives oil and has a refinery) and refinery construction (coordinated by national project but unclear).
- c) JICA provides free support for x-ray facilities and equipment to improve the efficiency of customs and customs clearance.
- d) Among the involvements of ADC, there is the development of industrial parks. The industrial estate run by the developer, PBI Aqaba International Industrial Estate LL, is well developed. It is being implemented at BOT and is to be completed by 2030. The rest are relatively small, and mainly focus on the warehouses and logistics such as the other industrial park, APRECO. It is noted that the owner of the PBI is a Chinese company. PBI will also carry out the industrial development and maintenance as a BOT in Al Quwayrah for 15 years under a recent contract.

Infrastructure development in terms of ports and logistics seems to have no major problems other than the delay in progress at New Port. There are problems such as the implementation system where the PPP and private sector investment is expected, however unrealized, so that ADC takes a responsibility in the development. The master plan was updated in 2018 and update of the master plan is under consideration in 2020.

In the technology transfer to the requested renewal of the Aqaba Master Plan, land use under the Aqaba Smart City concept, how to incorporate the port area into the smart city within the development framework, especially the landscape as a tourist port and facilities for the redevelopment of the old Main Port, and also a cruiser terminal, and also industrial park development and various settlements in collaboration with the port outside the port area using Aqaba Port, for further accumulation and diversification of the port related and industrial facilities will be also considered.

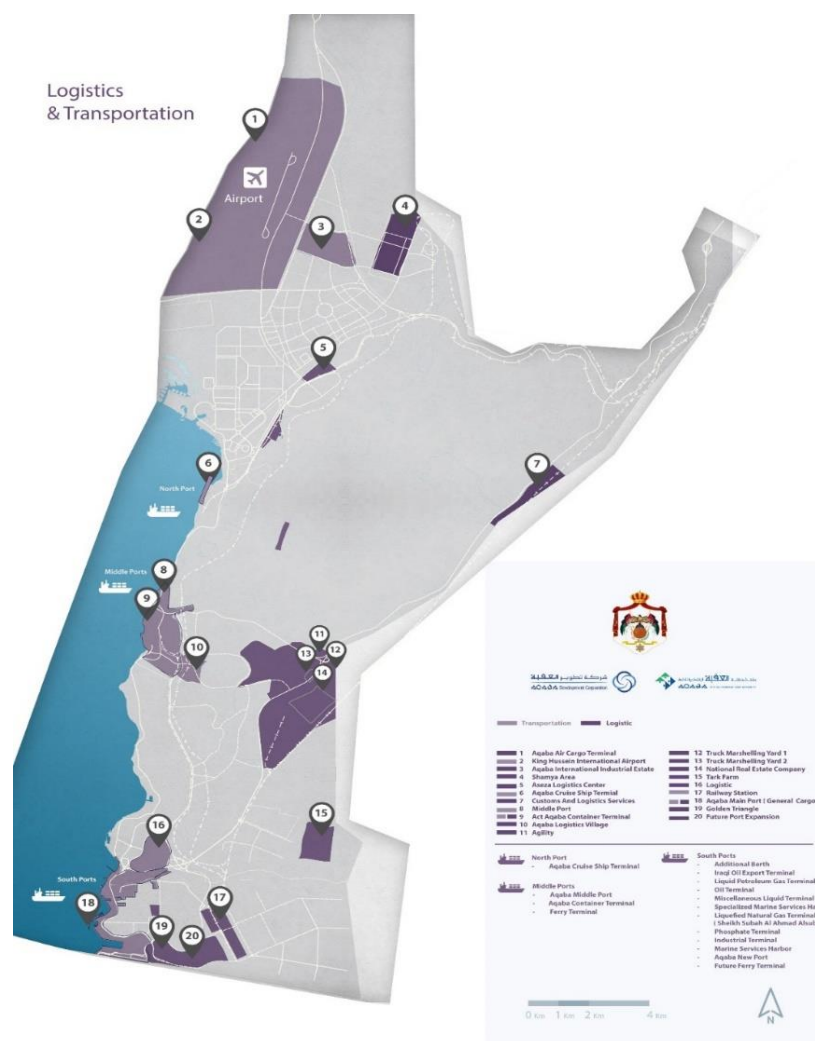


Figure 5-3 Aqaba Port Master Plan (2018) (ADC)

### 5.2.2 Trends in ACT Container Terminal

The container terminal is being implemented by ACT, a joint venture between ATM Terminals (a container terminal operating company with a Dutch headquarters that is a subsidiary of the container ship operating company Maersk) and the Jordan Government in 2006. It is a concession contract (including renewal) until 2035, and it is about 14 years left under a joint venture with ATM Terminals and the government. The 97% of the 1,000 employees are Jordanians. ALV (Aqaba Logistics Village) is operational as a warehouse logistics facility as ACT. ADC and NAFITH have signed a PPP contract and have been managing gates in ports and marshaling yards

since 2006. It is noted that an LNG terminal (for imports of LNG for power generation), terminal for oil storage base, phosphate wharf (export), grain silo wharf (import), and other imported cargo (vehicles) are operated by the operating parties that are under contract with ADC.

Currently, ACT is aiming for a total of 1.2 million TEU, and there are also targets for 2.5 million TEU in 2025. However, the biggest problems are the slump in cargo volume, imports, and exports. There is also an imbalance; about half to 70% of import containers are returning as empty containers, and the absolute amount has not achieved the target: 1.2 million TEU, as the level is currently about 800,000 TEU. ACT is aiming for more containerization of goods and to increase cross-border cargo, especially with Iraq and ACT is to containerize the cargo of import/export vehicles, which are currently handled by RORO (roll on-roll off) ships. However, it is anticipated that it is difficult to resolve these issues in short and medium terms because of Jordan's uncertain economic outlook and export performance.

There had been ferry transport of cargo and passengers to Nuweiba Port in Egypt. As with the feeder route within Aqaba Bay it has been transporting commodities to Israel's Elate. However, it is no longer in operation. There is no feeder route for container ships to the nearby ports (Eilat Port in Israel, Nuweiba Port in Egypt) in the Gulf of Aqaba to increase cargo volume (especially exports). Since the port of call for container ships is dependent on the intention of the container shipping company, the amount of cargo to these two ports is small, and the container terminal development is not foreseeable for a port of call for feeders. From Aqaba Port, ferry and land transportation are instead used as an alternative. The feeder line with Sokhna Ports in the Red Sea is secured by Maersk with Aqaba.

Container cargo (year)	2005	2010	2015	2016	2017	2018	2019	2020
Total (TEU)	391,339	605,659	758,219	792,841	796,087	815,345	798,160	857,283
Import (TEU)	198,674	302,040	378,219	399,299	401,938	411,792	405,995	434,309
Export (TEU)	192,665	303,259	380,007	393,542	394,149	404,553	392,164	422,974

Source: Site from the Customs Agents Association of Aqaba Port <http://www.shipping.com.jo/page/aqaba-port-statistic>

Productivity has been steadily increasing due to the increase in the size of container ships. The operating company manages ICT to improve productivity inside ACT and provides cargo-related information to the customers. For automation, some AGVs (Automated Guided Cranes) are used for the introduction of AI technology. However, the use for gantry crane operation is not contemplated, nor is the use of drones. Regarding ACT gate management, a reservation system has been introduced as well as x-ray control facilities for customs management at the points of exiting gates, and manual inspection is carried out in entering the gate. Regarding the use of these information systems, ACT is promoting the use of international standards and the know-how of APM Terminals.

Regarding the construction of a new railway to Ma'an Dry Port, while it is a political decision, there are concerns about cost increases and maintenance burdens pointed out as well as the impact on employment because there are about 80,000 truck-related employees (The railway to Aqaba Port is currently out of service).



**Figure 5-4 Aqaba Container View (ADC)**

### **5.2.3 DX Outlook at Aqaba Port**

Regarding Aqaba Port DX (digital transformation), the introduction of NACCS (Nippon Automated Cargo and Port Consolidated System) and CONPAS (Container Fast Pass), which are being used in Japan, are underway. As for the development of a comprehensive information system, ADC is currently developing the APCS (Aqaba Port Community System), which centrally manages the information of all the related parties. NAFITH (under PPP) is already maintaining the operation management and gate management of cargo vehicles. A separate reservation system is being planned for the container terminal.

It is understood that ACT can propose the cost related to the terminal, but the delivery cost and cost of the cargo from the receipt to the destination are not visible to the customer so that Aqaba logistics is not competitive, by offering overall pricing packages to the customers. Although it is shown on the website as ACT, the amount is fixed. However, since the pricing of other parts is unknown, ACT cannot put out a competitive price. It has been pointed out that it is necessary to unify information such as pricing because inland costs and other things are not visible and are scattered. APCS is expected to do this integration in its current process.

### **5.3 Aqaba Airport Perspective**

Aqaba Airport (King Hussein International Airport) has been developed by the Government since the 1970s as an international airport for passengers and cargo transport in Aqaba. The airport is an all-weather (category 4E) airport with a 3,000 meter by 45 meter runway, capable of handling about 3,000 aircraft per year.

The airport itself is owned by ADC, and AAC (Aqaba Airport Company), a private company established by ADC in 2006, is the main operator of the Aqaba Airport Terminal. Prior to the COVID-19, the number of passengers had been steadily increasing, and the number of foreign and domestic passengers increased to 300,000 in 2019. However, in 2020, the number of passengers dropped to about 170,000.

The airport marketing is actively carried out, including marketing to LCC companies and charter operators, and also setting out regular flights and services with airlines such as Etihad so that the number of airline operators extended to 35 companies with 13 routes. To expand the routes as a

growth strategy, along with efforts for expanding the Russia and Europe markets which are growing rapidly, the company is planning to market to China, India, Pakistan, and Saudi Arabia in the Gulf Region. Although it could be difficult to quickly achieve an annual increase in the number of passengers up to about 2 million in line with the airport capacity, the airport will return with the revival and growth of tourism demand in Aqaba.

In terms of attracting resort guests, the competition with Sharm El Sheikh on the southern tip of the Sinai Peninsula in Egypt is expected to intensify. It is also necessary to stimulate domestic demand from the Amman area. To stimulate demand for foreign passengers, it is necessary to work in collaboration with the tourism industry to form an appealing and inexpensive tour package. For the development of the hinterland of KHIA Airport, it is expected that the concept and strategy will be formulated for the development of business aggregation in utilizing the advantage of the area adjacent to the airport.



**Figure 5-5 Aqaba Airport Elevated View**

## 5.4 Direction of JICA Support

- 1) It was confirmed that the understanding and requests of ASEZA for urban problems and issues are clarified. Regarding the issues to be tackled, the current situation should be investigated, more qualitatively and quantitatively for the problems together with the C/P organization.
- 2) It is noted that JICA's support as technical cooperation project is highly significant for the C/P organization to create its own deliverables. The deliverables of the project can include hands-on review and update of the master plan development, several district wise planning, planning guideline development, planning maps such as disaster map (related database development), process of pilot project implementation, and implementational development plan is expected. A detailed design of JICA support for that purpose is necessary.
- 3) The following are shown as activities (main) of application of Japanese expertise and knowledge.

- (i) Support for holding workshops such as consensus building towards agreement on city planning policy

In the 2010 review, a local consultant was appointed, however, it was difficult to get the understanding of the top management in the organization. By presenting options led by experienced city planning experts based on knowledge in Japan and some advanced cases, it is possible to derive decisions such as the city visions required at the target time, the clear urban structure, and infrastructure development. Since there is a need for a method of making a stage wise urban development decision making, it is reasonable to fully support the training on CP staff members in fields with high expertise in comprehensive planning (such as scenario development, urban structure identification). The guidance with JICA support is also important for consensus building and involvement of ASEZA upper management and related parties.

- (ii) Support for benchmarking on smart cities and other study training in Japan

As smart city development covers a comprehensive field of knowledge, it is necessary for CP staffs who have a little knowledge to acquire decent information and successful cases in a short period of time, and it is necessary for the Japanese experts to systematically take a lead on knowledge accumulation. It is possible to enhance the knowledge through study training in Japan, such as on the cases in Japan, and dissemination of the smart city concept in the Asian region, and the introduction of several useful models in Japan. As there are many smart city-related implementing organizations, conferences, and commercial events, short-term survey cum training will provide for considerable experience. Most importantly, as smart city evaluation criteria which have not yet been developed, it necessitates the training on how to do selection and set out monitoring process as technology transfer, by setting out various target values.

- (iii) Guidance on the development of open-sourced software packages for the implementation of smart city planning development tools and methods (such as City 3D model)

It is also required to introduce planning methods which have been developed in Japan for the implementation of necessary ICT related smart city developmental tools, and planning method. ASEZA has a GIS department, and it is also necessary to check on the level of GIS and set out the measures to enhance functions. Furthermore, it is possible to clarify the effective way of developing software packages to be implemented for the implementation of smart city ICT applications. Then, it is possible

to create the TORs by the C/P and make an implementation management of software development and applications for smart cities.

(iv) Guidance such as data collection procedures in a baseline survey

Quantitative analysis and monitoring methods are not yet in place, and it is necessary to improve the capability to collect information by explaining the significances and effects of those exercises. In particular, it is understood that they are unfamiliar with how to collect data such as economic and social indicators. It is necessary to confirm the level of basic information on city planning, collect basic information, and consider further information collection measures for indexing in smart cities. Training for formulating guidelines is also necessary.

In particular, with regard to new types of infrastructure development for smart cities, the technology transfer from Japan is useful to solve new types of urban problems. Ideas and implementation methodologies for new infrastructure and smart ways in mature cities also have a spillover effect.

(v) Proposals and collaboration / involvement with each related party (private ICT companies etc.)

The piloting is required for the implementation of ICT uses in smart cities and it is necessary to have a collaboration with ICT companies with a proven track record in the environmental areas and public transport and the guidance on the maintenance methods for realization is required. Furthermore, the accumulation of ICT companies will be necessary in the future for the diversification of Aqaba industry, and its clustering so that the clustering experiences and the knowledge of Japan is made also effective. There is also guidance and advising needed on ideas for smart infrastructure development (especially systematization such as solid waste management as a contemporary issue.)

(vi) Implementation guidance for participatory plans making

Traditionally top-down planning and regulation, unfamiliar with citizen participation planning methods, and outdated planning methods so that planning decision making process in urban planning for citizen participation in Japan is useful. Even in Japan, there are abundant methodologies and examples of citizen participation in comprehensive planning and C/P's learning in new fields is effective for making

(vii) Planning guidance for urban redevelopment plans and housing development plans

It is assumed that the C/P organization is accustomed to implementing proposals from the private sector under the general master plan, and has little experience in implementing guidance, regulations, inducement, and facility development as a public institution. The knowledge of experienced Japanese experts is effective for the planning method at the district planning level, which aims at community development for both the urban areas as well as the two newly added areas for the comprehensive planning method. In particular, the transfer of knowledge such as urban redevelopment, waterfront regeneration, and redevelopment of urban coastal areas are very effective.

(viii) Feasibility Study guidance on public transportation facilities, public guidance facility development

Regarding transportation for ports, it is understood that the sufficient knowledge about transportation plans that separate logistics and people flow, however the C/P have no experience with urban convenient public transportation, so that the knowledge in Japan



to be smart can be shared. To share plans and experiences such as implementation of urban mobility is also useful. Furthermore, Japanese knowledge and examples should be applied to the formulation of plans and strategies for the development of business accumulation in the form of utilizing the advantages of the area adjacent to the airport.

(ix) Guidance to Aqaba Port DX (toward smart city)

As DX of the entire Aqaba port has been just commenced, the smart technology for maintenance and management has just begun so that the guidance such as the effective way of the Port DX based on the knowledge illustrated in the port development plans and practices in Japan which is available, including case studies in Japan, making a lead and guidance on such as idea generation, is also effective.

**(Summary)**

ASEZ is on a growth trend as a port city and a tourist city, however, there are also new challenges such as urban redevelopment and regional wise development encompassing the location of various industries and the incorporation of the two new areas. Regarding the proposition of how to increase the flow of people and logistics at the port and airport, it is necessary to support the transfer to the new planning methods, such as the improvement of productivity by the application of DX for maintenance, facility improvement for increasing airport passengers, and guidance on the various industrial locations.

Being a place for demonstration experiments on urban planning with smart city approach and urban infrastructure development by using DX and updating an orderly master plan for a mature society which is new in Jordan, the support to ASEZA is significant since the dissemination of knowledge to the other governorates and other cities, and the spillover effect can be realized. Therefore, further consideration of JICA support is necessary.

# APPENDIX

## APPENDIX

<b>Chapter 1. Outlook of the Post-COVID .....</b>	<b>A-1</b>
1.1 Prospects for Economic Management (Changes in Economic Policy).....	A-1
1.2 Changes in Society, Lifestyle, and Behavior.....	A-2
1.3 Geopolitical Power Change as a Hub in the Middle East .....	A-3
<b>Chapter 2. Impact on Industries and Each Sector .....</b>	<b>A-4</b>
2.1 Financial Situation of Jordan.....	A-4
2.2 Impact on Employment .....	A-4
2.3 Industrial Position of Jordan .....	A-6
2.3.1 Impact on the Industries in Overall .....	A-6
2.3.2 Impact of Covid-19 on Each Major Industry and Direction towards the Post-COVID Era .....	A-9
2.3.3 Transitions of Investment, Foreign Trade, and International Exchange.....	A-19
2.3.4 Remittance from Jordanian Expats and Corporate Activities.....	A-20
2.4 Demands of Major Trading Partners and Trends in Neighboring Countries with Many Residing Jordanians .....	A-21
2.4.1 Demand in the Main Export Markets .....	A-21
2.4.2 The Situation in the Neighboring Countries.....	A-21
2.5 Changes in Physical Distribution and Supply Chain.....	A-23
<b>Chapter 3. Emergency Responses and Financial Responses Related to COVID-19 ..</b>	<b>A-29</b>
3.1 Scale and Content of Financial Mobilization for Emergency Response .....	A-29
3.2 Health Policy .....	A-30
3.3 Public Works .....	A-33
3.4 Refugee Policy .....	A-34
3.5 Impact on Business Environment.....	A-35
3.5.1 Changes in Industrial Needs and Trends in Human Resource Development Needs .....	A-35
3.5.2 Entrepreneurship Support Environment.....	A-36
3.5.3 Trends in Advisory Support for SMEs and the Impact on the Credit Guarantee System.....	A-39
3.5.4 Overview of the Thematic Areas for SME Development.....	A-45
<b>Chapter 4. Vulnerability Analysis .....</b>	<b>A-53</b>
4.1 Vulnerabilities in Public Finance .....	A-53
4.2 Vulnerabilities in Industry and Business .....	A-55
4.3 Vulnerabilities in National Security .....	A-57
4.4 Classification of Vulnerability.....	A-58
<b>Chapter 5. Agriculture Sector and Garment Sector.....</b>	<b>A-60</b>
<b>Chapter 6. Past Projects of Donors .....</b>	<b>A-73</b>
6.1 Past JICA Projects .....	A-73

6.2	Overview of Other Donors and Government Support and Projects .....	A-80
<b>Chapter 7.</b>	<b>Logistics Hub Function and Industrial Location Policy .....</b>	<b>A-84</b>
7.1	Logistics Hub Function .....	A-84
7.1.1	Strengthening Logistics Hub .....	A-84
7.1.2	Jordan's Major Logistics Routes .....	A-84
7.1.3	Jordan's Logistics Hub Function and Its Enhancement.....	A-88
7.2	Industrial Location Policy and Promotion.....	A-95
7.2.1	Implementation Status, Promotion System, and Strategy of the Industrial Park .....	A-95
<b>Appendix of the Field Survey .....</b>	<b>A-101</b>	

## List of Figures in Appendix

Figure A 1	Changes in the Unemployment Rate by Gender .....	A-5
Figure A 2	Nominal GDP and Real GDP Growth Rate of Jordan.....	A-6
Figure A 3	Rate of Change in GDP by Industry .....	A-7
Figure A 4	People Flow Analysis (Left: Retail & Recreation, Right: Transit Stations) .....	A-8
Figure A 5	Foreign Domestic Investment .....	A-19
Figure A 6	Trade Balance.....	A-20
Figure A 7	Economic Growth (Goods: Imports (FOB), %) .....	A-21
Figure A 8	COVID-19 Status in Jordan and the Neighboring GCC Countries .....	A-22
Figure A 9	COVID-19 Trends in the Neighboring GCC Countries .....	A-22
Figure A 10	Economic Growth (Real GDP, %)	A-23
Figure A 11	Jordan's Import and Export Trends from January 2019 to July 2020 (Most Recent) .....	A-24
Figure A 12	Jordan's Major Export Products and Major Destinations.....	A-26
Figure A 13	Jordan's Major Export Product and Major Origins .....	A-28
Figure A 14	Breakdown of Local Positive Cases by Region .....	A-33
Figure A 15	Organization Chart of Jordan Credit Guarantee Corporation (JLGC).....	A-43
Figure A 16	Breakdown of Revenue for Jordan and Japan .....	A-53
Figure A 17	Expenditures of Jordan and Japan, by Nature .....	A-54
Figure A 18	Expenditures of Jordan and Japan, by Purpose .....	A-54
Figure A 19	Agricultural Production Index Has Been Growing in Jordan and Lebanon, 1961-2016.....	A-62
Figure A 20	Shares of Agricultural Exports and Imports .....	A-63
Figure A 21	Jordan's Import and Export Volume by the Border (2016, ton base).....	A-85
Figure A 22	Imports and Exports by Jordan Border (2016, ton basis) .....	A-86
Figure A 23	Aqaba Port Master Plan (Right: New Port, Left: Overall) .....	A-89
Figure A 24	QAIA Airport Terminal (2 Passenger Terminals and 1 Cargo Terminal) .....	A-90
Figure A 25	Railroad Network in Jordan .....	A-92
Figure A 26	Major Road Network of Jordan.....	A-92
Figure A 27	Summary of Cargo Volume Forecasts based on Low-growth and High-growth Scenarios .....	A-93
Figure A 28	Development Zone and SEZ Location and Development Status .....	A-96
Figure A 29	Public Free Zones.....	A-99
Figure A 30	The Interview Schedule.....	A-101

## List of Tables in Appendix

Table A 1	Gross Domestic Product by Economic Activity at Current Basic Prices, 2011 - 2018 (Million JOD).....	A-7
Table A 2	Annual Growth Rates of GDP By Economic Activity at Current Prices, 2011- 2018.....	A-8
Table A 3	Key Focus Industries in the Post COVID-19.....	A-9
Table A 4	Overview of Each Sector .....	A-10
Table A 5	List of Sectors Mostly Affected by COVID-19 .....	A-15
Table A 6	Jordan Export Trends from 2014 to 2018 (Currency Unit: Jordanian Dinar (JOD)) .....	A-25
Table A 7	Jordan Import Trends from 2014 to 2018 (Currency Unit: Jordanian Dinar (JOD)) .....	A-27
Table A 8	Trends in Human Resource Development Efforts in the IT and Digital Education Field in Jordan.....	A-36

Table A 9	Initiatives Related to Supporting Entrepreneurship and Innovation .....	A-38
Table A 10	Definition of Jordan SMEs (Definition Used by CBJ) .....	A-39
Table A 11	Definition of Jordan SMEs (Definition Used Other than CBJ).....	A-40
Table A 12	JLGC COVID-19 Program Credit Guarantee Sectors and Guarantee Limit .....	A-44
Table A 13	Jordan’s General Loan Guarantee, Real Estate Loan Guarantee and Export and Domestic Credit Guarantee .....	A-44
Table A 14	Donor-Supported Studies on the Sector Export Development.....	A-49
Table A 15	Overview of Support from other Countries and Donors as Development Partners .....	A-80
Table A 16	The List of Grants in 2019 (The Amount in USD Million) .....	A-82
Table A 17	The List of Grants in 2020 (The Amount in USD Million) .....	A-83
Table A 18	Jordan’s Major Trade Partners (Year 2018) .....	A-84
Table A 19	Numbers of Trucks Entering and Departing according to Customs Centers in the Period 2013-2019 .....	A-87
Table A 20	Import / Export Items and Handling Volume (tons) of General Bulk Cargo at Aqaba Port.....	A-88
Table A 21	IQueen Alia International Airport Aircraft Traffic During the Period 2015-2019 .....	A-90
Table A 22	King Hussein International Airport Aircraft Traffic During the Period 2015-2019 .....	A-90
Table A 23	Changes in Phosphate Ore Transport Performance by Mode (1000 tons) .....	A-91
Table A 24	Outline of Jordan Long-Term National Transport Strategy .....	A-94
Table A 25	Investment Incentives Offered for Each Zone (Tax Incentives) .....	A-95
Table A 26	Development Status and Activities of Development Zone .....	A-97
Table A 27	List of Development Zone under Registered Sector .....	A-98
Table A 28	Aqaba SEZ (Applicable to Multiple Locations / Facilities with One Zone Registration) .....	A-98
Table A 29	List of Public Free Zones .....	A-99

### List of Boxes in Appendix

Box A 1	Agricultural Strategy: 2020-2025.....	A-61
Box A 2	COVID-19 and the Textile Industry.....	A-72

## **Chapter 1. Outlook of the Post-COVID**

The COVID-19 pandemic has been affecting Jordan's economy and society as a whole. Keeping in mind not only short-term effects, but also the major influencing medium- and long-term economic and social transformation, as well as the turning point and paradigm shift of the economy and industry and social transformation in light of the pandemic in Jordan, and its future, are looked into and observed.

### **1.1 Prospects for Economic Management (Changes in Economic Policy)**

Since the year 2000, when economic growth was on hold and the staircase of upward growth was at a landing in Jordan and, corresponding to this situation, to stimulate economic growth, the latest economic and social development policy was launched in February 2019 in the London Initiative Conference as the Jordan Reform Policy (as a Five-Year Reform Matrix). The reform is under way with backing by the World Bank for employment growth and trade and investment growth together with other donor support, although there could be a delay in the implementation of the conceived projects due to the COVID-19 situation.

As for specific COVID-19 emergency response measures, support for the business continuation, governmental financial stability and job security, and additional funding facilities by the IMF are now implemented.<sup>1</sup>

While the implementation of various policies is being kept active, the Jordan government enacted as emergency treatment for COVID-19 a series of Defense Laws from the top down, a traditional authoritarian response. It was remarkably well-managed for the Government to impose a lockdown in the early stage to suppress the spread of COVID-19 infection. However, during the lockdown, micro enterprises are further weakening due to the decline in economic activities, and support is being made to critical small and medium-sized enterprises.

As a policy regarding these small and medium-sized enterprises, there is a measure aimed to make the untraceable informal sector of the economy more formal in order to extend economic supplements and support as well as to secure tax revenues. The measure, which is to provide commercial subsidies to those entities as business continuity funds, has impacted the accelerated formalization of the applications for such funding facility, so the enterprises need to be formally registered, which is seen as a supplemental effect of the COVID-19 situation. The revitalization of the MSMEs could be an economic challenge to Jordan, and it is expected that more financial allocation will be made.

In this relation, The World Bank regularly monitors the progress of the economic situation and has indicated as highlighted policy themes growing concern about supporting Syrian refugees and other vulnerable people such as by promoting employment of women and youth. A review of growth industries has also been made and, as there is no particular change, it focuses on health care and medical services, along with a further focus on ICT industry growth.

Furthermore, although not exactly a paradigm shift, the new development methodologies and new business models and pilot initiatives for private-sector development on a project basis are now phenomena and progressing toward a new development paradigm.<sup>2</sup>

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<sup>1</sup> Regarding the response plan for 2020-2022 for Syrian refugees, even including the support of the United States, of the total amount of USD2.4 billion, it is still less than USD1.6 billion.

<sup>2</sup> Project support and initiatives by JEDCO are typically active.

Specifically, the following are noticed:

- Sustainable Development Goals (SDGs) business/project formation intended for sustainable development
- Clean economy and sustainable urban development
- Enhancement of dual tacking of higher education and vocational training for women
- ICT application growth to improve productivity as digital transformation in the fields of contactless purchasing, e-trade, e-markets, smart factories, e-education and learning, and also enhancement of telemedical services
- New ways of tourism development approach different from mass tourism such as customer experience and experimental community-based tourism
- Projects led by private sector support, such as development of innovation centers, full-scale crowdfunding, and online management support for startups and entrepreneurs

Construction of conventional industrial parks continues to be a major tool for local economic development and investment promotion. However, there is a growing phenomenon of different and bottom-up initiatives for private sector development that continues to take place, as described above involving the private sector and related organizations. Along with the progress envisioned in the reform toward the innovation society as a core mission, development momentum owing to private-sector innovation and investment promotion is increasingly taking shape amid the COVID-19 pandemic.

In terms of policy and thematic areas, a growing number of references are noticed regarding measures related to increasingly serious water problems and, with respect to energy policy, the power provision transmitted by Saudi Arabia and also the utilization of natural gas even for energy conversion will be advanced in the future. As for agriculture, it is being focused on again and emphasized with the aim of further promoting employment, expanding its contribution to the economy, and securing food self-sufficiency. An important policy review and vision cum strategy development are expected for the course of the sector's development in these areas.<sup>3</sup>

The comprehensive measures to promote employment opportunities and reduce the unemployment rate are expected to further activate both small and medium-sized enterprises as the employment stimulation and the promotion of employment in promising growth industries and inducement of direct investment will bring about higher employment in a later stage. The Jordan Government and ILO will be centered around these, for both internal employment and Syrian refugees in the EIIP (Employment-Intensive Investment Project), and subsequent projects since 2016 are expected to go forward with enhancements.

## 1.2 Changes in Society, Lifestyle, and Behavior

Although there is no explicit change in life and behavior in Jordan society, there is a high degree of consent to the lockdown as a measure to contain COVID-19. On the other hand, it is recognized as threatening employment opportunities and economic activities. There are changes in behavioral patterns to reduce the chance of infection such as staying home and increasing stockpiles of foodstuffs. There is also a high awareness that life will return to normal after COVID-19. Some creative arts and events such as talent searches for youth and women are also under way to relieve the stress of staying home. There are some changes in purchase patterns restricted to bulk buying, and there is also an increase in the popularity of delivery businesses for everyday items. On the

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<sup>3</sup> The need to form a new vision and review is also pointed out in various policy fields.



other hand, it is thought that the vulnerable are becoming more vulnerable amid associated labor issues such as child labor, foreign workers, and refugee job issues, especially in the garment industry.

### **1.3 Geopolitical Power Change as a Hub in the Middle East**

With regard to the geopolitical movement of Jordan as a hub (regarding the economy, logistics, human resources, finance, and trade), it is expected to change in the time of COVID-19 along with the tightening of relations with China in recent years (although in addition to the Road and Belt Initiative to Jordan, there is also China's contribution to measures in response to COVID-19). The relations with Gulf States such as the UAE will change economically in connection with the reestablishment of diplomatic relations with Israel, while Saudi Arabia still maintains the non-formal Israel relation. The Syria problem will persist, and destabilization will continue with the neighboring countries such as Lebanon that recently have had serious incidents; Egypt, Iraq, and Jordan tripartite relations will also progress. It is noted that the change is to be identified and traced in collecting the related information onwards.

The EU and USA cooperative trade promotion relations will be maintained for the stabilization of the Middle East. It is expected that the relations will be further strengthened with additional support for the fight against COVID-19.

In Jordan, there is worsening economic and social stagnation due to COVID-19. However, along with the convergence to the COVID-19 crisis and the evaluation of crisis management, new policy redirections for development methods have emerged and are under way for medium- to long-term review and promotion of the economy, trade and employment. It is noticeable that there are sound prospects for future development. Nonetheless, the rapid expansion of COVID-19 since September 2020 has raised serious concerns about the decay of the economy and the delay in normalization in the post-COVID-19 environment, and about further economic and social recovery.

## **Chapter 2. Impact on Industries and Each Sector**

### **2.1 Financial Situation of Jordan**

Due to the damage to the global economy caused by the COVID-19 pandemic, not only are foreign trade and investment predicted to decline, but the decrease in the nation's domestic demand has led to a reduction in tax revenues, creating a larger impact for Jordan, a nation carrying a budget deficit.

As such, to gain an understanding of the current status of the nation's financial situation, consideration will be given to changes and outlook on the balance of payments, foreign currency reserves and general and special accounts for the most recent year (considered as 2019) through evaluations of the execution rate, revenue and expenditure analysis by nature and change in expenditures by ministries and local government. Through this process, the expenditure structure can be examined per sector, such as culture, education, labor, commerce, tourism, and welfare (social security). By exploring the expenditures related to trade and investment promotion, in addition, the details of efforts can be seen from the perspective of finance.

It should be noted that a deterioration in the budget deficit has been predicted and, as of May 2020, the budget deficit caused by COVID-19 is estimated to amount to at least 1 billion JOD (Jordanian Dinars). According to the announcement provided by the Ministry of Finance on August 23rd, the budget deficit for the first half of 2020 amounted to JOD1,122.7 million, already exceeding the annual budget deficit of 2020 (JOD10,46.0 million). Since economic activity gradually reopened from April to June, thus increasing revenues in June, the tax revenue during the five months until May has decreased by JOD116.3 billion, and the non-tax revenue by JOD688.9 billion, in comparison to the previous year, while government expenditures for the first half of 2020 have decreased by JOD18.4 million. These values show a budget deficit greatly exceeding the expectations during the budget formulating processes. COVID-19 responses to be taken along with economic policies to be enacted are thought to be implemented within a constructive system within the limits of available resources.

As of now, the loans provided to Jordan are mainly for the purposes of COVID-19 responses and refugee support. For those related to COVID-19 responses, the IMF has provided support for the nation's economy by loaning approximately US\$400 million to cover the budget deficit. Other than the support of the IMF, the World Bank has also provided a US\$20 million loan. Following the crisis in Syria, the IMF has come to an agreement with the nation's government to provide an Extended Fund Facility (EFF) consisting of a four-year loan of US\$1.3 billion to bolster economic stability and the provision of aid to inflowing refugees. Through this project, COVID-19 responses, improvement of the current budget deficit, along with increasing employment opportunities for women and young adults are to be addressed.

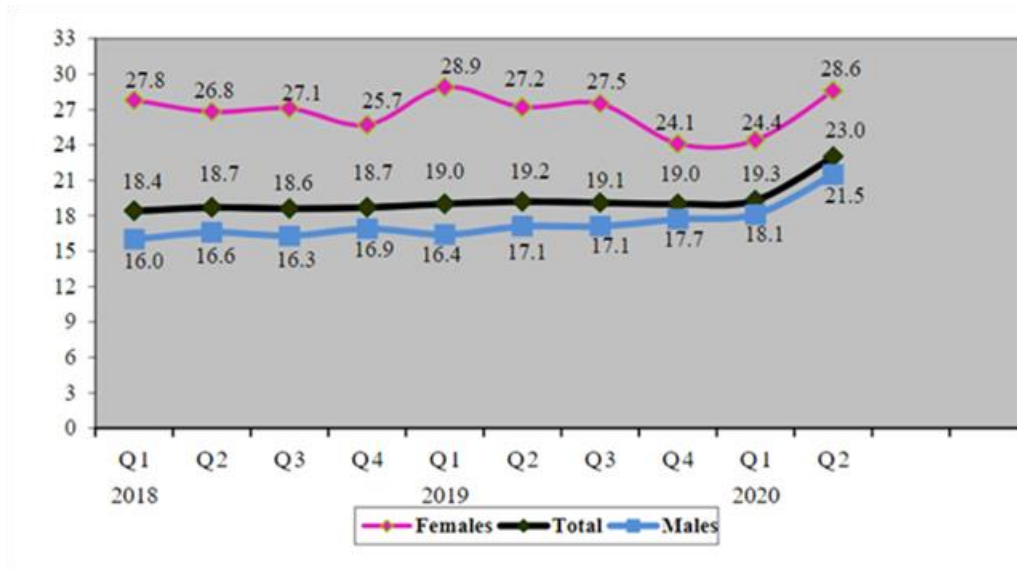
Information will continue to be gathered, mostly via desktop research, from donor reports along with local Jordanian sources.

### **2.2 Impact on Employment**

According to the Jordanian Census Bureau, the unemployment rate rose to 23 percent in the second quarter of 2020, up 4.7 percentage points from 19.3 percent in the first quarter of 2020 and up 3.8 percentage points from the figure of the same period of 2019. This 23.0 percent unemployment rate means that 95,000 workers have lost their jobs in the country. This is especially alarming because there is concern that such a large increase in the unemployment rate will affect the spread of poverty and further aggravations, and eventually lead to an increase in crime and other deterioration of public security. According to an analysis by economists, as of

mid-September, the unemployment rate is projected to rise to 27 percent by the end of 2020, reaching 629,000 unemployed workers. Considering the current rising trend of COVID-19 infection, there are concerns about further expansion of the impact in the future.

The table below shows the unemployment rate by gender. The changes in the first and second quarters of 2020, which are thought to have largely reflected the effects of the COVID-19, show a large increase for both men and women.



Source: Department of Statistics

**Figure A 1 Changes in the Unemployment Rate by Gender**

Looking at unemployment from the perspective of human resources, the unemployment rate of job seekers who have graduated from university or have an equivalent or higher education is above the average, reaching 26.6%. Looking at the breakdown of the unemployed, 51.6% have completed secondary education or higher, and 48.4% have less than a secondary education.

Amid the COVID-19 crisis, the unemployment rate is at a historically high level as mentioned above, but it is also true that unemployment in Jordan was already at a high level even before the COVID-19 crisis. There has been some explanation for this high unemployment rate in Jordan. It has been pointed out that the poor work environment in agriculture and construction has led to the voluntary unemployment of Jordanians. Also, some have pointed out the imbalance in Jordan's education system which overly neglects skills training and vocational training, in connection with the high unemployment rate of highly educated personnel.

The increase in the unemployment rate can be read as an increase in the imbalance between supply and demand for labor opportunities. In the context of the impact of the COVID-19 crisis on labor supply, the return of Jordanian workers who have been working abroad can be listed as one factor. According to the report of The Jordan Times, as many as 33,000 Jordanian workers have become unemployed abroad due to the COVID-19 crisis, and these returnees are a factor in raising the unemployment rate. Jordanians working overseas are often highly educated personnel, and this explanation is consistent with the current situation where the unemployment rate of highly educated personnel is above the average. In addition to the numerical changes in foreign workers and Syrian refugees in Jordan, which had already been at a high level before COVID-19, it will be necessary to pay close attention to the degree of change and future outlook amid COVID-19.

