



The Hashemite Kingdom of Jordan

The National Food Security Strategy

2021 - 2030

June 2021

Glossary of Acronyms

Acronym	Definition
ACC	Agricultural Credit Corporation
ADER	Average Dietary Energy Requirement
ADESA	Average Dietary Energy Supply Adequacy
AOAD	Arab Organisation for Agricultural Development
CARI	WFP Consolidated Approach to Reporting Indicators
COVID-19	Coronavirus Disease 2019
CSOs	Civil Society Organisations
DG	Director-General
DES	Dietary Energy Supply
DoS	Department of Statistics
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FAOSTAT	FAO Corporate Statistical Database
FLW	Food Loss and Waste
GDP	Gross Domestic Product
GFSI	Global Food Security Index
GHI	Global Hunger Index
H.E.	His Excellency
H.M.	His Majesty
HBB	Home Based Business
IPC	Investment Promotion Corporation
JSMO	Jordan Standards and Metrology Organisation
M4P	Make Markets Work for the Poor
MoA	Ministry of Agriculture
MoE	Ministry of Education

Glossary of Acronyms

Acronym	Definition
MoEn	Ministry of Environment
MoF	Ministry of Finance
MoFA	Ministry of Foreign Affairs and Expatriates
MoH	Ministry of Health
MoITS	Ministry of Industry, Trade and Supply
MoWI	Ministry of Water and Irrigation
NAF	National Aid Fund
NARC	National Agricultural Research Center
NFSS	National Food Security Strategy
NGOs	Non-governmental Organisations
POU	Prevalence of Undernourishment
RSS	Royal Scientific Society
SDGs	Sustainable Development Goals
SG	Secretary General
SPS	Sanitary and Phytosanitary
SWOT	Strengths, Weaknesses, Opportunities and Threats
tbd	to be decided
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine
USA	United States of America
USD	United States Dollar
WFP	World Food Programme
WHO	World Health Organisation

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Foreword

In the name of God, the most Merciful, the most Compassionate

The agricultural sector is a major pillar of food security, particularly in countries suffering from water shortages like Jordan, where participation of the private industrial and commercial sectors is vital in the sustainable supply of food. Jordan has faced crises spanning the hundred years of the life of the Jordanian state, caused primarily by regional tensions, which in turn resulted in the forced migration of people from neighboring countries and elsewhere. Moreover, the effects of climate change constitute another factor of pressure on food production. This has been exacerbated by the COVID-19 pandemic and the Russian-Ukrainian crisis, which significantly impacted agricultural productivity, distorted supply chain, increased prices of raw materials, decreased production, and increased oil prices and shipping costs.

All these factors prompted Jordan to adapt to all the challenges faced to minimize their negative impacts, building on the close partnership between public and private sector in order to provide quality food at reasonable prices to all populations. The intensive efforts exerted in the past few years have played a role in improving Jordan's performance and position on international food security indicators. The pillars presented by His Majesty King Abdullah II bin Al Hussein in the Borlaug Dialogue on 16/10/2020 during the COVID pandemic have become a roadmap to guide countries in the region and globally to face crises and mitigate their impact on food security. The Jordanian government has prioritized these pillars on its agenda and moved forward in preparing the National Food Security Strategy and its action plan. Accordingly, the government established the National Committee for Food Security in partnership with all ministries, government institutions, the private sector, civil society organizations, international organizations and development partners. Based on the strategy recommendations, the Cabinet agreed to establish the Higher Council for Food Security.

Implementation of this strategy and its action plan will receive the Government's attention to support effective partnerships with neighboring countries and international organizations and build a sustainable regional food security system that utilizes available resources efficiently, while enhancing integration for the well-being of all citizens.

Finally, I thank all government institutions, private sector and United Nations organizations and all those who contributed to the development of the National Strategy for Food Security, asking the Almighty to help us achieve the ambitions and aspirations of our people, reaching a hunger-free and food secure Jordan through collective efforts.

Chairman of the National Committee for Food Security
Minister of Agriculture
Eng. Khalid Al-Hunaifat

CHAPTER ONE

INTRODUCTION

1.1 Background

After the onset of Covid-19, and on several different previous occasions during the past few months, His Majesty King Abdullah II Ibn Al-Hussein has stressed food security as a major concern and priority for Jordan. H.M. emphasised several topics that require deep thinking and taking the appropriate measures, among which the most important are:

"Food security will be the **biggest challenge in 2021**."⁽¹⁾

"We see hunger threatening vulnerable refugee communities in our region. Preparing for this is a key priority for Jordan, and we also stand ready to do what we can for our region and our friends, by channelling our capabilities **to operate as a regional hub for food security**."⁽²⁾

"To build global food security and nutrition; there must be **strong regulatory and policy frameworks**, the question is not whether to act; the question is **what kind of action will take us where we want to go**."⁽³⁾

Food security is increasingly becoming a major national issue in light of urbanisation, globalisation, significant international food price rises and fluctuations, and climate change impacts. Moreover, food insecurity in Jordan has been exacerbated by the influx of Syrian refugees, decreased remittances from Jordanians working abroad, diminishing support to UNRWA, and lately, the outbreak of COVID-19 which has played an important role in shedding light on the importance and centrality of food security. In these circumstances, the need for having a Food Security Strategy in Jordan cannot be overlooked. The formulation and implementation process of the National Food Security Strategy (NFSS) constitute a challenge as well as an opportunity, not only to the Government but also to other national and international partners, in supporting Jordan to build resilience in the face of these unprecedented shocks and economic slowdowns. Food security is a condition precedent and pre-requirement to achieving human and national security. Accordingly, the strategy strives to contribute to achieving growth, prosperity and to sustaining Jordan's role as a centre for peace and stability in the region.

In the context of Jordan, food security is usually envisaged as the ability for the country to be self-sufficient and self-reliant in the provision of essential food items. Food security in Jordan has, therefore, almost solely been associated with agriculture. In this regard, it is worth noting that the first agricultural policy for Jordan was endorsed in 1992 and included several associations with food security⁽⁴⁾. Moreover, there have been several previous reports and studies of food security prepared at the request of various national or international institutions, although none of these have been endorsed as a standalone food

(1) Statement by H. M. King Abdullah during his meeting with Egypt President Abdel Fattah El Sisi, and Iraq Prime Minister Mustafa Al Kadhimi on 25 August 2020

(2) Speech by H.M. the King to the UN General Assembly in September 2020

(3) Petra News Agency, 2020. [online] Available at: https://petra.gov.jo/Include/InnerPage.jsp?ID=28881&lang=en&name=en_news
His Majesty King Abdullah on 16 October participated in the 2020 International Borlaug Dialogue and delivered a keynote address stressing the importance of acting now and together to tackle hunger and food insecurity

(4) The preparation of the first agricultural policy was supported by GIZ, World Bank and UN Food and Agriculture Organisation (FAO). }Coincided with adopting the Agricultural Sector Adjustment Programme (ASAP) and the Agricultural Sector Adjustment Loan (ASAL).

security strategy for Jordan⁽⁵⁾.

Despite the fact that food security in Jordan depends, to a great extent, on agriculture production; the concept of food security is much broader than food production or even food availability. Food security involves a broad spectrum of sectors and is considered a multi-dimensional and multi-institutional issue that requires cooperation and coordination among different institutions and stakeholders, including government institutions, private sector entities, civil society and international organisations. Food security is the function of several factors that are mutually inclusive, such as nutrition, consumption, access, governance, stability and sustainability.

Jordan is committed to achieving Sustainable Development Goals (SDGs) and their respective targets, including SDG1, SDG2, SDG3, SDG6, SDG12, SDG13, SDG14 and SDG16, all of which have a direct link to food security, and especially objectives/targets 2.1 and 2.2; which are closely linked to hunger, food security and nutrition. It shall be noted that doing business as usual and even providing more of the same will not suffice and will not achieve our desired objective. Thinking 'outside the box' is required, and intensive efforts need to be exerted in order for Jordan to meet its obligations and commitments towards achieving the SDGs by 2030.

1.2 Why a Food Security Strategy?

A National Food Security Strategy is a swift response to the immediate needs and priorities given to food security at the highest level in Jordan; it signals a kick-start of national and international joint efforts to work together, and constitutes an integral part and prerequisite for national and regional security. This strategy and its action plan that will be prepared later will serve as a road map for a food-secure Jordan. Moreover, the strategy and its action plan are needed in order to:

1. Respond to H.M.'s vision and directives by adopting 2021 as the year to face food security challenges in Jordan and signalling a new entry point to the HKJ's second century.
2. Support realisation of the role of Jordan as a strategic regional hub for food security that will serve as a centre for storage and logistics, agricultural production, food processing, irrigation systems, greenhouses, modern technology and knowledge transfer and as a hub to provide contingency assistance to the countries of the region.
3. Coordinate efforts and interventions among institutions working in the field of food security.
4. Monitor and foster progress towards achieving relevant SDG targets.
5. Build resilience to climate change and its impacts.
6. Mitigate the impact of COVID-19 on food security.
7. Address the consequences of the Syrian refugee protracted crisis on food security in Jordan.

1.3 Methodology and Approach

The Ministry of Agriculture (MoA) has approached its partners to support the development of the NFSS; while the WFP, FAO, UNDP, Economic and Social Commission for West Asia (ESCWA) and Netherlands Embassy have all expressed their willingness and readiness to support the Ministry in this important undertaking. The MoA convened a meeting with the five partners on September 9th, 2020 in order to

(5) The latest was the National Food Security Strategy May 2017, an inclusive document supported by several subject matter technical papers prepared by World Food Programme (WFP) and United Nations Development Programme (UNDP) upon request by the Ministry of Agriculture.

exchange views on the procedures, partnerships and process lead. The Minister of Agriculture also underlined the need for a comprehensive strategy that addresses all pillars of food security.; whereas this endeavour requires the engagement of multiple government institutions and their relevant developmental counterparts. In order to ensure inclusiveness; the Minister of Agriculture asked FAO and WFP to co-facilitate the process under the leadership of the MoA. ⁽⁶⁾

Therefore, a broad-based and participatory approach has been adopted, including close coordination and consultations with the relevant stakeholders. Annex (1) indicates the institutions and entities involved in the NFSS formulation, their mandates and responsibilities.

The preparatory work, consultations, data collection and review of the literature started late September 2020, and consequently, the draft inception report was prepared by the senior policy adviser and discussed by the MoA and the Review Committee on October 27th, 2020. The final draft of the Inception Report was endorsed by the National Food Security Committee on November 22nd, 2020.