Some additional factors can be mentioned to explain the changes on the demand side of the labor market. First, it is thought that corporate bankruptcies and reductions in the employment level are occurring in response to the decline in domestic and overseas consumption due to COVID-19. One of the factors that reduces the number of companies is that Jordan's tax system and investment-related laws are frequently changed. It has also been pointed out that this triggers an exodus of domestic and foreign investors to neighboring countries such as Egypt, UAE, and Turkey, withdrawing funds from Jordan.

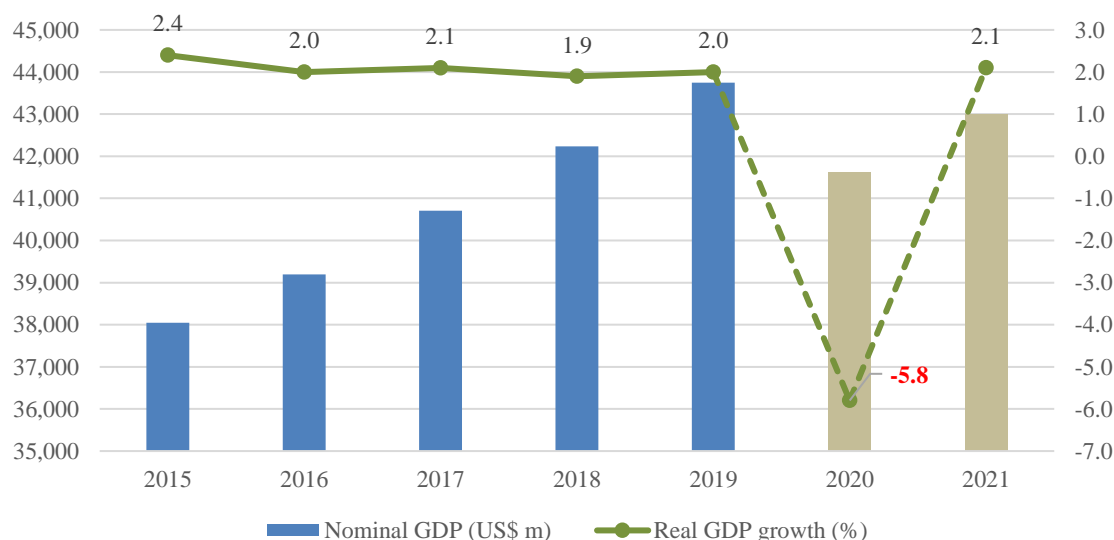
## 2.3 Industrial Position of Jordan

### 2.3.1 Impact on the Industries in Overall

According to the World Bank, negative growth of -3.5 percent is predicted for Jordan's gross domestic product (GDP) for the year 2020. The IMF follows suit, forecasting the severe deterioration of Jordan and its surrounding countries' economies, indicating the difficulty of an early recovery.

This section will provide a recommendation for industrial promotion in the post-COVID-19 economy, using both quantitative and qualitative information collected on topics including GDP and trends by industry, transition of investments, foreign trade and foreign exchange, along with the statuses of the surrounding countries and those of the nation's SEZs and QIZs (including the number of industrial park tenants as well as the impact of returning foreign workers).

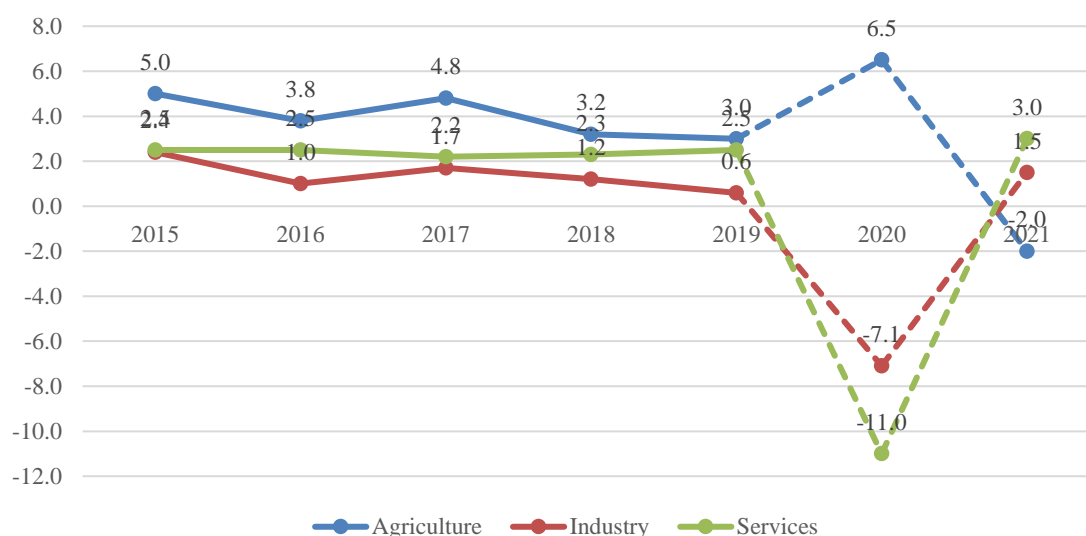
According to the IMF, negative growth of -5.8 percent is predicted for Jordan's gross domestic product (GDP) for the year 2020, forecasting the severe deterioration of Jordan and its surrounding countries' economies, indicating the difficulty of an early recovery.



Source: Economist Intelligence Unit. (2020). Country outlook: Jordan. EIU Country Data database

**Figure A 2 Nominal GDP and Real GDP Growth Rate of Jordan**

Although the economy as a whole has been hit by the COVID-19 pandemic, the IMF's forecast for the 2020 GDP by industry shows that, compared to the previous year, growth in agriculture is 6.5 percent, manufacturing is -7.1 percent and services is -11.0 percent. Since the results vary tremendously, trends for each industry will be examined, mainly focusing on those mentioned in the JEGP.



Source: Economist Intelligence Unit. (2020). Country outlook: Jordan. EIU Country Data database

**Figure A 3 Rate of Change in GDP by Industry**

The economic activity of the six industries positioned as most important pre-COVID-19 are as follows. Since the numbers are collected through annual reports, the impact of COVID-19 has not yet been provided. From the values predicted in Figure 3, however, the growth rates of industries other than that of the agriculture industry are estimated to similarly decline.

**Table A 1 Gross Domestic Product by Economic Activity at Current Basic Prices, 2011 - 2018 (Million JOD)**

(Million JD'S) Economic Activity	2018*	2017*	2016*	2015*	2014*	2013*	2012*	2011*
<b>A Industries</b>								
1- Agriculture,Hunting,Forestry, And Fishing	1,475	1,400	1,276	1,203	1,038	877	742	735
2- Mining And Quarrying	583	521	514	616	536	448	574	638
3- Manufacturing	5,455	5,306	5,100	5,030	4,931	4,716	4,220	4,047
4- Electricity And Water	575	548	521	437	392	350	315	294
5- Construction	864	858	853	830	815	759	688	638
6- Wholesale & Retail Trade, Restuarants& Hotels	2,874	2,777	2,708	2,640	2,586	2,429	2,190	1,966
6.1 Wholesale And Retail Trade	2,460	2,373	2,312	2,245	2,185	2,048	1,838	1,648
6.2 Restaurant And Hotels	413	404	396	395	401	380	353	318
7- Transport, Storage & Communications	2,662	2,527	2,397	2,284	2,185	2,116	1,925	1,767
8- Finance,Insurance,Real Estate And Business Services	5,444	5,227	5,017	4,746	4,444	4,116	3,788	3,465
8.1 Finance And Insurance Services	2,112	2,028	1,934	1,818	1,729	1,632	1,460	1,300
8.2 Real Estate	3,332	3,200	3,083	2,929	2,715	2,484	2,327	2,165
9- Community,Social And Personal Services	2,661	2,537	2,403	2,035	1,921	1,788	1,610	1,440
<b>Total</b>	<b>22,594</b>	<b>21,703</b>	<b>20,789</b>	<b>19,821</b>	<b>18,847</b>	<b>17,598</b>	<b>16,051</b>	<b>14,990</b>

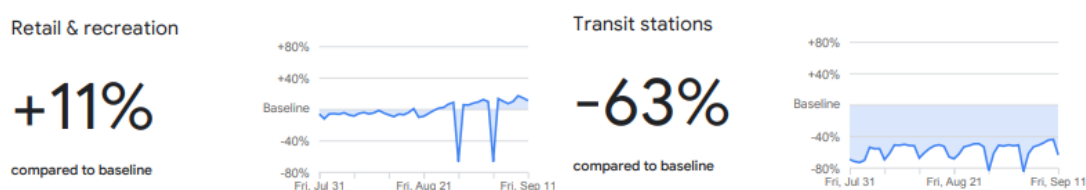
Source: Department of Statistics, Jordan. (2020). Jordan Statistical Yearbook 2019

**Table A 2 Annual Growth Rates of GDP By Economic Activity at Current Prices, 2011- 2018**

(Million JD'S) Economic Activity		2018*	2017*	2016*	2015*	2014*	2013*	2012*	2011*
<b>A</b>	<b>Industries</b>								
1-	Agriculture,Hunting,Forestry, And Fishing	5.4	9.7	6.1	15.9	18.5	18.1	1.0	6.7
2-	Mining And Quarrying	12.0	1.4	16.6-	14.9	19.7	22.0-	10.0-	28.6
3-	Manufacturing	2.8	4.1	1.4	2.0	4.6	11.7	4.3	11.0
4-	Electricity And Water	4.8	5.3	19.3	11.4	12.0	11.2	7.2	6.4
5-	Construction	0.7	0.6	2.8	1.9	7.3	10.4	7.8	0.6-
6-	Wholesale & Retail Trade, Restuarants& Hotels	3.5	2.5	2.6	2.1	6.5	10.9	11.4	7.0
6.1	Wholesale And Retail Trade	3.7	2.6	3.0	2.8	6.7	11.5	11.5	7.0
6.2	Restaurant And Hotels	2.4	2.0	0.2	1.6-	5.6	7.8	10.8	7.5
7-	Transport, Storage & Communications	5.3	5.5	4.9	4.5	3.2	9.9	8.9	6.6
8-	Finance,Insurance,Real Estate And Business Services	4.1	4.2	5.7	6.8	8.0	8.7	9.3	10.5
8.1	Finance And Insurance Services	4.2	4.8	6.4	5.1	5.9	11.7	12.4	12.7
8.2	Real Estate	4.1	3.8	5.3	7.9	9.3	6.8	7.5	9.2
9-	Community,Social And Personal Services	4.9	5.6	18.1	5.9	7.4	11.1	11.8	4.5
	<b>Total</b>	<b>4.1</b>	<b>4.4</b>	<b>4.9</b>	<b>5.2</b>	<b>7.1</b>	<b>9.6</b>	<b>7.1</b>	<b>9.0</b>

Source: Department of Statistics, Jordan. (2020). Jordan Statistical Yearbook 2019

Industries that has been expanding in recent years, such as exports and tourism (including the attraction of movie production and medical tourism), have been hit especially hard by the pandemic. In regard to the tourism industry, a complete recovery is predicted to be difficult until September 2021, according to the Jordanian Inbound Tour Operators Association. The restrictive measures taken to prevent the spread of COVID-19 may be behind the decrease in movement of people within the nation. The following graph, based on the location information provided by Google, shows that, regarding the retail and recreation industries, the levels have recovered above the baseline; however, those for transit stations have remained at a low value of -63 percent, assuming a decrease in income for the transportation sector.



Source: Google. (2020). COVID-19 Community Mobility Reports

**Figure A 4 People Flow Analysis  
(Left: Retail & Recreation, Right: Transit Stations)**

While the damage to the economy has been serious, the king and parliament have been focusing on fostering new industries as well as human resource development to turn this crisis into an opportunity post-COVID-19. Those industries that will be focused on have been mentioned by the king, prime minister and the Minister of Planning and International Cooperation as follows.

**Table A 3 Key Focus Industries in the Post COVID-19**

<b>Key Focus Industries</b>	Agriculture (highly developed)	Not only has it been emphasized within the context of food security, the development and strengthening of agribusiness and food value chains are being prioritized (a secondary aim to provide employment opportunities for Jordanian youth by decreasing the dependency on foreign workers through the improvement of working conditions).
	Medical supplies and equipment	As many as 112 factories have been newly built (as of June 2020) to produce protective clothing, masks, and sanitizers during the COVID-19 pandemic.
	Pharmaceuticals	Alongside the existing pharmaceuticals, investment is to be expanded to the production, research and development of vaccines, biopharmaceuticals, dietary supplements, and cosmetics (e.g., Dead Sea cosmetics).
<b>Cross-Cutting Efforts</b>	Digital Transformation (DX)	The potential of distance or remote learning as well as digital payment has been widely recognized during this time of the pandemic, and is thought to be a key industry going forward.
<b>Industries requiring Special Attention</b>	Tourism (including medical tourism)	Although the early recovery of the existing tourism is deemed difficult, promotion via film tourism, medical tourism, domestic travel and hiking trails are to be conducted while taking precautions to prevent the spread of COVID-19.
	Energy / Water	Increased usage of electricity and water due to the preventative measures recommended for COVID-19 is becoming a burden on the current infrastructure; thus, the reinforcement of their capacity is necessary.

Source: Created by JICA Study Team based on publicly available information

The Jordanian government has aimed to invite investments as a base for corresponding measures on the COVID-19 crisis within the Middle East. Government policies such as this will continue to be followed for input in determining the key industries mentioned below.

### **2.3.2 Impact of Covid-19 on Each Major Industry and Direction towards the Post-COVID Era**

The COVID-19 pandemic has had a major impact on each industry, but it has been pointed out that it also created opportunities in some sectors, with a positive impact on sectors such as medical supplies and equipment, agriculture and food, and information and communications technologies (ICT) (Khaled Al-Wazni, Chairman of the Jordan Investment Commission).

As for the industries to focus post-COVID-19, the King of Jordan has mentioned several sectors, and the Cabinet Office has already begun working toward development of the sectors. The king's statement mentions efforts toward the development of pharmaceuticals, medical supplies, agriculture, and food processing. He also stated that Jordan should counter COVID-19 and become an "investment hub" that supports the countries in the Middle East region facing a myriad of challenges in regard to refugees, medical issues, and food security. At the same time, the king called for investment in human resources and strengthening of scientific research through TVET. In response, the government plans to increase investment in biotechnology and pharmaceuticals, expand production of and R&D on nutritional supplements, and increase investment in cosmetics (Dead Sea products). Regarding medical supplies/equipment and pharmaceuticals, as well as food production, steering committees were newly formed in April based on the instructions of the king and is making efforts to foster industry.

Regarding tourism, the king mentioned a focus on domestic tourism and is planning to promote trail, medical and film tourism for inbound tourism in the near future.

**Table A 4 Overview of Each Sector**

Category	Sub-category	The influence of COVID-19	Policy direction after the COVID-19
Agriculture	Agriculture/ livestock	<ul style="list-style-type: none"> <li>Labor shortage due to the return of foreign workers</li> <li>Exports increased, reaching the highest level in the last few years</li> </ul>	<ul style="list-style-type: none"> <li>Focus on sophistication of agriculture from the aspects of food security, exports, and strengthening employment of Jordanians</li> </ul>
	Food processing		
	Garment/ Textile	<ul style="list-style-type: none"> <li>Decline in global demand (hypothesis)</li> <li>Decline in Factory utilization rate due to foreign workers returning to Jordan</li> </ul>	<ul style="list-style-type: none"> <li>To be investigated</li> </ul>
Manufacturing	Medical supplies/ equipment, pharmaceutical	<ul style="list-style-type: none"> <li>Emerged as a new industry with Covid-19 and exports increased</li> </ul>	<ul style="list-style-type: none"> <li>In addition to short-term countermeasures such as manufacturing vaccines and PPE, the government focuses to develop the industries</li> </ul>
	Transportation	<ul style="list-style-type: none"> <li>Due to lockdown and border closures, usage of flights and domestic public transportation has dropped significantly</li> </ul>	<ul style="list-style-type: none"> <li>To be investigated</li> </ul>
	Construction	<ul style="list-style-type: none"> <li>Some large-scale projects have been suspended</li> </ul>	<ul style="list-style-type: none"> <li>To be investigated</li> </ul>
Infrastructure	Electricity/Water	<ul style="list-style-type: none"> <li>Increasing demand is putting a burden on the infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Aiming to strengthen infrastructure and improve public corporation productivity</li> </ul>
	ICT	<ul style="list-style-type: none"> <li>Rapid progress in digitization of government services and e-payment</li> </ul>	<ul style="list-style-type: none"> <li>Expected to focus on support to ICT and start-ups, in anticipation of ripple effects on new industries and other industries through digital transformation</li> </ul>
	Tourism	<ul style="list-style-type: none"> <li>Significant blow to the industry as the inflow of inbound tourists stopped</li> </ul>	<ul style="list-style-type: none"> <li>Seeking a shift to a new form of tourism and sub-sectors, while stimulating domestic demand and supporting the industry</li> </ul>

Source: Created by JICA Study Team

### (1) Agriculture & Food Processing

In 2018, the export value of agricultural products (including livestock) was US\$710.8 million, and the export value of foods including tobacco and processed foods was US\$417.9 million, which together account for 13.6 percent of total exports. According to the Jordan Chamber of Industry, Jordan's major export destinations for the food industry are neighboring countries such as Iraq, Saudi Arabia and the UAE, which account for 90 percent of exports. For food processing companies and distributors in Jordan, efficiency and automation are the industry challenges as cost competition is fierce.

#### Promotion of Employment of Jordanians

In the agriculture sector, many foreign workers such as Egyptians and Syrians are working under informal employment arrangements, and it is said that a large number of foreign workers returned to their home countries due to the COVID-19 pandemic, resulting in a serious labor shortage.

According to the Ministry of Labor, 165 workers have left Jordan through formal procedures, but, taking the characteristics of informal employment into consideration, it is difficult to determine the actual conditions, and the number of returnees is estimated to be much higher. The Ministry of Labor expressed the view that the return of foreign workers did not have a significant negative impact but, on the other hand, they started initiatives to improve the working conditions in agriculture and to gradually increase the employment of Jordanians. Under financial support from the Netherlands, the Ministry of Labor and the ILO have signed a MoU to establish six employment centers to promote the employment of young Jordanians in agriculture. The Watan service program will provide career support (mentoring and training) and employment to 500



trainees in Mafrq, Irbid, Zarqa and Balqa. The establishment of this kind of employment support center in the agricultural sector will be the first attempt in Jordan.

### **Enhancement of Agriculture**

Due to the COVID-19 pandemic, food exports have increased to 3,300 tons, which is the highest level in the past few years, and the Jordanian government has positioned the food industry as a promising sector. During the pandemic, the King of Jordan emphasized the need for advanced agriculture both as a food security matter, to have enough food for the domestic market, and also as an export industry. The governmental stakeholders such as the Cabinet Office, Ministry of Agriculture, Ministry of Labor, and JEDCO, are launching measures one after another to strengthen the food processing industry. The Minister of Agriculture stated the COVID-19 crisis emphasized the importance of global food security and that the king's interest in agriculture would be a powerful driver of agricultural development.

### **Major Agriculture-related Initiatives**

- Identification of arable land and cultivable cereals
- Plans to establish an agricultural corporation, to establish food processing (canning and packaging), meat and frozen processed products companies, and an investment fund for the food industry
- Identification of the challenges currently faced by farmers regarding implementation of the policies of the Ministry of Agriculture
- Elimination of monopolies in the central market for vegetables and fruits, reduction of imports in the poultry industry, reduction of the foreign labor force (strengthening employment of Jordanians), review of energy and water costs, etc.

#### < Related policies >

The National Green Growth Implementation Plan 2021-2025	Agricultural sector plans include olive cultivation and oil production, support for rationalizing the use of petroleum resources, hydroponics and soilless agriculture development and investment, and tree planting projects, with a total budget of US\$194 million.
The National Agricultural Development Strategy 2020-2025	To upgrade from traditional agriculture to agriculture as an industry, the policy includes the utilization of digital technology, the increased sophistication of agriculture, and the reduction of export costs. It also aims to create 65,000 jobs in five years and replace 21,000 foreign workers with Jordanian workers.

< Related initiatives >

Establishment of Agricultural Corporation	The Minister of Labor called on the Agricultural Engineers Association to establish an agricultural corporation to create a suitable working environment and to employ the Jordanian youth in the agricultural sector.
Date palms as a strategic crop	Date palms are a strategic crop and are considered a part of Jordanian and Arab food security, which makes dates one of the crops of growing interest. Investment in the date palm industry is \$ 500 million, with about 550,000 trees grown mainly in the Jordan Valley.
Building an agricultural database	Creating a database for Jordan's agricultural sector is underway: The aim is to organize the agricultural production process, provide farmers with advice before planting crops, and prevent production surplus/waste.
Support for SMEs in the food processing industry	JEDCO cooperates with investment service companies to support procurement opportunities for SMEs in the food processing industry. The program selects potential companies that do business in the food processing sector and match them with investment funds. The program responds to the recommendations of the Food Manufacturing Committee formed by the government (the Commission has identified approximately 21 promising investment opportunities in the food processing industry).

There is a movement to increase added value by strengthening the value chain of agriculture and food processing, and to strengthen exports, and the food industry is listed as a leading post-COVID-19 industry. As possible international cooperation projects in the future, fields such as digital agriculture that covers labor shortages and an introduction of plant factories which overcome the climate and arable land issues in Jordan could be considered.

## (2) Manufacturing Industry

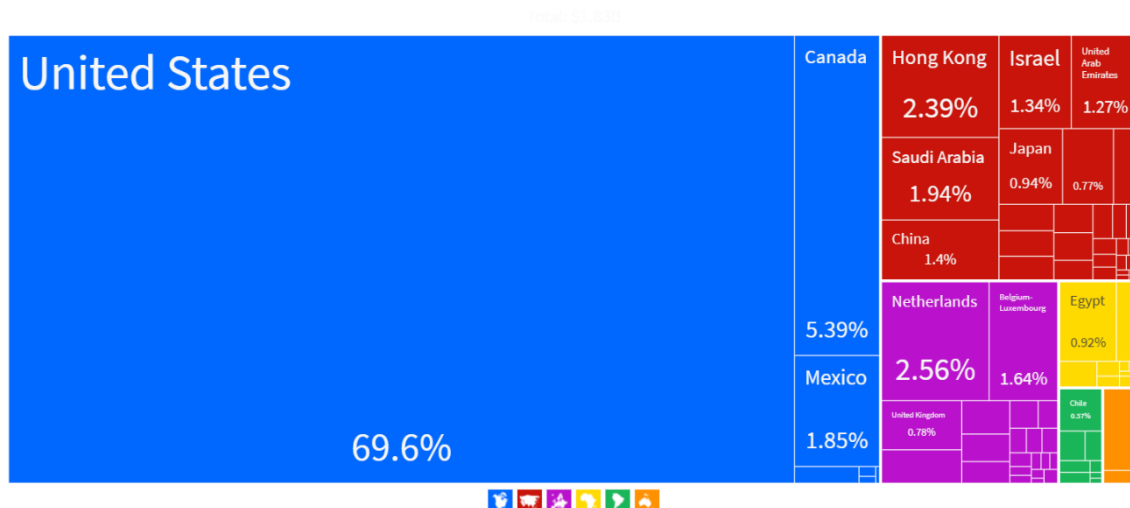
The main manufacturing industries include the garment industry, tobacco, leather products, chemicals containing rubber and plastic, pharmaceuticals, etc., but this report focuses on the garment and textile industry, pharmaceutical industry, and the medical supplies and equipment (including PPE) sector. This section will summarize the influence of COVID-19 and the policy of the Jordanian government with an eye on the post-COVID-19 period.

### Garment and Textile Industry

In Jordan, the garment and textile industry has grown as one of the major industries, benefiting from industrial parks since the 1990s. Exports in 2018 amounted to US\$1.8 billion, accounting for 22.2 percent of total exports.

In the Jordan Compact, which was signed in 2016, a relaxed rules of origin (ROO) agreement with the EU was agreed to in exchange for the employment of refugees above a certain level in factories in special economic zones. As a result, exports to the EU market are exempted from taxation, which is an advantageous condition, but it cannot be said that the competitive advantage of Jordan's garment industry has improved yet as the other countries are also receiving similar preferential treatment. Turkey, for example, has lower transportation costs than Jordan due to its closer distance to the EU, and Bangladesh, which has lower labor costs, also has duty-free access to the EU.

According to the export value data as of 2018, the structure of dependence on the United States as an export destination is remarkable (about 70 percent), and the proportion of the EU market is not very high.



Source: OEC

Given the situation, the Ministry of Input, Trade and Supply (MoITS) has been seeking to strengthen exports to the African market with the aim of diversifying export destinations since before the COVID-19 outbreak (with the support of USAID, a survey on export opportunities in Eritrea, Kenya, South Africa, Côte d'Ivoire, Ethiopia was conducted).

In addition to the impact of the global economic downturn caused by the pandemic, many of the workers in the industrial zones are foreigners, so it is presumed that this labor structure had some impact on factory operations.

According to a survey of garment factories (Better Work Jordan), about two-thirds of all employees are foreign workers, more than half of whom are from Bangladesh. Some countries, such as Myanmar, have arranged for charter flights to support the return of their citizens from Jordan, and it seems that some workers have returned to their home countries. However, it is reported that some workers are waiting for assistance in the industrial zones without being paid during the factory closures of several months. It has also been reported that some factories must downsize their operations due to the return of workers.

### **Pharmaceutical Industry**

As for the overview before COVID-19, the pharmaceutical industry has been an existing sector since the 1960s, with 127 healthcare companies and 21 pharmaceutical factories as of 2018, employing 10,000 people. About 37 percent of them are women, and the industry has been an important source of employment for women. The export value in 2018 was US\$876.3 million, accounting for 10.6 percent of the total export value, which makes pharmaceuticals one of the major industries. Pharmaceutical products are exported to about 70 countries, and the sector's main export destinations are Saudi Arabia, Algeria, Sudan, and the UAE. Twenty-seven countries, including the United States, Switzerland, and Germany, have conducted clinical tests in Jordan.

The pharmaceutical industry is also the sector where the demand rose, and attention has increased due to the COVID-19 pandemic. The Jordanian government is aiming to position the country as a medical supply hub to combat COVID-19, including vaccine manufacturing. Jordan also shows high interest in producing COVID-19 vaccines, with a cumulative investment of approximately US\$1.8 billion, and preparations for mass production of the vaccine are steadily under way, according to Jordan's statement at the vaccine summit. In addition, with some external support, it is stated that the Jordan's pharmaceutical industry has the potential to increase its R&D capabilities in the MENA region.

Along with the growth and expansion of exports due to the rising demand in accordance with the COVID-19 pandemic, it is highly likely that the growth of this sector will lead to the promotion of women's employment.

### **Medical Supplies and Equipment**

Due to COVID-19, the mask and medical device manufacturing sector took a major leap forward, according to a statement by the director of the Food and Drug Authority. Since mid-March, the Jordanian government has been focusing on improving the productivity of medical supplies and equipment (especially PPE-type masks, and sterilizers) as an effort to combat COVID-19. Under the direction of the King of Jordan and the command of Prime Minister Razzaz, the production capacity of these products was strengthened to become an important hub at the regional level.

Until the COVID-19 crisis, Jordan had produced few masks and sterilizers, but 112 new factories were built to produce medical supplies such as masks, sterilizers, and protective clothing, and this sector is expected to be a new growing industry of Jordan. The production facilities were set up in a short period of time, producing 4.5 million masks per day and sterilizers in an amount that can cover the local demand, and exporting them to more than 70 countries.

According to the statistics from March to late September, the export volume of masks is more than 93.48 million, the export volume of sterilizers is more than 21.03 million, and the export volume of plastic shields is 50,000, with the medical protective clothing exports totaling 438,856.

Regarding mask production, 15 surgical mask factories have been established and approved, and 32 cloth mask factories have been producing masks for the domestic market, and the surplus is exported to overseas markets such as the Gulf countries and the United States. Before COVID-19, there were three factories to produce up to 30,000 masks in Jordan, but with the expansion of the facilities, production systems of about 4 to 6 million pieces have been set up. The demand for masks surged to 500,000 a day during the pandemic, but the import level has not changed much due to the strengthened supply capacity.

The King of Jordan visited a company in Mafraq for a factory tour, and the company employs 420 employees (80 percent of whom are Jordanians) and factories that manufacture raw materials for disinfectants and cosmetics. The company exports the products to 41 countries and revealed that its exports increased by about 24 percent in the first half of 2020.

### **(3) Infrastructure (Transportation, Construction, Energy and Water)**

Jordan relies on neighboring countries such as Saudi Arabia and Egypt for the supply of energy, but the decline in oil prices due to COVID-19 has contributed to the reduction of energy costs.

On the other hand, it has been pointed out that the productivity of the energy sector is low and structural reforms to improve competitiveness continue to be recommended.

Additionally, Jordan has a shortage of water resources, and the increase in hand washing to prevent COVID-19 infection has greatly increased water consumption and has been putting a burden on the water infrastructure (according to remarks by the Minister of Planning International Cooperation at a seminar held jointly by the World Bank and Jordan Strategy Forum).

In addition to energy and water, transportation and construction sectors are also listed as the most affected sectors by the COVID-19 pandemic, as described below.

**Table A 5 List of Sectors Mostly Affected by COVID-19**

Tourism	<ul style="list-style-type: none"> <li>• Tourist facilities approved based on the Tourism Law, rules and instructions</li> <li>• Tourist rental car facilities</li> </ul>
Transportation / Logistics	<ul style="list-style-type: none"> <li>• Facilities for air, land and sea transport for individuals, aircraft supply and catering facilities, aircraft maintenance services, duty-free shops, and branches of any of the establishments operating at airports. and border crossings</li> <li>• Establishments operating in the field of flight training and aircraft (added in September)</li> <li>• Public transportations</li> <li>• Clearance offices and companies, except for the branches operating in the Aqaba Special Economic Zone (added in September)</li> </ul>
Manufacturing / Construction	<ul style="list-style-type: none"> <li>• <i>Construction sector</i></li> <li>• Wood and furniture industry sector</li> <li>• Leather and knitting industry sector</li> <li>• Dead Sea products (added in September)</li> </ul>
Public service	<ul style="list-style-type: none"> <li>• Employment facilities approved under the Labor Law and the rules</li> <li>• Vocational training and technical training center</li> <li>• <i>School facilities, kindergartens, and nurseries</i></li> <li>• University office (added in September)</li> <li>• Visa issuance office (added in September)</li> </ul>
Other services	<ul style="list-style-type: none"> <li>• Facilities for recruiting and using domestic workers authorized under the Labor Law and the rules</li> <li>• Facilities for holding parties, festivals, conferences and exhibitions</li> <li>• Wedding hall installation and wedding and event equipment rental facilities</li> <li>• <i>Sports and recreation club facilities, swimming pools, bathing facilities</i></li> <li>• <i>Cultural center facilities</i></li> <li>• <i>Clothing, shoes and accessories trading facility</i></li> <li>• <i>Health club facilities</i></li> <li>• Recreation facilities and parks</li> <li>• Movie theaters and theaters</li> <li>• Museums belonging to the private sector</li> <li>• Restaurants and cafes from September 15th to September 30th (added in September)</li> <li>• Stores in the market during the period from September 15th to September 30th (added in September)</li> </ul>

\* The list is updated from time to time. Items in italics were on the list as of July 21, but were excluded from the latest list as of September.

Source: Jordanian news based on the Minister of Labour's statement

#### **(4) ICT Sector**

Prior to COVID-19, the number of ICT companies in Jordan was about 600 (including major telecommunication companies such as Orange and Zain), of which 300 companies were start-ups. In terms of policy, REACH 2025 aims to transform Jordan into an IT center in the Arab region, recommending reforms such as improved access to finance, incentives for investors and tax exemptions. The six pillars of REACH 2025 are as follows.

- Smart specialization and growth
- Public sector innovation
- Startups and entrepreneurship
- Skills, capacities, and talents

- Enabling business environment
- Smart digital economy infrastructure

JEGP has also taken over the 96 action items identified in REACH 2025 to promote ICT development. Regarding the tax system, incentives such as exemption from consumption tax and tariffs in the ICT sector and removal of the minimum investment requirement for foreign capital have been taken.

### **Acceleration of Digitization due to COVID-19**

The COVID-19 pandemic accelerated the use of electronic payment services, which led to companies being formalized. E-government progress in the public sector has been advanced ahead of schedule, and a new policy to promote digital transformation is currently under consideration.

### **Electronic Payment (E-payment)**

In March 2020 alone, there were more electronic payment transactions than the total of the last three years. With the opening of electronic payment services to many companies in March, the Jordan Central Bank opened about 600,000 new E-wallets in the first half of 2020. According to the Jordan Payments and Clearing Company (JoPACC), the number of usages exceeded one million as of July 2020. Entrepreneurs and start-ups have also built many platforms free of charge in areas such as maintaining social distance, issuing digital permits during quarantine, and delivering food. The Minister of Finance also states that it is important to continue investing in the digitization of the economy under these circumstances.

Financial supports to the citizens and SMEs were provided through E-wallets, and it is pointed out that 13,000 SMEs have moved from the informal sector to the formal sector by registering on the financial support platform. The concern about the virus infection by using cash is also said to have helped the promotion of electronic payments. The Minister of Finance states that the government encouraged formal registration and formalization when issuing permits for companies to reopen after a lockdown. Ultimately, increasing the number of officially registered companies would work to curb tax evasion in the informal sector.

The phenomenon that the COVID-19 crisis and the utilization of ICT had an impact on the formalization of the informal sector is considered to have implications for addressing the issue of formalization of companies and employment.

### **E-Government Initiatives**

Related to innovation in the public sector, e-government efforts have been advanced even before the COVID-19 pandemic. The electronic payment platform eFawateerCom, owned by the Central Bank of Jordan (CBJ) and operated by MadfoatCom Electronic Payments, was launched in 2014. The users can send money through ATMs, banks, mobile online banking platforms, post offices, and major retailers, and can also pay by credit card.

The Ministry of Education (MoE) has implemented a national project through a private telecommunication company that links approximately 3,000 public schools with the Ministry of Education on an integrated IT network. Other e-government services aimed at eliminating bureaucracy and reducing the time it takes to set up a company, as well as new e-services have been launched in the national e-ID card issuance, healthcare, education and transportation sectors.

The fields of fintech and mobile money are considered to have potential for future growth as the percentage of unbanked citizens is high. Companies such as GreenWallet and MadfoatCom have already been offering mobile financial services in Jordan, while PayFellow and Middle East

Payment Services are developing businesses in the secure e-payment service. JoMoPay has launched an interoperable mobile money system in the MENA region, with some startups offering P2P lending platforms for small businesses and entrepreneurs.

According to local news, the impact of COVID-19 would bring the achievement of the goals of the e-government projects forward, at the cost of pausing some large-scale infrastructure projects. In February 2020, the Jordanian government launched its Sanad application to implement one of the government goals of e-government services and began offering 100 e-government services that include 10 institutions.

The UN survey on e-government shows that Jordan's ranking has continued to decline since 2014, reaching 117th out of 193 countries in 2020 (down 19th from the previous ranking in 2018), thus, continuous efforts will be necessary. Most recently, the "Jordanian Digital Transformation Strategy 2020" was presented by the Ministry of Digital Economy and Entrepreneurship as a new digital transformation promotion policy (public comments are invited until September 20, 2020).

## **(5) Tourism and Hospitality**

### **Overall Tourism Sector**

The tourism industry before COVID-19 was supported by inbound tourists from overseas, which accounted for 90 percent of tourism sector revenue. Due to the worsening perception of geopolitical risks, the number of tourists decreased after 2010 (the number of visitors to Petra declined from one million in 2010 to 380,000 in 2016: interview with USAID staff in the report of Oxford Business Group), but then recovered afterwards. In 2019, 3.855 million foreign tourists visited Jordan (1.135 million visitors to Petra), according to the data of MOTA statistics. Many foreign tourists are from the Gulf countries, but the number of tourists from Asia-Pacific and Africa have also increased significantly in recent years.

According to local media reports, January and February 2020, just before the COVID-19 pandemic, showed favorable growth of 12.2% and 15.9%, respectively, compared to the same month of the previous year. However, due to the impact of the global COVID-19 pandemic, tourism revenue fell by 63.7 percent to 891 million dinars in the first seven months of 2020. The spending of domestic travel also fell, by 67 percent, over the same period to 205 million dinars. The situation deteriorated from March to the end of July, and although it was expected to recover after October, the outlook is uncertain due to the outburst of infection in Jordan and the shrinking global demand. The COVID-19 crisis will cost companies in the tourism sector \$2.4 billion in revenue loss (down 58 percent from the revenue in 2019), and 46 percent of the workforce, 23,535 workers, are expected to lose their jobs, according to the Jordan Strategy Forum's Tourism Impact Report.

The Ministry of Tourism and Antiquities has stated that it will continue to work with the relevant authorities to maintain the tourism sector, which is an important industry for Jordan, by securing liquidity, maintaining employment and reducing costs for tourism-related companies. It also called for the importance of investing in the latest technology and smartphone applications to provide safe tourism.

Prior to COVID-19, the niche markets that were promising included religious tourism (pilgrimage to sacred places), MICE, and film tourism (Jordan Inbound Tour Operators Association).

### **Film Tourism**

Jordan has tourism resources such as Wadi Rum and Petra that can be used for filming, and the market size of film-related activities in the past 10 years has been JOD264 million, creating about

106,000 jobs. In the winter of 2019, 18 movie productions were filmed at the same time, reaching \$50 million. The number of productions was expected to double in 2020 and 2021, but most of the filming projects have been postponed or suspended due to the COVID-19 crisis.

### **Medical Tourism**

Medical tourism that includes dentistry, spas, wellness tourism, and medical tourism (including tourism assistance for people with illness or disability), is said to be promising as medical care in Jordan is less expensive than in Singapore and Thailand and is internationally competitive. In 2017, the number of visitors was about 300,000, but the number of medical visitors decreased due to the worsening situations in Libya, Yemen, and Sudan, which are the main origin countries. Kazakhstan, Chad, Nigeria, Iraq, Oman, and Saudi Arabia are the new target segments, but UAE, Turkey and India are competing for medical tourism. Since Oman and Kazakhstan can visit Turkey by direct flights, Jordan had been taking measures such as partnering with Jordan Airlines to expand routes and promoting medical tourism with the support of USAID.

Medical tourism was also stagnant due to the closure of borders during the COVID-19 pandemic, but the King of Jordan emphasized the importance of promoting Jordan as a hub of medical tourism. Accordingly, actions to accept patients from abroad prior to general tourism were discussed at Cabinet Office meetings. Thirteen private hospitals were ready to accept medical tourists, and the Jordan Private Hospitals Association has requested the Epidemiology Commission to develop a protocol to allow entry of patients from countries with a relatively low risk of COVID-19. A website for medical tourists to register called “Your Safety” has been launched, and e-visas as well as reservation and payment services are being made available from the website.

### **Toward the Post-COVID Tourism**

According to the Jordanian inbound tour operators association, it is expected to be difficult for the tourism industry to fully recover by September 2021. It will take a long time for the general tourism industry to recover, but tourism in nature such as adventure tourism is expected to recover sooner. The King of Jordan mentioned the aim of attracting foreign tourists by promoting trail (adventure), medical, and film tourism.

While the outlook for accepting foreign tourists is uncertain, the government is implementing tax reduction and financial support for the tourism industry to survive. The tax reduction measures implemented from July 1 reduced the consumption tax of hotels and tourist restaurants from 16 percent to 8 percent, and the government subsidized the prices of some restaurants and hotels such as Akaba, to stimulate domestic demand. In addition, the government provided JOD190 million of cash transfers to cover the operating costs of the tourism industry and started supporting tourism employees through a social security program (received by 260,000 people).

For the time being, stimulation of domestic demand and taking preventive measures against the virus infection along with emergency support for the sector would be the focus. However, it is also necessary to consider innovative ways of thinking and new forms of tourism utilizing digital technologies, toward the post-COVID-19 period. Even before the COVID-19 crisis, industry insiders (local travel agencies) have pointed out that digital technology needs to be a pillar of tourism strategy, and investment should be made in online marketing instead of traditional marketing through exhibitions. Upon the COVID-19 pandemic, technology startups are exploring countermeasures and new businesses such as developing apps that minimize contact between staff and customers at hotels, and online travel tours using XR technology.

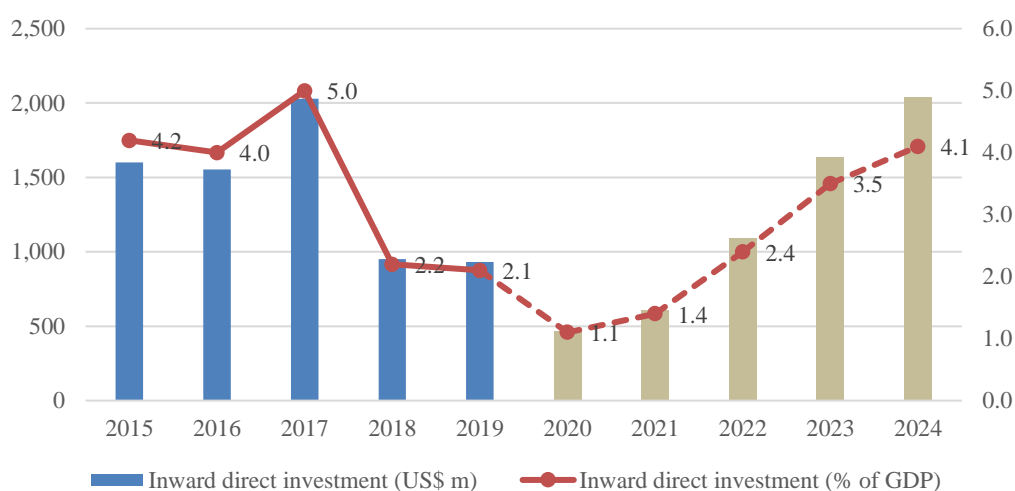
Following the impact of COVID-19 on the tourism industry, EBRD has announced tourism-related support programs for 13 countries including Jordan, with economic recovery, marketing



and promotion, institutional strengthening and resilience-building as the main areas of support. Besides, USAID, which has continued to provide support in the tourism field has the framework of the Sustainable Cultural Heritage Through Engaging Local Communities Project (SCHEP). The initiatives provide support in community-based tourism for the resumption of tourism after the COVID-19 (development of lesser-known sites in Jordan), as well as financial support for the tourism sector in the COVID-19 crisis.

### 2.3.3 Transitions of Investment, Foreign Trade, and International Exchange

The amount of foreign direct investment (FDI) in Jordan is declining following the peak in 2006. Even in the pre-COVID-19 times of 2019, the total inward FDI amounted to US\$913 million, decreasing significantly from the previous year’s US\$950 million. Although EIU’s predicted value of FDI for the year 2020 came out to US\$465 million, approximately half the amount in 2019, the values are expected to recover to a decent level by 2024.

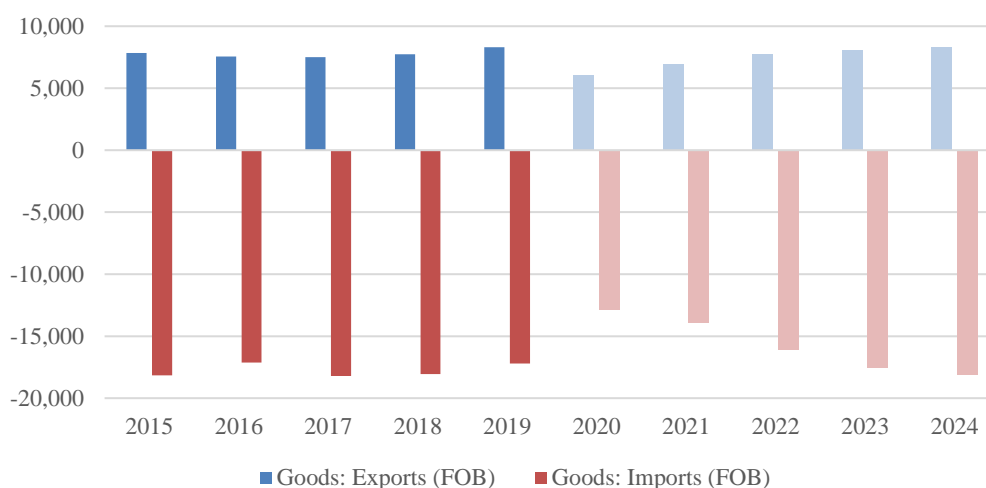


\*Data for years following 2020 are predicted values

Source: Department of Statistics, Jordan. (2020). Jordan Statistical Yearbook 2019

**Figure A 5 Foreign Domestic Investment**

Jordan’s trade balance is a current account deficit, the reason being, while the import values are continually increasing year after year, the export values have not kept pace. Through the economic stagnation following the outbreak of COVID-19, both the import and export values have declined, indicating that the current account deficit would be suppressed compared to previous years. When the global economy recovers and logistics are normalized once more, however, the current account deficits are predicted to return to pre-COVID-19 values.



\*Data for years following 2020 are predicted values

Source: Department of Statistics, Jordan. (2020). Jordan Statistical Yearbook 2019

**Figure A 6 Trade Balance**

### 2.3.4 Remittance from Jordanian Expats and Corporate Activities

The number of Jordanians abroad was about one million, which is about 10 percent of all Jordanians (the number may have changed because the latest statistics on Jordanians abroad are as of 2015). By country of stay, the Gulf countries such as Saudi Arabia and the UAE have the largest number of about 700,000, followed by the United States with about 100,000. According to a survey by the Jordan Strategy Forum, 61.4 percent of Jordanians abroad live in Saudi Arabia, 14.1 percent live in the United Arab Emirates, and 12.5 percent live in Qatar, the majority of whom are highly skilled workers engaged in the medical, IT and financial sectors.

The COVID-19 pandemic has caused the Jordanians abroad, mainly in the Gulf countries, to return home. According to the information as of June 9, the return support platform for overseas Jordanians launched by the Jordanian government received registrations of 17,000 people returning by air and 5,000 people returning by land, and some returned to Jordan in a series of charter flights. Due to the return of Jordanians abroad and unemployment in their country of stay, the amount of remittances to Jordan has also decreased and, according to data from the Central Bank of Jordan, the amount fell by 10 percent year-on-year in the first seven months of 2020, which was \$1.94 billion, reaching a level that has not been seen in more than 10 years. The previous year's remittance to Jordan was \$3.7 billion, accounting for about 10 percent of GDP, and were one of the major sources of foreign currency acquisition.

From the perspective of a brain drain, the growth of the medical sector (pharmaceutical and medical tourism) and ICT sector, which are considered to be the focus industries of the post-COVID, will lead to the absorbing of the highly-skilled talents in the future.

Regarding corporate activities, according to a survey conducted by the Jordan Strategy Forum on 605 companies (dated April 24), 89.6 percent of companies responded that their income in March decreased, of which 66.6 percent experienced a decrease of more than 75 percent. In addition, according to a media report on July 4, 33 percent of companies state that their employees have returned to the office almost completely, 15 percent of companies were almost fully in remote operation, and 12 percent were in complete remote operation. The corporate activities were severely damaged, with 49 percent of companies having reduced their employees' salaries in June, and 24 percent of companies unable to pay their employees' social security costs. On the other

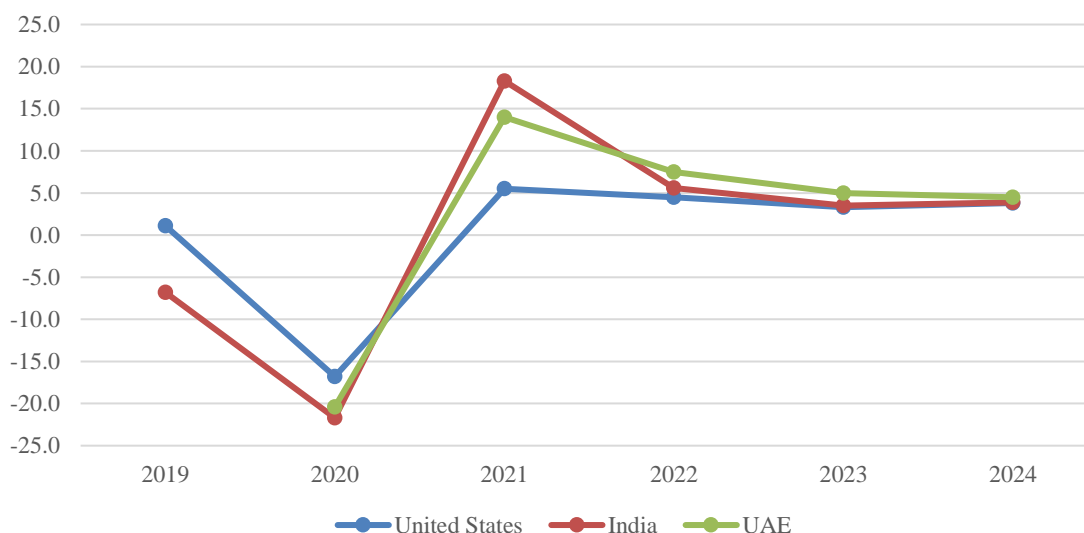
hand, there are companies that are actively investing even during the COVID-19 pandemic, with 52 new investment projects (industry, agriculture, tourism, etc.) being registered between March and June, and 893 projects were related to expansion, modernization, and business development.

## 2.4 Demands of Major Trading Partners and Trends in Neighboring Countries with Many Residing Jordanians

Since estimations of exports are largely impacted by global market demand, the market demand forecast for the main export destinations (United States, Europe, and neighboring countries such as Saudi Arabia and Iraq, India, etc.) along with the infection rates and economic outlook of Gulf countries with many residing Jordanians (Saudi Arabia, UAE and Qatar) will be examined.

### 2.4.1 Demand in the Main Export Markets

Jordan’s five largest export markets are the United States, Saudi Arabia, India, Iraq, and UAE (for a more in-depth examination, see 3.5 Changes in Logistics Flow and Supply Chains). According to the predictions by EIU, the countries’ import value growth rates for 2020 are currently negative due to the COVID-19 pandemic. As import value for each country is predicted to recover in 2021, the growth rates are estimated to be at an all-time high. On the other hand, the growth rates following 2022 are predicted to flatten.



\*Data for years following 2020 are predicted values

Source: Department of Statistics, Jordan. (2020). Jordan Statistical Yearbook 2019

**Figure A 7 Economic Growth (Goods: Imports (FOB), %)**

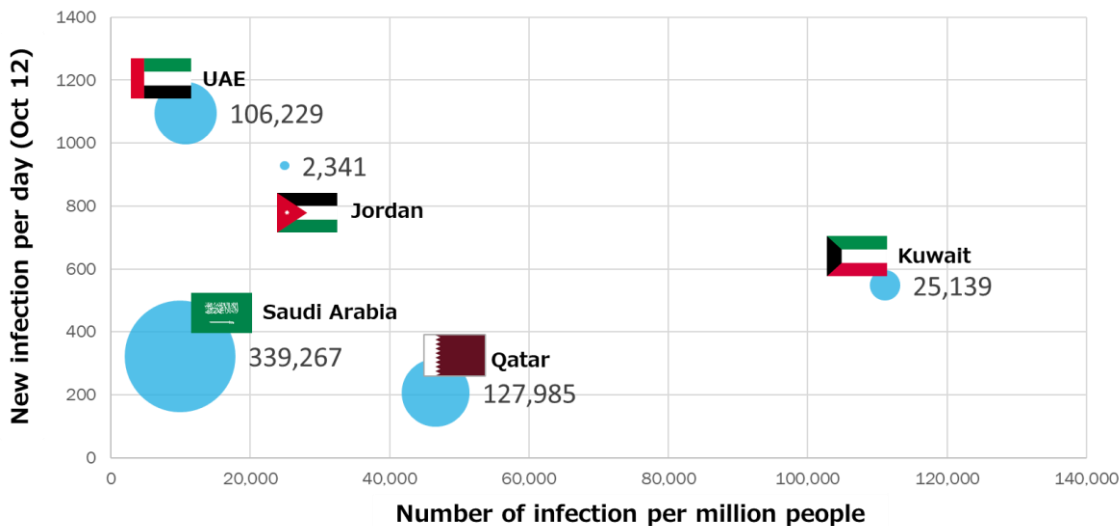
### 2.4.2 The Situation in the Neighboring Countries

This section describes the infection trends and economic trends in the surrounding Gulf countries (Saudi Arabia, UAE, and Qatar), where the most Jordanian expats live as well as being major trading partners.

#### (1) Trends of COVID-19

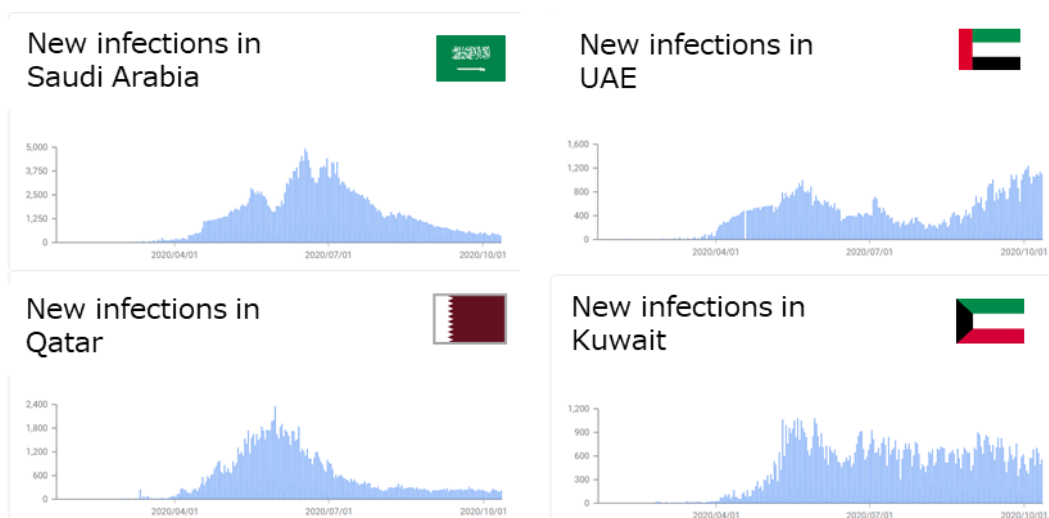
As shown in Figure A 8 below, Jordan had low infection numbers until August, so the total number of positive cases is rather small, but the number of new infections has exceeded the trends in Kuwait and the UAE. In Saudi Arabia and Qatar, which are shown at the bottom of the figure,

the total number of positive cases is more than 100,000, but as shown in the trend of the number of new cases in Figure A 9, the situation has been stabilizing recently. On the other hand, the UAE is showing signs of a second wave, and certain infection level continues in Kuwait, which has a small population.



\*The size of the circles and the labeled figures show the cumulative positive cases.  
Source: Created by JICA Study Team based on the data on Google COVID-19

**Figure A 8 COVID-19 Status in Jordan and the Neighboring GCC Countries**



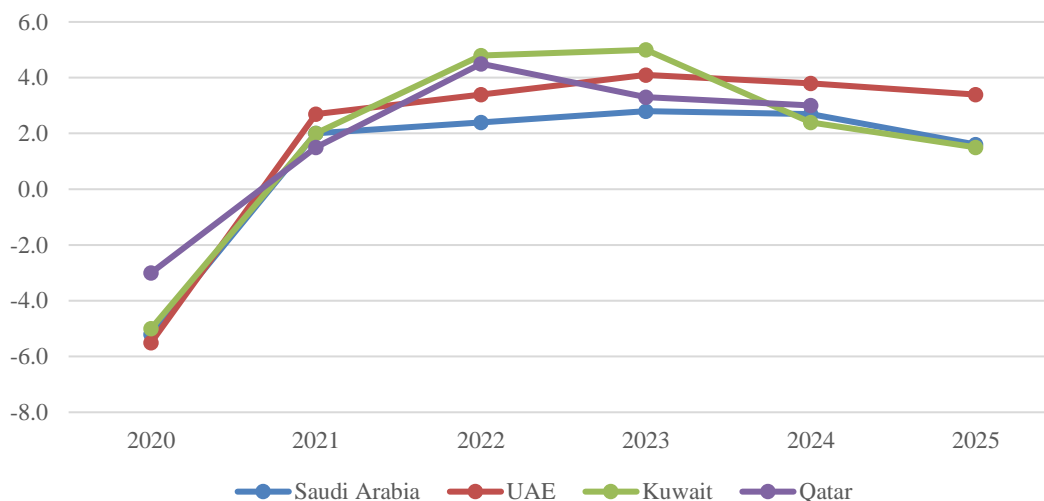
Source: Google COVID-19

**Figure A 9 COVID-19 Trends in the Neighboring GCC Countries**

As of September 15, Saudi Arabia and the UAE have been categorized as "Yellow countries" and entry into Jordan requires negative results from two PCR tests, seven days of quarantine and retesting. Kuwait and Qatar are classified as "Red countries," and the wearing of a GPS bracelet is required in addition to the above conditions. In this way, it can be said that there are still restrictions on traffic even though international flights have resumed.

## (2) Trends of Economy

According to the EIU economic outlook, although these countries will face a temporary stagnation due to the COVID-19 crisis, a steady continued growth is predicted post-COVID-19. As of now, Jordanians residing in gulf countries have gradually been returning via land or air due to the pandemic. The overseas remittance rate in GDP has been declining since 2000, down to 10.3% in 2019, and is estimated to fall even lower due to the pandemic. However, as the economies of the Gulf countries recover, the reflux of Jordanians will reopen, strengthening the overseas remittance rates.



Source: Department of Statistics, Jordan. (2020). Jordan Statistical Yearbook 2019

**Figure A 10 Economic Growth (Real GDP, %)**

In addition, a large number of highly skilled Jordanians residing in Gulf countries are said to be employed in the medical, IT and financial sectors. From the perspective of a brain drain, by focusing on key industries post-COVID-19, such as the medical industry (pharmaceutical and medical tourism included) and IT industry, they may be of use to keep the highly-skilled nationals within the country.

### 2.5 Changes in Physical Distribution and Supply Chain

Figure A 11 is a line graph compiled of data on monthly total imports and exports from January 2019 to July 2020 available from the Jordanian Statistics Bureau.

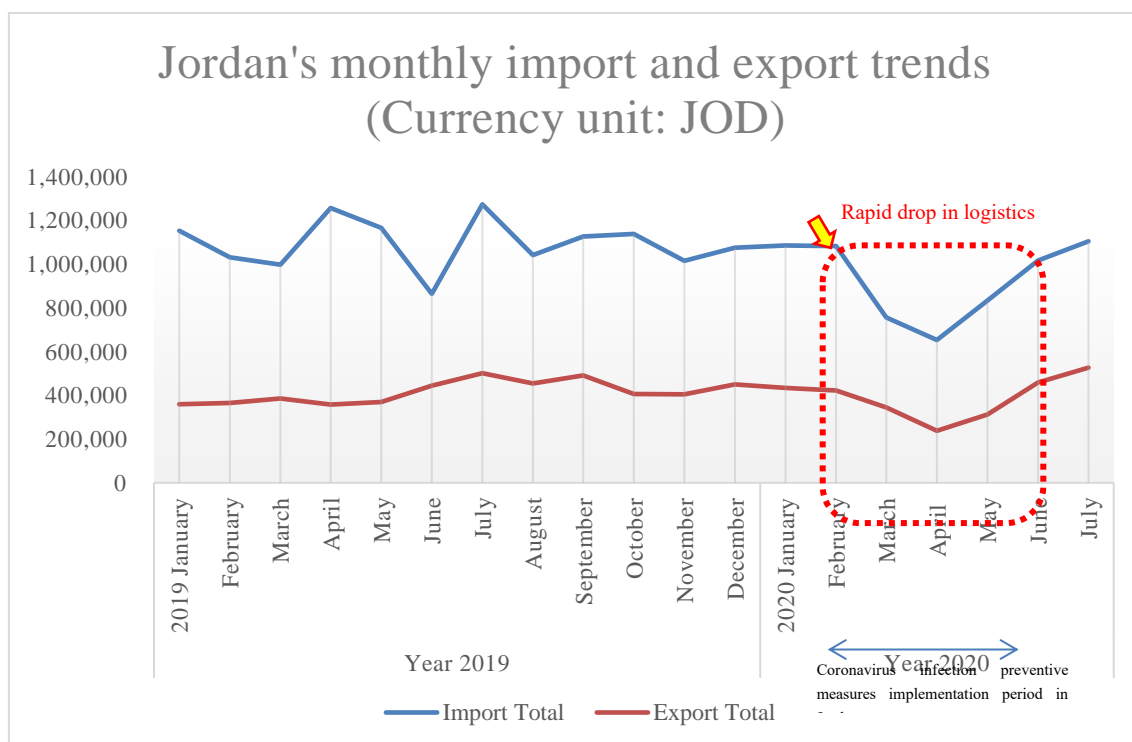
The first wave of the COVID-19 infection raged around the world from February to August 2020 but, in Jordan, there were not many people infected during this period.

However, when city lockdowns and business suspensions were being carried out to prevent infections, from February to May 2020, both exports and imports fell sharply.

Since domestic economic activity and trade are closely linked, it can be seen that the country's economy and business activities were in a slump.

The decline in exports was less compared to imports. The factor behind this could be; Jordan exports primary minerals (crude phosphate, crude potassium), agricultural products, and pharmaceuticals, which are indispensable to people's livings and for industries, thus are rather less susceptible to economic fluctuations. This tendency is in contrast with the decline in countries

such as Western countries, Japan, South Korea and China, which export high value-added goods (such as aircraft, automobiles and electrical appliances and parts) that are susceptible to postponed purchases by consumers during the recession.



Source: Figure prepared by JICA study team using data from Jordan Statistics Department's website: [http://jorinfo.dos.gov.jo/Databank/pxweb/en/DOS\\_Database/](http://jorinfo.dos.gov.jo/Databank/pxweb/en/DOS_Database/)

**Figure A 11 Jordan's Import and Export Trends from January 2019 to July 2020 (Most Recent)**

From Figure A 11, on June 2020, both exports and imports returned to the situation before the impact of the COVID-19 pandemic, and on July the amount was further increasing in a recovery from the stagnation.

On the other hand, the number of actual infected people in Jordan began to increase gradually from around August 2020, and it is thought that the real impact of the COVID-19 pandemic on the economy and logistics will be from the end of 2020.

## (1) Trends in Export

Table A 6 shows the changes in exports in Jordan over the five years from 2014 to 2018.

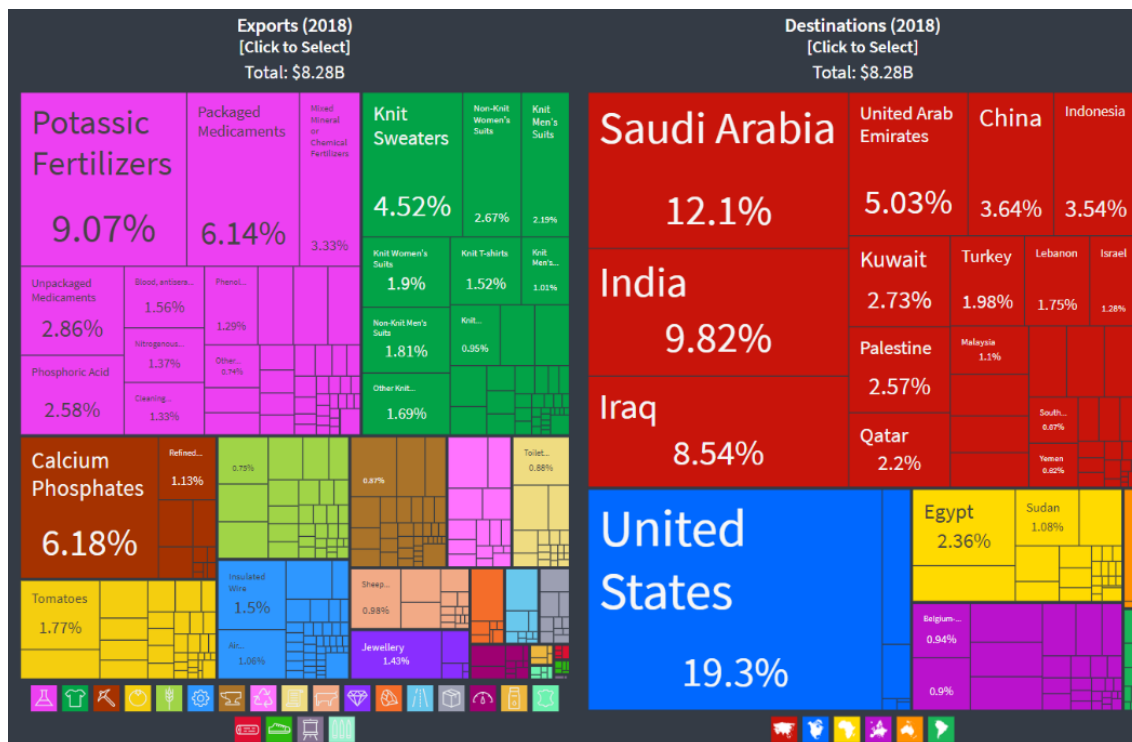
**Table A 6 Jordan Export Trends from 2014 to 2018**  
(Currency Unit: Jordanian Dinar (JOD))

	2014	2015	2016	2017	2018
<b>Export Total</b>	5,6163,028	4,797,583	4,394,175	4,490,734	4,661,721
<b>First: Consumer Goods</b>	<i>(2,712,726)</i>	<i>(2,684,860)</i>	<i>(2,559,946)</i>	<i>(2,574,119)</i>	<i>(2,591,309)</i>
A. Current Consumer Goods					
- Foodstuffs	818,567	776,858	629,098	585,113	535,890
- Pharmaceutical Products	423,676	398,805	467,675	446,911	446,626
- Garments and Textiles	958,002	1,025,261	1,038,905	1,141,776	1,262,678
- Other Current Consumer Goods	344,685	307,652	239,582	251,795	229,817
B. Durable Consumer Goods					
-Small Motor Vehicles for Passengers	-	-	720	-	-
- Other Durable Consumer Goods	167,795	176,282	183,965	148,522	116,296
<b>Second: Crude Materials and Other Intermediate Consumer Goods</b>	<i>(2,311,060)</i>	<i>(1,986,736)</i>	<i>(1,742,349)</i>	<i>(1,814,059)</i>	<i>(1,973,138)</i>
- Fuels Including Crude Petroleum	184	0.8	189	219	70,810
- Crude Phosphates	332,964	371,630	330,694	281,975	261,772
- Crude Potassium	-	-	-	-	-
- Fertilizers	726,981	586,029	439,901	479,405	577,402
- Construction Materials	94,585	98,972	107,046	114,443	94,911
- Other Intermediate Goods	1,156,343	930,102	864,516	938,016	968,240
<b>Third: Parts and Accessories</b>					
- Parts and Accessories for Aircraft	-	-	-	-	14.5
- Parts and Accessories for Transport Equipment Except Aircraft	8,414	8,338	7,788	5,070	4,515
- Parts and Accessories for Other Machines and Equipment	8,971	10,307	7,390	5,859	4,455
<b>Fourth: Capital Goods</b>					
- Transport Equipment except Small Motor Vehicles	4,127	1,899	2,623	2,169	654
- Other Capital Goods inc. Machinery	116,171	104,879	72,277	79,474	82,977
- Live Animals for Breeding	1,131	323	866	1,131	1,845
<b>Fifth: Other Goods not Classified Elsewhere in H.S.</b>	425	238	933	8,849	2,809

Source: Data from Jordan Statistics Department's website:  
[http://jorinfo.dos.gov.jo/Databank/pxweb/en/DOS\\_Database/](http://jorinfo.dos.gov.jo/Databank/pxweb/en/DOS_Database/)

From Table A 6, it can be seen that, among exported products, First: Consumer Goods and Second: Crude Materials and Other Intermediate Consumer Goods account for about 97 percent every year. High-value-added goods such as transportation equipment, machinery, and capital goods, as well as their parts and accessories, are not exported much and the associated amounts are small in Jordan.

In other words, from this table one can say although primary industrial products and light industries such as consumer goods such as the garment industry are thriving, heavy industrial products, and fields related to IT and intellectual property are not exported much and may not be competitive.



Source: Jordan-related data from the OEC website <https://oec.world/en/profile/country/jor#economic-complexity>

**Figure A 12 Jordan’s Major Export Products and Major Destinations**

Figure A 12 shows Jordan’s 2018 export-related information from the OEC. Major export destinations are the United States (19.3 percent), Saudi Arabia (12.1 percent), India (9.82 percent), Iraq (8.54 percent), UAE (5.03 percent), China (3.64 percent), and Indonesia (3.54 percent) in that order. Major export products from Jordan are potassic fertilizers (9.07 percent), calcium phosphates (6.18 percent), and packaged medications (6.14 percent). In Table A 6Table A 6 , the tendencies are the same and the export values of these three products are very large and appear every year.

**(2) Trends in Import**

Table A 7 shows the changes in imports in Jordan over the five years from 2014 to 2018.



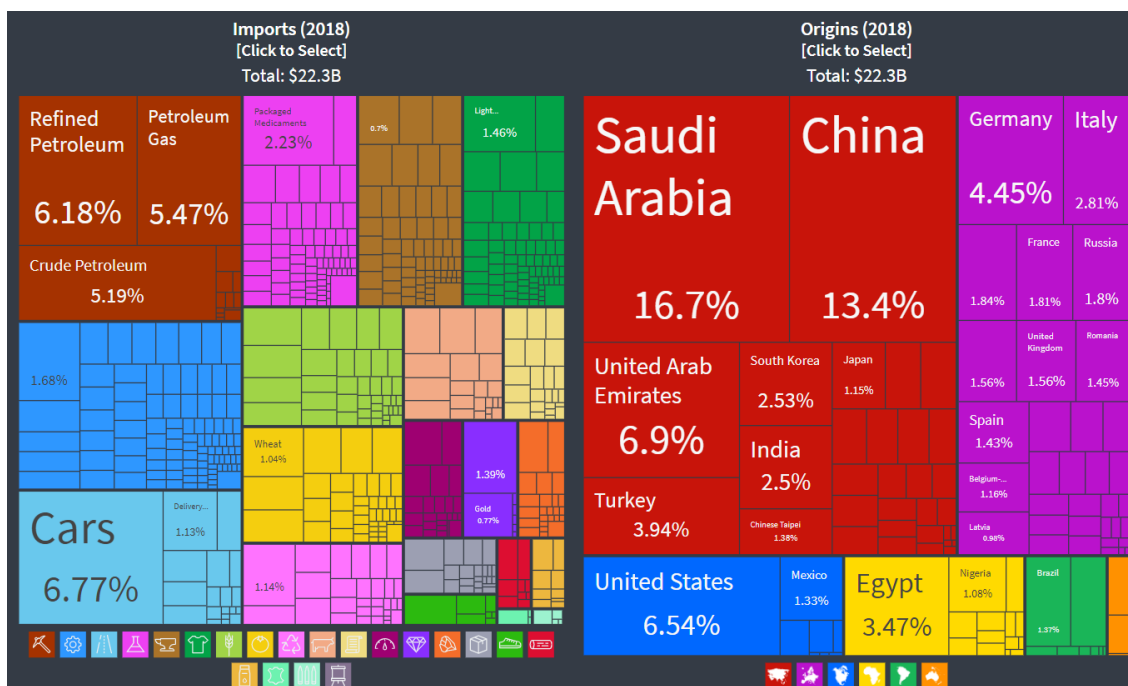
**Table A 7 Jordan Import Trends from 2014 to 2018  
(Currency Unit: Jordanian Dinar (JOD))**

	2014	2015	2016	2017	2018
Import Total	16,280,188	14,537,182	13,693,251	14,098,357	13,447,715
First: Consumer Goods Subtotal	<u>(4,375,962)</u>	<u>(4,523,791)</u>	<u>(4,710,098)</u>	<u>(4,559,688)</u>	<u>(3,582,468)</u>
A. Current Consumer Goods					
- Foodstuffs	1,767,080	1,800,905	1,720,663	1,681,932	1,612,954
- Pharmaceutical Products	365,121	385,344	418,595	377,633	385,549
- Other Current Consumer Goods	1,055,897	1,065,909	1,159,024	1,026,257	934,617
B. Durable Consumer Goods					
- Small Motor Vehicles for Passengers	726,534	792,172	920,543	1,000,853	230,691
- Other Durable Consumer Goods	461,328	479,459	491,270	473,011	418,654
Second: Crude Materials and Other Intermediate Consumer Goods	<u>(9,593,091)</u>	<u>(7,460,861)</u>	<u>(6,591,324)</u>	<u>(6,780,761)</u>	<u>(7,417,365)</u>
- Fuels Including Crude Petroleum	4,349,404	2,443,663	1,926,850	2,373,576	2,955,717
- Fertilizers	35,161	32,499	33,482	25,711	23,59
- Construction Materials	250,063	260,912	251,618	124,845	149,992
- Other Intermediate Goods	4,958,461	4,723,786	4,379,372	4,256,627	4,288,062
Third: Parts and Accessories	<u>(562,733)</u>	<u>(605,913)</u>	<u>(472,479)</u>	<u>(615,155)</u>	<u>(621,540)</u>
- Parts and Accessories of Aircraft	141,654	99,493	148,685	166,110	149,435
- Parts and Accessories of Transport Equipment Except Aircraft	112,616	122,859	116,768	108,319	93,405
- Parts and Accessories of Other Machines and Equipment	308,462	383,560	207,025	340,725	378,698
Fourth: Capital Goods	<u>(1,481,320)</u>	<u>(1,672,364)</u>	<u>(1,701,792)</u>	<u>(1,889,369)</u>	<u>(1,573,688)</u>
- Transport Equipment except Small Motor Vehicles	191,220	287,508	267,620	206,284	197,208
- Other Capital Goods inc. Machinery	1,286,400	1,381,758	1,430,776	1,678,024	1,371,812
- Live Animals for Breeding	3,699	3,098	3,395	5,060	4,667
Fifth: Other Goods not Classified Elsewhere in H.S.	267,080	274,251	217,556	253,382	252,652

Source: Data from Jordan Statistics Department's website:  
[http://jorinfo.dos.gov.jo/Databank/pxweb/en/DOS\\_Database/](http://jorinfo.dos.gov.jo/Databank/pxweb/en/DOS_Database/)

Even though Jordan is in the Middle East, it has almost no oil production, and as this table shows, is highly dependent on overseas energy. The largest imports are petroleum products such as crude oil, and the national economy and regional economic condition are easily affected by the price of crude oil. Due to the soaring price of oil in 2014, the total amount of imports has also increased.

Table A 7 shows Jordan's 2018 imports-related information from the OEC. Major import origins are Saudi Arabia (16.7 percent), China (13.4 percent), UAE (6.9 percent), United States (6.54 percent), Germany (4.45 percent), Turkey (3.94 percent), Egypt (3.47 percent), Italy (2.81 percent), Korea (2.53 percent), and India (2.5 percent) in that order. The main imported products are passenger cars (6.77 percent), refined oil (6.18 percent), petrochemical gas (5.47 percent) and crude oil (5.19 percent). In Table A 7 as well, the import value of petroleum products and passenger cars is large, and the tendency is the same every year.



Source: Jordan-related data from the OEC website (<https://oec.world/en/profile/country/jor#economic-complexity>)

**Figure A 13 Jordan’s Major Export Product and Major Origins**

Through field surveys, the survey team will also investigate changes in the supply chain and distribution channels due to the impact of COVID-19, as well as changes in distribution costs and inspection systems.

## Chapter 3. Emergency Responses and Financial Responses Related to COVID-19

### 3.1 Scale and Content of Financial Mobilization for Emergency Response

In Jordan, all companies were shut down on March 17, 2020 as an infection control measure, but the businesses gradually reopened, and most of the manufacturing industry resumed economic activities in May.

< Timeline of Business Operations >

Date	Industry of subject	Contents
Mar 17	All private sector	Business suspension
Mar 25	Retail (Small-scale stores)	10am-18pm, 16-60 years old, Business resumed except Fridays and Saturdays
Mar 30	Banks	Resumed fundamental services 10am-3pm, except Fridays and Saturdays
Apr 8	Manufacturing	Examination of countermeasures in response to requests from professional workers with expertise in handicrafts to resume economic activities
Apr 9	Exports	Scheduled to gradually resume economic activity
	Manufacturing	All necessary facilities are in operation, and manufacturing facilities that have not resumed economic activity will be granted permits in stages.
Apr 19	Manufacturing	Those that have already been partially reopened have increased operating rate from 20% to 30%
Apr 21	Part of Manufacturing	Business resumes only from 10 to 18 o'clock with an operating rate of 30% Target industries: Furniture, books, stationery, glasses, contacts, home appliances, TVs, printing-related products, newspapers, etc.
Apr 26	Services, Manufacturing	Increased operating rate from 30% to 60% based on discussions with experts and chambers of commerce
Apr 30	Retail (Large-scale stores)	Reopening of shopping malls and large supermarkets * Restaurants, movie theaters, entertainment facilities, amusement parks, etc. continue to be closed.