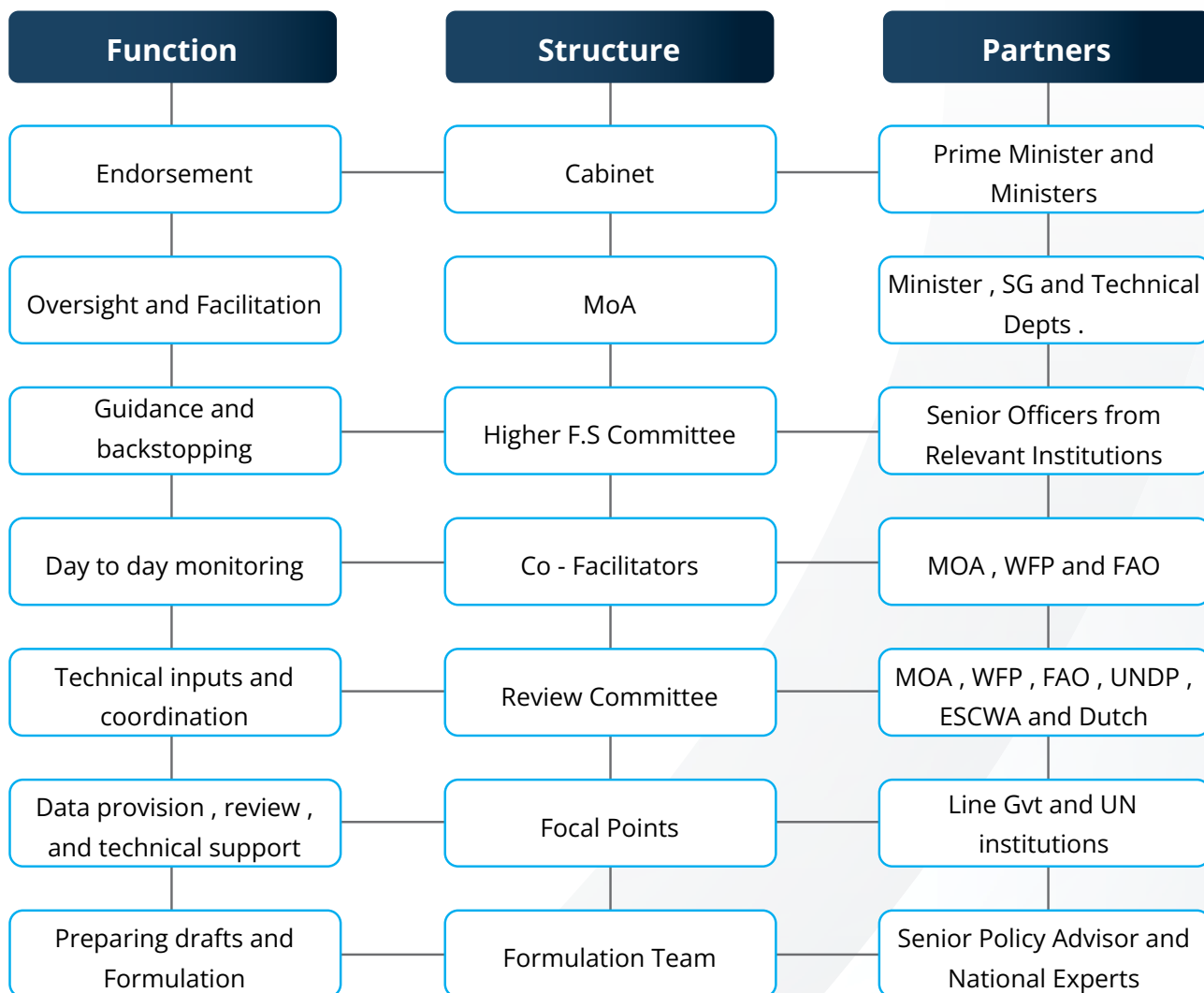
All relevant stakeholders participated actively in the review and planning workshop held during February 9th-10th, 2021 for the preparation of draft documents and narratives, review of the food security problem tree, stakeholders' analysis, SWOT analysis, and identification of the challenges to be overcome, in addition to building consensus on the vision and the strategic objectives. Another workshop was held on April 22nd for the validation and completion of some missing parts of the Strategy. Both workshops were attended by the focal points of relevant institutions.

The Co-facilitators, the Focal Points, the Review Committee, the Ministry of Agriculture and the National Food Security Committee guided and steered the process and approved draft documents. Subsequently, the National Food Security Committee approved the final version of the Strategy on May 31st, 2021 and recommended its approval to the Council of Ministers, which in turn approved it on 22/8/2021.

Annex (2) shows the activities and events that were undertaken, their purpose, and implementation dates.

The schematic diagram below depicts the different structures which were responsible for drafting, reviewing, overseeing and endorsing the NFSS:

(6) Operational Guidelines for the strategy formulation, WFP and FAO,2020. A preliminary paper was prepared to constitute a basis for, and to guide the strategy formulation process.



NFSS Preparation Structure and Functions

CHAPTER TWO

**STATUS OF FOOD SECURITY IN
JORDAN**

2.1 Macro Socio-economic and Environmental Context

Jordan is an upper-middle-income country with a total population of 10,734 million inhabitants,⁽⁷⁾ of which 9% live in rural districts and around 12% of whom are Syrian refugees. The national GDP reached \$44 billion, and the per capita income amounted to circa \$4 thousand in 2019.

The absolute poverty rate reached 15.7% in 2017⁽⁸⁾ compared to 14.4% in 2010. During the fourth quarter of 2020, unemployment reached an all-time high by 24.7%⁽⁹⁾ (22.6% and 32.8% for males and females, respectively).

Jordan is one of the most water-scarce countries around the world, with less than 100 m³ annual share per capita. Agriculture consumes around 570 million cubic meters annually, i.e., 51% of the annually available water resources while contributing just 5% of the national GDP in 2019.⁽¹⁰⁾ Moreover, Jordan is an energy-poor country whereas in 2019, the country imported more than 95% of its energy, with a value of \$3.062 billion.

Climate change affects all the components of food security and food systems in Jordan. This is evidenced by increases in water scarcity, drought frequency and accelerated land degradation, which will ultimately take a toll by causing decreasing production and productivity, especially for small and subsistence farmers who mainly depend on rain-fed agriculture and extensive semi-intensive livestock raising.

Among Jordanians, 3% of the households are food-insecure, amounting to 219,186 individuals, and another 53% are vulnerable to food-insecurity, corresponding to 3,872,286 individuals (according to the Food Security Index/CARI). Amongst all of the governorates, Al-Tafila is by far the most food-insecure governorate, with 20% of households being food-insecure.⁽¹¹⁾

(7) Department of Statistics (DOS), 2020. [Online] Available at <http://dosweb.dos.gov.jo/>

(8) DOS, 2019.

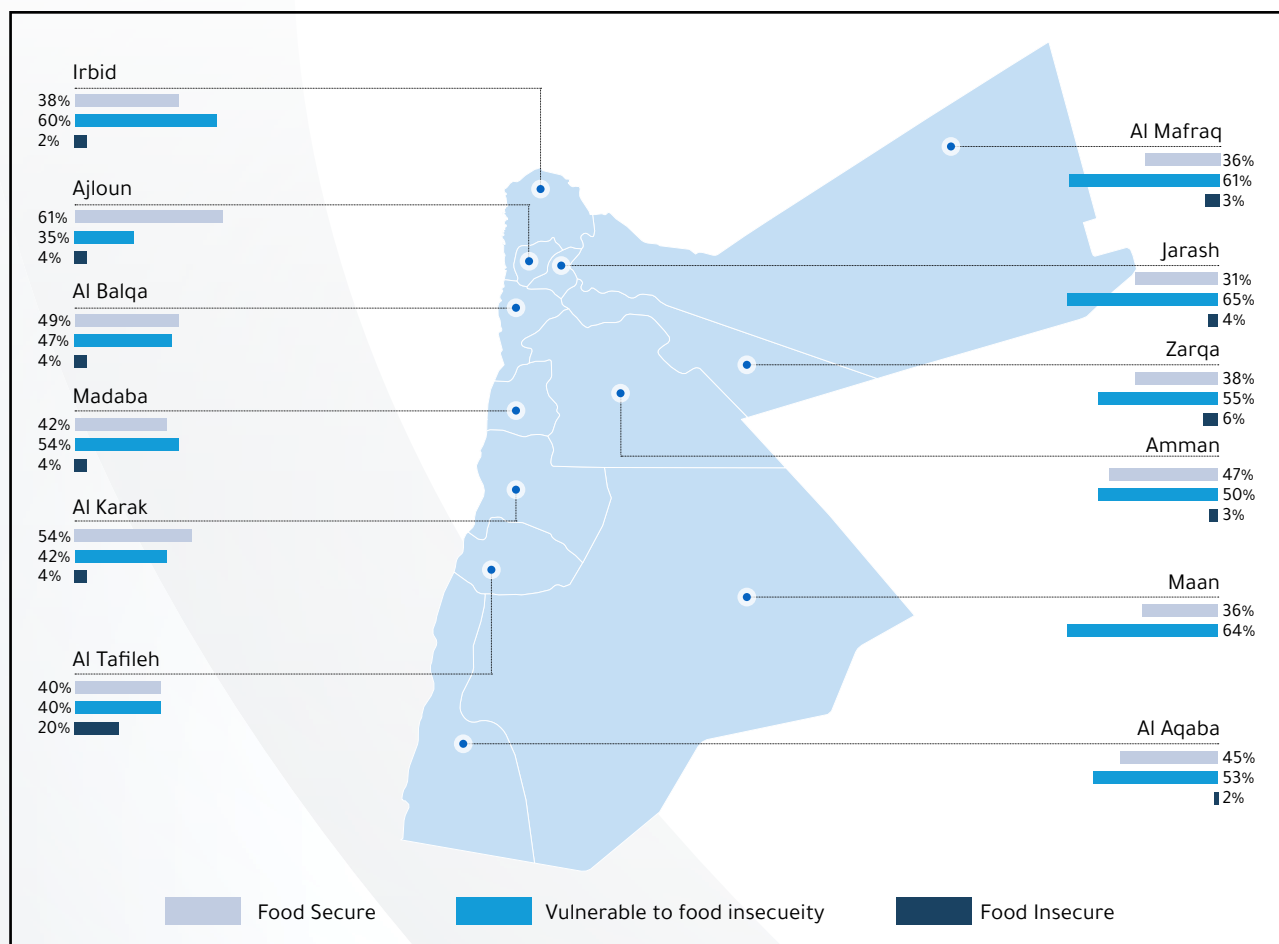
(9) DOS, 2020. [online] Available at <http://dosweb.dos.gov.jo/23-0-unemployment-rate-during-the-second-quarter-of-2020/>.

(10) DOS, Jordan in figures 2019.

(11) Jordan Food Security Update, Implications of COVID19, WB, FAO, International Fund for Agricultural Development (IFAD) and WFP, July-August 2020.

Food Security Index (FSI) by governorate

Jordanians mVAM Jul/Aug 2020



Source: Jordan Food Security Update (Implications of COVID-19) July-August 2020

2.2 State of Food Security and Nutrition(12)

Food security is defined as **“The state in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”**⁽¹³⁾. Food security consists of four main factors or components, which are closely interlinked and interdependent. The cycles of the food security chain require several enabling factors and preconditions to be achieved.