Since the outbreak of COVID-19 in Jordan began around the end of August 2020, the impact on business has continued to be unpredictable. The impact of COVID-19 and the response of Jordan are described below from the perspectives of fiscal mobilization, insurance policy, public affairs, refugee policy, impact on the business environment, SME advisory services, and credit guarantees.

The national budget for 2020 ambitiously has set domestic revenues at JOD7.754 billion, which is 10.4 percent higher than the previous year, but it is predicted that this will be difficult to achieve due to the COVID-19 crisis. The government provided support for small and medium-sized enterprises and day laborers, but this was done within the initial expenditure budget by adjusting the allocation of the breakdown of the budget by prioritizing the response to COVID-19-related emergency measures.

Jordan's response to the COVID-19 crisis is based on three principles: "Health and social protection," "Services and economic sustainability," and "Recovery through measures to support affected sectors." The examples of fiscal mobilization include JOD10 million allocated to the Ministry of Labor, JOD10 million to hospitals of the Ministry of Health, JOD10 million to pharmaceutical companies and warehouses, and JOD5 million to medical institutions such as university hospitals and royal medical services.

### **(1) Support for Companies**

The Central Bank of Jordan implemented a program to provide SMEs affected by the crisis with JOD500 million in loan credit guarantees. As of July, 3,645 loans, totaling JOD360 million, were financed by the credit guarantee program, and the average loan amount per company was JOD98,000. (For Jordan's COVID-19 Special Credit Guarantee, see "4.5.3 Trends in Advisory Support for SMEs and Impact on Credit Guarantee System".)

The Ministry of Finance recognizes that the biggest challenge faced by companies in the COVID-19 crisis is access to liquidity, and they focus on collecting external funding such as US, EU and GCC sources, and leave domestic financing to the banks in the private sector.

### **(2) Support for Citizens**

Citizens were provided with support such as free PCR testing, reduction of consumption tax on PPE such as disinfectants, gloves and masks, and provision of food and daily necessities. The government also expanded its safety net to day laborers who have been significantly affected by the lockdown.

Regarding the support from international organizations, IOM and Switzerland have partnered with an NGO (Tamkeen) to provide basic food and necessities to migrant workers affected by the pandemic as a three-month emergency assistance program. In addition, as a medium- to long-term response to the COVID-19 pandemic, the UN has developed the Socio-Economic Framework (SEF), which includes the following five areas of focus: fairness and inclusion to address both new and existing vulnerabilities; Gender, an integrated gender perspective to address gender inequality and structural inequality; digital transformation for innovation and progress in public and social services and business and economic efforts; green solution-focused sustainability for a better future; and preparation for strengthening systems that efficiently maintain health, public and basic services, education, social assistance and access to business in times of crisis.

## **3.2 Health Policy**

The Jordanian government closed the country's borders, including the airport, land and sea borders, from March 17, early in the global COVID-19 pandemic, and banned going out by issuing a legally binding defense order to prevent the spread of the virus infection.

< Examples of the prevention measures >

- Comprehensive lockdown during Eid, Friday, and Saturday
- Driving restrictions based on even and odd vehicle license plate numbers
- Total isolation measures between infected cities and non-infected cities
- Maintaining social distance, and obligation to wear masks and gloves (Defense Ordinance No. 11)

< List of Defense Orders >

Name	Applied date	Contents	Penalties
Defense Order	Mar 17	For the sake of public safety and national defense, the prime minister can decide to prohibit unnecessary and urgent going out, restrict freedom of movement and movement, evacuate from specific areas, restrict store openings, and restrict public transportation.	Imprisonment for up to 1 year
Defense Order 2	Mar 21	Stay-at-home order, closure of all stores	Imprisonment for up to 1 year
Defense Order 3	Mar 26	Strengthening penalties for stay-at-home orders	First time: 100-500 JD fine After: Either or both of the above fines and imprisonment of up to 1 year. Unauthorized use vehicle: confiscated for 30 days
Defense Order 4	Mar 31	Open of a donation account dedicated to COVID-19 crisis response (limited to large amount of 100,000 JD or more)	-
Defense Order 5	Mar 31	Suspension of counting the number of days required for enforcement of legal measures (applicable to enforcement measures based on the law by ministries and government agencies, obligation to pay sales tax, etc.)	-
Defense Order 6	Apr 8	About the handling of salaries and telework of workers during the stay-at-home order period	-
Defense Order 7	Apr 15	Continuation of the basic curriculum remotely, including exams and student evaluations University education: Credits for classes held remotely, exams and evaluation methods	-
Defense Order 8	Apr 15	Control irresponsible behaviors in light of cases that lead to infection by hiding information about infected persons and contacts	-
Defense Order 9	Apr 16	Financing for salaries to companies and guaranteeing salaries for social security workers Support for unemployed day laborers (200,000 households) 40% of the prime minister's salary and 30% of each minister's salary will be donated	-
Defense Order 10	May 3	Extension of filing period for income tax and withholding tax, and extension of the deadline for submitting certified public accountant offices and their customer information to the Income and Taxation Bureau	-
Defense Order 11	May 3	Require all citizens to secure social distance and wear masks and gloves in public facilities Oblige medical service workers, public facility employees, and delivery workers to wear masks and gloves, and refuse entry of customers who do not wear them	20JD-50JD fine 100JD-200JD fine Closure of facility: 14 days

\*Defense orders were lifted but Defense Order 11 was re-issued on Aug 15<sup>th</sup> as the number of positive cases increased

< Infection status in Jordan (as of Aug 20<sup>th</sup>) >



Source: Ministry of Health, COVID-19 special website

Due to this quick initial response, Jordan successfully suppressed the spread of the virus as of July, and the government's efforts were highly evaluated as the country had the lowest number of positive cases in the Middle East. Although there were sporadic cases brought in from outside Jordan, there were almost no outbreaks of infection (local transmission) in Jordan. However, since

the beginning of August, infections of staff members at international borders and infections of truck drivers were seen, and the number of domestic infections (local transmission) began to increase.

< Updates on 2020/8/12 >

The number of positive cases on 8/12: 20

The number of test cases on 8/12: 6,641

Area	Positive cases	Details
Irbid	5	Two staff members of The Jaber Border Crossing 3 people who had contact with the above 2 people
Ramtha	6	The Jaber Border Crossing.
Mafraq	1	The Jaber Border Crossing
Amman	4	Had contact with the infected individuals (two of whom include nurses at The King Hussein Cancer Center)
N/A	4	Jordanian truck drivers at Al-Omari border
Total	20	N/A

Source: Ministry of Health, COVID-19 special website

In addition, as of July, Jordan was planning to classify countries and regions, and to allow entry into Jordan from green-list countries where the infection status is below a certain level, based on required PCR tests. However, the resumption of international flights was postponed indefinitely as second waves of COVID-19 outbreaks were seen in some green regions such as Hong Kong since the beginning of August. Subsequently, from mid-September, the list was revised and travel from some countries and regions was allowed, but just before the resumption of international flights, the number of local infections in Jordan increased rapidly. On September 30, a peak of 1,776 positive cases was confirmed, and the infection situation continues to deteriorate rapidly, making the situation unpredictable.

< Updates in September >

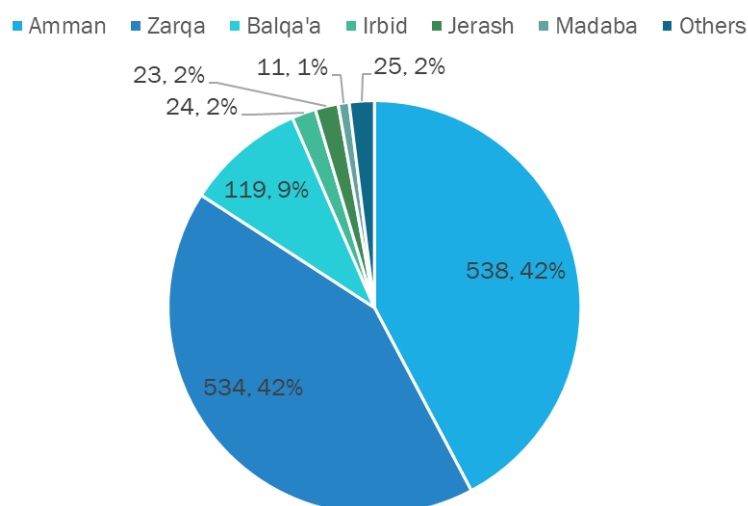
Number of positive cases on Sep 26: 850 (830 in Jordan, 20 brought in from overseas)

Number of PCR tests: 13,488

Number of positive cases on Oct 1: 1,276 (1,274 in Jordan, 2 brought in from overseas)

Number of PCR tests: 17,806

By region, Amman and Zarqa in the suburbs account for 80% of the positive cases (see the figure below).



Source: Created by JICA Study Team based on the special website of the Ministry of Health

**Figure A 14 Breakdown of Local Positive Cases by Region**

### 3.3 Public Works

This section organizes information on trends in public works projects as economic and employment measures through desktop research (and interviews if necessary). Currently, many infrastructure projects have been suspended, as most of the budget is devoted to the Ministry of Health for the COVID-19 emergency response (an infrastructure project worth JOD100 million has been postponed, and new bids for public works projects in Irbid have been suspended). On the other hand, e-government efforts are expected to accelerate, and the King of Jordan has also mentioned strengthening e-government.

In addition, the Ministry of Labor is proceeding with the establishment of factories for the textile industry as well as for food and cardboard production, to create jobs. This initiative plans to hire and train 735 Jordanians.

<Overview of the Initiative>

Sector	Company name	Area
Garment sector	Samad Garment Manufacturing Factory	The Northern Mazar District in Irbid
	Anaheim Manufacturing Company	Al-Basiliya municipality area in Mafraq
Food industry	Bosra Food Industries Company plant	Al-Wasatiya region in Irbid
Cardboard cups manufacturing	Al-Kass Platinum Company	The Maan Development Area

In addition, the Jordanian NGO DarAbuAbdullah and WFP plan a 15-month project to provide capacity building, job matching, and support of small-scale and home-based businesses in three major sectors (food production and agriculture, handicrafts, and digital finance), targeting 1,000 Jordanians and refugees in extreme poverty.

Public offering bidding information from the Ministry of Labor and Housing in September 2020 is shown below for reference. It seems that the Jordan government is working to create employment such as building and road maintenance even amid budget cuts; however, the volume

of public announcements seems to have decreased significantly compared to the usual year, and bids already made in July are still being posted.

The fact that a large budget amount was allocated to the Ministry of Health for COVID-19 preventive measures is thought to be having a great impact on other public policies and employment of the government. The situation needs to be accurately grasped.

< Public Tender Information of the Ministry of Public Works and Housing as of September 30, 2020 >

Tender	Tender date	Deadline	Contents
48-2020	9/30/2020	10/14/2020	Implementation of Lighting Al-Kafreen Road
44-2020	9/10/2020	9/24/2020	Maintenance and operation of the functional housing of the state of the prime minister, The maintenance of the building and facilities of the prime minister's grounds
45-2020	9/15/2020	9/29/2020	Provision and installation of a traffic light in the area of the Umriya Triangle – Moab/Kark government
46-2020	9/15/2020	9/23/2020	Providing and supplying cold paint and glass beads for roads to the Traffic Safety Directorate
25-2020	7/7/2020	7/18/2020	Dismantling, relocation, transfer and reinstallation works for pre-fabricated buildings (two caravans) of the Zarqa/Azraq/Al-Omari Road construction and rehabilitation project (Part 1) to be used by the Zarqa Works and Irbid Works Directorate/Zarqa Government, Irbid
30-2020	7/15/2020	7/7/2020	Completing the deficiencies of Tender No. 151/2019 for the implementation of the Center for People with Special Needs/Patra (Al-Manar Center for intellectual Development)/Ma'an Govenorate (Ministry of Social Development)

### 3.4 Refugee Policy

Taking into consideration the characteristics of Jordan, which is one of the world's leading refugee host countries, this section organizes the impact of the COVID-19 crisis on refugees and basic refugee policies on economics and employment. As of July 31, the number of refugees in Jordan was 748,729, with 83.2 percent living in urban areas rather than refugee camps.

The number of returnees to Syria has decreased significantly from the previous year due to restrictions on movement, and although infections in refugee camps have not occurred for a long time, positive cases have occurred since the beginning of September.

Syrian refugees tend to be easily dismissed from employment due to their very high proportion of informal employment (95 percent in the 2014-15 ILO/FAFO survey) and they often have oral employment agreements only. According to the ILO survey (1,580 respondents, 56 percent of whom are Syrian), one-third of Syrian people have lost their jobs amid the pandemic.

The Jordan Response Plan 2020-2022, a three-year plan for refugee policy in Jordan, has a budget of US\$6.6 billion, of which US\$2,249 million is for 2020. The approval process was delayed due to the impact of the COVID-19, but it was officially approved by the government and related organizations on June 22.



### Jordan Response Plan 2020-2022: Objectives in the Economic Empowerment Sector

Livelihoods	<ul style="list-style-type: none"> <li>• Interventions that provide short-term employment opportunities</li> <li>• Improve access to formal employment opportunities that meet decent work and protection standards (including vocational training centers and employment programs)</li> <li>• Strengthen support for entrepreneurs who develop and expand market-driven businesses (including home-based businesses)</li> <li>• Promote sustainable development and long-term growth by enhancing the capabilities of national and local institutions (including strengthening cooperation with the Ministry of Labor and private companies)</li> </ul>
Food security	<ul style="list-style-type: none"> <li>• Access to quality food for the vulnerable population affected by the Syrian crisis (cash transfers and food distribution)</li> <li>• Strengthen the efficient and sustainable use of agricultural resources to promote food security for host communities and Syrian refugees (including sustainable agricultural development projects)</li> <li>• Improve the efficiency of agricultural and food value chains and strengthen food security and livelihoods for host communities and Syrian refugees</li> </ul>

The above initiatives related to economic empowerment aim at achieving a comprehensive impact on both Syrian refugees and host communities by aligning with the government framework of Jordanian policies. It has a high affinity with fields that the Jordanian government is expected to focus on in the future, such as entrepreneurship support and agricultural value chains.

## 3.5 Impact on Business Environment

### 3.5.1 Changes in Industrial Needs and Trends in Human Resource Development Needs

From the perspective of the business environment, the needs for technical education and support for young people and refugees are expected to change as the industrial needs for the post-COVID-19 period change.

Due to the COVID-19 crisis, not only the use of ICT such as distance learning, but also the importance of human resource development that creates the ICT industry and innovation is increasing. It has also been pointed out that there is a widening digital gap, such as the gap in digital skills that hinders the participation of young women in the labor force.

The King of Jordan has mentioned Jordan's investment in human capital and encouragement of scientific research through technical and vocational training, and the following efforts have been made.

**Table A 8 Trends in Human Resource Development Efforts in the IT and Digital Education Field in Jordan**

Business and industrial human resource development	<ul style="list-style-type: none"> <li>• Collaborate with Hussein Institute of Technology regarding training for graduates of the telecommunications department.</li> <li>• Started a plan to train 500 graduates in the field of communications and information technology with the aim of training university graduates in Jordan in this field (2020-2021).</li> </ul>
UNICEF digital human resources education	<ul style="list-style-type: none"> <li>• UNICEF and the Digital Opportunity Trust (NPO) have announced a program to provide training in digital skills to 750 young people aged 18 to 24 in a vulnerable community in Jordan.</li> <li>• The aim is to increase the employment potential of young people with a focus on providing the digital skills needed for future work and including the young people at the highest risk of being left behind.</li> </ul>
Ministry of Education digital education curriculum verification	<ul style="list-style-type: none"> <li>• The Ministry of Education, in collaboration with Injaz (NPO), is mapping the computer science curriculum to the UNESCO Digital Literacy Global Framework and DQ: Digital Intelligence Framework.</li> <li>• With the support of the World Bank, it is to be used as a policy-making input to reform the training in digital skills that public schools provide to students.</li> </ul>
Loan Guarantee for the Promotion of Digital Industry (JLGC and EJADA collaboration program)	<ul style="list-style-type: none"> <li>• Jordan Loan Guarantee Corporation (JLGC) is a project involving EJADA (IT Service and Solution Provider Association in the Middle East and North Africa) as a credit guarantee for general loans to promote the introduction of equipment and systems. We are trying to raise the level of the digital industry through lending.</li> <li>• JLGC's EJAD-related loan guarantees include (1) Industrial Finance Guarantee EJADA Program, (2) Lease Guarantee EJADA Program, and (3) Cafela (Islamic Finance) EJADA Program.</li> </ul>

Source: Publicly available information

Regular technical and skill education for adolescents and refugees is also becoming more important for job creation, social security maintenance, and past projects related to vocational training, IT human resources development, career counseling, etc. implemented with JICA support. The technical and skills education required for industrial promotion in Jordan will also be confirmed through field research.

### 3.5.2 Entrepreneurship Support Environment

Employment and entrepreneurship are one of the major priorities in the government priority measures for 2020-2021 announced at the end of February 2020, aiming to create jobs for 45,000 people by 2020. The COVID-19 crisis has caused headwinds for the creation of employment opportunities, but the need has become even more important at this time to support companies and start-ups that can bring about innovations to drive the post-COVID-19 industries.

For a country like Jordan that has a large number of youth and a low level of domestic demand, it is expected that if the number of technology-based start-up companies increases, it will be a driving force for job creation and innovation. On the other hand, in the medium term since 2004, before the pandemic, entrepreneurial activities in Jordan have been declining. The entrepreneurship rate dropped from 18.3 percent in 2004 to 8.2 percent in 2016 (according to The Global Entrepreneurship Monitor Report), and it is pointed out that the entrepreneurs may flow out from Jordan to overseas locations where the entrepreneurial environment is better.

## **(1) Issues in the Entrepreneurial Environment**

The survey conducted by the World Bank in 2019 with 230 Jordanian entrepreneurs pointed out dissatisfaction with the tax system and complex procedures. Most entrepreneurs have a bachelor's degree or higher and have more than six years of work experience, and the option of entrepreneurship seems to be selected as the second career of highly skilled human resources with experience in private companies. Most (93%) of tech startups are concentrated in Amman.

Entrepreneurs' voices on entrepreneurial issues include investment-related laws and regulations on startups, customs laws and regulations (inconsistent tariffs on imported goods), and complex corporate restructuring processes (capital increase and decrease, change of shareholders), and difficulty in obtaining a work permit for skilled foreign workers. Especially for tech startups, the economic classification of tax-exempt activities is unclear, and they are dissatisfied with the high taxation (26 percent) on import services and the monthly taxation.

According to the Global Entrepreneurship Index 2018, Jordan's score is 37 percent, the same level as the Arab region's average score. Compared to the other countries in the region, Jordan excels in indicators such as product innovation, technology absorption, competition, start-up skills, and cultural support, but lags behind in indicators such as high growth, risk capital, risk acceptability, networking, and human capital.

## **(2) Potential of Technical Startups**

Although there are many environmental issues as mentioned above, Jordanian technology startups are creating high-value-added and high-paying jobs, especially providing employment of highly skilled human resources and of women. Not only making a direct impact such as contribution to technology transfer/dissemination and export, technology-based startups also bring indirect impacts such as productivity improvement in other sectors. The ICT sector produces high added value of 64 percent, which exceeds the average added value of the manufacturing industry (40 percent of total production) and that of Jordan's industry as a whole (52 percent of total production), according to the GIZ report "Jordan's Startup Economy: Assessing the economic contribution and potential of tech and tech-enabled startups May 2019". In addition, it has achieved performance above the industry average in all indicators such as labor productivity, export ratio, and employment of women.

It can be said that the growth potential of tech startups is extremely high in response to Jordan's long-standing issues related to productivity and employment of women. In addition, by improving the entrepreneurial support environment, it is more likely that entrepreneurs such as those who have relocated overseas can be retained in Jordan, and measures such as attracting overseas Jordanian entrepreneurs to invest in Jordan could be also effective.

## **(3) Jordanian Startup-related Organizations/Ecosystem**

In May 2019, the Jordanian government expanded the authority of the former Department of Information and Communications Technology to support the development of digital entrepreneurship, electronic payments, and digital skills with the modification to be the new Ministry of Digital Economy and Entrepreneurship (MoDEE). In addition to ministries, support organizations such as Intaj, Oasis 500, Endeavor, JEIA, and Startup Council exist as stakeholders, forming the Jordanian startup ecosystem.

## **(4) Impact of COVID-19 and the Post-COVID-19 Period**

The declines in domestic and overseas economies due to the COVID-19 pandemic is expected to have a negative impact on the entrepreneurial environment, and the number of new entrepreneurs is expected to decrease, and it will become more difficult to procure finance. In terms of financing,

the Innovative Startups and SMEs Fund (ISSF), founded by the World Bank and the Central Bank of Jordan, announced in May the launch of loans of \$3 million to \$7.5 million for start-ups in need.

Meanwhile, some companies have succeeded in capturing new demand from COVID-19. Founded in 2016, Aumet, a healthcare startup, sells healthcare products from manufacturers to healthcare professionals by automating distributor search and product registration. Being in the medical field, Aumet found that COVID-19 quadrupled the demand for the company's products, increasing sales from \$8 million to \$50 million. A digital platform (Bilforon, a Jordanian startup) that promotes and sells online food cooked by housewives, whose company received a visit from Queen Rania, added a new service of delivering groceries from supermarkets in response to the lockdown.

In addition, startups such as Mawdoo3 and Abwab have collaborated with the Ministry of Education to build a distance learning platform, and Al-Tibi has collaborated with the Ministry of Health and pharmaceutical companies to establish and operate a COVID-19-related inquiry window. Madfoatcom provides an e-payment system for citizens, and these technical startups have worked hard with ministries to build platforms and systems, which has made it possible to respond to COVID-19 with a sense of speed. The activities of these startups will promote domestic COVID-19 response and innovation and are also expected to grow as part of the service export industry.

The following are examples of public-private efforts following the COVID-19 crisis to promote entrepreneurship.

**Table A 9 Initiatives Related to Supporting Entrepreneurship and Innovation**

Measures for COVID-19 utilizing digital solutions (private sector collaboration)	<ul style="list-style-type: none"> <li>• The Information and Communications Technology Association of Jordan (Int@j), StartupsJo, and the Ministry of Digital Economy and Entrepreneurship cooperated to launch the "TechAID" program.</li> <li>• The program aims to develop systems that support COVID-19 countermeasures (control of infection) and remote working. Companies with technical solutions in areas such as health, business continuity, education, and digital financial inclusion will be invited.</li> </ul>
Support for tourism startups	<ul style="list-style-type: none"> <li>• The Jordan Tourism Board has signed a memorandum of understanding with Venture X to build a strategic partnership to launch a startup accelerator specializing in tourism.</li> <li>• Focusing on companies that have solutions to for a more prosperous tourism industry in the "new normal" after COVID-19, the selected companies will have a three-month intensive acceleration program and three-month pilot implementation with selected partner companies.</li> </ul>
Promotion of medical startups	<ul style="list-style-type: none"> <li>• Farah Medical Campus' corporate accelerator "Farah Spark" and the Crown Prince Foundation's "TechWorks," signed a memorandum of understanding to strengthen collaboration and leverage efforts and resources to support Jordanian entrepreneurs and the start-up sector.</li> <li>• They aim to find creative solutions to improve and strengthen the healthcare sector and increase their global competitiveness.</li> </ul>
Promotion of entrepreneurship in engineering	<ul style="list-style-type: none"> <li>• The Jordan Engineers Association and the Ministry of Digital Economy and Entrepreneurship have signed a memorandum of understanding aimed at fostering innovative projects and exchanging expertise in the field of business incubator monitoring. They will promote innovation in the engineering field.</li> </ul>

Strengthening support for self-employed and entrepreneurs	<ul style="list-style-type: none"> <li>• The Business Development Center (BDC) launched a project to support the self-employed and entrepreneurs with the aim of economic empowerment of refugees and the host communities.</li> <li>• "In the post-COVID world, those who have their own business will survive," said a BDC executive.</li> </ul>
Start-up event (online)	<ul style="list-style-type: none"> <li>• Startup Weekend Jordan COVID-19 Online edition was held in April and focused on developing solutions to address the challenges posed by COVID-19.</li> <li>• It was held on the video conferencing platform Zoom and the chat application Discord, and operated by private companies such as ZAD Consultancy, Zain Innovation Campus (ZINC) and Zain Jordan, with support from the EU.</li> </ul>

Source: Publicly available information

### 3.5.3 Trends in Advisory Support for SMEs and the Impact on the Credit Guarantee System

The definition of Jordanian small and medium-sized enterprises (SMEs) is shown in Table A 10 and Table A 11. Until recently, there was no unified definition, but in 2019, the definition of SMEs was unified into two types of definitions; the definition used at the Central Bank of Jordan and the definition used in other sectors. Table A 10 shows the definition used by the Central Bank of Jordan (CBJ). Table A 11 shows the definition based on the “Jordan National Entrepreneurship and SME Growth Strategy”, which was prepared with the support of the EU and are used in sectors other than the CBJ in Jordan.

This definition is contained in the “Jordan National Entrepreneurship and SME Growth Strategy” prepared with the support of the EU. Advisory services and training for small and medium-sized enterprises vary depending on the size of the enterprise. Micro-enterprise companies with one to four people are required to provide relatively general information and advice such as the importance of savings, bookkeeping, customer support, and supplier negotiations. On the other hand, medium-sized companies require broader and deeper knowledge and know how to improve their competitiveness as an organization, such as knowledge of finance and accounting, general affairs, IT systems, technology transfer, sales channel expansion, and management strategy.

JEDCO (Jordan Enterprise Development Corporation) is the central organization for the promotion of small and medium-sized enterprises in Jordan. Advisory services and business development services (BDSs) for the development of small and medium-sized enterprises have been provided by JEDCO, regional business development centers (BDCs), several NGOs, and private service providers, as well as Chambers of Commerce, Chambers of Industry, and unions.

**Table A 10 Definition of Jordan SMEs (Definition Used by CBJ)**

Sector	Category	Micro	Small	Medium
Industry Sector	Number of workers	below 5 persons	below 20 persons	below 100 persons
	Sales	below JOD 100,000	below JOD 1 million	below JOD 3 million
Sales Sector	Number of workers	below 5 persons	below 10 persons	below 50 persons
	Sales	below JOD 120,000	below JOD 150,000	below JOD 1 million
Service Sector	Number of workers	below 5 persons	below 25 persons	below 50 persons
	Sales	below JOD 200,000	below JOD 500,000	below JOD 1 million

Source: Central Bank of Jordan

**Table A 11 Definition of Jordan SMEs  
(Definition Used Other than CBJ)**

Type of Enterprise	Number of workers	Sales
Micro	1 ~ 4	Below JOD 100,000 (below EUR115,438)
Small	5 ~ 19	Below JOD 1 million (below EUR1,154,382)
Medium-sized	20 ~ 99	Below JOD 5 million (below EUR5,771,912)

Source: Jordan National Entrepreneurship and Small and Medium Enterprise Growth Strategy 2016 ~ 2020, p. 36.

Regarding support for new establishments and development of small and medium-sized enterprises, it is clearly stated in the “SME Policy Index 2014” and, as an important measure, JEDCO has taken the lead in implementing several programs in the past with the support of donors such as USAID, EU, and KOICA. It has been strengthening advisory services for small and medium-sized enterprises while involving local business development centers (BDSs), NGOs, business and industry associations, unions, etc. The programs for donor support and JEDCO implementation are described below for reference.

- Local Enterprise Support Project (LENS) (USAID)
- Rural Economic Growth and Employment Project (REGEP) (JEDCO)
- The MENA Transition Fund project SME Policy Effectiveness in Jordan
- Jordan SME access to international market using Enterprise Europe Network (EEN) (JEDCO, HCST, EASME (EU))
- MENA Transition Fund project Development of SME Exports through Virtual Market Places (VMPs) to develop e-commerce (JEDCO, International Trade Center (ITC), WB)

### **(1) Business Startup Education and Enlightenment Activities for Students/Youth**

The Ministry of Education also has a "Company Start-up Program – Schools & Competition" for both public and private school students with the support of Russia's INJAZ9 and Business Development Center (BDC) to provide start-up education. Also, business start-up education to TOT to teachers and instructors been given by BDCs for the school activities.

Program Name	Outline
Company Start-up Program – Schools & Competition (Support from INJAZ9)	Provides high school students with hands-on experience and practical training in business.
CP National Competition (Support from INJAZ9)	Supports student teams in presenting their companies to a panel of business leaders and experts.
My Entrepreneurial Project (MEP) (Support from INJAZ9)	Offers youth career opportunities in entrepreneurship and self-employment.
Business Development Center (BDC) and Ministry of Education’s collaborative program (Support from BDC)	The BDC trained over the last period more than 120 vocational schoolteachers and technical community school instructors on the application of the entrepreneurship key competence approach, benefitting 4,000 students in 20 pilot institutions.

## (2) Education, Training, and Advisory Services for Women's Business Start-ups and Entrepreneurship

In Jordan, the importance of women's entrepreneurship support and training is listed as a high-priority policy, in the JEGP policy white paper and the “Strategic Plan for Empowering Women of the Jordan National Commission for Women 2013 ~ 2017”.

In connection with the above, conferences on economic development through social participation of women and research reports such as “JEDCO's 2017 Women Entrepreneurship in Jordan: Women Empowerment” and “2017 EBESM Report on Women's Entrepreneurship & SME Development in Jordan” have been published.

Through these activities, public and private women's entrepreneurship support programs as shown below are being implemented.

No	Support Program	Outline of the Program
1	BDC's program with the Ministry of Tourism	To enhance the local tourism capacity of women entrepreneurs.
2	BDC's business membership program (SEEDS)	Focus on training female graduates to be mentors
3	The Shorouq project	Implemented by Etihad Bank to support financial services for women entrepreneurs, networking events, coaching, advisory services, and mentorship.
4	The Village Business Incubator	Promotes the role of rural women in economic development by encouraging them to establish micro and small enterprises far beyond traditional home or gender-based models.

## (3) Training and Advisory Services for the Internationalization of SMEs

Policy dialog on the importance of skills development for SME internationalization is stated in the National SME Strategy 2016~2020. JEDCO has been implementing SME internationalization training programs in the garment and service sectors. Training content and consultation service examples include how to join international business trading using e-commerce, how to do business with overseas enterprises, precautions of trading, and so on. Also, information on training programs and SME internationalization is extensive and publicly available from the key players: the Jordan Chamber of Industry, the National Fund for Enterprise Support (NAFES) and the BDC.

## (4) Advisory Service and Consultation amid COVID-19

On the other hand, due to the serious social effects caused by the COVID-19 pandemic, the economic conditions for business establishment and start-ups are currently not favorable and thus consultation and advices are more focused on how to survive and how to sustain and overcome the situation for existing companies.

For the survival and sustaining of enterprises, it is important to secure operating funds. Usually, as long as there is a certain necessary amount of funds available, the enterprise can survive even in a harsh business environment.

For this reason, at this time, the focus is on providing advice regarding access to funds, introducing the Jordan Loan Guarantee Corporation (JLGC), which provides credit guarantees for small and medium-sized enterprises in Jordan, and applying for credit guarantees to the institution. The focus is thought to be on supporting the preparation of application documents and business plans for loan guarantee.

## **(5) Loans to SMEs, Credit Guarantee System, General Loans and General Guarantee Frameworks, and Emergency Loans and Emergency Guarantee Frameworks**

Small and medium-sized enterprises and start-up companies are said to be unstable in management, and financial institutions are usually unable to collect loans, so they often refuse loans from the beginning. However, access to finance and financing for SMEs is indispensable for the growth of companies and industries, and eventually for the economic development of the country.

For this reason, loans to SMEs have been devised in every country, such as direct loans by government agencies and loans from private financial institutions that utilize credit enhancement and credit guarantee systems.

In Japan, the Japan Finance Corporation and The Shoko Chukin Bank provide loans as government-affiliated financial institutions, and the credit guarantee associations of each prefecture (all over Japan) are responsible for the loan guarantee system.

Currently in Japan, there are general loans and general guarantees for normal times, as well as emergency loans (special loans in response to COVID-19) and emergency guarantees for responding to sudden economic crises, natural disasters, illnesses and viruses. (Safety Nets No. 4 and 5, crisis-related guarantee systems (additional safety nets) are available).

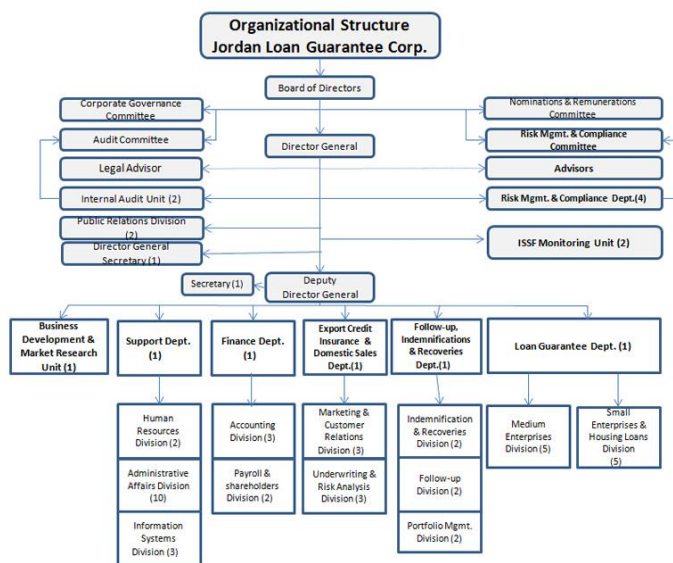
In Jordan, only the credit guarantee system exists and is undertaken by the Jordan Loan Guarantee Corporation (JLGC). And, as in Japan, JLGC provides a general credit guarantee for normal times and a special credit guarantee for COVID-19 (National Program for Finance and Loan Guarantee to Encounter COVID-19).

## **(6) Jordan Loan Guarantee Corporation (JLGC)**

JLGC is a private public holding company established with capital of JOD7 million as the legal inheritance body of the "loan guarantee" program, which is a support project of USAID. It starts with a simple program of loan guarantees for SMEs.

Today, to improve the access by SMEs to financial assistance, coordinate the many risks by banks and exporters, and facilitate economic activity, and 1) loan guarantees and 2) credit guarantees for exports and domestic commerce, there are two major programs.





Source: Data from the website of Jordan Loan Guarantee Corp. (JLGC) <https://jlgc.com/en/about-us>

**Figure A 15 Organization Chart of Jordan Credit Guarantee Corporation (JLGC)**

### (7) National Program for Finance and Loan Guarantee to Counter COVID-19

Due to the impact of the COVID-19 pandemic, even in Jordan, the economic downturn has had an effect on the financial access and operating funds of small and medium-sized enterprises. To support this, JLGC is implementing the COVID-19 Program (National Program for Finance and Loan Guarantee to Counter COVID-19).

Table A 12 below shows the target sector of the COVID-19 program and the upper limit of financial guarantees. Enterprises to which this program applies are companies with fewer than 200 employees and are stipulated to have total assets or sales of less than JOD5 million.

However, for private schools with more than 200 employees, under this program applications can also be made for loans and funds granted with the approval of the Minister of Education for the purpose of paying full-time salaries.

The loan guarantee program has a total budget of JOD500 million, and credit guarantees are provided to all banks operating in the Kingdom of Jordan.

**Table A 12 JLGC COVID-19 Program Credit Guarantee Sectors and Guarantee Limit**

No.	Sub-sector	Credit guarantee limit (Jordanian Dinars)
1	Professions and Craftsmen	200,000
2	Retail Trade	50,000
3	Wholesale Trade	250,000
4	Tourism Services Excluding Hotels	250,000
5	Hotels	1,000,000
6	Information Technology (IT)	50,000
7	Manufacturing industries, inc. industries based on agricultural activity	1,000,000
8	Transpiration	1,000,000
9	Health Facilities and Services Except Hospitals	250,000
10	Hospitals	1,000,000
11	Education	500,000
12	Others	500,000

Source: Data from the website of JLGC: [www.jlgc.com/inex.php/en/corona-program](http://www.jlgc.com/inex.php/en/corona-program)

The JOD500 million in funds for this COVID-19 program is not from the Jordanian government but from the Central Bank of Jordan and is used as a credit guarantee for SMEs affected by COVID-19. As of July, 3,645 loans, totaling JOD360 million, were financed by the credit guarantee program, and the average loan amount per company was JOD98,000.

**(8) Jordan's General Credit Guarantee (Normal Credit Guarantee), Export Credit and Domestic Commerce Guarantee**

The credit guarantees that apply under normal Jordanian economic conditions are listed in the table below.

**Table A 13 Jordan's General Loan Guarantee, Real Estate Loan Guarantee and Export and Domestic Credit Guarantee**

Program Name	Maximum Loan Amount (JOD)	Maximum Payment Period (Month)	Guarantee Percentage	
<b>1. Productive Loans Guarantee</b>				
1-1	SMEs Loan Guarantee	250,000.-	72	70%
1-2	Micro Loan Guarantee	15,000.-	36	70%
1-3	Industrial Finance Guarantee (EJADA)	1,000,000.-	96	70%
1-4	Leasing Guarantees (EJADA)	1,000,000.-	96	70%
1-5	"Kafala" Program Islamic Finance	1,000,000.-	96	70%
1-6	(EJADA)	250,000.-	96	85%
1-7	Small Startups Guarantee Program Renewable Energy Program	500 ~ 350,000.-	36 ~ 60	70%
<b>2. Real Estate and Personal Loan Guarantees</b>				
2-1	Real Estate Loan Guarantee	75,000.-	300	75%
2-2	Land Purchase Loan Guarantee	50,000.-	120	70%
<b>3. Export Credit Guarantee Programs</b>				
3-1	Export Credit Guarantee	7,500,000.-	6	90%
3-2	Domestic Sales Credit Guarantee	4,000,000.-	4 ~ 6	80% ~ 90%

Source: Data from the website of Jordan Loan Guarantee Corp. (JLGC) <https://jlgc.com/en/programs-services>

JLGC's loan credit guarantee program is characterized by the loan guarantee rate being raised to 85 percent in the "Small Startup Guarantee" program in order to increase the number of new founders, reducing the burden on banks and beneficiaries (borrowers). It makes loan screening

easier than other credit guarantee categories. Usually, loans for new establishments are considered to have low creditworthiness due to lack of business experience, experience and technical skills, and lack of capital and funds, and loans are often not provided, but in Jordan, new loans are actively made. It seems that consideration is given to providing loans to the founder.

We also provide credit guarantees in collaboration with EJADA (IT service and solution provider associations in the Middle East and North Africa, more than 900 IT engineers are members: Details of EDAD can be seen at <http://www.ejada.com/corporateinformation/pages/aboutus.aspx>), and are also capable of promoting industry and creating jobs using digital technology.

JLGC also offers micro-loan and small-lot loan guarantees for individuals and micro-enterprise, loan guarantees for small and medium-sized enterprises, and local loan guarantees for renewable energy such as solar panels and windmills, to meet the local needs.

Unique features of JLGC credit guarantees can be seen for real estate and land purchases credit guarantees with which individuals and micro-enterprise can purchase offices, factories, farms and ranches, solar power generation sites, apartments and rental houses, etc. with long loan repayment periods of 10 to 25 years so that even low-profit business can repay without difficulty.

In Jordan, exports of products to overseas markets and domestic sales of imported products are active, and as trade insurance and loan credit guarantees, a guarantee amount that can handle large transactions is set.

### **3.5.4 Overview of the Thematic Areas for SME Development**

The issue in the thematic areas for the SME Development is described in this section, and some of the activities in relation to JEDCO are also described.

#### **(1) Access to Finance to SMEs**

Credit arrangement through banks is quite limited for SMEs and startups as, traditionally, access to finance for SMEs is managed by the banking sector where there are strong limits on investment as risk-based financing. CBJ indicated that lending to private-sector SMEs is growing at a rate of 50 percent for large firms, but only 10 percent goes to SMEs (2012).

EIB in its report (2016) analyzed the banking sector in Jordan. Financial soundness indicators suggest that Jordan's banking sector has remained relatively strong, while lending to SMEs is limited as the CBJ statics show in historical credit lines (see table below). The banking sector is still conservative regarding SME lending, and so some mechanisms to ease loans to the SMEs in general have been introduced. CBJ also put forward the new mechanisms in the banking system, but the COVID-19 pandemic may increase elements of risk in loans from Banks to SMEs, and the loan guarantee facilities have to precede the lending supports: the major constraint on SME lending is not a lack of liquidity but lack of risk-bearing capacity.

#### **The Contributions of Donors to Complement the Credit Level in Jordan**

- The World Bank (2013) is committed, most recently through the Jordan MSME Development for Inclusive Growth project which provided a USD 70 million loan to the Government of Jordan in 2013. The project aims at contributing to the improvement of access to finance for MSMEs in Jordan. The project also enhances the banking system's capacity to evaluate the effectiveness of its MSME support; improve the incentives for banks to expand into MSME lending; incentivize and support the design of new financial products, including Islamic products; and ensure better opportunities for rural and underprivileged areas and establish income-generating projects for sustainable and

balanced development. Furthermore, the Central Bank of Jordan strives to ensure the safety and soundness of the banking.

- EIB (2010) traditional supported the JEDCO for the grant facilities to complement the GDF (Governorate Development Fund) by the JEDCO.
- EBRD has created its own founding arrangement through the local banks' arrangement to provide some funds, and management and technical advisory services, to the SMEs for the matching grants and loan provisions through the participating banks.

### **Recent Reforms to Develop Access to Finance to SMEs**

- Over the past few years, the CBJ has enhanced its banking supervision and regulation in Jordan, which has adopted supervision and regulatory frameworks that are in broad compliance with international standards. This has contributed to the sound development of the financial sector. The control tools employed by the CBJ comprise licensing and on- and off-site supervision. Over the past few years, the CBJ has enhanced its effective banking regulation and supervision by putting further measures in place such as regular stress testing of banks, an automated data collection system to improve off-site monitoring, and the introduction of international regulations such as Basel II (Pillars I and III)
- Finalizing a partial guarantee scheme with the US Overseas Private Investment Corporation (OPIC), which was led by the Ministry of Planning and International Cooperation, aiming at improving access to finance for medium-sized enterprises.
- Preparing a National Startups and MSME Strategy led by the Jordan Enterprise Development Corporation (JEDCO).
- Improving the business environment for SMEs, especially fast-growing innovative companies through regulatory reforms related to red tape, etc.
- Approving basic mobile phone payments, and the enactment of related guidelines.
- Working on adopting a comprehensive secured transactions law and the development of a collateral registry.
- Under new revitalized management, the Jordan Loan Guarantee Corporation (JLGC) has refocused its attention on SME lending, developed a new Islamic product, and signed new agreement with three banks to extend guarantees to their SME lending.
- Strengthening the financial institutional infrastructure, including, lowering the threshold for reporting to public credit registry.
- In the process of establishing the first private credit bureau that would help in improving banks financial intermediation and enhance the accuracy and timeliness of the information on client credit worthiness.
- Issuing Circular No. (10/5/436) dated 2011, setting a standard definition for SMEs.
- Modernizing the reporting and monitoring system for banks.
- Enhancing the capacity of banks to increase their share of lending to the MSME segment through adopting more-advanced transaction-lending techniques.
- Licensing of new bank branches in Governorates that were underserved to reach out to the marginalized segment of enterprises.
- Entry of new Islamic banks to cater to the growing needs for Sharia-compliant products.

- The Association of Banks in Jordan has also developed a directory of products and services provided by banks operating in Jordan with a specific section dedicated to MSME products.

### **The Loan Guarantee Institution**

In Jordan, only the credit guarantee system exists and is undertaken by the Jordan Loan Guarantee Corporation (JLGC). JLGC is a private public holding company established with capital of JOD7 million as the legal inheritance body of the “loan guarantee” program, which is a support project of USAID.

It starts with a simple program of loan guarantees for SMEs. The Jordan Loan Guarantee Corporation (JLGC) oversees the provision of credit guarantee schemes for SMEs to improve the access by SMEs to financial assistance, coordinate the many risks by banks and exporters, and facilitate economic activity, and 1) loan guarantees and 2) credit guarantees for exports and domestic commerce, there are two major programs. The JLGC has a capital base of nearly JOD 30 million (about EUR 35.7 million) and provides five major programs including an SME loan guarantee, export and domestic credit insurance, a microbusiness loan guarantee, an Islamic financing guarantee and a financial leasing guarantee.

Progress has been made in the provision of credit guarantees by the JLGC, particularly the establishment of two special funds in 2016 to provide guarantees for start-ups in setting up an Early-Stage Venture Capital fund to provide equity for innovative products; nonetheless, due to funding issues it has not yet become operational.

Due to the impact of the COVID-19 pandemic, even in Jordan, the economic downturn has impacted the financial access and operating funds of small and medium-sized enterprises. To counteract this, JLGC is implementing the COVID-19 Program (National Program for Finance and Loan Guarantee to Counter COVID-19). The loan guarantee program has a total budget of JOD500 million, and credit guarantees are provided to all banks operating in Jordan. The JOD 500 million in funds for this COVID-19 program is not from the Jordanian government but from the Central Bank of Jordan and is used as a credit guarantee for SMEs affected by COVID-19. As of July 2020, 3,645 loans, totaling JOD 360 million, were financed by the credit guarantee program, and the average loan amount per company was JOD 98,000. JLGC’s loan credit guarantee program is characterized by the loan guarantee rate being raised to 85 percent in the “Small Startup Guarantee” program in order to increase the number of new founders, reducing the burden on banks and beneficiaries (borrowers). It makes loan screening easier than in other credit guarantee categories. Usually, loans for new establishments are considered to have low creditworthiness due to lack of business experience, experience and technical skills, and lack of capital and funds, and loans are often not provided, but in Jordan new loans are actively being made. It seems that consideration is given to providing loans to the founder. JLGC also offers micro-loan and small-lot loan guarantees for individuals and micro-enterprises, loan guarantees for small and medium-sized enterprises, and local loan guarantees for renewable energy such as solar panels and windmills, to meet local needs. In Jordan, exports of products to overseas markets and domestic sales of imported products are active, and as trade insurance and loan credit guarantees, a guarantee amount that can handle large transactions is set.

### **Access to Finance and JEDCO**

JEDCO made available for grants loans through GDF facilities in 2012-16, and working as the implementation agencies in those WB facilities, and some grant facilities through its own SME facilities. MSMEs capacity needs developed through BDS services in the access to finance. Legal regulations have to be improved as part of reform efforts such as registry and collateral information which also increase the ranking of the business environment. Other developments

regarding access to finance include the continued operation of the Governorate Development Fund (GDF), which supported 96 projects between 2012 and 2018. However, the staff of the GDF has been reduced due to budget constraints at JEDCO. JEDCO must continue with the gap funding arrangements and grant facilities for the priorities.

## **(2) Access to Market in Jordan for SMEs**

From 2000 to 2008, Jordan's exports grew by a factor of 3.6, expanding at a CAGR of 17.3 percent per annum (14.1 percent in constant dollars). This went beyond a mere commodity boom: it entailed significant gains in market share for Jordan's exports for garments, chemicals, and agricultural goods. From 2008 to 2017, the more challenging external conditions and less dynamic market-share gains slowed down export growth to a CAGR of 1.3 percent (-0.2 percent in constant dollars). Over this period, export performance can be broken down into two clearly differentiated sub-periods. Between 2008 and 2014, export growth decelerated (3.4 percent per year, 1.8 percent in constant dollars), as global trade slowed down and Jordan's market share gains in garment and chemical exports stagnated. After 2014, the intensification of armed conflicts in the region and the interruption of important trade routes caused exports to plummet by a cumulative 8.2 percent (11.5 percent in constant dollars). The downturn was particularly sharp in agriculture, transport, and tourism.

Exports are spearheaded by the textile industry, followed by the chemical and mining sectors (fertilizer, medicine, potash, and phosphate). Jordan mainly imports cars and petrochemical products (gas, crude and petroleum products). The United States was by far the main destination for Jordanian exports (22.8 percent), followed by Saudi Arabia, Iraq, India, and the United Arab Emirates. Saudi Arabia was the main supplier of goods in Jordan (16.6 percent), overtaking China's position from a year earlier and was followed by the United States, Germany, and the United Arab Emirates. For the commodity and geographical concentration of Jordanian exports is a major drawback, noting that 7 countries and 13 commodities account for 70 and 61 percent of the Kingdom's total exports, respectively.

- A National Export Strategy was introduced in the 2010s in line with the subsequent reform agenda and, in terms of the foreign market expansion, ITC has suggested to do the marketing study to identify the untapped market opportunities, and to identify the new market expansion by identifying the Product Space for goods in the various sectors, and shown in the national export strategies, and to identify the niche market in the nontraditional like service industries like professional services, where the growth industries are identified as to which some of the promotion measures are introduced.
- In 2017, efforts have been made to identify the potential market and products in the traditional goods in the Product Space, using the complexity index for the potential of the growing market in the international market (Jordan Strategic Form 2017) Additionally, service-led exports are envisaged, and thus several projects for the service industries are supported by various projects such as Support to Enterprise and Export Development – Jordan (2008-2009) (EU funded).
- Currently in 2020 it is articulated as a good sign that (MENAFN - Jordan News Agency) Amman, Aug. 17 (Petra) – Jordan's industrial sector has an untapped export potential of about USD 4.4 billion in various industries, according to Jordan Chamber of Industry based on the ITC and Jordan Strategic Forum review of the export potential in the products space in 2017. These unexploited opportunities are available without having to pursue fresh investments or expand existing production lines, and it is noted that the fertilizers industry tops the list of industries with unutilized export potential at USD 1.2 billion followed by chemicals manufacturing at USD 532 million, ready-made garments at USD 477 million and pharmaceuticals at USD 387 million. Other industries

included jewelry and other precious metals (USD 154 million), machinery (USD 112 million), paper and cardboard products (USD 94 million), plastic and rubber (USD 89 million), metallic minerals (USD 88 million), construction (USD 83 million), minerals (USD 67 million), and foodstuffs (USD 50 million) among others.

### **Export Promotion and JEDCO**

JEDCO is a national export promotion agency and is mandated to facilitate the export of SMEs under the MOTI on market and export development, jointly with the JIC to which some of the promotion functions like events and trade fair participation is moved with the staff members in the reorganization of the ministry and development. However, it is cited that a proper export promotion agency must be developed to boost the economy as Jordan's Economic Growth Plan 2018-2022 foresees the creation of an export co-ordination unit at JEDCO to provide technical support to enterprises seeking to export.

Some supporting activities and studies are made to specific sectors by the support of the donors.

**Table A 14 Donor-Supported Studies on the Sector Export Development.**

<b>Sectors</b>	<b>Title of the Project (Components)</b>	<b>Supporting Donors</b>
ICT	Jordan ICT Sector Analysis and Strategy (2017) Jordan ICT Profile (ongoing)	GIZ ITC
Pharmaceutical	Trade for Employment; Pharmaceutical Sector Study (2017)	GIZ
Textile	Value Chain Analysis (2017) Competitiveness Project (2020)	CBI ICT
Tourism	Tourism Development Project (2005-2008) under the National Tourism Strategy	USAID
Food Processing	Trade for employment: food Sector analysis and strategy sector improvement (2017)	GIZ
Chemical	Trade for Employment: Sector Study in Chemicals for Cosmetics and Detergents.	GIZ
Agricultural	National Agricultural Strategy (2011-2016)	FAO, IFAD
Medical Services	As part of the national innovation strategy <b>Development Master Plan</b> in 2010 through the <b>Services Modernization Program (SMP)</b>	EU
Non-sectoral	Competitiveness Project AID Packages (AID to Trade) Business and Export Development Project for Jordanian Enterprises (Tatweer). <b>Service Development Master Plan SDMP</b> . Under Service Modernization Project	USAID WTO USAID  EU

Source: JICA Study Team

JEDCO are cooperating with those activities, and as the export promotion agencies to eradicate the areas) and export BDS services to train the SMEs, and the projects, which are geared toward the enhancement of productivity and increase the readiness and development of the new products with the main stakeholders to guide related parties to the various exporters, export business service providers, and logistics and transportation.

- JEDCO and JIC jointly hold seminars, trade shows, and training of delegates of the Jordan government. Amman Chambers also execute the trade facilitation to the members to the penetration. Networking with the Business Development Center and Innovation Center for export promotion is carried out as well. JEDCO is a traditional export promotion and development center. ITC and Aid for TRADE (WTO) in MENA (OECD) have been working for the sectors.

- JEDCO has launched a program to support and enhance exports of local products to new untraditional markets, a new program to support local small and medium-sized industrial enterprises directly through contributing to the shipping costs of their products to access non-traditional markets,
- JEDCO signed 13 agreements through the program “Supporting Industrial SMEs to Export for the First Time” to support local industrial small and medium-sized enterprises in some governorates to export with a total cost of JOD 814,500, of which JOD 514,000 is JEDCO’s support.
- In 2020, an information session on its “Enhancing Service SMEs to Export” program was conducted aiming to support service SMEs in exporting, with a total cost of JOD1 million. A review of a previous program which was launched to support the service sector showed that it exceeded its target and increased the rate of exports and number of job opportunities.
- The Enhancing Service SMEs to Export, which began receiving applications on January 2, aims to support 40 local SMEs operating in the tourism and hospitality, administrative, financial and legal consulting, training, healthcare, energy, engineering and architecture services and information technology sectors in all governorates, according to the statement. The program will offer financial and technical grants to build administrative and production capacities to enhance exporting procedures. The maximum value of each grant is JOD 25,000, 40 percent of which supports administrative capabilities, while grants will cover 50 percent of the total project costs. The program is expected to enhance confidence in the local service product both internally and externally, provide access to exporting services to new markets, implement a group of B2B sectorial missions and network with export support bodies, increase the added value of products and services to beneficiary companies and increase the number of jobs by 240, with expected export sales of JOD 8 million.

### **(3) Productivity Enhancement**

The Reform Matrix has repeatedly noted the productivity issue and, for the labor side, improved productivity increases the value addition to be shared by the workers (ILO) (OECD). Yet the productivity and performance of Jordanian SMEs is limited. In order to achieve the goal of Jordan Vision (JV), Jordan needs to maintain average real GDP per capita growth of at least 3.5 percent every year for the next 20 years. The change in labor productivity is shown below. Improving economic competitiveness, and enhancing values of high productivity and self-reliance to is built on the National Agenda (2006-2015), and Jordan 2025 also includes key performance indicators related to the desired outcomes. The key strategic development directions of Jordan are defined in the National Agenda, 2006-2015 as economic activity and productivity.

Various studies are quoted in Jordan historically, and JICA introduced the Kaizen Project in Jordan to achieve some penetration and promulgated the dissemination action plan led by the JEDCO. However, it was ended due to the lack of momentum of the JICA Kaizen movement with the policy endorsement by the Jordan in the National Agenda for the productivity, and lack of gaining interest. In order to maintain the linkages among MNEs and local firms it is of importance to create competitiveness enhancement tools in the SMEs such as the (OECD Global Value Chain Support) as part of the supporting schemes.

#### **Kaizen and Lean Movement**

The JICA Kaizen Project was initiated in 2010-2013 in which a certain number of the Kaizen Consultants were developed with the recipient companies, and at the end the action plan by the JEDCO was developed to show as the road map. However, the movement was toned down.



Instead of Kaizen / Lean Management practices, SIX Sigma is getting popular in Jordan, and several European agencies advocated the Kaizen and lean management practices to SMEs, for instance in food processing industries. This will benefit the value chain between the MNE and SMEs by improving the evidence of the competitiveness as the excellent companies, and some studies have been made such as for the banking sector, ICT sector, and pharmaceutical sector and general manufacturing sector, and the trend of the movement is reported although there are some difficulties in terms of the attitude, and cultural aspects of the Jordan companies.

#### **(4) Business Environment and JEDCO**

##### **Overview of the Business Environment and its Ranking**

The key for success in private sector development and SMES development lies in the improvement of the business environment whereby the competitiveness and profitability improvement and easiness of the entries to the market are secured. The World Bank has tracked the situation of the business development and its easiness, and Jordan moved up to 71 in 2019 due to the overall reform efforts in Jordan while, in 2013, the World Bank reported that no significance improvement was made.

The Jordan government has committed to improving the ranking since then and expects to move upward, in the effort of the five-year Reform Matrix. Jordan's business environment has improved, with the World Bank's Doing Business ranking rising from 104th in 2018 to 75th in 2019. Improvements are still needed in many areas, including the high cost of business development, complexity of licensing, lack of transparency, and access to financial services.

- Improve the Doing Business ranking from 75<sup>th</sup> to 55<sup>th</sup> by the end of 2021.
- Improve the World Competitiveness Ranking from 70<sup>th</sup> to 50<sup>th</sup> by the end of 2020.

##### **Factors to Improve the Business Environment in Jordan**

The strong reform agenda and its implementation will create the regulatory environments in which the private sector work with ease.

And then, on the government side, Jordan 2020 has raised the issue of business environment improvement to make the industry competitive and make an easy entry of the business growth., While the government was acting on JV recommendations to improve the business environment in terms of the business environment, it drew attention to the following strategy (in Strategy V: Modernize Business Environment).

- Reinvent and streamline the Jordan Investment Board to increase private sector participation and investment promotion.
- Implement transparent investment regulatory regime based on international best practices.
- Design tax reform program based on international best practices.
- Implement public sector modernization program based on international best practices.
- Increase efficiency and fairness within the Customs Department.
- Increase access to venture capital and project finance.
- Implement the judicial reform project for trade issues.

Therefore, this is a way to improve the ranking of the doing business in Jordan, and the competitiveness index in Jordan. It is expected to jump in line with the following current practices

to improve the business environment by donors. In addition, several donors are now contributing more funds to achieve growth and employment through the business environment improvement.

- IMF (2019) in the staff reports to focus on the SME business environment to reduce the regulative environments in line with governmental efforts to stabilize the economy in regard to IMF loans to Jordan (SMES in the Arab World).
- OECD issued a report on SMEs in the Mena Region and addressed the institutional arrangement, and improvement of the statistics, and the ME POLCIY Index in 2014.
- World Bank: through the project in line with the reform matrix on the Second Equitable and Inclusive Project (2019- ) to further improvement the business environment and have a simpler, less bureaucratic, and more transparent administration.
- EBRD (2020) has signed a MoU with JIC to support improvements to the business environment, including on corporate governance standards, public procurement reform and other measures (e.g., e-services) that will benefit investors (EBRD Country strategy 2020-2025).
- UK Compact (2017) has made an assessment of the reform efforts and constraints factors and identified the areas of pending reforms in the laws and policies (such as credit law) and areas for the donor support (Assessment on Business Environment Reform).

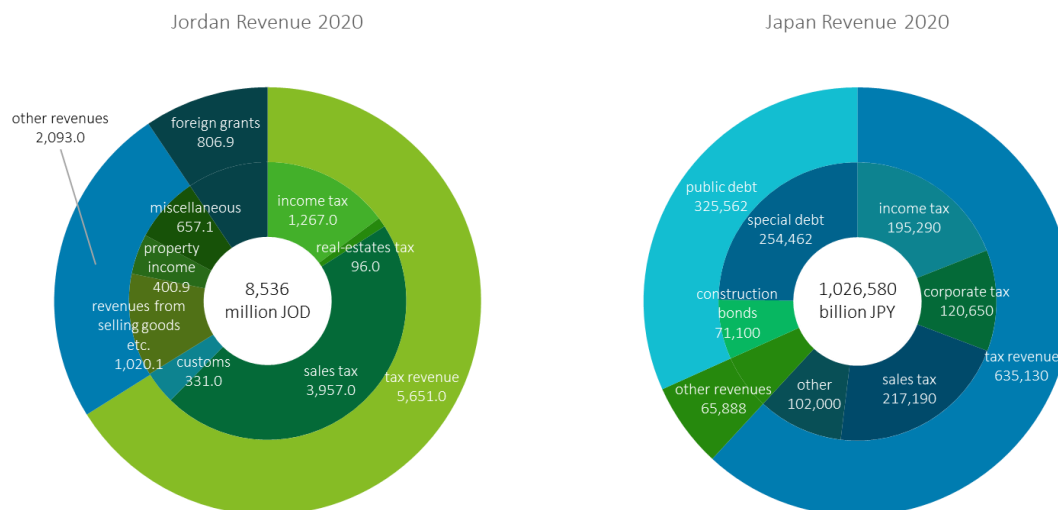
### **Business Environment Improvement and JEDCO**

In the reform efforts, JEDCO is an industrial development agency to develop and support the business environment in terms of creating easier business operations and developing a scheme for improving competitiveness environments. JEDCO itself must work for the developmental factors affecting the improvement of the business environment such as the SME policy implementation. This is together with the JIC that is to support the improvement of the business environment, develop the capacity to support the SMEs and private sector and develop the projects and concepts in a packaged way, which is under consideration by the MoITS and JEDCO (2020).

## Chapter 4. Vulnerability Analysis

### 4.1 Vulnerabilities in Public Finance

Regarding national and financial situations, the characteristics of Jordanian revenue and expenditures are illuminated by comparing the Japanese and Jordanian values (as of 2020, initial).

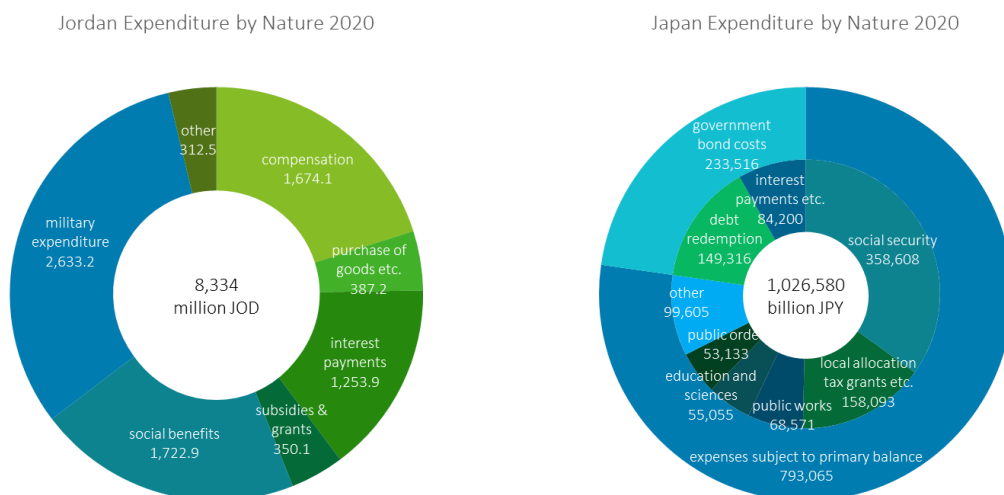


Source: Created by JICA Study Team using data from “General Government Finance Bulletin” (June 2020) published by the Ministry of Finance of Jordan, and “Document on Japanese Finances” (July 2020) published by the Ministry of Finance of Japan

**Figure A 16 Breakdown of Revenue for Jordan and Japan**

Tax revenues made up 66 percent and 62 percent for Jordan and Japan, respectively, so are approximately the same percentage. While, for Japan, income tax, corporate tax and consumption tax are the main tax items, consumption tax makes up the majority of tax revenue in Jordan, characterizing the nation as largely reliant on indirect taxes. In addition, while it is concerning that 32 percent of Japanese revenue largely relies on public debt, or money owed, and the amount of public debt has been increasing through the first and second corrections for COVID-19 response purposes, public debt in Jordan is not as prominent, being less of a burden on the future generations. The inclusion of sales income and property income are characteristics of the Jordanian revenues.

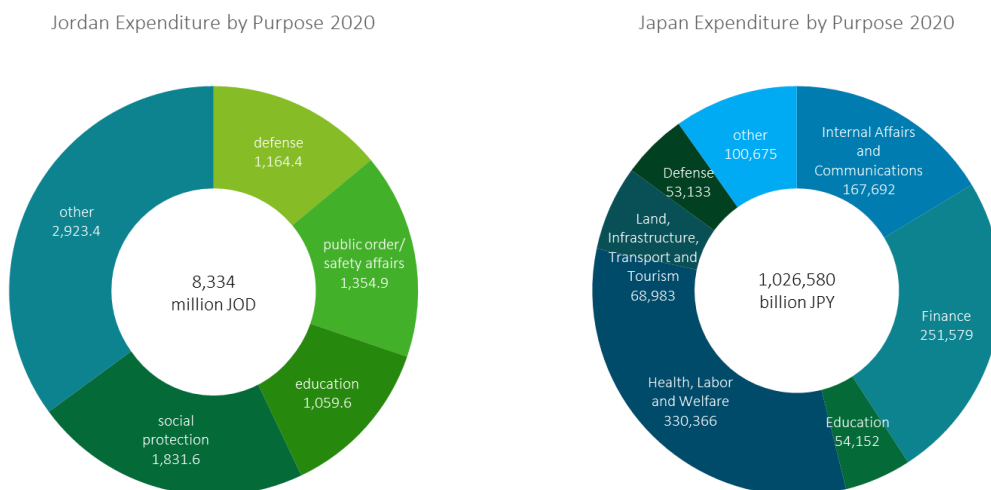
Expenditures will be examined by nature and purpose.



Source: Created by JICA Study Team using data from “General Government Finance Bulletin” (June 2020) published by the Ministry of Finance of Jordan, and “Document on Japanese Finances” (July 2020) published by the Ministry of Finance of Japan.

**Figure A 17 Expenditures of Jordan and Japan, by Nature**

By nature, the main aspects of the Jordanian expenditure consist of 20 percent compensation, 15 percent interest payments, 21 percent social security and 32 percent military expenditures. That of Japan, on the contrary, consists mainly of 35 percent social security, 5 percent military expenditures, 23 percent government bond costs and 15 percent debt redemption costs. Compared to Japan, Jordanian expenditures have a larger military expenditure percentage and less social security spending.



Source: Created by JICA Study Team using data from “General Government Finance Bulletin” (June 2020) published by the Ministry of Finance of Jordan, and “Document on Japanese Finances” (July 2020) published by the Ministry of Finance of Japan.

**Figure A 18 Expenditures of Jordan and Japan, by Purpose**

Expenditure of the two countries compared by purpose are shown in Figure A 18, where, for Japan, the breakdown of the expenditure by ministry is illustrated, as the purposes for expenditures across all ministries could not be found. The items for Jordan include 14 percent for defense, 16 percent for public order and public safety affairs, 13 percent for education, and 22 percent for social protection, and those for Japan include 16 percent for the Ministry of Internal Affairs and Communications, 25 for the Ministry of Finance, and 32 percent for the Ministry of Health, Labor and Welfare, showing a vast difference in the prioritized expenditure purposes. Since the spending in defense and public order and public safety affairs are striking, it can be presumed that a large number of operations are conducted to provide safety and security for its nationals.

It should be noted that, according to Reuters, government revenue plunged by JOD610 million (US\$860 million) in the year to April compared to the previous year, pushing the fiscal deficit well beyond the previous forecast of 2.3 percent of gross domestic product. The World Bank's MPO (April 2, 2020) provided that, due to COVID-19's stagnating of major export/regional markets and overseas travel along with the turmoil in the service industry due to the enforcement of social distance measures, a significant negative impact on Jordan's growth rate is predicted. In contrast, falling international oil prices could significantly ease import prices and limit fiscal deterioration to some extent. Social distance measures have had an unbalanced negative impact on domestic service and informal sector businesses by reducing working hours and increasing transaction costs. Demand for the service industry, which accounts for 60 percent of the nation's economy, is expected to decrease dramatically in future economic activities following the implementation of COVID-19 prevention measures.

It is widely known that the informal sector has a considerable impact on the financial state of the nation. Constituting around 44 percent of total employment in 2010, informal employment among working males stood at around 23 percent compared to 15 percent among working females. Certain economic activities employed around 71 percent of the total employment in the informal private sector (which constituted 55 percent of total employment in said sector), crafts (30 percent), services and sales (24 percent), and machinery technicians (17 percent). On the sectoral level, 30 percent of informal employment was concentrated in retail and motor bike and vehicle maintenance, 18.6 percent in manufacturing, 11.7 percent in transportation and storage, and 11.1 percent in construction (UN, Socio-Economic Framework for COVID-19 Response, July 2020, p. 29-30.).

As of 2015, the size of the informal economy of Jordan was equal to 15.2 percent of the official GDP, equivalent to JOD4 billion. This implies that the lost tax revenue amounts to around JOD600 million.

The Ministry of Social Development National Aid Fund targeted 200,000 households hit by COVID-19-related cuts in the informal sector. Endorsing a national framework for regulating the informal economy, the informal sector makes up 54.8% of the nation's employment composition. Pre-COVID-19, 43% of refugee and migrant households were primarily dependent on income from informal day labor.

## **4.2 Vulnerabilities in Industry and Business**

In terms of industry and business, while it had a major impact on companies' survival, employment, consumer behavior and trade, it can be said that the COVID-19 crisis exposed deep-seated structural issues such as external dependence and lack of job creation that Jordan had suffered from for many years. In this section, we will categorize the structural issues and the impact and current situation of the COVID-19 crisis, and the concept of classification and response policies will be summarized in the later section.

## **(1) Vulnerability in Industrial Structure**

Amid the COVID-19 pandemic, the vulnerabilities of Jordan's industrial structure have been exposed by a sharp rise in the unemployment rate and its great impact.

The lack of high-value-added industries in Jordan can be pointed out as one of the vulnerabilities in the nation's industrial structure. In Jordan, the weight of the industry's GDP contribution ratio is concentrated on light industry such as the primary industry and garment industry, and the service industry centered on tourism, which are fields with a relatively low value-added ratio. On the other hand, high-value-added fields such as heavy industry and the IT industry are less represented in GDP contribution and employment.

This is consistent with the data that the groups most affected by the COVID-19 pandemic are those with a relatively high level of education. While Jordan's education level is said to be high among neighboring countries, there are few industries in the country that can receive such highly educated human resources, and migrant labor to the UAE and other Gulf countries is prominent. Migrant labor by such highly educated personnel has not been seen as a very important problem because it has aided Jordan's economy in the form of overseas remittances, but the COVID-19 pandemic has restricted the movement of people. Now, it has led to a large loss in the form of unemployed highly educated personnel who have returned to Jordan.

In addition, the second vulnerability shown by Jordan's industrial structure is its high reliance on tourism revenue. It is not a mistake to pursue a tourism industry by utilizing Jordan's abundant tourism resources such as Petra. However, as a result, it can be said that the industrial structure in which the tourism industry is too large in comparison to the service industry has increased the negative impact of the COVID-19 stagnation regardless of whether its added value is high or low.

Service transactions can be broadly divided into the movement of people, goods, money, and information. For example, in Japan, the amount of transactions associated with the movement of information such as business services and intellectual property is the largest, followed by tourism (people), logistics (things) and finance (money). However, it is relatively balanced. On the other hand, in Jordan, tourism, especially travel by individuals, accounts for an overwhelming share. These personal trips are vulnerable to recession because demand tends to fall in response to economic fluctuations even in normal times, and, this time, the movement of people has been restricted by the pandemic, which had a particularly large impact. If this were a service that moves information, such as business process outsourcing, the devastating damage such as to the tourism industry could have been avoided, even amid the COVID-19 crisis.

## **(2) Vulnerability in Trade Structure**

As mentioned earlier, it is essential to capture not only domestic demand but also external demand for Jordan to achieve economic growth. The COVID-19 crisis also exposed vulnerabilities in the trade structure.

One vulnerability is the over-concentration of particular destination countries in products and services exports. In the most prominent example, more than 75 percent of apparel products exports, which are major exports that account for more than 20 percent of the total export value, are exported to North America, including 67.8 percent of the United States (on a value basis). In the chemical product category with the largest share in the export value, although the fertilizer that comes in the first in the category has diversified export destinations all over the world, medical products, the second largest share, are concentrated in neighboring Middle Eastern countries, accounting for about 70 percent, including 31.1 percent going to Saudi Arabia.

Such a concentration in export destinations not only limits the expansion of exports in normal times, but also causes a situation in which a slump in demand occurs in the export destination market due to an external shock such as the COVID-19 crisis. Indeed, in the ongoing crisis, exports of apparel products to the United States have been sluggish, causing great damage to the domestic garment industry.

Moreover, the vulnerability of Jordan's trade structure is not limited to the export sector. In the manufacturing industry, while heavy industry is not generally growing, fields such as the garment industry and the pharmaceutical industry are doing well, but the raw materials of these manufacturing industries are completely dependent on imports and it remains a concern in the supply chain. It is possible that the supply chain will be disrupted due to the effects of the COVID-19 pandemic, and domestic production will be stagnant due to the delay in raw material procurement.

Lastly, looking at the overall trade balance, while service transactions are in the black, imports have long been in excess of exports in the product transactions, which are much larger than service transactions in size. This trade deficit is a factor of the vulnerability in the state finance.

### **(3) Vulnerabilities in Investment Attraction**

The Middle East region, including Jordan, has recorded a high GDP growth rate since the 2000s, and has maintained a high level of worldwide foreign direct investment. However, the COVID-19 pandemic has cooled the investment mood around the world, and the impact is affecting Jordan. Jordan's unique vulnerabilities in investment attraction are yet to be evaluated, but it is said that Jordan is already lagging in the entrepreneurial environment and the ecosystem that spawns innovation.

While COVID-19 has had a negative impact on most industries, COVID-19 countermeasures and the response to a post-COVID-19 new normal have begun, and the trend of digitalization is becoming more common to boost some industrial fields. As a result of Jordan's national efforts to improve the investment and business environment, the business environment for the activities of existing companies is being improved, but the environment is still undeveloped for the creation of new companies and startups. And that can have a negative impact on the results of international competition to attract foreign investment in times of change.

### **4.3 Vulnerabilities in National Security**

In terms of national security, namely the provision of strategic supplies, Jordan imports energy, water, inputs necessary for economic activities, foods (such as cereals), and is likely to be affected by the supply source situation and disruptions in the supply chain.

The supply of energy, crude oil, and natural gas are heavily dependent on imports from countries like Saudi Arabia and Egypt, and oil-fueled electricity also affects the economy through citizens, and corporate activities through manufacturing costs. Fortunately, oil prices have fallen during the COVID-19 pandemic, but it is considered necessary to continue to address the structural vulnerabilities through the promotion of renewable energy.

In addition, Jordan has a constant shortage of water due to its scarce water resources, which not only affects the lives of citizens (only a certain amount of water can be used from tanks installed on the roofs of houses), but it also hinders the growth of agriculture and manufacturing which require a lot of water. More than 50 percent of the water supply is used for agriculture and optimizing the management of water resources in agriculture is also a major issue.

In terms of food, Jordan produces vegetables and fruits, but relies on imports for most of its cereals, and the COVID-19 crisis has further focused attention on agriculture in Jordan. Jordan relies on imports to meet 40.6 percent of its domestic demand, and it imports about four times the agricultural product amount that it exports on a monetary basis. However, from the perspective of food security, there is a growing movement toward import substitution.

Vulnerabilities in the supply chain could be considered in terms of supplies to the industry. Many of the raw material supplies for major industries such as the garment industry and pharmaceuticals are completely imported, and if an external shock such as the COVID-19 pandemic affects the distribution network, it may adversely affect the business continuity of each industry.

#### **4.4 Classification of Vulnerability**

The vulnerabilities of Jordan related to COVID-19 described in the previous chapter can be classified from the viewpoint of "rigidity" and "duration of influence by COVID-19."

Here, rigidity is an analysis of the factors of the inherent vulnerability exposed in Jordan amid the COVID-19 pandemic. If the issue is due to geopolitical, historical, or cultural background in Jordan, it tends to be relatively difficult to resolve the issue in the short and medium term through policy intervention. This also includes the cases that depend on external factors, such as cases that are influenced by international frameworks and relationships with foreign countries.

In addition, the duration of influence here refers to how long the direct events caused by the COVID-19 crisis and causing a crisis in Jordan's economy and society will continue or are expected to continue. For example, the phenomenon of soaring prices in the mask market, which was also seen in Japan, is already settling down due to the increase in supply, and can be evaluated as a transient one in the early stages of the COVID-19 pandemic. But even if the recent COVID-19 infection rate itself declines, the phenomenon of expanding the market size compared to before the pandemic due to global demand for masks will be seen as an irreversible change, as a result of the permeation of people's habit of wearing masks and the related changes in behavior.

These two viewpoints need to be classified because they are indicators for evaluating the effectiveness and impact of steps taken when considering support measures for solving the problems that lead to vulnerabilities in the future.