The term food system refers to the **“constellation of activities involved in producing, processing, transporting and consuming food”**⁽¹⁴⁾. Whilst food security is an overarching national objective, and a food system is an integral approach, these terms are commonly used interchangeably.

(12) This section is built on and benefitted from ESCWA Jordan and ARAB FOOD SECURITY MONITORING FRAMEWORK.

(13) World Food Summit 1996, FAO.

(14) Why Food Systems, Food Systems Summit Website, 2021.

Food security actions should ensure that food systems provide all households with stable access to sufficient, appropriate, and safe food, while nutrition-oriented action should ensure that households and individuals have the knowledge and supportive health and environmental conditions necessary to obtain adequate nutritional benefit from the food⁽¹⁵⁾.

The food systems in Jordan are fragile and vulnerable since Jordan lies in an arid or semiarid climatic zone, characterised by low and fluctuating rainfall, limited renewable ground water and with high dependency on imported food and agriculture inputs.

While Jordan is emphasising the priority of food security in 2021 and beyond, two international summits will also be conducted this year; the first is the Food Systems Summit in September, which will take place in New York; and the second is the Nutrition Summit which will take place in Tokyo in December.

It should be noted that the components, criteria and indicators of food security differ between those applied by the United Nations' specialised agencies and the Global Food Security Index applied by the Economist's Intelligence Unit. Moreover, in cooperation with Arab Organisation for Agricultural Development (AOAD) and FAO, ESCWA has developed the Arab Food Security Monitoring Framework, which is generally consistent with the UN system⁽¹⁶⁾. Annex (3) contains a summary of the food security status in Jordan according to the indicators of the Arab Monitoring Framework. In 2020,⁽¹⁷⁾ Jordan achieved 60.4 out of 100 points on the Global Food Security Index, and accordingly it ranked 62 among the 113 countries included in the Global Food Security survey. Furthermore, Jordan ranked 11 out of the 13 Arab countries included in the same survey.

2.3 Food Security-related Topics

Food security is a multidisciplinary aspect that is linked to several other sectors such as agriculture, water, industry, supply and trade, health, social development, labour and many others. Moreover, Water, Energy and Food (WEF) constitute a nexus as they directly and heavily affect and depend on each other. The analysis here is not meant to substitute the relevant sectoral strategies and plans; rather than to seek maximum complementarity and support the components of relevance to food security in the sectoral strategies.

2.3.1 Household Food-Insecurity

In the past, hunger in Jordan has been rarely considered an issue of concern, mainly due to social norms which foster solidarity within local communities as well as the dominant subsistence agricultural pattern and food systems, especially in rural districts and Badia. However, urbanisation, high population growth rates, rural/urban migration, abandonment of agricultural lands, the sudden surge in population due

(15) Committee on World Food Security (CFS), Coming to Terms with Terminology: Food Security, Nutrition Security, Food Security and Nutrition, Food and Nutrition Security, (CFS), Thirty-ninth Session, Rome, 15-20 October 2012.

(16) It should be noted that these criteria are the ones adopted by Arab countries. While the suggested criteria in Chapter Four are the ones suggested for the monitoring and evaluation of the Strategy and will constitute the basis for the Food Security Strategy monitoring, reporting and data base.

(17) Global Food Security Index consists of a set of four key indicators and sub-indicators covering 113 countries and is published annually by the Economist's Intelligence Unit (E.I.U.)

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to inward movements of refugees, and the volatile international market prices have all contributed to increased levels of hunger in Jordan. However, Jordan is categorised among the low severity hunger countries on the Global Hunger Index (GHI).⁽¹⁸⁾

In this regard, the following should be indicated:

- Poverty in Jordan is increasing as it reached 15.7% in 2017 compared to 14.4% in 2010.
- During 2017-2019, the Prevalence of Undernourishment (PoU) in Jordan reached 8.5%, jumping from 5.6% during 2004-2006, as explained in Table (1) below. Moreover, Jordan is one of the only two countries in Western Asia and Northern Africa region that have witnessed an increase in the PoU during the period 2017-2019 compared with 2004-2006 ⁽¹⁹⁾.
- Coronavirus has contributed to increasing poverty and unemployment by different degrees and ratios in different regions and groups of people. With an economy already in crisis, COVID-19 has pushed 17% ⁽²⁰⁾ of Jordanians to permanently lose their jobs, with unemployment skyrocketing to 24.7% during the fourth quarter of 2020.⁽²¹⁾

Table (1) Prevalence of Undernourishment in Jordan compared to other regions and worldwide.

Geographic Level	Period	Jordan	West Asia	West Asia and North Africa	Upper Middle-Income Countries	World
P.O.U. %	2006-2004	5.6	15.6	10.7	7.5	12.5
	2019-2017	8.5	12.1	9	3	8.5
Number in millions	2006-2004	0.3	24	42	178	819
	2019-2017	0.9	30	45	80	673

Source: *The State of Food Security and Nutrition in the World 2020, F.A.O.*

The lack of family food security is caused by many factors such as extreme poverty, rising levels of unemployment, the presence of large numbers of refugees mainly from Syria and competition with Jordanian workers, which, in turn, has led to increased unemployment, worsening hunger and the inability of social protection programmes to meet the needs of the poor. Moreover, it has contributed to decreasing public expenditures, budget deficit and increasing the public debt.

2.3.2 Agriculture

Jordan's cultivated area is about 2.12 million donums⁽²²⁾. There are around 108 thousand landholdings, in addition to 35 thousand animal holdings.⁽²³⁾ The field crops and cereals occupy an area of 0.964 million donums while vegetables and fruits occupy 0.374 and 0.784 million donums, respectively. Forest area

(18) Global Hunger Index Website. Jordan ranked 43 out of 107 on the GHI in 2020.

(19) State of Food Insecurity (SOFI), 2020.

(20) Jordan Food Security Update, Implications of COVID19, WB, FAO, IFAD and WFP, July-August 2020.

(21) DOS Website, 7 April 2021.

(22) 1 donum equals 1000 m².

(23) Agriculture in Figures, 2008-2018, MoA, 2019.

mounts to 1.049 million donums while the rangeland area is around 8.5 million donums. Ruminant flock size is around 3.9 million heads of which 77 thousand are cows, 3.01 million sheep, 765 thousand goats and 10 thousand camels.⁽²⁴⁾

Agriculture contributed to around 5.6% of the GDP at Current Basic Prices in 2019.⁽²⁵⁾ It is worth noting that when the forward and backward linkages to agriculture are considered, contribution to GDP will reach 15%- 20%. Moreover, agriculture constitutes a source of income to 118 thousand families in rural districts and Badia.⁽²⁶⁾ Agriculture employs 91 thousand Jordanians of whom 31 thousand are permanent workers while seasonal and occasional workers mount to 6.6 and 53.4 thousand, respectively; the number of non-Jordanian workers is 76 thousand of whom 53 thousand are Egyptians.⁽²⁷⁾ The agricultural sector in Jordan is also known to have the highest proportion of informal workers compared to other economic sectors. 16% of women who work in the agricultural sector are informally employed, which is higher than the proportion of men (5%).⁽²⁸⁾ Despite the fact that the agriculture's official contribution in labour force is relatively low (1.7%), most of the workers in agriculture are either seasonal, occasional, or family workers.

At the national level, Jordan was able to achieve high self-sufficiency ratios of vegetables, fruits, eggs, fresh milk, olive oil and poultry meat. Moreover, subsistence and small farmers depend on the consumption of their own production to satisfy part of their food needs.

Despite the great achievements that were made over the past decades, the agricultural sector continues to face several challenges, the most important of which are the lack of financial resources allocated to agricultural development from the government budget, as well as low investment and foreign assistance, in addition to weak marketing and export promotion activities and facilities, low productivity, especially for rain-fed agriculture, sheep and pastures, the limited activities to cope with climate change, resource depletion, lack of uniform data sources and an appropriate monitoring/follow-up and evaluation system. The overlap, contradiction and poor coherence between policies and strategies and the work of other agricultural and sectoral institutions pose a major challenge to the agricultural sector.

2.3.3 Water limitation

Water scarcity in Jordan is one of the most important challenges and problems experienced by Jordan; Jordan is one of the poorest countries around the world in water, and per capita fresh water is less than 100 cubic meters compared to a global average of 7,000 cubic meters. Water scarcity effects are not limited to agriculture, but it also affects health, livelihoods, agro-biodiversity, climate change and the environment. The total amount of all-purpose water is about 1.1 billion cubic meters, more than 50% of which is used for agriculture, while agriculture used to consume about 75% of Jordan's water 25 years ago. In spite of the considerable financial efforts and resources dedicated to the development of this sector, it continues to suffer from several challenges and constraints, the most important of which is the

(24) DoS, Statistical Yearbook, 2019.

(25) Central Bank of Jordan.

(26) MoA, Agriculture Sector Strategy, 2020-2025.

(27) DoS, Statistical Yearbook, 2019.

(28) Women's Participation in the Agricultural Sector, Rural Institutions and Community Life, UN WOMEN and REACH, 2018.

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high proportion of water loss and waste, whether in networks or misuse, inadequate water harvesting activities and the poor capacity and coordination between water-related institutions.

2.3.4 Food Trade, Processing, Marketing and Storage

Jordan exports certain agricultural and food commodities, mainly fresh fruits and vegetables as explained in Table (2) below. The main destinations are the Gulf countries, Iraq and, to a lesser extent, some of the European countries. On the other hand, Jordan heavily depends on imports to meet its needs of major food commodities, such as wheat, barley, corn, rice, pulses, oil, sugar and red meat. In 2018, the import value of food and live animals amounted to \$3,418 billion, while the value of exported food and live animals stood at \$917 million. The food balance deficit in 2018 was \$2,501 billion, which makes Jordan vulnerable to global market fluctuations.

Table (2) Production, export, import and self-sufficiency of major food commodities in 2019

Commodities	Production (000 tons) (1)	Export (000 tons) (2)	Import (000 tons) (3)	Total Consumption (4) = 1+3-2	Self-sufficiency % (5) = 1/4
Vegetables	1348	450	112	1010	133
Fruits (including olives)	632	120	199	710	89
Field crops	93	0.4	1711	1803.6	5.2
Red meat	27	17	95	105	26
Poultry meat	184	9	56	231	80
Eggs	59	0.3	0.4	60	100
Milk	457	0	0	457	100
Sugar	0	2	275	273	0
Rice	0	2	207	205	0
Vegetable oil	41.5	5.2	159.8	196.1	21.2
Fish	2	1	31	32	6.3

Source: DoS Annual Agricultural Statistics, 2019 and Authors' Calculations

Jordan has an efficient and competitive food industry; it is estimated that the food industry sector and other related sectors account for around 50% of the local market share; it has 11 sub-sectors, including bakery and sweets, dairy, meat, and fruits and vegetables. The food industry also accounts for 15% of the total number of Jordan's industrial facilities, with up to 2,645 industrial enterprises in 2017.⁽²⁹⁾ The regional Arab market remains Jordan's main export market, accounting for over 75% of its processed food exports.⁽³⁰⁾

The food value chain for the major commodities throughout all its steps: production, distribution and consumption have high potential for improving and increasing its efficiency. This will mainly materialise through the adoption of new technologies, innovative approaches and good practices such as adoption of hydroponic farming, effective irrigation systems and enhanced ruminants' breeds. Improvements in the value chain will contribute to improving the productivity and competitiveness of the Jordanian food industries not only in the local markets, but also in the neighbouring regional markets. In the future, the

(29) Jordan's Food Processing Sector Analysis and Strategy for Sectoral Improvement, GIZ, 2019.