From this point of view, the industrial and business vulnerabilities will be analyzed. First, regarding vulnerability in the industrial structure, the current situation in which high-value-added industries are not fostered in Jordan was mentioned. There are various factors that cause high-value-added industries not to be fostered, but it is largely due to the business environment, because highly educated human resources are growing enough to be active overseas, even though Jordan is located in the Middle East with already favorable conditions to acquire investment funds. Looking at the fact that the Jordanian government has already worked on reforms in the business environment that have yielded results, including Doing Business, there is hope for the future to resolve the issues. On the other hand, it is conceivable that a certain number of highly educated Jordanians who are temporarily returning from overseas due to COVID-19 will be recalled and will depart once the infection situation in neighboring countries subsides. Efforts to form an industry for receiving highly educated human resources will not only lose their significance if they are not made in the short term but may also miss the opportunity for industrial sophistication in the medium to long term.

The high degree of dependence on the tourism industry was pointed out as another vulnerability in the industrial structure. As it depends largely on the degree of promotion of other industries, it is difficult to say unconditionally, but the analysis is that it can be corrected through improving



the business environment as described above. The tourism industry, which has been hit hard by the impact of the COVID-19 pandemic, especially in the form of the decline in demand for personal travel, is expected to see a temporary recovery once the infection situation has subsided, but the fundamental environment will need to be improved and the metabolism of corporate activities promoted, in order to make it a higher-value-added service industry.

Overcoming the vulnerabilities in the trade structure requires diversification of product export destinations and raw material procurement. In addition to the constant efforts of Jordan's public and private sectors to build new commercial distribution, there are some other elements such as the government relationships with the partner countries and international competition, thus it can be seen as a field less controllable compared to the issues of industrial structure. On the other hand, while the existing commercial flow is blocked by the extrinsic shock of the COVID-19 crisis, the new commercial flow that is being constructed as a shock response will remain even after the pandemic has passed, changing the conventional commercial flow. Since it can happen, it is necessary to take aggressive measures.

Finally listed are the vulnerabilities in investment attraction, which are often due to the fact that Jordan's business environment is not yet open to new things such as entrepreneurship. It is too early to conclude when the COVID-19 stagnation will end, but it is certain that the pandemic will end and the economy will recover with the movement of people, and the depressed foreign direct investment will reactivate. However, in the phase where such investment money moves, the silhouette of advanced companies leading the post-COVID era should be clear, and many of the investments that have fully recovered will be directed to the further growth of such promising companies. In the context of Jordan aiming to nurture the leading companies in the post-COVID world domestically, it is necessary to support venture companies that are currently in the seed or early periods, and such support needs to be provided in a timely manner.

## **Chapter 5. Agriculture Sector and Garment Sector**

### **I. Agriculture Sector**

#### **(Overview)**

While Jordan is a food-imported country, agriculture as a main stable industry has been constantly contributing to the national economy over the past 30 years (around 6 percent). Although main commodities are imported such as cereals and grains, and animal feed as well, to serve the domestic market (to cope with the growth of the population) and maintaining food security (self-nutrition) issues in a water-shortage country where a massive investment is needed to improve the water supply and geographically limited arable areas. The technological advancement is lagging to produce more, in a cost-effect way, with smart agriculture (hydroponics), plant factories, and greenhouses development, and the labor-intensive industry itself accommodates foreign workers, but has not contributed enough to generate employment.

The low profitability and value addition of the sector has not received the attention of the FDI and DDI, which also hinders the growth of agriculture, but with the transportability of agriculture exports and domestic consumption, development of fresh vegetables and fruits has been introduced in the East Bank of the Jordan Valley and the harvesting areas near Amman. Meanwhile, COVID-19 has activated the industry to increase its share of the market amid the absence of outside competitors. There is also an untapped market in agriculture both domestically and internationally, such as for dates, dairy products, and nutritious foods for children apart from fresh vegetables and fruits.

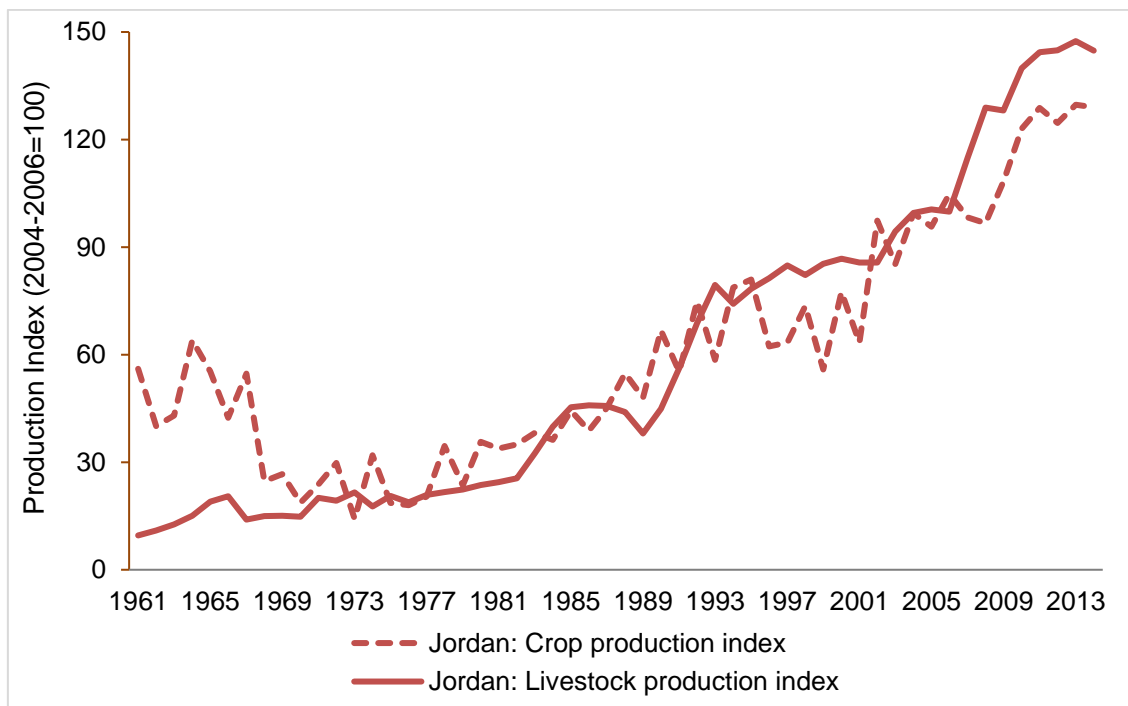
Traditionally, successive agricultural strategies have tended to focus on the water issues and supply side improvement while safeguarding the industry. However, the new agriculture development strategy (2020-2025) of the Ministry of Agriculture indicated a boost of the sector with a relatively huge investment in industry infrastructure, and the addressing of various issues associated with the realization of the export and production potential through measures such as productivity and replacement of employment with youth and women, and management of firming capacity itself. These measures will be undertaken by many stakeholders led by the Ministry of Agriculture.

### **Box A 1 Agricultural Strategy: 2020-2025**

- National Agricultural Development Strategy set out in 2020 at an estimated cost of JOD 591 million, focusing on the digitization and restructuring of the sector and boosting its productivity with the following priorities: the restructuring and digitization of the agricultural sector, the utilization of modern technology, enhancing production and productivity, focusing on strategic crops, developing the logistics chain of operations, uplifting the agro-processing chain, developing the export chain, and expanding forest and pasture areas.
- The performance indicators include increasing the agricultural GDP as share of total GDP from JOD 2.6 billion now to JOD 3.66 billion by 2025 and boosting the added value of agriculture to JOD 2.48 billion from JOD 1.6 billion. Another key theme of the strategy is creating 65,000 jobs in the five-year period and replacing 21,000 foreign workers with Jordanians, and increasing the number of farmers using digital government-run agricultural services by 30 percent. Another focus area of the strategy is export costs reduction to pave the way for a 15 percent increase in agricultural exports. As with detailing the strategy's themes and focus areas, the restructuring of the sector entails various regulatory reform such as amending the Jordan Farmers Union's law
- The government has introduced a number of finance and credit incentives to boost producers' resilience in the COVID-19 crisis time and has expanded the Agricultural Risk Fund's umbrella to cover all risks. The government will establish centers for agricultural services and training in modern agricultural technology, especially aquaponics and hydroponics, to enable unemployed Jordanians to gain skills much-needed in the agricultural labor market.

### **Agricultural Production (Crop and Livestock)**

Livestock and crop production indices increased by 84 and 71 percent, respectively, in Jordan between 1995 and 2014. The livestock production index increased by 57 percent during the last two decades (between 1995 and 2015), whereas crop production dropped by 27 percent during the same period. According to the Jordan Economic Growth Plan (JEPG) 2018-2022, agricultural output grew at double-digit rates annually during the past five years, reaching a peak growth rate of 16 percent in 2015 (JEPG, 2018).



Source: FAOSTAT

**Figure A 19 Agricultural Production Index Has Been Growing in Jordan and Lebanon, 1961-2016**

### Production of High-Value Crops

Farm exports in Jordan showed substantial growth in 2014, aided by foreign sales of vegetables, while deals with new markets and key investments in irrigation are strengthening growth potential for future years.

Jordan’s fruit and vegetable exports increased 12 percent year-on-year in 2014, according to official data, with the country exporting 888,000 tons of agricultural produce in 2014, compared to 790,000 tons in 2013. A total of 85 percent of agricultural exports were vegetables, 50 percent of which were tomatoes. According to a spokesperson at the agriculture ministry, produce exports are projected to increase further in 2015 to reach 1million tons.

Vegetable production has nearly quadrupled over the last five decades. Jordan produced an annual average of 1.7 million tons of vegetables during 2011-2015 compared to just less than half a million tons during the 1960s. Similarly, fruit production (including citrus fruits) increased by 140 percent in Jordan since 1961.

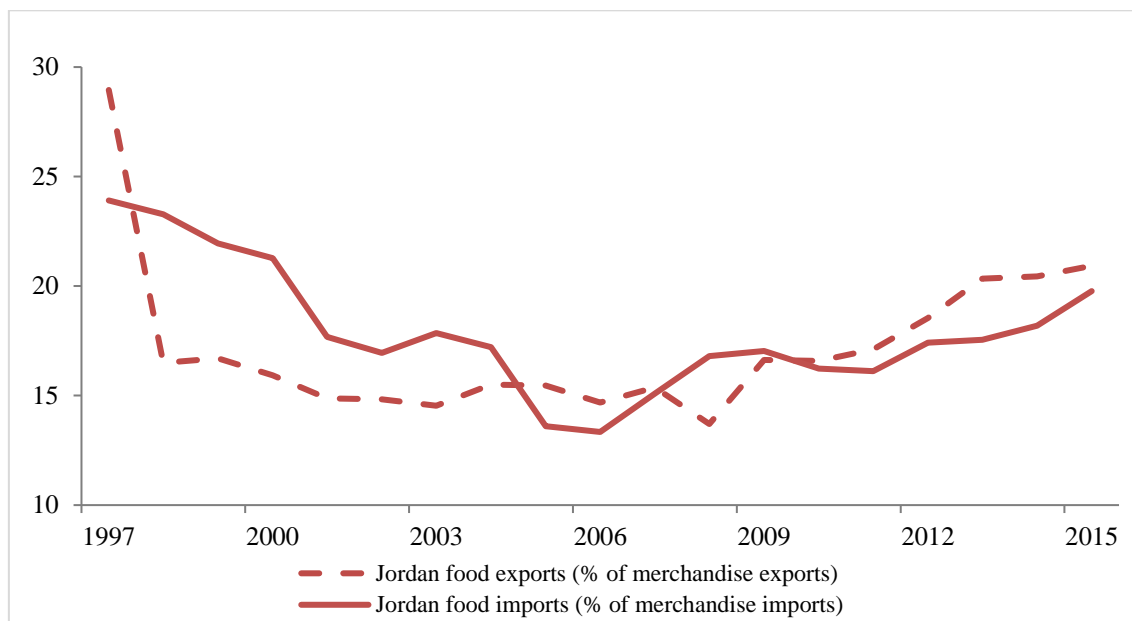
Agricultural exports in Jordan have grown strongly since the late 1990s. Jordanian agricultural exports reached USD 2 billion in 2015, up by more than 400 percent from its value in 2000. The share of agricultural exports (in merchandise exports) has been increasing by an average of 12 percent in Jordan during the last five years.

### Exports

The share of agricultural exports in total merchandise exports is growing in Jordan. Jordan has as much untapped agricultural export potential as the actual export from the country, and especially so in fruits and vegetables. Jordan has an untapped export potential of above USD 1 billion. Two-thirds of the export potential in Jordan of live animals (other than poultry), which is equivalent to USD 415 million, is untapped. Most of this untapped export potential comes from the potential

export of live sheep, which have an unmet potential of USD 390 million. Similarly, only 50 percent of the fruit and 60 percent of the vegetable export potential is achieved, indicating an untapped export potential of USD 320 million in vegetable and fruit exports in Jordan. Among vegetables, fresh tomato has the largest export potential that is worth of US\$ 135 million while fresh peaches and nectarines have the largest export potential among the fruits grown in Jordan.

The Gulf market is the main importer of Jordan’s production, with 82 percent of the fruits and vegetables imported by Gulf countries. The natural pasture in Jordan plays an important role in supplying livestock with dietary needs,



Source: World Development Indicators

**Figure A 20 Shares of Agricultural Exports and Imports**

**Chemical Fertilizer Use in Agriculture:**

In Jordan, average fertilizer consumption during 2002-2015 was nine and four times larger than the average MENA and world consumption, respectively. The per hectare fertilizer use in Jordan shifted upward during the 2010-2015 period, partly explaining the significant increase in agricultural productivity during this period.

**Capital Flow and Investment:**

Public spending in Jordan on R&D is very low and the regulatory conditions are constraining for financial services that could be very useful to farmers and agribusinesses in Jordan. These indicators provide valuable information on the constraints on the agricultural sector in general, and for the participation of the private sector in particular. The report identified that Jordan, compared to several other countries, is not performing as strongly in at least two indicators—water and finance. Jordan’s laws and regulations that affect access to financial services for farmers and agribusinesses has room for improvement compared to other middle-income countries.

Investment in Jordan’s agriculture sector equaled a cumulative approximately USD 250 million from 2015 to September 2017. In the period between 2009 and 2016, the declining value of capital stock in agriculture coincided with an even greater decline in total employment in the sector, as a large number of Jordanian agricultural workers left family farms in search of better-paid

employment in cities and towns. This resulted in an estimated 58 percent increase in the capital-to-labor ratio for the agriculture sector.

### **Employment:**

Agriculture accounts for a small proportion of the Jordanian workforce and, over the past two decades, total employment in the sector has declined significantly. A total of 74,905 persons were employed in agriculture in 2016. By comparison, in the year 2000, a total of 162,732 people worked in the sector, indicating a decline of 54 per cent over this 16-year period and an average annual decline of 1.7 percent.

Jordan's agriculture sector is characterized by a large proportion of foreign workers. In 2016, approximately 70 per cent of all workers in the sector were foreign. The majority of foreign workers – approximately 85 percent – were employed in the cultivation of field crops. The low participation of Jordanian workers in the agriculture sector is the result of a process that has unfolded over the course of many years. During the period between 2000 and 2016, the relative share of Jordanian workers in the agriculture sector declined from 63 per cent to 30 per cent. In 2017, Egyptian workers accounted for 73 percent of registered expatriate workers in the agriculture sector. During the same year, Syrian workers accounted for 24 per cent of registered expatriate workers.

Jordan's agriculture sector is also characterized by a large amount of labor informality. Informality is defined as the “lack of an explicit work contract and/or social insurance coverage”. It is noted that approximately 58 percent of Jordanian agricultural workers and an even larger share of foreign workers are employed informally. The large amount of casual and seasonal foreign labor and Jordanian household labor that has been characteristic of Jordanian agriculture in the period between 2000 and 2016 accounts for this informality.

### **(Competitive Advantages)**

Jordan's location in the heart of the Middle East not only advantages trade opportunities within the MENA region but also relative to Europe, Africa and Asia. Competitive labor prices and the valuable incentives from the government also make Jordan a prime destination for agricultural investment in the region. The strong productivity and competitiveness of the sector are clearly shown despite its relatively small contribution of 4.0% to the country's GDP, equaling US\$ 1.39 billion. The Jordanian agriculture exports represented approximately 18% of Jordan's exports (or US\$ 6.2 billion) in 2016, second only to the chemicals sector.

The agriculture sector is also self-sufficient in regard to vegetables, citrus fruits, goat meat, poultry, olives, olive oil, table eggs and fresh milk. The natural pastureland in Jordan plays an important role in supplying livestock with their dietary needs, natural pastureland remains the mainstay of pastoral feeding in Jordan which covers 30 percent of the dietary needs (equals two to three months without additional supplementary feeding). Pasture productivity is associated with rainfall, topography, and soil. On the other hand, Jordan is a net food-importing country (as 98 percent of consumable items are imported). This primarily includes commodities such as wheat, barley, sugar, rice, powdered milk, tea, coffee, corn, vegetable oil (excluding olive oil), cheese, chickpeas, vermicelli, and lentils.

Domestic demand for agriculture and food products continues to grow due to the increasing urbanization and population growth, further boosted by the growing number of people migrating to Jordan from neighboring countries.

### **(Social Dimension)**

The agriculture sector in the Kingdom has economic and social dimensions, especially in rural areas where the sector is considered as a source of income for about 80,000 families in the rural and urban areas. It also contributes to providing job opportunities. Besides, the GOJ of Agriculture aims to produce sustainable agricultural development to contribute to food security and environmental, economic, and social development in concert with global development and actions through the preservation and development of agricultural resources, improvement of the agricultural trade balance, increasing of agricultural production efficiency and improvement of production quality, and provision of appropriate investment conditions for agricultural development. (agricultural sector note) The role of food and agriculture for job creation and poverty reduction in Jordan.

### **(Challenges)**

The major challenge facing agricultural growth in Jordan is limited water and land resources.

According to the Ministry of Agriculture, of a total land area of 89,000 sq. km., 10 percent of the Kingdom's land is arable and only 2.7 percent is now being cultivated (approximately 2,000 sq. km.). Moreover, Jordan is ranked among the world's most water-scarce countries, with a water deficit of 312 mcm (million cubic meters) in 2013 (MWI 2013). There is some evidence that Jordan has made progress in improving water efficiency due to the adoption of drip irrigation and related farming technologies, especially in the Jordan Valley, where these improvements have led to higher productivity. However, further efficiency gains are needed, as a large share of scarce water resources is diverted to agriculture through the public irrigation system in the Jordan Valley as well as the private underground scheme in the highlands. In fact, the share of agriculture land under irrigation has increased from about 7 percent in 2001 to around 10 percent in 2014, whereas irrigation constituted about 53 percent of total water use in Jordan.

The agriculture and food sector contributes approximately 20-25 percent of the active labor force in rural areas, 25-30 percent of GDP, and 20-25 percent of total merchandise exports. Agricultural production, including production of fruits and vegetables, has been increasing during the last three decades. While increasing labor productivity, chemical fertilizer use, expansion of arable land and irrigated land drive agricultural output growth in Jordan, poor agricultural technology, lack of rural finance, and water use inefficiency in irrigation remain key constraints for the sector.

Agricultural labor productivity and chemical fertilizer use are much higher in Jordan than the MENA regional averages. However, investment in agriculture and technological innovation in the sector have been very low in both Jordan and Lebanon. Although constraints related to rural finance and technology contribute to underachievement of agricultural exports in the two countries, the constraints related to food safety and standards more directly hinder export competitiveness of Jordan and Lebanon especially to European countries.

### **(Donor Support to Agriculture)**

Jordan has been affected by ongoing conflicts in neighboring countries over the past years, which resulted in slower economic growth and an increase in youth unemployment and food insecurity.

In response to these challenges, the Government of Jordan has set itself ambitious targets in the country's Economic Growth Plan, the National Strategy for Agricultural Development, and the National Strategy for Food Security.

In support of the implementation of these, donor coordination mapping was produced in CBI in 2016 regarding the export value chain analysis of fruits and vegetables where various donors are

active in Jordan, and a big effort has gone to the humanitarian field, related to the Syrian refugee crisis.

Among the WB, GIZ, USAID, FAO, and IFAD as main donors are these programs:

1. Rural Economic Growth and Employment Project 2014-2020 (REGEP). The project targets rural households below the poverty line, and vulnerable rural households above the poverty line who are at high risk of falling into poverty. The project budget is USD 15.2 million, of which USD 11.3 million is IFAD funding (USD 10.8 loan and USD 500,000 grant).
2. Value Chain and Enterprise Development, managed by JEDCO in close partnership with NCARE, JEPa, JSMO, a national NGO and other service providers.
3. Rural finance, implemented entirely by DEF.
4. World Bank-funded program implemented by the Central Bank of Jordan (CBJ) at a cost of USD 900 million. Under the program, the central bank will cooperate with commercial banks in providing loans to small and medium-sized companies with preferential interest rates and payback periods. Agricultural companies can also benefit from the program while agricultural companies were previously excluded from the program.
5. In the fruits and vegetables sector the most active and relevant donor is USAID, working on the Hydroponic Green Farming Initiative through its implementer Eco Consult. During the field trip meetings were held with USAID / Eco Consult, CARDNE and FAO. A fresh idea comes of the formulation for the policies based on the SDGs and its goal setting which was advocated by the United Nations Economic and Social Commission for West Asia (ESCWA).

#### **(New Frontiers)**

In order to boost foreign sales, the authorities are seeking new markets for Jordanian produce, much of which goes to Arab countries at present with Syria and the Gulf states consuming around 80 percent of fruits and vegetables exports. Over the past year, Jordan has targeted Russia as a potential market by seeking an exemption from high import tariffs. Negotiations came to fruition in November, when the two countries inked a deal that will see Russia reduce its import duties on produce from the Kingdom by 25 percent in the summer and to exempt it entirely from such duties in the winter. At the end of December, exports to Iraq had improved following negotiations with the Iraqi government, which recently agreed to reduce the fees collected from each Jordanian truck entering Iraq from USD 2,200 to USD 700.

#### **(Future of Agriculture in Jordan)**

The role of agriculture has been increasing over the past years, albeit from very low levels. Yet, there is still a potential for increasing agricultural growth, as foreseen in the agricultural development strategy, by further structural change, further increasing productivity, and, perhaps most importantly, by improving linkages between production and marketing. In addition to improving local markets, Jordan can also capitalize on its free trade agreements with major partners, such as the USA and the EU, by targeting high-quality production with stricter packaging requirements.

#### **(Reforms)**

Jordan has gone through several reforms that have contributed to make the agricultural sector more productive and competitive.



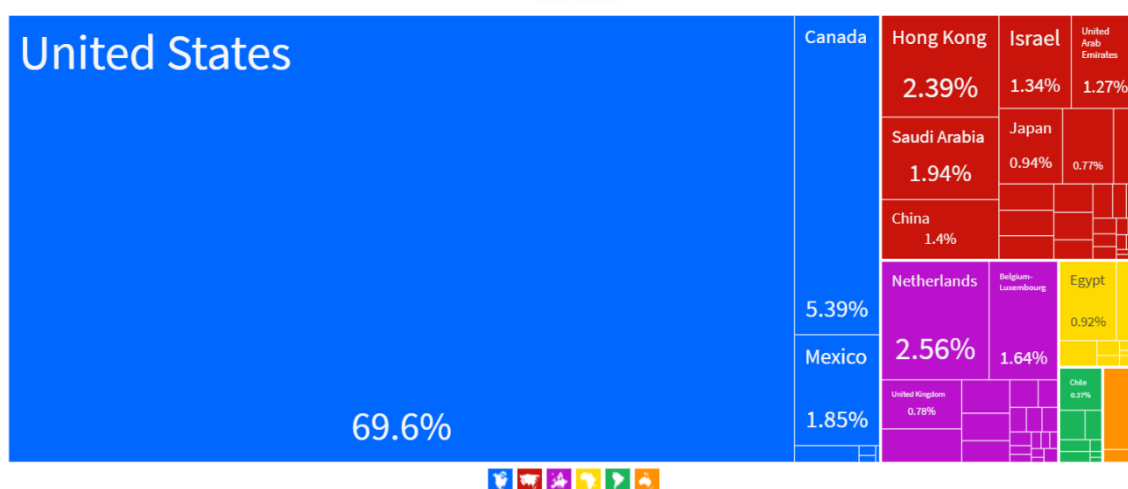
- Agricultural marketing policies in Jordan comply with World Trade Organization (WTO) regulations since the country's accession to the WTO in 2000.
- Other agreements that had an impact on agricultural trade include the Great Free Trade Zone between Arab countries which has gradually removed all custom duties among members between 1998 and 2005.
- Jordan also signed the Jordan-EU Association Agreement in 2000, which provides for the establishment of a free trade area with exemption of custom duties on Jordanian exports of agricultural products. Jordan has also signed several bilateral trade agreements with several countries, such as the USA and Singapore, since 2001. In particular, the Free Trade Agreement (FTA) with the USA has opened the door for a wide range of Jordanian agricultural products to enter the US market with exemption or reduction of custom duties.

## II. Garment & Textiles Sector

In Jordan, the garment and textiles industry has grown as one of the major industries, benefiting from industrial park development since the 1990s. Exports in 2018 amounted to USD 1.8 billion, accounting for 22.2 percent of total exports. Jordan’s garment industry employs around 77,000 people, 2.5 percent of the total workforce, working in 1300 factories, with more than two-thirds of the workforce being women. However, the industry is heavily skewed towards larger factories (500-2,500 employees), of which 85 factories account for around 95 percent of exports and employment.

In the Jordan Compact, which was signed in 2016, a relaxed rules of origin (ROO) agreement with the EU was agreed to in exchange for the employment of refugees above a certain level in factories in special economic zones. As a result, exports to the EU market are exempted from taxation, which is an advantageous condition, but it cannot be said that the competitive advantage of Jordan's garment industry has improved yet as other countries are also receiving similar preferential treatment. Turkey, for example, has lower transportation costs than Jordan due to its closer distance to the EU, and Bangladesh, which has lower labor costs, also has duty-free access to the EU.

According to export value data as of 2018, the structure of dependence on the United States as an export destination is remarkable (about 70 percent), and the proportion of the EU market is not very high.



The garment and leather sector accounts for 28 percent of Jordan's domestic exports and 84 percent of exports to the United States, according to an analysis of ITC Trade Map data for 2018. The primary commodity exported from Jordan is apparel and clothing accessories, knitted or crocheted (HS 61), which amounted to USD 1.66 billion in 2018, accounting for 91 percent of total exports in the sector for that year. The United States accounts for 87 percent of Jordanian exports of this commodity. Knit-based products are the main export products and, recently, the product composition of clothing exports has changed. Sportswear exports have doubled between 2008 and 2018, but fashionwear exports have declined. According to data from the International Trade Center (ICT), Jordan's clothing exports in 2017 were USD 1.6 billion. Ninety percent of this amount is made up of high-quality sportswear from brands such as Nike and Under Armor.

**(Investment in the Textile Industry) :**

The spectacular increase in Jordanian garments exports to the US was largely due to the arrival of many Asian firms in Jordan following the signing of the QIZ agreement. In 1998, Jordan signed an agreement with the United States to establish QIZs in Irbid. QIZs have been granted tariff and quota exemptions for goods manufactured in the zones when exported to the United States. At the same time, companies within QIZs were exempt from income and social security taxes, and foreign companies were able to remit their capital and profits entirely to their home countries and enjoy full ownership. In 2005, Egypt launched its own QIZ initiative, establishing an arrangement like that of the United States. The garment industry was one of the first to recognize the potential of these initiatives. Another breakthrough has created some of the benefits to the QIZs location that have previously been a concern for clothing and textiles by opening the market to free competition, which has been phased out globally. The end of the contract (MFA) from 2005 has also brought about fierce international competition over Jordan's garment and textile industry. Bangladesh, Vietnam, China and other Asian countries have moved to take advantage of low wages to make them more price competitive in the United States and elsewhere. The impact of QIZs on the export of ready-made garments from Jordan to the United States was dramatic, rising from USD 42 million in 2000 to USD 1.25 billion in 2006.

Chinese and Indian companies dominated this wave of FDI. By 2008, the number of garment companies with more than 100 workers registered in Jordan's QIZ reached 71, of which 42 were full or partial, mainly from China (23 companies) and India. The companies were Asian-owned. Chinese companies have become a major feature of Jordan's accredited zone. In January 2007, garment companies with more than 100 workers registered as wholly or partially owned by Chinese or Taiwanese companies employed approximately 19,000 workers. This represents 35 percent of Jordan's QIZ employment. This was accompanied by an increase in the number of foreign workers in Jordan: migrant workers came from Sri Lanka, Bangladesh, China, and India, with 36,289 migrant workers employed in QIZs in 2008, 74 percent of the zone's total employment. Of the migrant workers, 52.1 percent were women.

This led to an influx of Asian multinational corporations (MNEs) and a significant increase in textile imports from China, Hong Kong and Taiwan (USD 99 million in 1997 to USD 631 million in 2006). These multinationals have rapidly transformed Jordan from a country with a quasi-non-existent garment industry to a major garment exporter in the region. However, after the global recession of 2008, many Asian multinationals left Jordan, and overall textile and garment exports declined for several years. This highlights the vulnerabilities of this sector, which has limited added value, and the spillover of international suppliers to the local economy. Exports of certain apparel products to the United States accelerated again, returning to pre-crisis levels.

## **Garment Industry Trends in Jordan)**

### **(Labor and Employment Issues)**

#### **Employing Syrian Refugees:**

Employing Syrian refugees adds value to what buyers want from a branding and corporate social responsibility (CSR) perspective, which eases the labor shortage and complies with short-term Rules of Origin of the EU. However, it poses multiple issues that prevent it from becoming a practical solution to compliance.

#### **Poor Working Conditions in Jordan's Textile Factories:**

The oversight system for Jordan's garment factories is weak, and practices such as docked wages, passport confiscation, and forcing workers to work 20 hours a day are part of their working culture. Jordan was previously added to the list of countries that allowed child labor and violated international anti-trafficking laws. In response, the government lifted restrictions on the import of clothing and textiles from Jordan by the US Department of Labor in 2016. Through increased inspections and changes in law, the country was able to address these labor law violations. Inspection campaigns are being strengthened and the law improved to include adequate wages and better working hours as well.

#### **Jordanian Employment Issues:**

The situation of Chinese and Bangladeshi workers in Jordan is a problem, and the garment manufacturing sector needs to focus on hiring locals, especially women. Not only does this create domestic employment, but the need to address the dire working conditions of foreign workers is under consideration within the government and industry. However, given that 75 percent of the 55,000 employees in the textile and garment subsector are non-Jordanians, long-term employment growth in this sector is more like replacement than actual employment growth. One of the major obstacles to the development of this sector is the need for an answer regarding access to skilled workers.

### **(Problems with Export Promotion)**

While FDI has run its course, it is necessary to promote trade in the garment industry, which is becoming a high-cost structure in industry, to stimulate new FDI. The garment industry has been shown to have capability for exports of around USD 470 million. This requires marketing strategies elsewhere for the foreseeable future, but additional opportunities are diversifying export markets beyond the United States and are beginning to benefit from preferential market access to the EU. For the time being, trade expansion to the EU is expected.

- There is a clear difference in Jordan's garment export environment between about 85 large factories with 500 to 2,500 employees, which account for about 95 percent of Jordan's current garment exports, and about 150 small and medium-sized factories. These smaller factories have 10 to 500 employees and usually do not export, but most are interested in exporting. Trade agreements between the EU and Jordan and relaxed rules of origin have certainly sparked private-sector interest in exports to the EU. However, the complexity of hiring a particular share of Syrian refugees required under the EU-Jordan trade agreement is a practical challenge.
- Expanding opportunities in the EU market require good compliance with environmental and social standards, adapting to flexible orders and small order sizes, and hiring employees with a high level of education for factory management. The reopening of the northern border with Syria creates great opportunities for Jordanian factories, reducing one-way transportation times to Western Europe from 18 to 6 days, making access

easier and cheaper. However, as a concern, Jordan's garment sector has already focused on the relative value-added products of the mid-to-luxury product segment. (Note that we prioritize “small-lot, high-priced” production over “high-volume, low-priced” production by manufacturers in countries such as Bangladesh, because Jordan has relatively long lead times, high costs, and low efficiency. Competition is difficult in this segment.

- It is considered effective to establish an EU export business case with a clear value-added and FOB production model to manage risk. EU export business cases vary from factory to factory, depending largely on individual characteristics such as current product type, business model, target market, current skill set, and investment required to meet EU requirements.
- The sector requires such actions as providing a digital database of EU market information and an interactive information desk for various types of garment companies, strengthening technical assistance, supporting business matchmaking with EU buyers, and ensuring access to appropriate financial resources. Related support is also needed. Although the sector has flourished in recent years, Jordan is still competing primarily for low-margin activities in the global garment value chain. Furthermore, the difficulty of accessing information, which is a serious obstacle, can be solved.
- Jordan's Clothing, Accessories and Textile Exporters Association (JGATE) is a major organization of companies operating in this area. JGATE is lobbying on behalf of member companies to promote sector activities. Establishing a skilled organization is essential to improve the international competitiveness of Jordanian garment SMEs, for example, to promote factory cooperation efforts to procure and sell joint fabrics
- Jordanian companies still lack product standards and buyer requirement information on the EU market, which poses a significant obstacle to strengthening exports. Investing in production line quality and improving standards and certifications are key to supporting the sector's international competitiveness and contribution to domestic value.

### **(Untapped Market)**

Jordan's industrial sector has an untapped export potential of about \$4.4 billion in various industries, according to President of the Jordan Chamber of Industry. These unexploited opportunities are available without having to pursue fresh investments or expand existing production lines. The ready-made garment volume stands at \$477 million.

### **(Problems in Promoting the Garment Industry)**

#### **Competitiveness:**

A relatively low-technology sector, it is constantly facing fierce competition with Egypt, which gained QIZ status from the United States in the late 1990s, along with competition with other garment exporters. It can be said that Jordan's textile and apparel sector is not technologically advanced. Responses and strategies to secure this competitiveness are needed.

#### **Investing in the Value Chain:**

The textile sector's highly fragmented value chain consists of textile mills, distribution centers, retailers, and point-of-sale locations. Threads and other input materials tend to be imported from Asia. In the competition between countries such as Pakistan, Bangladesh, Sri Lanka, and China, where the textile sector has dominated the bottom of the long value chain due to the new structural changes, intensifying competition is affected required skills, technical capabilities, and so on.

Investment in facilities and infrastructure will be essential. In addition, investment in modernization as an alternative to labor will increase in the future.

**Clarification of Marketing Strategy:**

Activities for sustainable and compliant product development are required.

In the market penetration into the EU, it is necessary to set up regional marketing strategies and effective measures in the network of stakeholders in a form that clearly shows the advantages. At the same time, in Japan, it is considered necessary to develop high-value-added products and market to stimulate domestic demand.

**(Contributions of Donors to the Textile Industry)**

- A competitiveness project was supported by ITC and Swedish fund to produce textiles under the MENATEX and GTEX. The leather and textile industries sector is a vital engine for the national economy, as it contributed about 27 percent of total exports in 2019, according to the Minister of Industry and Trade. In remarks during the launch ceremony of a project to enhance the competitiveness of the leather and textile industries sector in Jordan (MENATEX), implemented by the International Trade Center (ITC) in cooperation with the Industry Ministry and the Jordan Chamber of Industry, and funded by the Swedish government, the minister pointed out that the sector faces great challenges for which efforts must be made together to turn them into opportunities. The project's manager in Jordan noted that ITC has evaluated the needs of small and medium-sized enterprises (SMEs), the sector's work mechanisms, and its priorities. The USD 1.1 million project aims at improving the environment for companies in the textile sector, by training workers on international best practices that qualify them to enter the global markets, as described by ITC's Textiles and Clothing advisor, Abdul Latif Obaid. About 20 companies were chosen to benefit from the project's technical support to enhance production, exports, and sustainability standards, he said, adding that the project is part of the MENATEX regional program, which covers four countries: Jordan, Egypt, Tunisia and Morocco.
- Local community development through GIZ support (trade for employment)
- CBI Export Coaching for the textile industry
- Better Work Jordan (ILO- led training schemes for women and youth together with the Skill Council)
- JEDCO supported setting up a garment design center to nurture designers together with other TVET sectors. Additionally, JEDCO has served the companies in their BDs provisions to the SMEs including accelerator projects and garment design training centers to offer skill development to improve the general management side of the textile industries.

### Box A 2 COVID-19 and the Textile Industry

**(Worker problem)** In addition to the effects of the global recession caused by COVID-19, many workers in industrial areas are foreigners. According to a survey of garment factories, about two-thirds of all employees are foreign workers, and more than half of them are from Bangladesh. Some countries, such as Myanmar, have arranged charter flights to assist citizens in returning from Jordan, and some workers are believed to have returned to their home countries. However, it has been reported that some workers are waiting for help in the industrial area without being paid wages during the factory closure period of several months. In addition, it has been reported that some factories have had to reduce their operations due to the return of workers to their home countries.

- Most companies reported zero sales in March and April 2020. This was exacerbated by major supply chain problems and access to raw materials, resulting in reduced production quality. In the local market, the garment and leather sector was not considered an essential one, compared to, for example, the medical and food sectors.
- Even if the sector had been partially operational, there was little or no demand from the local market. This was caused by a weakening of consumer purchasing power and a shift in demand for more “essential” cognitive products. In addition, local vendors expected sales to increase slightly due to the low availability of imported products, but sales did not actually increase because consumers did not consider clothing a necessary purchase. In addition, the demand for clothing is further declining due to restrictions on retail store openings, such as the lack of fitting rooms.
- On the other hand, exporters are facing similar effects, if not the serious adverse effects of the COVID-19 pandemic. More than 80 percent of exports go to the US, but there is no demand from the US market due to the pandemic, and no new orders are expected by the end of the year. As a result, production stopped almost completely.
- Companies exporting to the MENA region face similar problems, especially because it is very difficult to export by land to Palestine and Iraq. Especially at the border, the delivery time was significantly delayed due to much more complicated procedures. Nonetheless, sector representatives believe that exports to countries within MENA should increase at this time, as the countries are accessible and still have some demand.
- Further consultation with trade union federations is needed to assist in managing the crisis in the field. Specifically, for exporters, the JGATE Association holds weekly meetings to reassess the sector situation and focus on improving quality and promoting Jordanian products in various countries.

## Chapter 6. Past Projects of Donors

### 6.1 Past JICA Projects

Many good projects have been carried out that are believed to contribute to the promotion of industry and economy and the improvement of the quality of life of the people by JICA's support to Jordan. The results are thought to have had a considerable positive impact on the development of industry and the economy in various parts of Jordan and in each field.

Examples include vocational training, IT human resources development, career counseling related to the development of industrial human resources, social advancement of women and rural support, quality of products and industrial products, improvement of kaizen and productivity, tourism industry and tourism promotion related. It is related to electricity, water, logistics, customs duties, waste, regional development, medical care and health, which are the basic infrastructures required to promote industrial development. For reference, all the technical cooperation projects and surveys conducted by JICA for Jordan are divided into fields that are related to industrial promotion.

#### (1) Education, Vocational Training, IT Human Resource Development, Career Counseling that Contributes to the Development of Industrial Human Resources

- Report on Preliminary Design for the Electronics Service & Training Center for the Royal Scientific Society in the Hashemite Kingdom of Jordan (Report: 1979.3)
- Human Resources Development Sector Investment Loan (Special Yen (ODA) Loan) (Loan Approval Date: 1990.5.15) (Loan Approval Amount: 10,381 Million Yen) (Ministry of Education)
- Second Human Resources Development Sector Investment (Special Yen (ODA) Loan) (Loan Approval Date: 1997.7.30) (Loan Approval Amount: 7,123 Million Yen) (National Center for Human resources Development)
- Textbook for Top Managers' Seminar, Jordan, Syria FY 2000 (Textbook: 2000)
- Basic Design Study Report on the Project for Improvement of Equipment for Vocational Training for the People with Disabilities in the Hashemite Kingdom of Jordan (Report: 2001.3)
- Vocational Training Technology Academy Project in the Hashemite Kingdom of Jordan (Report: 2002.6)(Report: 2006.3)(Japanese Report Only)
- The Study on Digital Self-learning Material Development in the Hashemite Kingdom of Jordan (Final Report: Digital Self-learning materials: Grade 11 Physics Chapter 9 Light, Chapter 10 Motion and Wave CD: No. 1, 2, and 3: 2003.7)
- Information Processing Technology Improvement Project in the Hashemite Kingdom of Jordan (Report: 2006.3)(Japanese Report Only)
- The Hashemite Kingdom of Jordan: Capacity Development of Learning Resources Centers (LRCs) for Science Education Utilizing ICT (Final Report: 2009.3)
- Vocational Training Management Strengthening Project in the Hashemite Kingdom of Jordan (Report: 2010.9) (Japanese Report Only)
- Human Resource Development and Social Infrastructure Improvement Project (Special Yen (ODA) Loan) (Loan Approval Date: 2012.8) (Loan Approval Amount: 12,234 Million Yen) (Ministry of Planning and International Cooperation)

- Final Report for Special Assistance for Project Implementation of Human Resource Development and Social Infrastructure Improvement Project in the Hashemite Kingdom of Jordan (Report: 2013.3)
- Special Assistance for Project Implementation of Human Resource Development and Social Infrastructure Improvement Project in the Hashemite Kingdom of Jordan II (L/A No. JO-P12 dated 14 August 2012) (Final Report:2014.3)
- The Hashemite Kingdom of Jordan, The project for strengthening the capacity for career counseling for the youth (Project completion report:2020.4)

## **(2) Projects on Women's Social Advancement, Entrepreneurship Support, and Rural Women's Support**

- Project Formation Survey Mission to Incorporate Woman Into Development: Regarding the Possibility and Direction of a Cooperation Program at the JICA Level in Vocational Training for Women in the Southern Part of Jordan (Report 1993.3) (Japanese Report Only)
- The Project n Family Planning / WID Phase 2 (Report: 2003.2) (Japanese Report Only)
- Comprehensive Study on Family Planning and Women in Development Projects in Jordan: Analysis from a Capacity Development Perspective / Makiko Komasa (Report: 2006.4)
- The Integrating Health and Empowerment of Women in the South Region Project: Sharing Experiences and Learning from Good / Successful Practices in the Islamic Communities Workshop: JICA's Partnership for Reproductive Health Report (Report: June 15<sup>th</sup> ~19<sup>th</sup>, 2008)
- The Integrating Health and Empowerment of Women in the South Region Project (Report: 2011.7) (Japanese Report Only)

## **(3) Projects Related to Product Quality, Kaizen, and Productivity Improvement**

- Study on the Strengthening of Enterprise Management Capability in the Hashemite Kingdom of Jordan (Report and Summary: 2001.3)
- The Preliminary Survey of Quality Control System Strengthening Project (Report: 2003.8) (Japanese Report Only)
- Basic Design Study Report on the Project for Improving the Quality of Products and Increasing the Competitiveness of the Industrial Sector in the Hashemite Kingdom of Jordan (Report: 2004.7)
- The Project on the Dissemination of Quality / Productivity Improvement (KAIZEN) Practices for Small and Medium Enterprises in the Hashemite Kingdom on Jordan (Main Report, Summary, Training/Reference Material on KAIZEN Practice Volume 1 & 2: 2013.5)

## **(4) Projects Such as Product Loans (Yen Credit Loans)**

- Commodity Loan (Special Yen (ODA) Loan)(Loan Approval Date:1990.11.29)(Loan Approval Amount: 14,556 Million Yen)
- Commodity Loan II (Industry and Trade Policy Adjustment Loan) (Special Yen (ODA) Loan)(Loan Approval Date:1990.12.20)(Loan Approval Amount: 10,917 Million Yen)(Ministry of Planning)



- Commodity Loan III (Special Yen (ODA) Loan)(Loan Approval Date: 1991.4.24)(Loan Approval Amount: 59,486 Million Yen)
- Energy Sector Adjustment Loan (Special Yen (ODA) Loan)(Loan Approval Date: 1994.8.30)(Loan Approval Amount: 8,393 Million Yen)
- Economic Reform and Development Loan (Special Yen (ODA) Loan)(Loan Approval Date: 1995.12.18)(Loan Approval Amount: 7,523 Million Yen)
- Fiscal Consolidation Development Policy Loan (Special Yen (ODA) Loan)(Loan Approval Date: 2014.3.17)(Loan Approval Amount:12,000 Million Yen)(Ministry of Planning and International Cooperation)
- Fiscal and Public Service Reform Development Policy Loan (Special Yen (ODA) Loan)(Loan Approval Date:2015.5.27)(Loan Approval Amount:24,000 Million Yen)(Ministry of Planning and International Cooperation)
- Financial Sector Business Environment and Public Service Reform Development Policy Loan (Special Yen (ODA) Loan)(Loan Approval Date:2016.12.21)(Loan Approval Amount:30,000 Million Yen)(Ministry of Planning and International Cooperation)

#### **(5) Projects Related to Tourism and Tourism Promotion**

- The Study on the Tourism Development Plan in the Hashemite Kingdom of Jordan (Final Report PT. I Volume 1 and 2, PT. II, and Executive Summary: 1996.2)
- The Study on the Tourism Promotion Plan for Aqaba Region Final Report, Toshinori Muguruma, Volume 1, 2, 3, Executive Summary: 1998.12)
- Tourism Sector Development Project (Special Yen (ODA) Loan)(Loan Approval Date: 1999.12.2)(Loan Approval Amount:7,199 Million Yen)(Ministry of Tourism and Antiquities)
- Detailed Design for Tourism Sector Development Project in the Hashemite Kingdom of Jordan (Final Report: Main Report Volume 1, 2, 3, 4, 5, 6, 7, Executive Summary, Supporting Report Volume 1SR, 2SR, 3SR-(1), 3SR-(2), 4SR, 5SR-(1), 5SR-(2), 6SR, 7SR, and Summary of Cost Estimates: 2000.8)
- The Special Assistant for Project Implementation (SAPI) for the Tourism Sector Development Project for the Hashemite Kingdom of Jordan (Report: 2009.2) (Japanese Report Only)
- Tourism Promotion through Museum Activities Project (Report: 2007.10) (Japanese Report Only)
- Preparatory Survey on the Project for the Construction of the Petra Museum in The Hashemite Kingdom of Jordan (Final Report:2014.6)
- The Hashemite Kingdom of Jordan, Sustainable Community Tourism Development Project in As-Salt City (Project Completion Report: 2016.9)

#### **(6) Projects Related to Electricity, Water, Logistics, Tariffs, Waste, Regional Development, Security Maintenance, Medical Care and Health, which are the Basic Infrastructure of Industry**

##### ◆ Water supply and irrigation related

- The Feasibility Study of Wadi Arab Dam and Irrigation Project (Report: 1976.11)(Japanese Report Only)

- The Wadi Arab Dam and Irrigation Project (Special Yen (ODA) Loan) (Loan Approval Date:1977.6.206) (Loan Approval Amount:7,500 Million Yen) (Jordan Valley Authority)
- Study Report on the Project for Improvement of Maintenance Equipment for Water Supply Facilities in the Hashemite Kingdom of Jordan (Report: 1995.1)
- The Study on the Improvement of the Water Supply System for the Zarqa District in the Hashemite Kingdom of Jordan (Final Report: Main Report, Support Report, Data Book and Summary: 1996.7)
- Basic Design Study on the Project for Improvement of Water Supply System to Greater Amman in the Hashemite Kingdom of Jordan (Report: 1996.12)
- Study Report for the Implementation Review of the Project for Improvement of Water Supply System to Greater Amman Phase 2 in the Hashemite Kingdom of Jordan (Report: 1997.12)
- North Ghors Conversion Project (Special Yen (ODA) Loan) (Loan Approval Date: 1989.1.26) (Loan Approval Amount:4,080 Million Yen) (Ministry of Water and Irrigation (Jordan Valley Authority))
- The Study on Water Resources Management in the Hashemite Kingdom of Jordan (Final Report Volume 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11: 2001.12)
- Basic Design Study Report on the Project for Improvement of the Water Supply System for the Zarqa District in the Hashemite Kingdom of Jordan (Report: 2002.6)
- The Basic Design Study Report on the Project for Rehabilitation and Expansion of the Water Supply Networks in North / Middle Jordan Valley in the Hashemite Kingdom of Jordan (Report: 2004.12)
- Basic Design Study Report on the Project for Improvement of the Water Supply System for the Zarqa District (Phase II) in the Hashemite Kingdom of Jordan (Report: 2006.4)
- Non-Revenue Water Countermeasure Capacity Improvement Project (Report: 2008.9) (Japanese Report Only)
- The Feasibility Study on Water Resources Development and Management in the Jordan River Rift Valley: Final Report Volume 1, 2, 3, and 4: 2008.12)
- Preparatory Survey Report on the Programme for Energy Conservation through Upgrading Waste Supply Network in the Hashemite Kingdom of Jordan (Report: 2009.11)
- Preparatory Survey II Report on the Project for Rehabilitation and Expansion of Water Supply Facilities in Southern Governorates of Tafieleh and Ma'an in the Hashemite Kingdom of Jordan (Report: 2010:11)
- Preparatory Survey on the Project for Improvement of Domestic, Industrial and Agricultural Water System in Jordan Valley and Northern West Bank (Report: 2013.3)
- Preparatory Survey Report on the Programme for Urgent Improvement of Water Sector for the Host Communities of Syrian Refugees in Northern Governorates in the Hashemite Kingdom of Jordan (Report: 2014.12)
- Preparatory Survey Report on the Project for the Improvement and Expansion of Water Distribution Network in Balqa in the Hashemite Kingdom of Jordan (Report:2014.3)
- Non-Revenue Water Countermeasure Capacity Improvement Project (Phase 2) (Report: 2014.2) (Japanese Report Only)

- The Project for the Study on Water Sector for the Host Communities of Syrian Refugees in Northern Governorates in the Hashemite Kingdom Master Plan Water Supply (Final Report: 2015.1)
- The Study for Basic/Detailed Design and Draft Bidding Document (Component B) under the Project for the Study on Water Sector for the Host Communities of Syrian Refugees in Northern Governorates in the Hashemite Kingdom of Jordan (Draft Detailed Design Document:2017.3)
- The Project for the Study on Water Sector for the Host Communities of Syrian Refugees in Northern Governorates in the Hashemite Kingdom of Jordan (Final Report:2017.5)
- The Preparatory Survey Mission for Zai Water Supply System Improvement Plan Project (Report 2020.8) (Japanese Report Only)

◆ Electricity, power grid, and power plant related

- Aqaba Thermal Power Station Project (Stage II) (Special Yen (ODA) Loan)(Loan Approval Date: 1994.8.30) (Loan Approval Amount: 4,745 Million Yen)(National Electric Power Company)
- Aqaba Thermal Power Station Project (Stage II Phase II) (Special Yen (ODA) Loan)(Loan Approval Date: 1996.4.17) (Loan Approval Amount: 10,813 Million Yen)(National Electric Power Company)
- The Study on Electric Power Loss Reduction of Transmission and Distribution Networks in the Hashemite Kingdom of Jordan (Final Report, Appendices, and Summary: 1997.5)
- The Feasibility Study on the Loss Reduction Project of Distribution Network in the Hashemite Kingdom of Jordan (Final Report, Summary, Manual for Feasibility Study on Distribution Loss Reduction and (Translated Title): 2000.12)
- The Study of Program Formation Mission for Energy Sector Development in the Hashemite Kingdom of Jordan (Report: 2012.8)(Japanese Report Only)
- Project for Study on the Electricity Sector Master Plan in the Hashemite Kingdom of Jordan (Final Report:2017.2)

◆ Waste disposal, Waste control, water pollution, and environment related

- Basic Design Study Report on the Project for Improvement of Solid Waste Management in the Greater Amman in the Hashemite Kingdom of Jordan (Report: 1994.2)
- Basic Design Study Report on the Project for Oil Spill Combat in Northern Aqaba Gulf in the Hashemite Kingdom of Jordan (Report: 1995.7)
- The Study on Brackish Groundwater Desalination in Jordan (Final Report: Main Report, Data and Drawings, and Summary Report: 1995.8)
- Basic Design Study Report on the Project for Improvement of Solid Waste Management in Major Local Areas in the Hashemite Kingdom of Jordan (Report: 1996.3)
- Ex-post Evaluation Study on the Project for Improvement of Solid Waste Management in Major Local Areas in Jordan (Final Report: 1998.11)
- Country Profile on Environment: Jordan (Report: 1998.11)
- Basic Design Study Report on the Project for Water Pollution Monitoring System in the Hashemite Kingdom of Jordan (Report: 2002.3)

- The Project for Capacity Development on Solid Waste Management in Jericho and the Jordan River Rift Valley: Consolidation Improvement Report of Solid Waste Management (Report: 2010.1)
- Data Collection Survey on Waste Management in North Region Accepting Syrian Refugees in the Hashemite Kingdom of Jordan (Final Report: 2016.4)
- Preparatory Survey Report on the Project for Improvement of Waste Management Equipment in North Region Hosting Syrian Refugees in the Hashemite Kingdom of Jordan (Report:2017.10)

◆Regional development related

- Contact Mission of Integral Regional Development Study of the Northern Jordan (Report 1979.6) (Japanese Report Only)
- Integral Regional Development Study of the Northern Jordan Phase 2 (Report: 1979.6)
- Integral Regional Development Study of Northern Jordan (Final Report Volume 1, 2, 3, 4, 5, 6, 7, and Summary and Recommendation: 1980.3)
- The Hashemite Kingdom of Jordan Feasibility Study on Irbid Industrial Estate (Final Report and Summary: 1981.10)
- Study on Industrial Development in the Southern Districts of the Hashemite Kingdom of Jordan (Final Report Main, and Summary: 1997.2)
- Preliminary Study for Iraq Reconstruction Project in Hashemite Kingdom of Jordan (Report: 2004.3)
- The Basic Design Study Report on the Project of Supplying Equipment for New Landfill Site of Madona-Ghabawi in the Hashemite Kingdom of Jordan (Report: 2004.10)
- Feasibility Study on Agro-Industrial Park Development in the Jordan River Rift Valley (Phase 1)(Main Report and Summary: 2007.9)
- Feasibility Study on Agro-Industrial Park Development in the Jordan River Rift Valley (Part 1 Phase II Main Report, & Summary: 2008.3)
- Feasibility Study on Agro-Industrial Park Development in the Jordan River Rift Valley (Final Report Volume 1 & 2(1/2), 2(2/2), Summary: 2009.5)

◆Logistics related

- Hashemite Kingdom of Jordan, Data Collection Survey on Logistics Improvement in Jordan Valley (Final Report: 2014.7)
- The Hashemite Kingdom of Jordan, The Data Collection Survey on Trade and Logistics in Jordan, Palestine and Region (Final Report:2018.5)

◆Road and bridge related

- Road Improvement Project (Special Yen (ODA) Loan)(Loan Approval Date: 1989.1.2) (Loan Approval Amount:13,424 Million Yen)(Ministry of Public Works and Housing)
- Basic Design Study Report on the Project for Construction of King Hussein Bridge and Sheikh Hussein Bridge in the Hashemite Kingdom of Jordan (Report: 1996.3)
- Study Report on the Project for Construction of King Hussein Bridge in the Hashemite Kingdom of Jordan (Report: 1999.6)

◆ Port related

- Final Report the Study on the Improvement Plan on the Port of Aqaba in the Hashemite Kingdom of Jordan (Final Report Version 1, 2, 3 and Summary: 1996.2)

◆ Tele-communication related

- The Project for the Expansion of Local Telephone Service (Special Yen (ODA) Loan) (Loan Approval Date:1974.12.27) (Loan Approval Amount: 3,000 Million Yen) (Telecommunications Corporation)
- The Expansion of Urban Telephone Exchange & Transmission Network Project (Special Yen (ODA) Loan) (Loan Approval Date:1980.9.25) (Loan Approval Amount: 8,693 Million Yen) (Telecommunications Corporation)
- The Telephone Network Expansion Project (Special Yen (ODA) Loan) (Loan Approval Date:1982.11.04) (Loan Approval Amount: 12,114 Million Yen) (Telecommunications Corporation)
- Engineering Services for Telephone Expansion Project (IV) (Special Yen (ODA) Loan) (Loan Approval Date:1986.5.20) (Loan Approval Amount: 578Million Yen) (Telecommunications Corporation)

◆ Medical and health projects

- Basic Design Study on the Project for Medical Equipment Supply in the Hashemite Kingdom of Jordan (Report: 1995.3)
- Basic Design Study on the Project for the Improvement of Medical Equipment for Jordan University Hospital in the Hashemite Kingdom of Jordan (Report: 1998.3)
- Basic Design Study Report on the Project for Provision of Medical Equipment to Ministry of Health Hospitals in Hashemite Kingdom of Jordan (Report: 2006.3)
- The Hashemite Kingdom of Jordan, Project for Improvement of Services at Village Health Centers in Rural Host Communities of Syria Refugees (Project Completion Report:2019.1)

◆ Other social infrastructure related

- Country Study for Japan's Official Development Assistance to the Hashemite Kingdom of Jordan (Report: 1996.3)
- Basic Design Report on the Project for Improvement of Equipment for the Fire Fighting Services in the Hashemite Kingdom of Jordan (Report: 1998.2)
- Basic Design Study on the Project for Rehabilitation of Central Workshop of the Ministry of Public Works and Housing in the Hashemite Kingdom of Jordan (Report: 1999.2)
- Basic Design Study Report on the Project for Developing Jordan Civil Defense Appliances in the South and North Regions in the Hashemite Kingdom of Jordan (Report: 2004.12)
- Preparatory Survey Report on the Project for the Enhancement of Boarder Security at Al-Karamah Boarder Crossing in Jordan (Report:2012.5)
- Preparatory Survey Report on the Project for the Enhancement of Customs Security at Aqaba in the Hashemite Kingdom of Jordan (Report:2019.4)

## 6.2 Overview of Other Donors and Government Support and Projects

Jordan receives support for industrial and trade promotion from international organizations such as the World Bank and the IMF, as well as from organizations and countries such as the EU, the United States and Germany. The following is an outline of the main initiatives.

**Table A 15 Overview of Support from other Countries and Donors as Development Partners**

Donors	Overview of Projects and Support
WB	<ul style="list-style-type: none"> <li>• The WB offers an Equitable Growth and Job Creation Development Policy Loan for \$1.9 billion (starting in 2019) for inclusive growth and job creation. There are also collaborative grants with the UK (\$250 million) and Saudi Arabia (\$200 million). They will support the transparency of government bodies, promotion of efficiency, reduction of energy costs, improvement of business environment for private sector and small businesses, and sophistication of ICT. Project funding will also be rolled out.</li> <li>• Ten projects are being implemented for a total of \$2.9 billion (including the above), including the efficiency of education, health, and municipal services.</li> </ul>
IMF	<ul style="list-style-type: none"> <li>• As a primary support, the IMF provided \$700 million in funding in 2016 and is continuing discussions on implementing measures such as fiscal, tax measures, and civil service cuts to stabilize the finance.</li> <li>• As a second support, talks are under way to finance public debt (\$40 billion) easing totaling \$500 million over a three-year period (2019-2022).</li> </ul>
EBRD	<ul style="list-style-type: none"> <li>• EBRD has financed 46 projects (infrastructure, energy, SME finance, etc.) totaling \$1.4 billion. In the future, it aims to enhance the private development support.</li> <li>• As financial support for trade promotion, EBRD also implements the Trade Facilitation Program in Jordan, which provides guarantees for financial institutions that handle trade finance. In Jordan, five banks are participating.</li> <li>• The Value Chain Competitiveness Program dispatches experts.</li> </ul>
EU	<ul style="list-style-type: none"> <li>• The EU has signed a new Free Trade Agreement with Jordan (2014) that provides Jordan with preferential treatment in trade with the EU.</li> <li>• Jordanian Action for the Development of Enterprises (JADE) is a three-year project from 2017 to 2020 aimed at supporting the development of a comprehensive and innovative private sector that leads to economic growth and development. SMEs in the rubber, home appliances, chemistry and cosmetics, tourism and MICE sectors were targeted for support.</li> <li>• Microfinance program provides a \$500 million (15-year loan) (2019), totaling about \$800 million. In addition, the combined schemes will provide €2.1 billion in funding.</li> <li>• Support for the projects include (1) improving the livelihood of refugee camps, (2) democratization support, (3) financial access inclusion, (4) education support for Syrian refugees, and (5) water issues in Zarqa.</li> </ul>
USAID (The US)	<ul style="list-style-type: none"> <li>• USAID provides support in areas such as tourism, governance enhancement support, basic infrastructure development, investment promotion, industrial growth, and entrepreneurship development.</li> <li>• The Tourism Promotion Project (2005-2013) focused on improving international competitiveness and support in the marketing field with the aim of realizing a tourism master plan to double the number of tourists. In 2015-2020, it will also support the areas such as marketing, business environment, and tourism asset development.</li> <li>• The Jordan Competitiveness Program was implemented in 2013-2019 for the purpose of (1) enlightening legal system reforms for business, 2) corporate support for export promotion and investment promotion, and 3) securing employment through investment.</li> </ul>

Donors	Overview of Projects and Support
GIZ (Germany)	<ul style="list-style-type: none"> <li>• GiZ is implementing projects in the areas of water, waste, employment and vocational training, environmental protection, and private development to address the influx of Syrian refugees and growth challenges in resource-poor countries.</li> <li>• The GIZ Employment-oriented MSME Promotion Project (GIZ-MSME) (2018-2022) is being implemented for the purpose of promoting investment and securing employment focusing on specific sectors (tourism, food processing, ICT) with potential for growth and employment (in collaboration with the Ministry of Industry, Trade and Supply)</li> <li>• The GIZ Trade for Employment (2017-2021) is underway with the aim of improving the performance of trade promotion and developing other markets in Europe (in collaboration with the Ministry of Industry, Trade and Supply)</li> </ul>
AFD (France)	<ul style="list-style-type: none"> <li>• AFD provides support for activities in the two fields; (1) Water and energy-related projects (solar power generation, improvement of water resource access and hygiene), and (2) Economic and social development projects (regional and urban development, basic service infrastructure development, improvement of public service management capacity). It provides a total of €1.2 billion in funding.</li> </ul>
DFID (The UK)	<ul style="list-style-type: none"> <li>• The UK is providing support in line with the agreed Jordan Compact. It has funded £110 million in measures and structural reforms aimed at securing employment for 200,000 Syrian refugees. In addition, private-sector development, research on employment programs, and employment projects are being implemented in collaboration with GIZ.</li> </ul>

Source: Created by JICA Study Team based on publicly available information.

Looking at the amount of assistance (as shown in Table A 16 and Table A 17Table A 17 ), the largest amount of grant aid in 2019 and 2020 is from USAID of the United States. Programs were implemented in a wide range of fields including water, economic growth, education, health, governance, and social security. In 2020, the support of many institutions, regions, and countries (including in-kind donations such as masks) was targeting the COVID-19 response.

**Table A 16 The List of Grants in 2019 (The Amount in USD Million)**

Donors	Multiple	Water	Economic growth	Education	Health	Financial support	Govern- ance	Risk mgmnt	Social protection	Environ- ment	Agriculture	Youth/ Gender	Total
USAID	445.1	124.05	65	91.25	39.5		60		7.5				832.4
The World Bank / GCFF					58.9								58.9
EU			33.49					19.01	4.18				56.68
Saudi Arabia						50							50
UAE						49							49
Germany: GiZ	4.47	20.9	3.33										28.7
Germany: KfW		2.2		20.23						1.66			24.09
Japan			15.7					4.47					20.17
European Investment Bank		18.07											18.07
UNDP		1.97					0.3	4.46					6.73
France								5.47					5.47
EBRD		2.208											2.208
UNICEF				0.3	0.3				0.585			0.51	1.695
The World Bank			1.6										1.6
Denmark									1.2				1.2
Global Environment Facility (GEF)										0.852			0.852
FAO											0.689		0.689
Arab Fund for Economic and Social Development					0.657								0.657
South Korea							0.65						0.65
Netherlands		0.533											0.533
Switzerland		0.384											0.384
IOM									0.3				0.3
WHO					0.119								0.119
WFP											0.1		0.1
<b>Total</b>	<b>449.57</b>	<b>170.315</b>	<b>119.12</b>	<b>111.78</b>	<b>99.476</b>	<b>99</b>	<b>60.95</b>	<b>33.41</b>	<b>13.765</b>	<b>2.512</b>	<b>0.789</b>	<b>0.51</b>	<b>1,161</b>

Source: Created by JICA Study Team based on the report of the Ministry of Planning and International Cooperation



**Table A 17 The List of Grants in 2020 (The Amount in USD Million)**

Donors	Multiple	Budget (Health)	Education/ Training	COVID-19	Entrepren./ ICT	Water	Economic growth	Environ- ment	Gender	Infra- structure	Agriculture	Total
USAID	349.9			21.5								371.4
UAE		73										73
Germany: KfW			61.43									61.43
The World Bank / GCFF					36.9							36.9
South Korea			6			9.27						15.27
UK: DFID *with USAID				6.18								6.18
Germany: GiZ						3.839		0.113				3.952
Arab Fund for Economic and Social Development			0.162	3.2							0.425	3.787
Japan				3.7								3.7
UNDP								3.67				3.67
The World Bank							2					2
IFC							2					2
Canada									1.59			1.59
European Investment Bank						0.98				0.427		1.407
UNHCR				1.2								1.2
China				0.75								0.75
Islamic Development Bank				0.5								0.5
UNICEF				0.209								0.209
Open Society Foundations				0.2								0.2
ILO							0.061					0.061
Taiwan				0.003								0.003
<b>Total</b>	349.9	73	67.592	37.442	36.9	14.089	4.061	3.783	1.59	0.427	0.425	589.209

Source: Created by JICA Study Team based on the report of the Ministry of Planning and International Cooperation

## Chapter 7. Logistics Hub Function and Industrial Location Policy

### 7.1 Logistics Hub Function

#### 7.1.1 Strengthening Logistics Hub

Jordan's foreign trade activities are described in the former report "the Inception Report", "3.5 Changes in Logistics and Supply Chain" on page 31, "7.2.2 Trade Trends (Major Trade Items, Main Export Partners, Competing Neighbors Countries, etc.)" on page 87, and "7.2.3 Trends in markets in neighboring countries".

According to OEC's 2018 Jordan export data, the major export destinations are the United States (19.3 percent), Saudi Arabia (12.1 percent), India (9.82 percent), Iraq (8.54 percent), UAE (5.03 percent), China (3.64 percent) and Indonesia (3.54 percent). The main export products are fertilizer (9.07 percent), crude calcium phosphate (6.18 percent), and packaged medicines (6.14 percent) (from page 34 of the Inception Report).

From OEC's 2018 Jordan import data from Jordan, the major import destinations are Saudi Arabia (16.7 percent), China (13.4 percent), UAE (6.9 percent), United States (6.54 percent), and Germany (4.45 percent). The order is Turkey (3.94 percent), Egypt (3.47 percent), Italy (2.81 percent), South Korea (2.53 percent), and India (2.5 percent). The main imported products are passenger cars (6.77 percent), refined oil (6.18 percent), petrochemical gas (5.47 percent) and crude oil (5.19 percent) (from P.35 of the Inception Report).

**Table A 18 Jordan's Major Trade Partners (Year 2018)**

Export				Import			
Rank	Country	Value (US\$ million)	Share (%)	Rank	Country	Value (US\$ million)	Share (%)
1	United State	1,598	19.3	1	Saudi Arabia	3,724	16.7
2	Saudi Arabia	1,001	12.1	2	China	2,988	13.4
3	India	813	9.82	3	UAE	1,538	6.9
4	Iraq	707	8.54	4	United State	1,204	6.54
5	UAE	416	5.03	5	Germany	992	4.45

Source: Summarized data by JICA team using Jordan related information from OEC  
(<https://oec.world/en/profile/country/jor#economic-complexity>)

From the above table, in terms of distribution with neighboring countries by land transport, exports to Saudi Arabia are the biggest, and by seaport or airport, the major trade and export destinies are to the United States, China, India, UAE, and Europe (Germany / Italy).

Based on the amount of trade with these countries, it is apparent that it is important to strengthen trade routes and distribution routes with Saudi Arabia by land, and to strengthen international airports by sea at Aqaba Port and by air and sea transport.

In the next section, importance and priority of development will be considered using the trade volume on a tons basis for each land route and Aqaba port activities.

#### 7.1.2 Jordan's Major Logistics Routes

Jordan borders Israel, Syria, Iraq, and Saudi Arabia, and borders Egypt via the port of Aqaba.

The Jordanian border with Saudi Arabia has three crossing points: at Al Omari, Al Mudawara, and Durra; its border with Israel has three crossing points: the Sheikh Hussein Bridge (SHB) (or

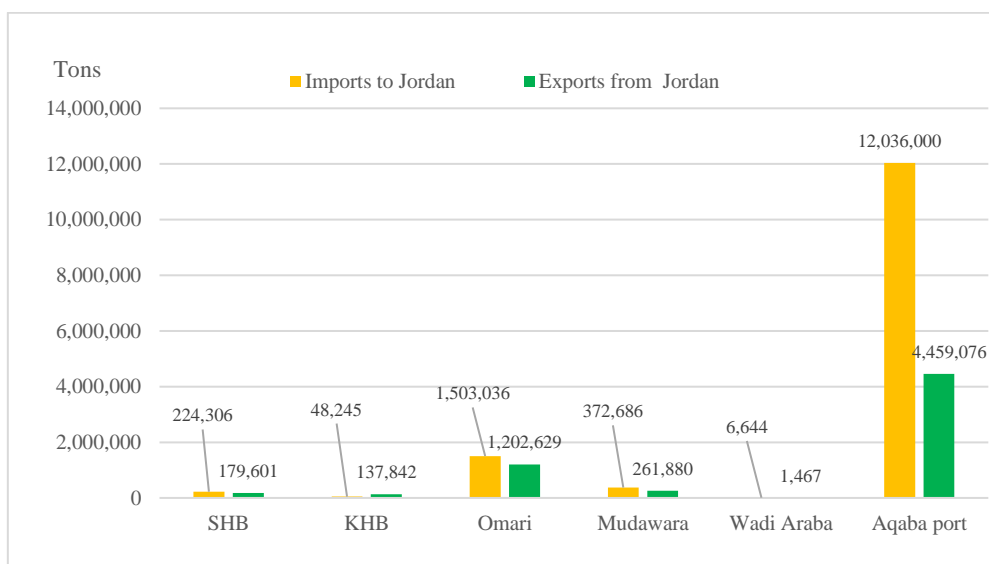
Jordan River crossing point), the King Hussein Bridge (KHB), and Wadi Araba; its border with Syria has two crossing points: Al Ramtha and Jaber; and its border with Iraq has the Al Karamah crossing point.

At these borders, major trunk roads and highways extend toward the metropolitan city and the capital city of Amman, and the distribution routes by major roads in Jordan are in better condition than those in neighboring countries.

Jordan's trade has a history of active road transport from Europe via Turkey and Syria. It also has a long history of trading with neighboring countries Iraq, Qatar, and Yemen.

However, the civil war in Syria closed these historic routes, and the domestic situation in Iraq is still difficult. Until recently, the Karama border between Iraq was closed and imports and exports have almost stopped.

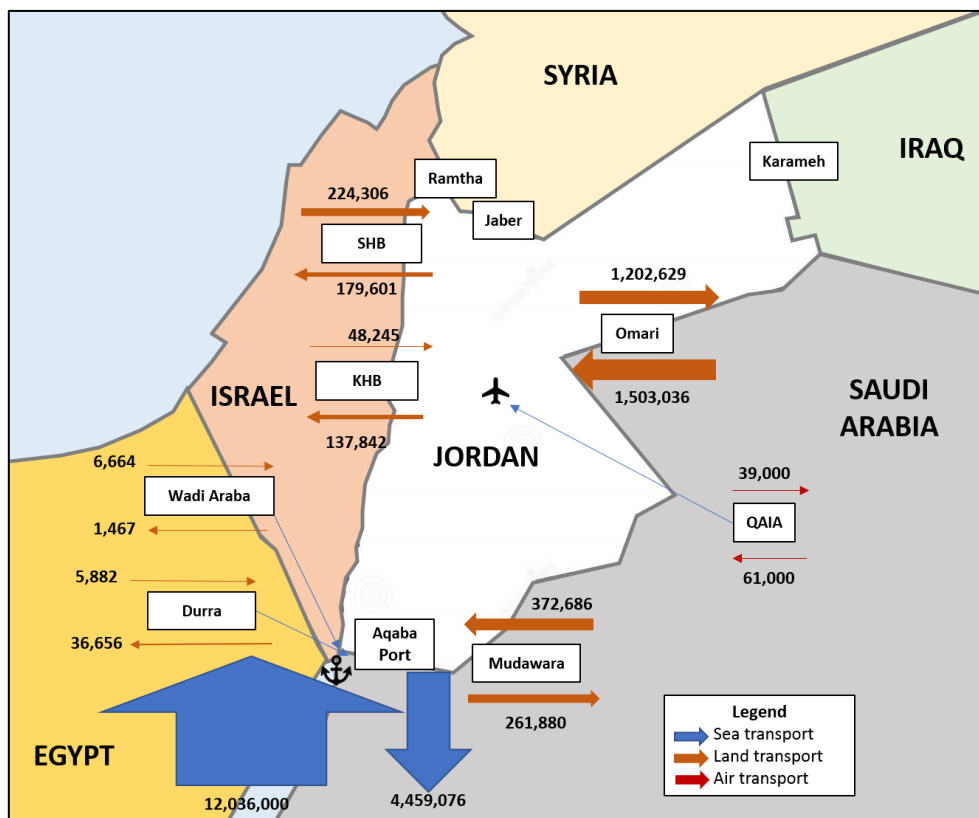
As for distribution routes by air, there are Queen Alia International Airport (QAIA) near the capital city of Amman that handles international cargo and King Hussein International Airport in Akaba SEZ, which may not be very active at this moment. As for sea routes, there is only one port, the Aqaba Port.



Source: Jordan Customs; Comtrade and Aqaba Ports Corp.

**Figure A 21 Jordan's Import and Export Volume by the Border (2016, ton base)**

Figure A 21 and Figure A 22 show the 2016 imports and exports by border crossing from the Jordanian Customs Authority and Comtrade and Aqaba Ports Corp. in a table and on a map. From both figures, it can be seen that the handling volume at Aqaba Port accounts for the majority. Following the port of Aqaba, two border crossing points to Saudi Arabia (Omari and Mudaward), and then three crossing points on the Israeli border (SHB, KHB and Wadi Araba) follow. There is almost no volume handled at crossing points to Syria and Iraq. In addition, many of the trades by air using Queen Alia International Airport (QAIA) have high added value, so the amount is small on a weight basis.



Source: Jordan Customs; Comtrade and Aqaba Ports Corp, JICA Study Team

**Figure A 22 Imports and Exports by Jordan Border (2016, ton basis)**

Before the Iraqi War, about 340,000 tons of crude oil were imported from Iraq to Jordan and 730,000 tons to Iraq. However, currently all crude oil is imported from Saudi Arabia through the port of Aqaba. Based on the several above reasons, it was found that the importance of Aqaba Port in terms of Jordan's overseas trade is high, and in considering the strengthening of Jordan's logistics hub function, the strengthening of Aqaba SEZ including Aqaba Port is inevitably one of the top-priority issues.

In terms of overland truck transportation, it can be seen from Figure A 21 and Figure A 22 that there are many imports and exports from Saudi Arabia's Mudawara and Omari borders on a ton basis in 2016. Table A 19 shows the status of entries and exits at the border from 2013 to 2019 as an annual source focusing on the movement of trucks by land. From the table, it can be seen that the number of trucks moving has changed significantly from year to year due to country-to-country relations and border trade regulations. This table also shows that the Omari border has many trucks entering and exiting.