(30) Ibid

agro-food industries will be more important and will gain more potentials of growth.⁽³¹⁾

Except for the import of wheat and barley, all other imported and nationally produced agricultural and food commodities are dominated by the private sector. The Ministry of Industry, Trade and Supply sells wheat to mills and barley and bran to livestock owners at subsidised prices.

Food trading and manufacturing in Jordan suffer from limited post-harvest, post-production services and weak investments, especially foreign investments, non-tariff legal barriers, frequent changes in taxes and additional duties on trade, as well as inadequate infrastructure, services and inconsistent trade and industry policies.

2.3.5 Food Loss and Wasting

A sizeable share of the food produced or imported is either lost or wasted across the food supply chain.⁽³²⁾ It should be noted that there is a lack of appropriate data on the amount of Food Loss and Waste (FLW) in Jordan. Globally 14% of the produced food is lost during the post-harvest stage before reaching the retail stage⁽³³⁾. The amount of wasted food in Jordan reached 93 kg/capita/year compared to 121 kg at the global level. The total amount of wasted food in Jordan reached 930 thousand tons in 2020, while it reached 931 million tons globally.⁽³⁴⁾

In Jordan, with scarce water resources, food losses and waste have a multiplied impact, represented by the inefficient use of land, water and energy resources, increased opportunity cost and increased greenhouse gas emissions, in addition to unnecessary financial costs borne by producers, dealers and consumers.

Key to minimising food loss and waste is the in-depth understanding of where, how and why FLW is happening and identifying mitigation measures. Solutions should be prioritised according to specific criteria, including economic, social and environmental factors. Accordingly, adopting the best compromises that could potentially maximise benefits and minimise damages and costs are selected.

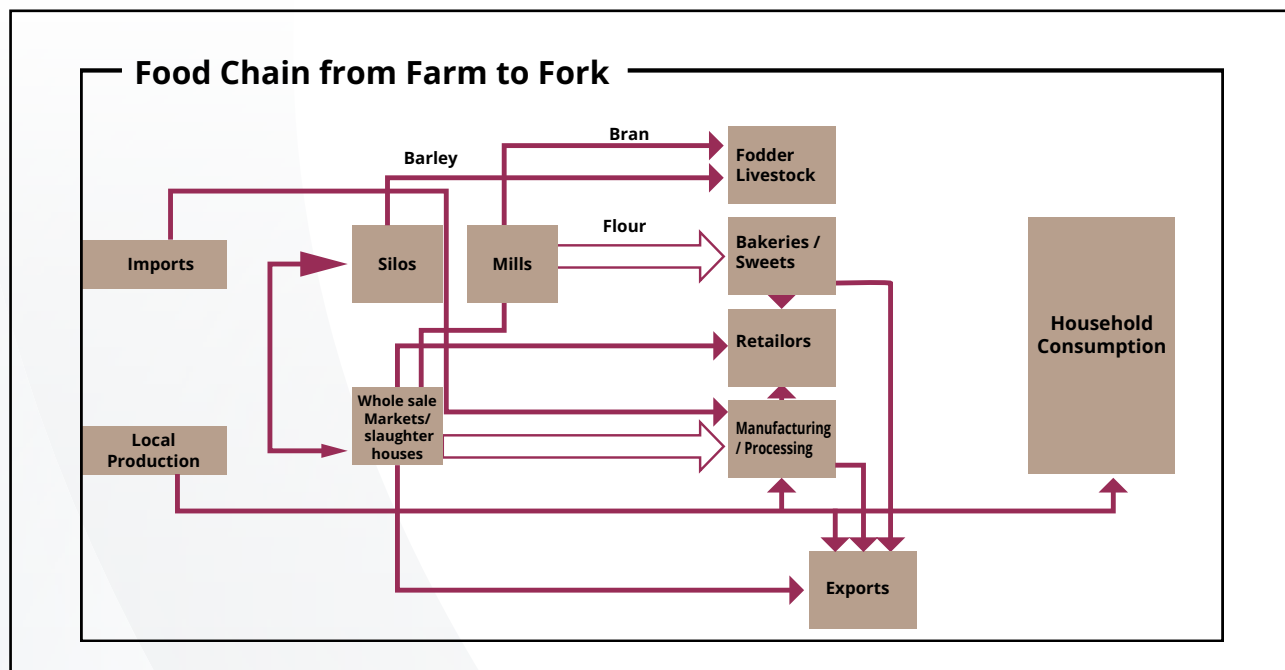
The figure below depicts the food value chain and its main cycles in Jordan.

(31) Figueroa, Jose Luis; Mahmoud, Mai; and Breisinger, Clemens. 2018. The role of agriculture and agro-processing for development in Jordan. MENA RP Working Paper 5. Washington, DC and Cairo, Egypt: International Food Policy Research Institute (IFPRI). <http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/132262>.

(32) Jordan Rural Employment and Agri-food Transformation Program/Concept Note ppt, World Bank 2020.

(33) SOFA, 2019.

(34) Food Waste Index, United Nations Environment, 2021.



The major challenges facing food loss and waste in Jordan:

- 1- Non-optimal food systems-related practices at all stages, from production to consumption.
- 2- Lack of recent and sufficient data on FLW.
- 3- Weak institutional and legal frameworks and practices, quality and safety measures and standards, in addition to weak knowledge and awareness of producers, dealers, operators and consumers.
- 4- Insufficient facilities and infrastructures along the food chain, and lack of investment in the upgrading of value chain.
- 5- Overproduction of certain commodities during certain periods and seasons and ineffective subsidy policy.

2.3.6 COVID-19

COVID-19 is taking its toll on food security in Jordan, and food access has arguably been affected the most. The global economic recession due to containment measures taken by most countries has had an extremely negative impact on people's livelihoods, as well as the countries' abilities to maintain effective social protection plans. As the crisis drags on, people are resorting to negative coping strategies (for example, using savings and selling productive assets)⁽³⁵⁾. COVID-19 has also impacted the global food systems as it has affected the demand and supply dynamics.

In Jordan, COVID-19 has forced restrictions on trade, left many people jobless, increased prices of certain services and commodities and limited access to production facilities - resulting in non-optimal production measures at most of the productive sectors.

Despite the direct impact of COVID-19 on all aspects of life, food supply in Jordan has remained stable.

(35) Gerard, F., Imbert, C. & Orkin, K. 2020. Social Protection Response to the COVID-19 Crisis: Options for Developing Countries. Oxford Review of Economic Policy, August 29, 2020, graa026. <https://doi.org/10.1093/oxrep/graa026>.

Moreover, Jordan has also been able to sustain a relatively stable level of production and export of agricultural and food commodities to other countries in the region. The Government has taken several administrative, procedural and financial measures to lessen the negative impact on vulnerable people. On the social protection front, the Government launched the Takaful emergency cash assistance programme with its 3 phases and maintained the monthly cash assistance programme run by the National Aid Fund (NAF). While the short-term effects of COVID-19 were at their peak during the first three months of the outbreak, the cumulative and long-term negative impact constitutes a major challenge to all economic sectors, households and individuals, especially women, children and the elderly, whereas the decline in food systems in Jordan was estimated at 40%⁽³⁶⁾

Continued movement restrictions and quarantine/isolation measures in the camps and communities will likely push more refugee households into debt and food insecurity. COVID-19 has had a particularly harmful impact on children; as schools and school meals have been suspended, thus forcing households to adopt harmful coping strategies to meet basic needs. There have been increased incidents of child labour and early marriages⁽³⁷⁾. Widespread loss of income and assistance as a result of COVID-19 has increased the financial burden of households. Qualitative data suggests that households are forced to monetise part of their WFP entitlement to meet essential needs for non-food items, and this comes at the expense of household food security⁽³⁸⁾.

2.3.7 Regionalism

The outbreak of COVID-19 stressed-out more than ever the importance and the need of countries of the region to act together not only to combat the pandemic, but also to minimise and cope with its economic, social and environmental impact. Most countries of the region share several commonalities, such as (i) scarce water resources, (ii) high dependency on food imports, (iii) low agricultural productivity, (iv) inefficient use of irrigation water, and (v) limited reserve of strategic food commodities. Jordan has several comparative advantages and is well-positioned to play a pivotal role in stabilising regional food security. This is mainly due to (i) Jordan's stability in a troubled region, (ii) proximity and ease of access to other countries, (iii) relatively free movement of individuals, services, capital and trade; (iv) well-established infrastructure and functioning structures, (v) trade agreements and preferential treatment with several major export destinations such as EU and USA, (vi) availability of qualified and skilled manpower.

Regionalism entails achieving the following among others:

Facilitating trade, minimising non-tariff barriers, coordinating policies and adapting them among the countries of the region, as well as taking advantage of the accumulating demand as a negotiating power in joint international tenders and strengthening the food industry, in addition to adopting intensive and smart agriculture, technology transfer, dissemination of innovation and the construction of appropriate structures and infrastructure such as storage facilities, packaging facilities, transport fleet and road networks. Improving the status of food security requires an integrated and regional rapprochement that maximises the interrelations between food, water and energy, and builds policies and technologies that

(36)³⁶ Impact of COVID-19 on the Jordanian economy, Mariam Raouf, Dalia Sabbagh, and Manfred Wiegert, IFPRI, 2020.

(37) Overview of Refugee Food Security in Jordan COVID-19 Update. WFP, September 2020.

(38) Ibid

are based on vision and prioritisation.⁽³⁹⁾

It is worth noting here that the repeated changes in regional policy and trade barriers, including tariffs, technical and administrative barriers, weak regional partnerships, preferential treatment, agreement on unified rules of origin and conflicts of political and trade interests with other countries, are considered as obstacles that must be overcome in order to bring hope to regional cooperation and action.

2.3.8 Stakeholders, Institutional and Legal Framework

Several institutions, organisations and groups have a stake in food security; they affect and are affected directly or indirectly by the status of food security in Jordan. Annex (4) summarises the tasks, expectations and concerns of food security stakeholder groups in Jordan.

Below are the major challenges facing institutions dealing with food security in Jordan:

- 1- Absence of a reference entity for food security in Jordan.
- 2- Weak coordination results in overlaps, contradictions and duplication of efforts, coupled with improper and/or weakly enforced laws and regulations.
- 3- Business environment is not always conducive (in spite of the remarkable improvement in 2019 as Jordan ranked 75 out of 190 countries listed in Ease of Doing Business Scale compared to 104 in 2018⁽⁴⁰⁾).
- 4- Weak participation of the private sector in the decision-making, processes and public-private partnerships. Moreover, weak corporate social responsibility, especially in supporting food-insecure families and communities.
- 5- Weak policies, procedures and human capacities that constitute a condition precedent for the implementation and management of a holistic food security and sustainable food systems.

2.3.9 Cross-cutting Issues

Gender:

Women play an important role in securing food for their household, mainly as employees, workers in food production and animal shepherding, processing, selling, and food preparation. Moreover, women are increasingly becoming a major income provider. Yet, they sacrifice and suffer the most from the consequences of food insecurity as individuals and mothers. As decision influencers, women can heavily contribute to improving food security at the household and national levels.

The unemployment rate in Jordan surged to 24.7% in the fourth quarter of 2020 from 19% during the same period of the previous year, amidst the severe impact caused by the COVID-19 pandemic and chronic economic downturn. This was the highest jobless rate since the series began in 2005, as the unemployment rate increased for both men (22.6% vs. 17.7% in Q4 2019) and women (32.8% vs. 24.1% during the same quarter of 2019)⁽⁴¹⁾. Jordan's labour market is characterised by large gender differences;

(39) Al-Ghad Daily Newspaper, Improving Food Security Requires Integrated and Regional Rapprochement, 11 October 2018.

(40) World Bank, Trading Economics, Ease of Doing Business in Jordan, 2008-2019 Data, 2020.

(41) DOS's Website, 2021.

labour force participation among women stands below 15%, compared to around 60% for men.⁽⁴²⁾

In Za'atari and Azraq camps, female-headed households showed disproportionately high declines in food consumption as they have less access to informal labour opportunities and loans than their male counterparts⁽⁴³⁾. When given the opportunity to manage household finances, studies have shown that women are more likely to spend more than men on their family's nutritional needs, healthcare, and school fees for children. Therefore, empowering women to increase access to and control over resources is critical to attaining food security⁽⁴⁴⁾.

Environment and Climate Change:

Climate change is a threat multiplier for hungry and undernourished people. Combined with conflict, it destroys livelihoods, drives displacement, widens inequalities, and undermines sustainable development.⁽⁴⁵⁾

Food security is closely linked to the environment and climate change as it affects and is affected by them, especially in Jordan, with a fragile and vulnerable environment. A high ratio of the food producers situates in areas that depend on relatively low and fluctuated rainfall for the production of crops, rangelands fodder or raising extensive or semi-intensive ruminants. Major products are meat and milk, especially in the eastern parts of the country, where farmers heavily depend on what they produce to satisfy part of their food consumption.

Climate change is expected to affect the quantity and quality of stressed water resources in Jordan. According to the Comprehensive National Report on Climate Change in Jordan, rainfall will decrease by 15% according to the average scenario, rising to 21% according to the maximum scenario, while springs and underground sources have dried up over the past years, and their capacity has decreased by about 50%. Jordan would see a steady increase in temperature by 1.5-2.5°C and an increase in dry seasons and heat waves. Although the rainfall rate is expected to decline in Jordan, there is an increase in its severity, leading to floods that may affect Jordan's sustainable development and fragile ecosystems⁽⁴⁶⁾.

Refugees:

Jordan is considered a safe haven for high numbers of refugees from the region and outside. Despite its limited natural and financial resources, refugees have received hospitality and dignified treatment; thanks to the solidarity and support provided by the international community. The officially registered refugees in Jordan exceed 2.952 million (registered by UNRWA and UNHCR), in addition to more than 600 thousand non-registered Syrians residing in Jordan. This, in turn, added to the pressure on the already limited water resources, increased food importation and affected, to different degrees, the livelihood of the host communities.

(42) Young women's unemployment and empowerment in the rural economy, Jordan Country Brief, IFAD and ILO

(43) Overview of Refugee Food Security in Jordan COVID-19 Update, WFP, September 2020.

(44) USAID's Office of Women in Development, Food Security and Gender Fact Sheet.

(45) How Climate Change Threatens Food Security — And Why We're All at Risk
October 23, 2019. Quotes from Rupa Mukerji's essay, "Climate Change and Hunger," published as part of the 2019 Global Hunger Index.

(46) Jordan Environment, Al Arabi Aljadeed, January 2020.

Donors through UN organisations and others have generously contributed to ensure food security to refugees, but the momentum of assistance has been in decline in the past few years, reaching critical levels. If this decline continues, it will have significant implications not only over food security, but also over social and national security. Jordan bears far more than its share of the burden on behalf of the international community, and is therefore in need of support to maintain the level of services it is providing to refugees.

2.3.10 Problem Analysis and SWOT Analysis

Annex (5) depicts both the problem analyses (problem tree) and the SWOT analysis. The problem analysis has identified “the high prevalence of food insecurity and malnutrition” as the Core Problem facing food security in Jordan, which is resulting from six major causes (problems). In turn, for each major problem, the root causes have been identified. Furthermore, the upper part of the tree identifies the consequences of not acting properly and promptly to solving the problems. At the same time, the SWOT analysis identifies the internal environment, i.e., strengths and weaknesses, and the external environment, i.e., opportunities and threats that frame food security in Jordan. The Strategy should seek to reap the strengths and opportunities and minimise and overcome the impacts of weaknesses and threats.

CHAPTER THREE

THE NATIONAL FOOD SECURITY STRATEGY

The National Food Security Strategy

This chapter is based on the consultations and discussions held during the workshops held for stakeholders and focal points, as well as the bilateral meetings with thematic focal points, taking into consideration the visions, strategies and other nationally and internationally related commitments, mainly Jordan Vision 2025 and the Sustainable Development Goals 2030.

3.1 Food Security Issues in Jordan

The following issues represent a synthesis and conclusion of the analysis in Chapter Two; they will be considered during the formulation of the Strategy:

- 1 - Increased demand on food as a result of population growth and more complex food consumption patterns.
- 2 - Lack of institutional structure on food security, poor coordination among the institutions and weak policy coherence among relevant sector strategies and plans (related to agriculture, industry, trade, water -food, nutrition, health, labour, etc.).
- 3 - Weak participation of the private sector and women in economic activities which represents a missed income opportunity for households, aggravated by limited financing opportunities.
- 4 - Insufficient social protection measures, especially in light of the increased demand as a result of COVID-19.
- 5 - Weak nutrition interventions and lack of updated national statistics on malnutrition.
- 6 - Production, marketing and trade distortions such as improper regulations, administrative and non-technical barriers, and subsidies that negatively affect efficiency and effectiveness as well as agricultural value chain and food systems.
- 7 - Inefficient and unsustainable utilisation of limited natural resources, particularly water, agricultural lands and rangelands, compounded by limited water harvesting structures, extensive use of land resources, forests and overgrazing of rangelands.
- 8 - Agricultural land fragmentation and inability to benefit from economies of scale and collaborative and collective work.
- 9 - Climate change, agro-biodiversity degradation and desertification.
- 10 - Low agricultural productivity, food loss and waste during post-harvesting and post-production procedures.
- 11 - Food-related habits, cultural and social norms where big amounts of food are wasted.
- 12 - Weak investment and budgets, low quality of services, particularly in terms of research, knowledge transfer, technology, marketing and finance.

3.2 The Vision

By 2030, this Strategy aims to achieve the following vision:

“Safeguard Jordan’s population against food insecurity while ensuring access to safe, stable, affordable and nutritious supply of food at all times.”

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This means that Jordan will:

Seek to achieve food security by 2030 by holistically addressing all aspects of food security and adopting appropriate and resilient food systems. This entails all efforts exerted at the level of individuals, families and communities, while fostering an enabling environment for food security.

This is also conditional to the continued governmental and international community support, especially in relation to the refugee crisis and local communities impacted by the Syrian crisis. The pioneering role at the regional level entails that Jordan should be a role model for countries of the region by creating a regional hub, tributary, a state of success and a model for achieving modernisation and creativity in food security. Moreover, Jordan is expected to be a centre of technology transfer related to food security and will build partnerships and new cooperation modalities with the countries of the region.

In this regard, the state of food security in Jordan will be monitored through well-defined and smart indicators and sub-indicators as are outlined in Appendix (6). At the international level, Jordan will seek to achieve defined targets in the relevant SDGs and improve its accumulated scores and rank on the Global Food Security Index (GFSI), as well as the Global Hunger Index (GHI).

3.3 Strategic Objectives, Sub-objectives and Programmes

The strategic objectives are based on the four pillars of food security i.e., availability, accessibility, utilisation and stability, in addition to governance with its institutional development (policies and procedures), training and legislative components. For each strategic objective, the sub-objectives and their respective programmes have been identified. A detailed implementation plan (Action Plan) for the Strategy, with specific interventions will accordingly be developed once the Strategy is endorsed by the Council of Ministers. The prioritisation and categorisation of the short, medium and long-term interventions will be conducted in accordance with clear prioritisation modalities and criteria. It should be reemphasised that this Strategy and its action plan are not meant to replace or duplicate the existing national and sectoral strategies; they should rather complement and support the national and sectoral strategies and plans.

The First Strategic Objective

Ensure Availability of Food at National, Household and Individual Levels

Providing adequate, healthy, nutritious, and safe food at all times is one of the most important pillars of food security. Although significant self-sufficiency ratios have been achieved in vegetables, fresh milk, poultry, eggs and olive oil; Jordan heavily relies on imports of strategic food commodities which comprise the majority of the local food basket. Jordan imports nearly \$4 billion worth of food and agricultural products, including more than 95% of the country's needs of wheat and barley as well as 100% of its rice and sugar needs. This emphasises the role of trade and supply as key elements to secure sufficient quantities of strategic food commodities for Jordan in light of the limited resources to expand domestic production. Food availability is highly affected by food loss and wastes at different stages of the supply chain, which constitutes an opportunity forgone, and loss of financial and natural resources. While Jordan has not experienced serious food availability issues; global crises could jeopardise food pipelines and the ability of major producers of strategic food commodities to maintain stable food exports, hence, distorting the global food supply of strategic commodities. Limited resources comprise a serious obstacle to maintain the local production of food.

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Below are the sub-objectives and programmes that constitute major contributors to the first strategic objective:

Sub-objective 1: Achievement of the Maximum Potential of Local Food Production:

By adopting improved agricultural practices for increased productivity and efficient utilisation of limited resources to maximise their returns, particularly ground, surface and treated water; optimising production potential of strategic agricultural crops through vertical or horizontal expansion; and adopting modern technologies; in addition to shifting towards more sustainable and resilient agricultural and food systems and food industries, especially in the rural areas.