**Table A 19 Numbers of Trucks Entering and Departing according to Customs Centers in the Period 2013-2019**

	2013		2014		2015		2016		2017		2018		2019	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Al-Ramtha	-	-	-	-	-	-	-	-	1	39	871	806	-	-
Karama (Ruweished)	173,788	178,573	114,695	114,926	30,962	31,365	13	13	4,867	5,744	38,331	38,534	52,113	51,386
Al-Omari	160,148	168,837	178,710	193,417	134,735	149,201	51,609	55,406	9	5,614	160,199	156,892	168,743	165,566
Al-Mudawara	18,108	27,508	17,830	21,808	19,558	22,750	9,821	10,701	160	200	13,664	18,743	13,592	19,107
KHB (King Hussein Bridge)	21,670	23,320	27,236	27,534	27,485	29,636	24,175	27,266	23,193	41,215	23,389	50,083	23,161	32,762
Jaber	44,759	43,927	51,010	49,776	10,699	10,280	-	-	-	-	4,277	2,802	29,785	22,324
SHB (Jordan Valley Crossing)	25,206	23,534	24,420	23,863	26,592	23,264	10,832	10,275	25,000	25,574	25,589	25,145	27,873	27,343
Al-Yadodeh Bounded	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	422,009	442,439	422,009	403,790	222,546	236,860	96,450	103,661	53,230	78,386	266,320	293,005	315,267	318,488

Source: Jordan Transport Annual Report 2019, P.57~P.58

### 7.1.3 Jordan's Logistics Hub Function and Its Enhancement

Logistics hubs in Jordan include 1) port areas (Aqaba Port and Aqaba SEZ Area), 2) airports, 3) railway terminal infrastructure, inland depots, logistics facilities around border areas, development zones and SEZs and free zones. Details of the development zones and free zones will be described in 4.2 Industrial Location Policy 4.2.2 Implementation Status, Promotion System, and Strategy Overview of Industrial Parks.

#### (1) Port Area (Aqaba Port and Aqaba SEZ Area)

Aqaba Port is handling the largest volume of imports and exports goods in Jordan and can be the most important logistic infrastructure. In regard to national industrial promotion and national development, it is considered that the strengthening and maintenance of the Aqaba SEZ area where the Aqaba port is located should be given top priority. Aqaba SEZ covering large fields consist of seaports, cities, logistics terminals, industrial parks, and an international airport.

Aqaba Port is the only export port for phosphate ore and potassium, which is the major export product of Jordan. Also for processed products, the fertilizer's production complex is located in the southern region of the new Aqaba port. In 2016, it handled 793,000 TEU of container cargo and 16.76 million tons of general bulk cargo.

**Table A 20 Import / Export Items and Handling Volume (tons) of General Bulk Cargo at Aqaba Port**

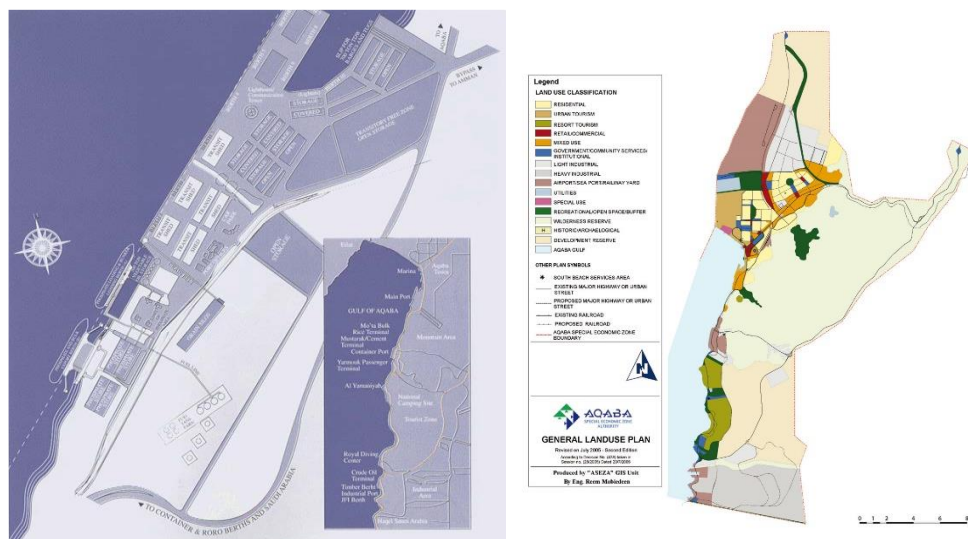
Imports	Volume (Ton)	Exports	Volume (Ton)
<u>Liquid bulk</u>	<u>5,271,284</u>	<u>Dry bulk</u>	<u>3,906,097</u>
Gas	340,423	Fertilizer	1,216,824
Ammonia	133,381	Potash	1,179,060
Mineral Oil	20,081	Phosphate	1,492,893
Vegetable Oil	3,339	Other	17,320
Other	4,774,060		
<u>Cereals</u>	<u>3,226,769</u>	<u>General cargo</u>	<u>641,463</u>
Grain	2,921,897		
Other	304,872		
<u>Iron and Steel</u>	<u>961,599</u>		
<u>Timber</u>	<u>26,475</u>		
<u>Construction materials</u>	<u>2,312</u>		
<u>Miscellaneous</u>	<u>2,730,062</u>		
Vehicles	551,512		
Sulphur	840,022		
Frozen Foods	104,850		
Sugar	106,350		
Other	1,127,328		
Import Total	12,218,501	Export Total	4,547,560
		<b>Trade Total</b>	<b>16,766,061</b>

Source: Aqaba Special Economic Zone Authority

Construction of a new Aqaba Port has started in 2006. In line with this, the old port function is being closed and major functions are being transferred to the new port constructed in the southern part of Aqaba (near the Saudi border). The total project cost for the construction of the new port is USD 250 million. Table A 20 shows the plan of the port master plan created by Aqaba Development Corporation.

The construction of the new port is being carried out by the Aqaba Development Corporation in three phases, with eight berths being constructed. In other words, the first phase entails

construction of four berths, the second phase entails construction of two berths, and the third phase also entails the construction of two berths. The terminal for phosphate ore exports, which is the largest export item, has been relocated to the new port. Phosphate ore is transported by both truck and rail, and rail use is about 1.3 million tons per year, varying between 28 percent to 16 percent depending on the year. The main reason for the low railway use is that the railway connection to the new port is not secured, and a railway extension plan is currently under consideration.



Source: Aqaba Special Economic Zone Authority

**Figure A 23 Aqaba Port Master Plan (Right: New Port, Left: Overall)**

At the new port, a 100,000-ton grain terminal silo is newly constructed, and the total capacity will be 200,000 tons at the Aqaba port, including the old port. It has now expanded to 150 million barrels due to the expansion of the crude oil import terminal.

The new container terminal with high-capacity gantry cranes and a large container yard (total 1.1 million TEU) will be able to handle container ships up to the 84,000-ton class or Post Panamax size (over 60,000 tons) with a maximum depth of 18 meters and a length of 540 meters.

## (2) Airport

The position of the airport in Jordan's trade is mainly one of passenger planes piggybacking air cargo such as airmail, lightweight and high value products, and products that need to be handled in a timely manner.

In Jordan, other than Queen Alia International Airport (QAIA) near the capital Amman, there are Marka Airport in Amman, King Hussein International Airport (KHIA) in Akaba, and King Hussein Air Base. The neighboring airport that competes with QAIA is Ben Gurion International Airport in Israel.

Of airports in Jordan, only QAIA and KHIA handle air freight transportation. QAIA is located about 30km south of Amman, with two passenger terminals and one freight terminal completed in March 2013. QAIA handles 60,032 tons of imported air cargo and 42,709 tons of export air cargo (2019). Export cargo is mainly fruits and vegetables, and import cargo includes food, frozen meat, clothing and medical equipment. Royal Jordanian is the only airline that uses QAIA as a hub, and although it mainly handles air cargo, it transports to 41 locations

around the world. QAIA's cargo handling capacity is approximately 110,000 tons/year, which is almost at full capacity as of 2019, and the available warehouse area is 17,000 m<sup>2</sup>.



Source: <https://www.archdaily.com/349464/queen-alia-international-airport-foster-partners>

**Figure A 24 QAIA Airport Terminal  
(2 Passenger Terminals and 1 Cargo Terminal)**

Table A 21 and Table A 22 show the air traffic conditions of QAIA and KHIA from 2015 to 2019.

**Table A 21 IQueen Alia International Airport Aircraft Traffic During the Period  
2015-2019**

		2015	2016	2017	2018	2019
Aircraft traffic	Arrival	35,884	36,897	37,048	38,442	40,166
	Departure	35,882	36,887	37,003	38,447	40,146
	Total	71,766	73,784	74,051	76,889	80,312
No. of passenger	Arrival	3,500,715	3,680,438	3,966,697	4,232,554	4,524,616
	Departure	3,596,133	3,729,820	3,950,126	4,192,396	4,491,247
	Total	7,096,848	7,410,258	7,916,823	8,424,950	9,015,863
Air-Cargo Movement (Ton)	Inbound	61,083	61,514	63,362	62,021	60,032
	Outbound	39,608	39,658	47,804	42,283	42,709
	Total	100,691	101,172	110,437	104,304	102,741
Air Mail Movement	Inbound	1,222	1,009	1,308	1,130	899
	Outbound	1,046	1,390	1,534	808	641
	Total	2,268	2,399	2,842	2,033	1,540

Source: Jordan Transport Annual Report 2019, P.61

**Table A 22 King Hussein International Airport Aircraft Traffic During the Period  
2015-2019**

		2015	2016	2017	2018	2019
Aircraft traffic	Arrival	2,020	1,920	1,956	2,053	2,189
	Departure	2,020	1,918	1,949	2,053	2,193
	Total	4,040	3,838	3,905	4,106	4,383
No. of passenger	Arrival	60,261	81,934	100,413	107,651	114,731
	Departure	65,163	85,981	104,699	116,463	127,804
	Total	125,424	167,915	205,112	224,114	242,535
Air-Cargo Movement (Ton)	Inbound	1,741	793	853	948	2,175
	Outbound	2,318	1,404	1,136	1,055	1,123
	Total	4,059	2,197	1,989	2,002	3,297

Source: Jordan Transport Annual Report 2019, P.62



### (3) Consideration on Railway Infrastructure, Railway Terminals, and Inland Depot

The capital city of Amman is located about 300km inland from the port of Aqaba. Container transportation in this section is mainly carried out by truck distributors. Since there are many truck carriers and there is fierce price competition, it is conceivable that the current method of receiving containers from Aqaba Port, carrying out import procedures, and sending them directly to shippers such as Amman and destinations is advantageous in terms of cost.

Since the transportation distance from the port to the capital is only about 300 km, long-distance mass rail freight transportation (double decker) from the port area, for example, as in India's long-distance Kolkata port in the east or Ahmedabad port in the west to all the way to the capital of New Delhi, such case may not be applicable to Jordan due to the operational cost benefit. Rail freight container transportation requires a rail terminal and an inland depot on both the departure side and the arrival side, and it requires multiple players such as freight cars, trucks, remounting forklifts and portal cranes, remounting on the truck on the arrival side, etc. for handling containers and thus ends up with a relatively high operational cost for the short distance of 300 km.

The main domestically shipped item in Jordan is phosphate ore. There are four phosphate ore mines in Jordan: Al Shidiya, Al-Hasa, Al-Abyad and the new mine, Al-Rusiffa, which started production from 2018. Table A 23 shows the transition of the transportation record of phosphate ore to Aqaba Port by mode of railway and road (truck transportation). Currently, the transportation of phosphate ore to Aqaba Port is mainly by truck transportation by road, and the actual transportation results in 2017 are 2.344 million tons for Al-Shidiya, 755,000 for Al-Hasa, and 1.61 million tons for Al-Abyad. Transportation of phosphate rock to Aqaba Port is considered to be advantageous by rail, but in 2017 it amounted to just 1.42 million tons, or 23 percent. This is due to the fact that the railroad loading base is 20 km away from the Al-Shidiya quarry, and road transportation must be carried out by truck to that point; also, railroad connection to the new port of Akaba is not secured.

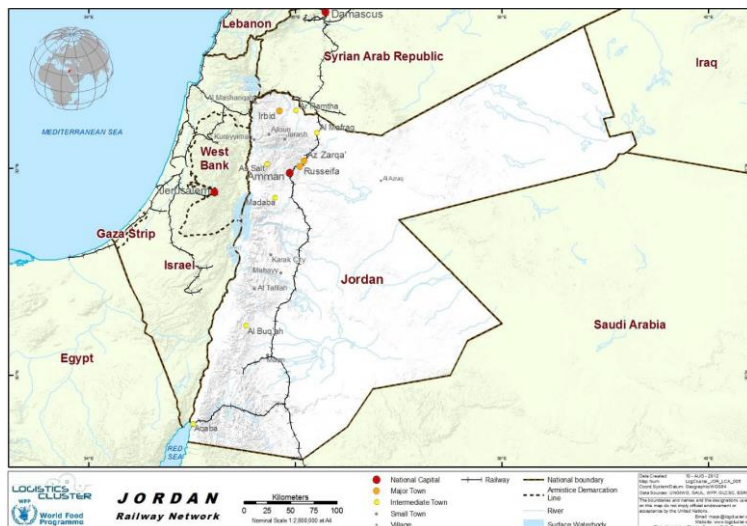
The cause is access to the entrance and exit locations for transshipments from the Al-Shidiya mine, and if this connection becomes smooth, it will be advantageous in terms of cost, and it is thought that railroad use will increase for the mine.

Rail transport system in Jordan is part of the Higers Railroad, built in the early 20th century, and although it is a 1050mm narrow-gauge rail network, it connects Damascus, Syria, to Medina in Saudi Arabia via Amman. Within Jordan, Aqaba Railway Corporation operates and extends from the Syrian border to the port of Aqaba and the Saudi Arabia border.

**Table A 23 Changes in Phosphate Ore Transport Performance by Mode (1000 tons)**

Ore mining	2013		2014		2015		2016		2017	
	Rail	Road	Rail	Road	Rail	Road	Rail	Road	Rail	Road
Al-Rusiffa	0	0	0	0	0	0	0	0	0	0
Al-Abyad	0	1,006.0	0	1,153.3	0	1,999.4	0	1,494.1	0	1,611.7
Al-Hasa	60.9	672.5	46.7	914.9	187.7	813.2	1.1	601.1	0	745.1
Al-Shibiya	927.5	1,759.4	1,302.5	2,216.1	1,149.0	1,756.7	1,468.6	2,209.0	1,428.6	2,344.3
Total	988.4	3,437.9	1,349.1	4,284.3	1,336.7	4,569.3	1,469.7	4,304.2	1,428.6	4,701.2

Source: JICA Study Team prepared using 2 tables from Ministry of Transport of Jordan, Transport Sector annual Report 2017, P.53. Information on rail transport is no longer included in the 2018 and 2019 annual reports, thus JICA team used the 2017 report.

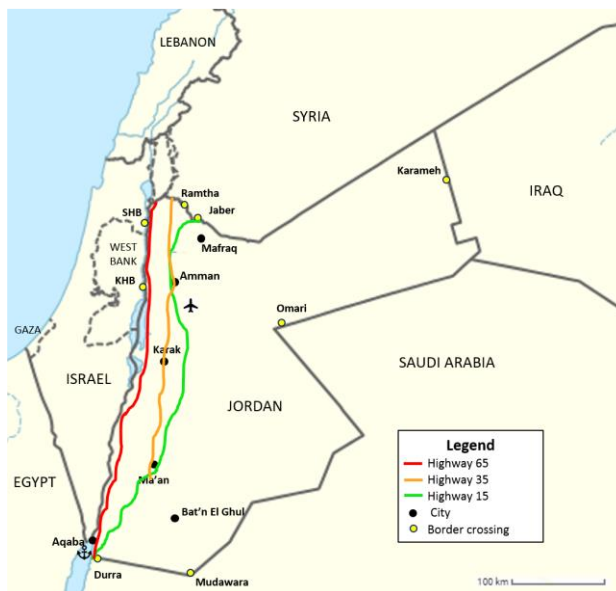


Source: Global Logistics Cluster

**Figure A 25 Railroad Network in Jordan**

**(4) Road Network**

The main road route is the Desert Highway on Jordan National Highway 15. It connects from the Javert border with Syria to the port of Aqaba via the capital Amman. All routes have four or more lanes. The crude oil that enters at the port of Aqaba is also a lifeline of Jordan, and is transported to the Zarqa refinery located 30 km northeast of Amman. In other words, most import and export cargo goes on this road, and transit cargo from Aqaba Port to other countries also passes on this road. Parallel to National Highway 15 of the Desert Highway, there are two routes, King’s Highway (National Highway 35) and Valley Road (National Highway 65), which complement each other to form a ladder-like network. Figure A 26 shows Jordan's road network.



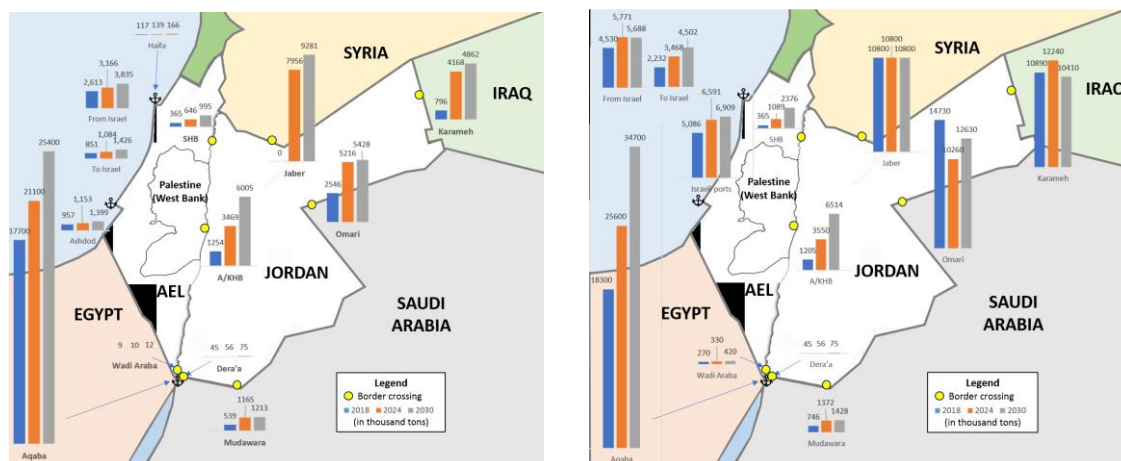
Source: JICA Study Team prepared using Wikimedia commons map

**Figure A 26 Major Road Network of Jordan**

### (5) Consideration on Future Growth of Jordan's Logistics and Development Plan for Logistics

Regarding the future growth of logistics in Jordan, Figure A 27 shows the cargo volume forecasts for both the low-growth scenario and the high-growth scenario. These two figures are quoted from the information gathering / confirmation survey related to logistics and trade in JICA Jordan and Palestine and the surrounding areas. The low-growth scenario is one in which the JICA study team of the project incorporated the growth rate based on the estimated GDP, the opening time of the border, and the resumption pattern of wide-area transportation demand. High-growth scenarios include the Long-Term National Transport Strategy and Action Plan (2012) and the Palestinian Transport Master Plan West Bank and Gaza Strip (2016). For borders not mentioned, we are using an improved version of the low-growth scenario.

During year 2020 to 2021, or during COVID-19 incidence, there was a period of about four months when Jordan's trade in general declined temporarily; however, extrapolating beyond the COVID-19 pandemic, GDP and trade in neighboring countries is expected to return, and the long-term outlook is expected to settle during this low-growth and high-growth scenario. In other words, logistics will continue to grow steadily with the economic development of the country, and it is expected that airport cargo volume, internal logistics, and transit / intermediate logistics to neighboring countries will continue to grow. Both the low-growth and high-growth scenarios forecast that the volume of Amman Port will continue to grow significantly, reaffirming the importance of Amman Port as a trading and logistics base in Jordan.



Source: From JICA Jordan A low-growth scenario (Fig. 5.11 on page 5-13) and a high-growth scenario (Fig. 5.14 on page 5-16) based on information gathering and confirmation surveys related to logistics and trade in Jordan and Palestine and the surrounding areas.

**Figure A 27 Summary of Cargo Volume Forecasts based on Low-growth and High-growth Scenarios**

#### Jordan's Logistics Vision and Strategy

Jordan's national strategy for logistics in general is stated at the Jordan Long-Term National Transport Strategy (2012). In the strategy, importance of multimodal approach, railroad planning, and road pricing measures, modernization of truck vehicles, road maintenance, and development of international gateways (node maintenance) are advocated.

**Table A 24 Outline of Jordan Long-Term National Transport Strategy**

Priorities	Description
Multimodal Approach	For each transportation network to support Jordan's national economy, a multimodal approach was needed, and it was proposed that coordination between different transportation modes be coordinated and cooperated as a country.
Railway Development	The development of a backbone railway linking the border between Aqaba and Syria was shown, and the development of a related integrated system including ports and distribution centers, cross-international interconnections, and tariff procedures was proposed. Proposals for utilization, development and fund allocation of railway systems to ease the capacity of road networks.
Road Pricing Policy	Proposal of pricing measures (excellent roads and billing measures) for road users. Development of a business environment that is attractive to private investors as road infrastructure development.
Truck Fleet Modernization	Proposal for modernization of aging trucks. Registration fee according to the age of the vehicle, incentive for resale / export.
Road Maintenance	Regular maintenance of existing road networks and strengthening of safety measures (rather than new road construction or major improvements).
International Gateways	As an international node, the importance of developing Aqaba ports, airports, access routes, and border transit facilities, etc. was shown.

Source: JICA Study Team summarize from Jordan Long Term National Transport Strategy, 2012

### **Trends in the Jordanian Logistics Sector**

Since the Jordanian logistics industry is centered on road transportation, private and public truck operators represent the sector. The number of registered businesses is 325 in 2018 , the total number of vehicles is 210,000, and the number of employees is about 120,000. Jordan's logistics sector is responsible for 8% of GDP and will continue to grow at a constant rate.

Since cross-border transportation within MENA Region will continue, the growth is expected as exports and imports increase in particular, cross border transfers to Iraq and Saudi Arabia and export of final products from Jordan. In addition, the number of departures and arrivals in the free zone is increasing, and the construction of an industrial estate in the Iraqi border have an impact on each direction in the future.

Various reports show the advantages, challenges, and directions of Jordan's logistics industry: An issue is negative impacts to the manufacturing industry due to the high transportation costs. It is mentioned that the Logistics Performance Index (currently 80th) has stopped betterment. The disadvantage is landlocked in Jordan , however, as facilitation of cross-border distributions are being made, the cargo flow at Aqaba Port such as to the United States, facilitation of distribution via the Mediterranean Sea to EU, and movements to the Gulf countries, especially Saudi and Iraq continues , it is possible to strengthen the logistics hub functions. As stated in the recent transport strategy (drafted Transport Strategy 2021) and the Green Transport Strategy 2020, diversification of the transportation in modal shift and multi-modal to reduce the environmental effect can be a reality. It has agendas to be addressed to the improvement of productivity and cost reduction. There is a digitalization issue as well.

As the closure of the Iraqi border has become a problem which needs stable bilateral agreements, and also logistics facilities that handle cargo at the border to increase cross-border transportation inside Jordan and Iraq are to be well managed in improving its export control management with tracking system and e-customs. As for major logistics infrastructure development in the future, the construction of a ring road to relieve road congestion around Amman and strengthening the railway transportation route to the dry port and Aqaba port in Ma'an is contemplated.

## 7.2 Industrial Location Policy and Promotion

### 7.2.1 Implementation Status, Promotion System, and Strategy of the Industrial Park

#### (1) Background

Jordan's industrial location policy for the establishment of the industrial park includes (1) designation of industrial areas in the city (Urban Planning Law) (mainly for local industries), (2) establishment of industrial parks that receive FDI and private investment in industrial parks, and (3) special planning areas for regional development.

The development of industrial parks in special economic zones came into the limelight in the 1980s with the development of Qualified Industrial Estates following free trade agreements with the United States, Israel, and Jordan / Egypt. As a result, it has been prepared as a receiver for companies, especially for the increase in FDI and other factors associated with the exports of the garment industry to the United States. In other words, the background of the Jordan's progress of national industrial development is based on the designated special economic zone as a greenfield / industrial park to be a receiver of FDI.

#### (2) Types of Special Economic Zones and Promotion Systems

Traditionally, the development and management of the Qualified Industrial Estate (QIE) has been centrally undertaken by the Jordan Industrial Park Development Corporation (JIDE), which has been intensively developed since 1980 under the agreement. Currently, there are various promotion systems, including the development of public corporations by region, in order to support PPP. In recent years, in addition to QIE, Jordan's special economic zones have been divided into three types, Development Zone, Aqaba SEZ, and Free Zone, depending on the investment incentives given to businesses and the differences in operating entities. There are two types of free zones: public free zones and private free zones. Currently, in terms of jurisdiction, the Development and Free Zones Commission (DFZC) is for the development zone, the Aqaba SEZ is for the Aqaba SEZ, and the Jordanian Free Zone Co. is for the six public free zones.

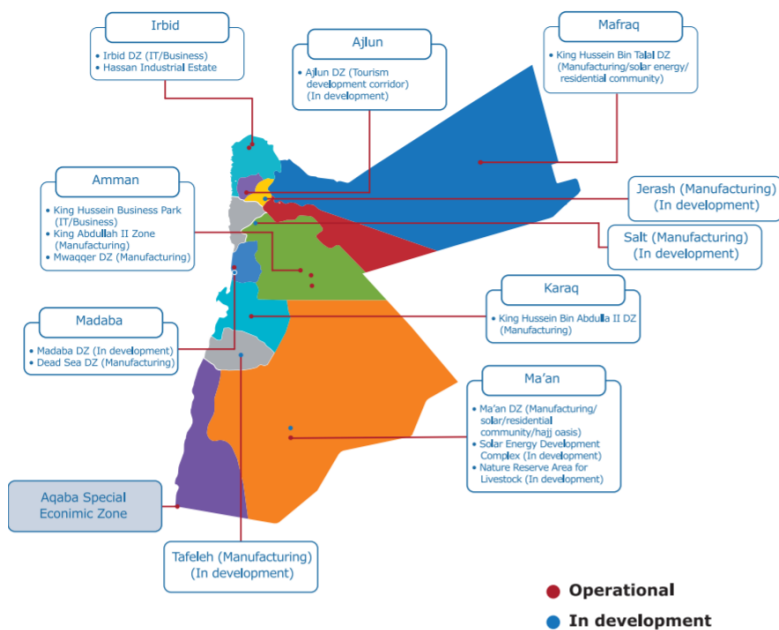
Investment incentives and tax incentives for the three Jordanian zones are as follows, and the investment incentives for the Aqaba SEZ are the same as those in the development zone.

**Table A 25 Investment Incentives Offered for Each Zone (Tax Incentives)**

Development Zones	Aqaba SEZ	Free Zone
5% Income Tax	5% Income Tax	Income Tax exemptions
0% Export Tax Exemptions	0% Export Tax Exemptions	Exemptions from customs duties
0% Sales Tax	0% Sales Tax	0% Sales Tax
0% Import Duties	0% Import Duties	Income tax exemption on foreign workers remunerations
0% Social Service Tax	0% Social Service Tax	Exemptions from land and building taxes as well as service charges for street paving, planning and improvements
0% Dividend Tax	0% Dividend Tax	

Source: Jordan Investment Commission (JIC), 2016, from In Brief: Development & Free Zones in Jordan, USAID, <http://amcham.jo/wp-content/uploads/2018/12/IB-Free-Zones-Development-Zones.pdf>

Currently, there are 16 development zones, one Aqaba SEZ and six free zones. Those are shown in the following tables and figures.



Source: Jordan Investment Commission (JIC)

**Figure A 28 Development Zone and SEZ Location and Development Status**

**Table A 26 Development Status and Activities of Development Zone**

#	Zone Name	Governor in Charge	Established Year	Approved Activities	Development Status
1	Ajlun Development Zone (Tourist Corridor)	Ajloun	2015	Tourism	Under development
2	King Hussain Business Park Development Zone	Amman	2010	IT	Under operation
3	King Abdullah II	Amman	1980	Manufacturing	Under operation
4	Al-Mwqar Development Zone	Amman	2010	Manufacturing	Under operation
5	Dead Sea Development Zone	Balaqa + Madaba	2009	Manufacturing	Under operation
6	Al-Hasan Industrial Area	Irbid	1991	Manufacturing	Under operation
7	Irbid Development Zone	Irbid / Ramtha	2009	Smart city (Service industry + scientific research + IT + medical industry)	Under development
8	Jerash Development Area	Jerash	2014	Manufacturing	Under development
9	Al-Hussien Bin Abdalla II Development Zone	Karak	2003	Manufacturing	Under operation
10	Ma'an Development Zone	Ma'an	2007	Industrial Zone + Residence + Solar energy + Pilgrimage oasis	Under operation
11	Solar Park Development Zone	Ma'an	2016	Solar energy	Under development
12	Mahmedieh Development Zone	Ma'an	2016	Livestock Matura Sanctuary	Under development
13	Madaba Development Zone	Madaba	2014	Manufacturing	Under development
14	King Hussien Bin Talal Development Zone	Mafraq	2006	Manufacturing, Solar energy, Residence	Only 1 <sup>st</sup> and 2 <sup>nd</sup> phase plan has been established and operational
15	Salt Development Zone	Salt	2014	Manufacturing	Under development
16	Tafeleh Development Zone	Tafeleh	2014	Manufacturing	Under development

Source: Jordan Investment Commission (JIC), 2016, from In Brief: Development & Free Zones in Jordan, USAID, <http://amcham.jo/wp-content/uploads/2018/12/IB-Free-Zones-Development-Zones.pdf>

The classification by industry is as follows. Development Zones are divided by industrial field as shown in the table below.

**Table A 27 List of Development Zone under Registered Sector**

Sector	Name of Development Zone	Development Status
Manufacturing	King Abdullah II	In operation
	Al-Mwqar	
	Dead Sea	
	Al-Hasan Industrial Area	
	Al-Hussien Bin Abdalla II	
	King Hussein Bin Talal	Under development
	Jerash	
	Madaba	
	Salt	
Tafeleh		
Tourism	Ajlun	Under development
IT	King Hussain Business Park	In operation
	Irbid *3	Under development
Solar energy	Ma'an *2	In operation
	King Hussein Bin Talal	
	Solar Park	Under development
Livestock sanctuary	Mahmedieh	Under development
Livestock Matura Sanctuary	Ma'an	In Operation
Smart city (Service industry + scientific research + IT + medical industry)	Irbid	Under development
Residence	Ma'an	In operation
	King Hussein Bin	

Source: JICA Study Team prepared using Jordan Investment Commission (JIC), 2016, from In Brief: Development & Free Zones in Jordan, USAID, <http://amcham.jo/wp-content/uploads/2018/12/IB-Free-Zones-Development-Zones.pdf>

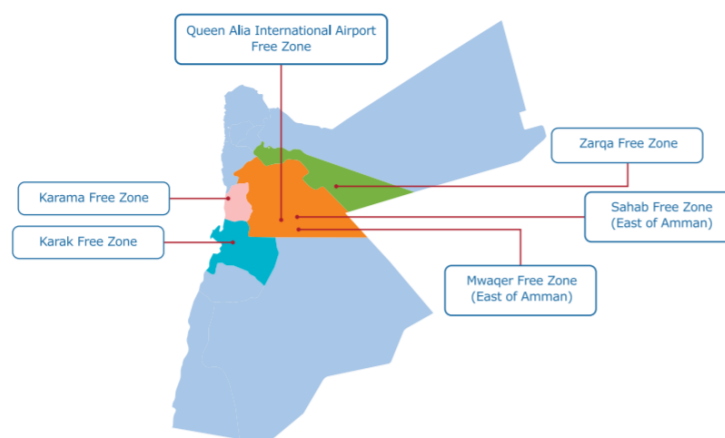
**Table A 28 Aqaba SEZ  
(Applicable to Multiple Locations / Facilities with One Zone Registration)**

#	Name	In Charge	Established	Activity	Status
1	Aqaba Special Economic Zone	Aqaba Special Economic Zone Authority (ASEZA)	2001	Under the M/P, in 2002, Aqaba Town, Port Areas, Coral Coastal Zone, Southern Industrial Zone, and Airport Industrial Zone are registered for the development.	In operation

Source: Aqaba Special Economic Zone Authority

It has already been stated that Jordan's free zones include public and private free zones. There are a total of six public free zones, each of which is developed and operated by a free zone company. Private small and medium-sized enterprises can obtain tax incentives by constructing factories in these six zones.





Source: Jordan Investment Commission (JIC)

**Figure A 29 Public Free Zones**

**Table A 29 List of Public Free Zones**

Master Developer	Region/Area
Karak Free Zone Company	Karak
Karama Free Zone Company	Karma
Mwaqer Free Zone Company	Mwaqer
Queen Alia International Airport Free Zone Company	Queen Alia International Airport
Sahab Free Zone Company	Sahab
Zarqa Free Zone Company	Zarqa

Source: Jordan Investment Commission (JIC), 2016, from In Brief: Development & Free Zones in Jordan, USAID, <http://amcham.jo/wp-content/uploads/2018/12/IB-Free-Zones-Development-Zones.pdf>

In addition to Public Free Sone, more than 37 Private Free Zones have been confirmed in Jordan at present, and it is possible for each private company or factory to submit application and receive approval and tax incentives. Well-known private free zone companies include the Jordanian Indian Chemical Company and the Jordan Bromine Company.

Other than those zones, there are 13 industrial parks called the Qualified Industrial Zone (QIZ) in Jordan for which investors cannot receive any tax incentives and benefits. There are two types of QIZ: a QIZ developed and managed by three public institutions and a QIZ developed and managed by 10 private companies.

As an investment committee, JIC manages and supervises industrial estates in Jordan under the Investment Law and under an organizational reform of 2014 as an investment management and regulatory agency and an agency that provides investment window services.

In each industrial park, master developers and developers are selected and maintained according to the master plan formulated (although there are updated). In addition to promoting the location as a receiver of direct investment for manufacturing such as the traditional QIZ for garment industry, several parks are embarking on the development and operation of a unique industrial complex for individual sectors to promote the location: Dead Sea Development Zone (JFDG), which is maintained for tourism and resort development in line with local characteristics.

In the future, due to the global decline in COVID investment and the deterioration of the economic environment in Jordan, foreign direct investment will decrease by 1.8% in the 2021 from the previous year, it is expected that after COVID the FDI will gradually progress. Depending on the progress of development, JIEC (Jordan Industrial Estates Corporation) will consider expansion and future development when about 50% of each industrial estate is occupied and also considers the construction of two new industrial estates in pipeline.

Of particular notes needed are Queen Airport Free Zone (which has been significantly located since its establishment in 2016), which aims to set up a warehouse and factory for the distribution of air cargo in the area adjacent to the airport as a free zone. and KHBP (King Hussein Business Park), which is the free zone development in Amman City, established in Amman in 2010 as an innovation center.) Both are making great progress. In particular, KHBP is advocating contribution to the smart city of Amman at the location for start-up companies, foreign ICT companies, and currently a large gradual expansion is also planned.

## Appendix of the Field Survey

**PADECO Team conducting the study "JICA Survey on Industrial Development and Promotion of Trade and Investment in Jordan"  
Meetings Schedule – Updated 19th August 2021**

<b>Color Legend</b>	Un-Booked (Available)
	Weekend / Holiday / Reserved for other purposes
	Meeting conducted

Day	Date	Meetings Map														Location			
		08:30-09:00 am	09:00-09:30 am	09:30-10:00 am	10:00-10:30 am	10:30-11:00 am	11:00-11:30 am	11:30-12:00 am	12:00-12:30 pm	12:30-01:00 pm	01:00-01:30 pm	01:30-02:00 pm	02:00-02:30 pm	02:30-03:00 pm	03:00-03:30 pm		03:30-04:00 pm	04:00-04:30 pm	04:30-05:00 pm
Sunday	2021/7/25																		Amman
Monday	2021/7/26				10:00 am – 01:00 pm JICA Amman														
Tuesday	2021/7/27			09:00 am – 10:30 am DSPMA Office				11:00 am – 12:30 pm KHBP office				12:30 pm – 02:30 pm Trinitae Office			03:00 pm – 04:30 pm GIZ SMSE Project				
Wednesday	2021/7/28			10:00 am – 11:30 am JEDCO Office						12:30 pm – 02:00 pm JIEC Office			02:00 pm – 03:30 pm Amman Chamber of Industry HQ		02:30 pm – 04:00 pm Rivage Office				
Thursday	2021/7/29			09:30 am – 10:30 am MoITS			11:00 am – 12:30 pm iPARK (KHBP)			01:00 pm – 02:30 pm Oasis500 (KHBP)									
Friday	2021/7/30	Weekend																	
Saturday	2021/7/31	Weekend																	
Sunday	2021/8/1				10:00 am – 11:30 am Investment Commission (JIC)						01:00 pm – 02:30 pm MoDEE								
Monday	2021/8/2				10:00 am – 11:30 am int@j HQ						01:00 pm – 02:30 pm Jordanian Egyptian (FOUF)				03:30 pm – 04:30 pm JAPM Office				
Tuesday	2021/8/3			09:00 am – 10:30 am Bloom			11:00 am – 12:30 pm ZINC – (KHBP)												
Wednesday	2021/8/4			09:30 am – 10:30 am JFDZG Office			11:00 am – 01:00 pm Jordan Tourism Board (JTB)			01:30 pm – 03:00 pm EBRD									
Thursday	2021/8/5			10:00 am – 11:30 am JFDA						01:00 pm – 02:30 pm EHSI – Hakeem			04:00 pm – 05:30 pm Jordan Exports						
Friday	2021/8/6	Weekend																	
Saturday	2021/8/7	Weekend																	
Sunday	2021/8/8				10:00 am – 01:00 pm ASEZA HQ								02:30 pm – 04:00 pm K.H.int. Airport (by ADC)						
Monday	2021/8/9				10:00 am – 01:00 pm ASEZA HQ							02:00 pm – 03:30 pm PBI Aqaba							
Tuesday	2021/8/10	New Hijri Year Holiday																	
Wednesday	2021/8/11	08:30 am – 10:00 am A. C. Terminal (by ADC)			10:30 am – 12:00 noon ADC HQ														
Thursday	2021/8/12			10:00 am – 12:00 pm ASEZA HQ								02:30 pm – 04:00 pm iPARK Aqaba					04:30 – 05:00 pm Nafith Aqaba		
Friday	2021/8/13	Weekend																	
Saturday	2021/8/14	Weekend																	
Sunday	2021/8/15			10:00 am – 11:00 am IDD of MoITS Meeting			11:30 am – 03:30 pm work in MoITS Office												
Monday	2021/8/16			10:00 am – 11:00 am Nafith (online)			11:30 pm – 01:30 pm Work in MoITS Office				02:00 pm – 03:30 pm Orange Digital Village								
Tuesday	2021/8/17																		
Wednesday	2021/8/18						11:30 am – 12:30 pm KBW Ventures			01:30 pm – 03:00 pm IDD of MoITS Meeting									
Thursday	2021/8/19						11:00 am – 01:00 pm JICA Amman Office							Airport					

A-101

**Figure A 30 The Interview Schedule**