Relevant Interventions:

1. Improving Production, Productivity and Enhancing Incomes of Farmers and Producers Programme

The aims of this programme are to:

- Maximise efficient use of available natural resources, particularly water, through the use of both modern irrigation systems and low-quality water, and the utilisation of rainwater mainly through water harvesting and product mix optimisation; adopt efficient production systems such as hydroponic, pisciculture (fish farming) and permaculture; exploit neglected arable land; increase productivity and the carrying capacities of the rangelands.
- Link small and medium agricultural producers and processors to end markets through value addition, thereby acting as an effective basis for industrialisation and generation of decent employment, in particular for rural women and youth, i.e., Making Markets Work for the Poor (M4P).
- Organise and develop production systems and processes and diversification by producing profitable commodities that respond to the needs of domestic and external markets. Moreover, disseminate modern technologies and benefit from the comparative advantages that Jordan enjoys.
- Rational and safe use of production input due to its impact on food safety, consumer health and producer profitability.
- Develop post-harvest and postproduction services mainly by improving packaging, grading, packing, transport, storage and manufacturing.
- Introduce climate-smart agriculture, adapt to climate change, capitalise on renewable energy resources and preserve biodiversity.
- Develop viable and high productivity commercial livestock stock sector.
- Promote aquaculture as a promising source of protein.

2. Conservation and Sustainable Use of Agrobiodiversity Programme

The aims of this programme are to:

- Stop or reverse the degradation and misuse of natural resources i.e., land, water, flora and fauna.
- Promote and apply holistic and integrated approaches to managing natural resources such as permaculture.
- Conserve the indigenous plant and animal genetic resources.

3. Food Industry Development Programme

The aims of this programme are to:

- Improve the added value of agriculture and the profitability of farmers and industrialists.
- Increase demand for agricultural commodities and reduce surpluses.

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- Provide employment opportunities and additional sources of income, particularly for women and youth in the rural areas.
- Improve food self-sufficiency and increase exports.
- Improve the food industry's efficiency and environmental output by transferring new value addition and more resource-efficient/greener technologies in food manufacturing.
- Through sustainable agribusiness value-chain development, transform the food systems into more productive, resilient, and cost and resource-efficient systems.
- Introduce a digital tool for food businesses to improve their financial and operational performance management and identify potential operational risks.
- Enhance the production and processing of basic foodstuffs and provide the appropriate infrastructure
- Reduce double customs duties and the resulting distortions.

Sub-objective 2: Provision of Sufficient and Stable Supply of Imported Food Items:

By ensuring the availability of sufficient strategic stocks of basic food items and diversifying the global import sources of strategic food items.

Relevant Interventions:

1. Ensuring the Availability of Sufficient Strategic Food Stock Programme

The aims of this programme are to:

- Expand Jordan's storage capacity of strategic food stuff.
- Diversify import sources.
- Develop contingency and emergency plans, especially those related to imports.
- Provide an environment that is convenient for the public sector to work smoothly and easily.

Sub-objective 3: Improvement of Regional Collaboration and Integration in the Different Aspects of Food Security:

By promoting regional cooperation in the fields of agriculture and food security and investing in agricultural and food systems research and technology transfer.

Relevant Interventions:

1. Establishing the Regional Food Security Hub Programme

The aims of this programme are to:

- Reduce the impacts of crises and shocks on the countries of the region.
- Take advantage of Jordan's comparative advantage to serve the region and lay the foundations for broader and sustainable cooperation.
- Construct regional emergency stock infrastructure for the benefit of countries in the region, in addition to the regional and international relief organisations.
- Work as a regional hub for agricultural and food industries, including the establishment of modern and refrigerated stores.
- Make available a modern and organised transport fleet.
- Transform Jordan to be the regional centre for technology transfer and training in the field of agriculture and food security.
- Create an investment company for food security.

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- Develop a contingency plan for alternative supply routes in the event of a blockage.
- Proactively develop a diverse portfolio of trading relationships and long-term contracts with suppliers to mitigate disruptions and price shocks.

Sub-objective 4: Reduction of Food Loss and Waste and Enhance Food Safety:

By organising agricultural production, food consumption and optimal use of the food loss and waste.

Relevant Interventions:

1. Food Loss and Waste Reduction Programme

The aims of this programme are to:

- Improve awareness among producers, distributors, vendors, consumers and traders of the meaning and effects of food loss and waste and how to reduce them.
- Redirect the subsidy to be more efficient and effective and to limit associated distortions.
- Introduce appropriate technologies and practices to increase food commodities' shelf-life and shorten the supply chain cycles.

2. Optimal Use of the Lost and Wasted Food Programme

The aims of this programme are to:

- Benefit from the excess and non-consumed food as food, feed, energy and fertilizers.
- Create new jobs.
- Promote the concept of hospices and food banks to collect and distribute excess food to hunger-relief charities and support the needy.
- Improve the added value and reduce financial losses.

3. Food Safety Compliance Programme

The aims of this programme are to:

- Develop/revise operational policies and relevant regulations of competent authorities to integrate the concept of compliance culture among food businesses.
- Harmonise food safety standards for selected food products following Sanitary and Phytosanitary (SPS)/Technical Barriers to Trade (TBT) requirements.
- Develop and roll out incremental/stepwise food safety schemes for selected sectors.
- Enhance food control functions (food safety inspection and testing) of competent authorities in synergy with the developed food safety schemes and target products.
- Develop the competence of food safety practitioners with the corresponding framework and capacity building.
- Introduce new technologies to improve the compliance and shelf-life of selected products.

The Second Strategic Objective

Enhance Access to Food

Ensuring economic access to food by all people in Jordan is one of the main priorities; it is a religious requirement and a human right guaranteed by the heavenly religions and worldly laws. Poverty and unemployment are the top challenges to food access, and this necessitates proactive measures to address the food insecurity of the most vulnerable people. Effective interventions are necessary to improve the resilience of poor families while enhancing the enabling environment and governance to ensure sustainable solutions. Despite the continued decline in household spending on food, which reached about 26.52% during the first nine months of 2020, it remains the highest expenditure item, followed by housing at 23.78%. It is worth noting that more than 40% of the families in Jordan spend more than 40% of their income on food⁽⁴⁷⁾.

Following are the sub-objectives and programmes that constitute major contributors to the second strategic objective:

Sub-Objective 1: Reduction of the Food Insecure Households:

By adopting a set of effective measures including, but not limited to improved social protection and safety net schemes.

Relevant Interventions:

1. Supporting the Social Protection Networks Programme

The aims of this programme are to:

- Provide cash and in-kind assistance to the needy/food-insecure families.
- Improve coordination among social protection institutions.
- Promote social responsibility and solidarity activities and schemes.

Sub-objective 2: Creation of Sustainable Economic Opportunities:

By creating job opportunities while enhancing people's employability with special emphasis on rural areas and food insecure spots.

Relevant Interventions:

1. Improving Rural Livelihood Opportunities, Especially for Women and Youth Programme

The aims of this programme are to:

- Enable families and rural communities to produce certain food commodities that meet their own needs and sell the rest, such as vegetables, fruits, milk, eggs and honey.
- Promote home-based food industries and income-generating projects.
- Provide additional sources of income, employment and opportunities for the poor, women and young people.
- Ensure job matching, training, home-based businesses (HBBs), etc.
- Map/survey the working women in informal sectors. Provide additional sources of income, employment and opportunities for the poor, women and young people.
- Promote team and collective work.

(47) DOS, Household Expenditure and Income Survey (HEIS), 2017.

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2. Providing an Enabling Environment and Services for New Investments and Economic Opportunities Programme

The aims of this programme are to:

- Improve governance related to labour, HBBs, vocational areas, ... etc.
- Marketing (internal, external).
- Access to finance.
- Production subsidies.
- Improve foreign investment regulatory framework.

Sub-objective 3: Provision of Decent Living for Refugees

1. Sustaining Decent Livelihoods to Refugees Programme

The aims of this programme are to:

- Provide nutritious and safe food for refugees at all times.
- Provide refugees, mainly women and children, with health and maternity services and childcare.

The Third Strategic Objective

Optimise the Utilisation and Stability of Food

Providing healthy and balanced food to meet the requirements of healthy nutrition will reduce the prevalence of malnutrition, especially among children under five and women of childbearing age. Ensuring the stability of the adequate supply of fresh and processed food, whether locally produced or imported, is a major requirement and a prerequisite for food security.

Following are the sub-objectives and programmes that constitute major contributors to the third specific objective:

Sub-objective 1: Improvement of Food Quality for all People in Jordan:

By creating a systemic and institutionalised approach to ensure the availability of data on malnutrition and access to quality food.

Relevant Interventions:

1. Improving Food Quality Programme

The aims of this programme are to:

- Validate the effectiveness of current quality control systems.
- Properly enforce the rules and regulations related to food quality.
- Improve education and awareness of stakeholders of food quality.

Sub-objective 2: Adoption of Effective Measures to Reduce Malnutrition and Its Potential Effects

Relevant Interventions:

1. Food Fortification Programme

The aims of this programme are to:

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- Assess current nutrition and health interventions (fortification programmes, mother and child health interventions and services).
- Provide fortified food to the poor and vulnerable families.

2. School Feeding Programme

The aims of this programme are to:

- Provide nutritious and healthy meals to school students, especially in less privileged areas and neighbourhoods.
- Promote domestic production of certain commodities such as dairy products, eggs and fruits and use them as part of the school feeding scheme.
- Reduce diseases caused by malnutrition among school pupils/students (children and youth).

3. Family Care Programme

The aims of this programme are to:

- Provide food and nutrition care to mothers and children (maternity and child health).
- Reduce the spread of malnutrition, contagious and infectious diseases.

The Fourth Strategic Objective

Strengthen Governance of Food Security

Jordan does not have a specific institution dealing with food security in its broad sense, nor a unified and comprehensive regulatory framework to guide this vital and strategic issue. Food security responsibilities are shared by several institutions and are regulated by several legislative provisions, policies and national strategies, experiences of other countries that have significantly advanced in achieving food security suggest that having strong political support at the highest level is pivotal for success.

Following are the sub-objectives and programmes that constitute major contributors to the fourth strategic objective:

Sub-objective 1: Enhancement of Food Security Governance Structure:

By institutionalising the national mandate on food security and improving coordination among the relevant stakeholders.

Relevant Interventions:

1. Creating an Institutional and Legal Framework for Food Security in Jordan Programme

The aims of this programme are to:

- Create an institutional setup (entity) that will be entrusted with Jordan's food security's overall monitoring of implementation, supervision, and coordination responsibilities.
- Enhance coordination and coherence among the different stakeholders on food security-related programmes, interventions and policies.
- Enhance the capacities and capabilities of the institutions, staff and other stakeholders involved in food security.
- Improve public budget allocation, attract finance and investments in the activities related to food security.
- Provide technical, logistical, and advisory support to the entity that will manage food security in Jordan.

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2. Programme for the Establishment of a Database and Monitoring System for Food Security in Jordan

The aims of this programme are to:

- Establish a regular and systemic food security data collection system, disaggregated by sex, age, and food security components.
- Create a monitoring, evaluation, learning and reporting system to monitor progress and gauge impacts and developments.
- Issue a yearly report on the status of food security in Jordan.
- Digitise processes, procedures and services.

3. Adjusting the legal and regulatory framework for the food security programme:

The aims of this programme are to:

- Review and adjust the legal framework that governs food security.
- Properly enforce the application of laws and regulations.
- Improve the awareness, knowledge and capacities of different stakeholders.

Sub-objective 2: Strengthening Food Systems Research, Innovation, Technology :Dissemination and Services

By leveraging existing research and development institutions working in food security, and developing a national hub for food security research and development.

Relevant Interventions:

1. Programme for Supporting Research, Knowledge Development and Transfer

The aims of this programme are to:

- Create a coordination structure to map all food security and food systems relevant programmes and provide strategic guidance on these interventions.
- Conduct a study on the training needs of different institutions.
- Establish a research and development entity for food security in Jordan.
- Create a trust fund to support research and development related to food security.
- Conduct studies and research related to food security, including but not limited to:
- Prepare a preliminary study on the establishment of the Regional Hub for Food Security; mainly to identify (goals, key activities, regional scope of work, requirements, benefits, economic returns, potential domestic and international investments and partnerships between the public sector and other investors).
- Prepare a research/study on the loss and waste of agricultural and food commodities along with the production, supply, and consumption chains; and identify the means, tools, and feasibility of actions for limiting them.
- Prepare a study on the constraints and distortions affecting the improvement and development of sustainable food systems in Jordan and their mitigation strategies.

CHAPTER FOUR

THE IMPLEMENTATION PLAN

The Implementation Plan

4.1 Management and Follow-up

During the nine-year implementation period of the strategy: 2022-2030, it is proposed to adopt a rolling plan modality that allows for the annual change and adjustment of the plan in light of the achievements and funding while keeping the plan coverage for three years permanently, for example, the plan will first extend from 2022 to 2024, then from 2023 to 2025 in the second, and from 2024 to 2026 in the third, and so on.

Determining the location, nature, functions and powers of the body that will oversee, coordinate and monitor the food security file in Jordan is of paramount importance because of the impact such definition will have on efficiency and effective implementation. In this context, it is necessary to take the following into account:

- 1 - Food security overlaps with several sectors and institutions with key tasks and stakes in food security, noting that there is no specific entity that is charged/mandated to govern food security in Jordan.
- 2 - The Food Security Strategy is not a substitute for any of the existing sectoral strategies; i.e., agriculture, health, industry, trade and supply, social protection, water, school feeding, labour, transport, women, environment and others, but it will rather constitute an overarching umbrella and will support the existing strategies and institutions.
- 3 - The main role of the private sector and its various institutions, as well as the importance of this role in the decision-making process.
- 4 - The importance of establishing effective partnerships among different sectors in Jordan, on the one hand, and among such sectors and partners from the region and beyond, on the other.
- 5 - The regional dimension of food security and the importance of cooperation and coordination among the countries of the region.
- 6 - Provision of a conducive environment and conditions to ensure the success of the unit that will oversee food security in Jordan.
- 7 - Minimisation of duplication overlaps and contradictions among policies and plans related to food security.

During the preparation of the Strategy's action plan, it is paramount that benefit is made from systems and programmes that improve the prioritisation and follow-up processes.⁽⁴⁸⁾

General supervision of implementation and guidance will rest with a higher committee, while the tasks of technical supervision, diligent monitoring and follow-up will be assigned to a technical committee. The implementation of the Strategy should be monitored and evaluated regularly.

The projects being implemented will provide quarterly and annual reports; moreover, the projects will be evaluated at mid-term, and at the end of the implementation period. An annual report entitled "The State of Food Security in Jordan" will be prepared; it will include a review of the progress made annually in food conditions, and the achievements realised towards the strategic objectives, it will also make recommendations to overcome problems and challenges. Annex (6) depicts the major indicators suggested to monitor and evaluate the Strategy. The plan is evaluated every three years or as it is deemed appropriate and needed. This necessarily requires the establishment of an effective service, information, monitoring and evaluation system that is integrated with the national information

(48) Agriculture Investment Data Analyzer (AIDA), IFPRI/IFAD <https://aida-jordan.ifpri.org/#/en/national> and Food Systems Decision Support Tool, Wageningen University, 2021.

and monitoring systems, and feeds directly into the decision-making processes. It is worth mentioning that provision of necessary support and appropriate competencies is very important. In any case, monitoring, verification and evaluation mechanisms must take into account the different requirements for monitoring and tracking the status of food security, including international, regional and national requirements. Such requirements should be integrated in each project documents so that they are in line with the mechanisms of the Government of Jordan, and other responsible institutions at the national level. A group of stakeholders plays key roles in planning, implementation, follow-up and funding for various strategic projects and activities; they are mainly: Ministry of Agriculture, Ministry of Industry, Trade and Supply, Ministry of Health, the Ministry of Social Development, the Ministry of Labour, the Ministry of Water and Irrigation, Ministry of Planning and International Cooperation, Ministry of Finance, the private sector, donors, United Nations' agencies and relevant civil society organisations. Hence, it is important to adopt coordination mechanisms among all stakeholders to avoid conflict and duplication of efforts and to achieve highest efficiency and effectiveness. Annex (7) explains the strategic objectives and programmes to achieve them, responsibilities and duration of the programme, in addition to the initial indicative budget for each programme.

4.2. Sources of Funding

A range of entities and institutions will provide funding for strategic projects and interventions, such as:

- 1 - Government of Jordan's Budget.
- 2 - Foreign assistance i.e., grants, soft loans and foreign finance.
- 3 - Domestic and foreign investments.
- 4 - Public- private partnership projects.

It should be noted that farmers, producers and other operators provide the bulk of the funding from their own sources as well as from local financial institutions.

4.3 Requirements for Successful Implementation

- 1- Providing political support at the highest level to food security and considering it as a transitory priority for governments.
- 2- Reviewing and modifying relevant national policies, strategies and plans to align with the Food Security Strategy.
- 3- Establishing/identifying the unit that will deal with food security, and empowering such unit with sufficient financial and administrative independence in order to carry out its work away from routine and bureaucracy.
- 4- Providing the required financial resources and government commitment to increase the budget of relevant public institutions.
- 5- Intensifying contacts with the countries of the region and other partners, particularly in relation to the establishment of the Regional Food Security Hub.
- 6- Reaching out to donors and U.N. organisations to pay special attention to supporting food security in Jordan.
- 7- Adopting the proposed Action Programme annex (8) up till the end of 2021.

Annexes

Annex (1): Institutions and entities involved in the NFSS formulation, their mandates and responsibilities.

Several institutions and stakeholders will have a stake in the organisation and management of the NFSS, including:

1. The Ministry of Agriculture:

This Ministry will be the lead governmental institution and will have the entire responsibility all through the inception, formulation, and endorsement process of NFSS. More specifically, MoA will:

- Facilitate the assignment of the focal points in the line public and U.N. institutions.
- Convene partners engaged in the process by establishing the appropriate forum.
- Agree with development partners on the strategy outline.
- Review and endorse the Strategy outline in consultation with the higher steering committee for food security.
- Advocate politically for the process as well as for food security in general.
- Review the outcomes of the analyses and ensure alignment with the agreed Strategy outline.
- Advise co-facilitator agencies on the government standard structure/template for national strategies.
- Support the organisation of meetings and workshops, including the inception and validation workshops.
- Submit the first NFS draft to the higher steering committee for endorsement.
- Submit the final strategy document for the Council of Ministers' approval.

2. The National Food Security Committee:

This National Committee is chaired by H.E. the Minister of Agriculture and consists of the secretary-general (SG) and director-general (DG) of the most relevant government institutions, as well as senior officers from the private sector, UN and NGOs. During formulation of the NFSS; the National Committee's task is to:

- Provide overall guidance and follow-up.
- Expedite performance and continuously monitor the progress made.
- Review and endorse the draft of the NFSS.
- Advocate NFSS among key players i.e. parliament members, line ministries such as the ministries of finance and planning, donors, and UN agencies.

3. The Review Committee:

A Review Committee consisting of a representative from each of MoA, WFP, FAO, UNDP, ESCWA and the Dutch Embassy will be established to:

- Ensure the comprehensiveness, harmony, coherence and focus of the drafts prepared.
- Recommend to the Ministry and the national committee the actions to be taken.
- Ensure coordination and participation of relevant stakeholders.

4. The Focal Points/coordinators:

Several representatives from relevant government and UN agencies will be assigned to assist in undertaking thematic analysis, providing data and information and technical support to the formulation

team. The focal point will be a senior officer who, in turn, will coordinate with other relevant stakeholders inside and outside their own institution.

More specifically, the coordinators will perform the following tasks:

- Provide the needed data and information.
- Review and validate drafts of the information, findings and texts.
- Coordinate with other relevant institutions.
- Represent his/her institution in the meetings and working groups.

The Formulation Team:

This team consists of a senior policy formulation expert in the field of food security and related issues, (Senior Policy Advisor) who will lead the formulation team, assisted by the following subject-matter specialists/experts in:

- Data collection and data analysis.
- Monitoring and evaluation and theory of change.
- Programme and project identification and formulation.

More specifically, the senior policy advisor will perform/deliver the following:

- Prepare the inception report, including a brief description and analysis of the major factors and issues related to food security components in Jordan, stakeholder mapping, data collection, validation and triangulation, tentative table of contents and activity time framework and responsibilities for the upcoming six months.
- Prepare the terms of reference (ToRs) for other consultants, supervise and guide their work.
- Review relevant literature and documents.
- Collect primary data through face-to-face, virtual interviews and focus group discussions.
- Facilitate the work of the special and subject matter technical teams or committees that might be established to support the work.
- Prepare the strategy's first draft.
- Integrate comments and remarks received from different stakeholders.
- Prepare and submit the final draft of the strategy.
- Prepare the draft of the strategy implementation plan.
- Integrate comments and remarks received from different stakeholders on the draft.
- Prepare and submit the final draft of the strategy and the implementation plan.
- Assist in the preparation and moderation of the food security and implementation plan endorsement event.
- Provide regular updates on the process and progress to the lead and co-facilitator agencies.
- Perform other related duties as required.
-

Annex (2): The activities and events materialised, their purpose and implementation dates

#	Activity/Action	Purpose	Time
1	Meeting with FAO	Consultations	17/9/2020
2	Meeting with WFP	Preparatory arrangements	29/9/2020
3	Meeting with the Ministry of Agriculture and the Review Committee	Discuss the Inception Report and the formulation process	27/10/2020
4	Conducted several face-to-face and virtual meetings.	Seek consultations, opinions and feedback, collect data and information and verify and triangulate data and preliminary findings	All through the process
5	The National Food Security Committee meeting	To present the Inception Report and seek approval of the report	Five meetings, the latest on 31/5/2021
6	Meeting with WFP and FAO	To discuss progress and to overcome some constraints and delays	10/12/2020
7	The Formulation Workshop	Review chapters one and two and formulate chapter three	9-10/2/2021
8.	The Validation Workshop	Review and validate the second edition of the Strategy	22/4/2021
9.	The Meeting of the National Food Security Committee	Approve the Strategy and recommend its endorsement by the Council of Ministers	31/5/2021
10.	The Council of Ministers' Meeting	Endorsement of the Strategy	
11.	Launching Event	Reflect the priority and importance that GOJ places to food security	

Annex (3): Status of Food Security in Jordan based on the Arab Framework for Food Security Indicators

First: Core indicators:

1. Core indicator 1: Prevalence of undernourishment: increased significantly from 5.7% (0.3 million people) during 2004-2006 to 8.5% (0.9 million people) during 2017.

2. Core indicator 2: Severe food insecurity: was reported as being experienced by 13.9% of the population. Compared to 2014-2016, this prevalence decreased from 14.7% (FAO 2019), indicating a favourable trend, albeit still a high value, and certainly higher than the Arab Nation Average of 12.2%.

Based on the 2020 Global Food Security Index(GFSI)⁽⁴⁹⁾, Jordan, with a score of 60.4 out of 100, is ranked number 62 among the 113 countries included in the 2020 survey of the Global Food Security.

Arab Countries Ranking on the Global Food Security Index

Country	Overall Rank	Affordability	Availability	Quality and Safety	Natural Resources and Resilience
Kuwait	33	34	21	25	104
Oman	34	12	55	31	84
Qatar	37	40	15	29	112
Saudi Arabia	38	42	8	40	109
UAE	42	56	26	17	89
Bahrain	49	35	64	44	111
Morocco	57	50	79	57	44
Algeria	58	44	66	66	92
Tunisia	59	61	65	54	60
Egypt	60	81	5	62	47
Jordan	62	47	88	63	44
Syria	101	108	103	78	95
Yemen	113	96	113	109	96

Source: Derived from the Global Food Security Index, The Economist's Intelligence Unit 2020.

Jordan's ratings on the GFSI were 77.1/100, 48.2/100, 63.1/100 and 49.5/100 for affordability, availability, quality services, and natural resources and resilience, respectively, which in turn puts Jordan in the 47th, 88th, 63rd and 44th positions out of the 113 countries⁽⁵⁰⁾. Annex (3) Arab Countries Ranking on the Global Food Security Index.

3. Core indicator 3: Adult obesity: in Jordan, such obesity stood at 32.6% in 2019, one of the highest

(49) Global Food Security Index consists of a set of four key indicators and sub-indicators covering 113 countries and is published annually by the Intelligence Unit of the Economist (E.I.U.).

(50) Global Food Security Index, 2020.

recorded in the Arab region, and well above the region's average (28.4%). This is an increase of concern, rising from the 2010 recorded value of 31.9%. Additionally, in Jordan, obesity is more pronounced in women (43.1%) than in men (28.2%).⁽⁵¹⁾

Second: The indicators of the four food security components

I: Food availability:

Indicators:

- **The agriculture orientation index** stood at 0.14 in 2016. This is a decrease from its 2012 value of 0.18, indicating a reduction in the inclination of the Government of Jordan to invest in agriculture. The MoA's budget for 2019 was USD 87.7 million, of which USD 26.6 million was for capital budget, while in 2020, the MoA's budget was USD 89.5 million, of which USD 27.3 million was for the capital budget.
- **Food losses** recorded a slight increase between 2010 and 2017 (from 4.02% to 4.44%, respectively). This happened concurrently with an increase in production, imports (almost two-fold) and exports (more than double) (FAOSTAT Food Balance Sheets).
- **Average dietary energy supply adequacy (ADESA)** dropped from 119% in 2010-2012 to 116% during 2017-2019. This value is well below the Arab nations' regional average of 131%, indicating that food availability could be a challenge, notably among the most vulnerable.
- **Cereal imports** are high since Jordan relies greatly on the global food market. Cereal imports increased to 97.6% of national requirements in 2018 from 91.1% in 2010 and 93.6% in 2012.
- **Renewable agricultural water use** was officially reported at 54.5% in 2018 ⁽⁵²⁾. Considering that Jordan is one of the most water-scarce countries in the Arab region and the world, with available, sustainable freshwater volumes of 96.58 m³/capita/year.

II: Food Access:

Indicators:

- **Poverty at \$3.2 per day: The poverty rate at \$3.2 per person per day** was about 2.1% in 2010 and 3% in 2018, while the Household Expenditure and Income Survey of 2017 shows that this was around 10.5%. This represents a significant and sustained decline from an all-time high of 17.2% in 1992. According to the SDGs 2020 report, this figure was 9.2% in 2020.
- **Food consumption expenditure** was 39.6% in 2010 and decreased to 32.7% in 2017, whilst further dropping to circa 26.52% during the first nine months of 2020. This constitutes the second-highest expenditure item, following housing 23.78% for that year.
- **Unemployment rate** increased between 2010 and 2020 from 12.6% to 24.7%⁽⁵³⁾ during the fourth quarter of 2020, well above the regional average of 10.4%. Female unemployment (32.8%) was much higher than male unemployment (22.6%) during the fourth quarter of 2020.
- **Inflation in consumer prices** decreased slightly from 4.8% in 2010 to 4.5% in 2018. This is well below the regional average but slightly higher than the accepted level for a healthy economy. The consumer price index has reached 102.59% as the average for the first nine months of 2020 (2018=100%).

(51) World Bank, World Development Indicators, 2019.

(52) DOS, Jordan in figures, 2019.

(53) DOS, 2021.

III: Food Utilisation and Nutrition:

Indicators:

- Access to at least basic water services was 98.9% for basic drinking water in 2017, above the regional average (87%) though lower than the 2030 SDG target of 100%.
- **Access to at least basic sanitation services** was almost constant between 2010 and 2017 at 97.3%, well above the regional average (81%) though lower than the 2030 SDG target of 100%.
- **Prevalence of stunting among children under 5** was 7.8% in 2012, well below the Arab regional average (22.9%) and the 2030 global nutrition target of the World Health Assembly (WHA) of 12.2% (FAO and others, 2019). However, it needs to be brought below 2.5%.
- **Anaemia in women of reproductive age** reached an alarming high at 42.6% in 2017-2018 (34.7% in 2016), while it was only 30.8% in 2012. This is well above the Arab regional average (35.5%); the situation needs close attention.

IV: Food Stability:

Indicators:

- The **climate change vulnerability index** was at 0.05 in 2019, indicating that Jordan is not significantly affected by weather-related disasters along with the sea-level rise and loss of agricultural productivity. However, this does not mean that Jordan is completely safe from all climate change impacts.
- **Food production variability** remained relatively small and consistent between 2010 and 2016 at about USD 6.4 thousand per capita as the country is not a major food producer while the most consequential is irrigated.
- **Food supply variability** (increased significantly from 50 kcal/capita/day in 2010 to 55 kcal/capita/day in 2017⁽⁵⁴⁾). Considering the current ADESA, this is a safe margin of variability.

(54) FAOSTAT

Annex (4): Institutional Analysis of Food Security Stakeholders

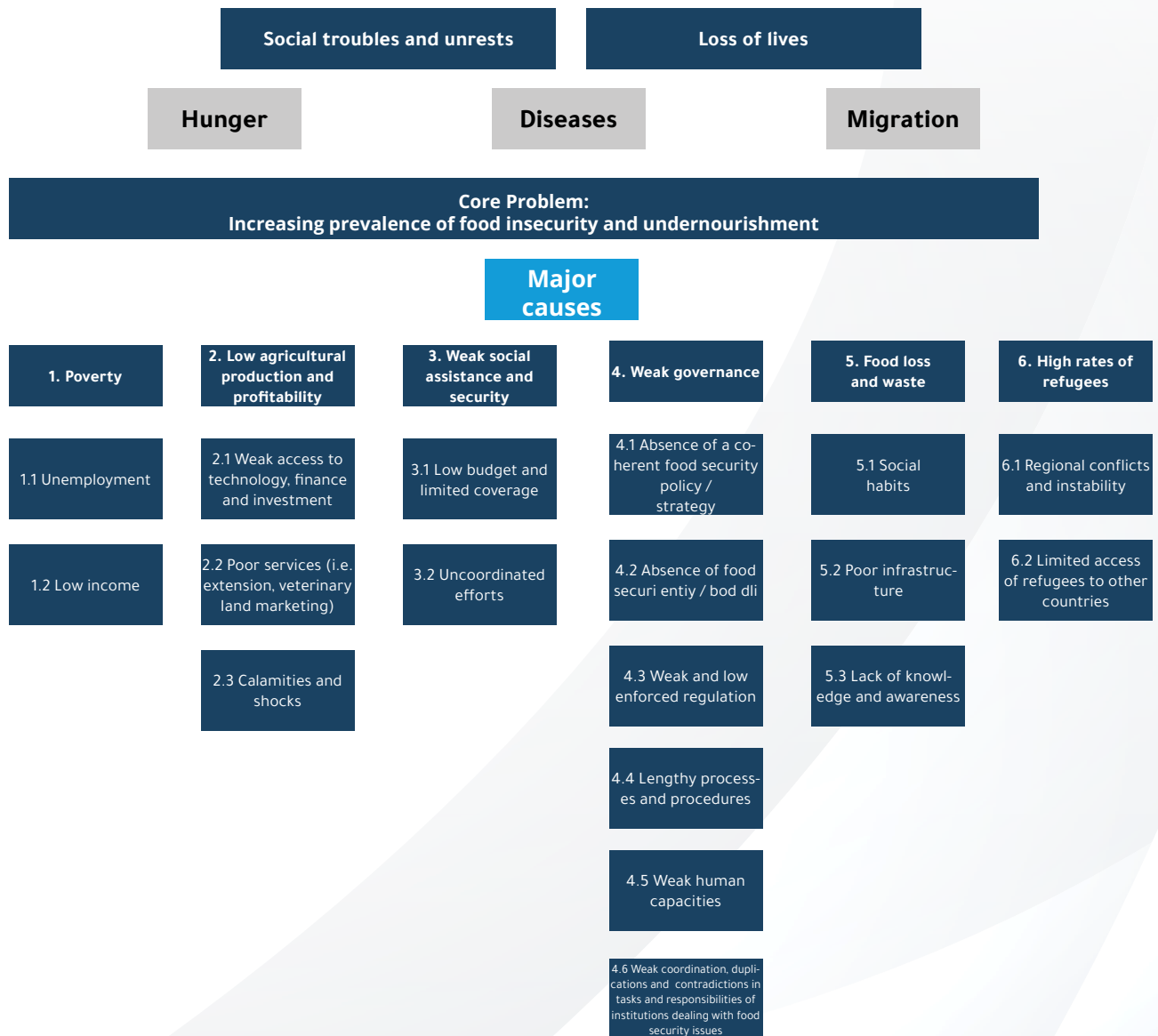
Category	Relevant Tasks	Expectations and Interest	Concerns and challenges
Government institutions	- Regulatory framework - Food control and quality assurance - Provision of services - Import and purchase of wheat and barley.	- Achieve and serve government policies. - Achieve security and stability. - Enhance popularity and support. - Improve government income.	- Complexity of food security. - Weak coordination among stakeholders. - Additional burdens on the budget and/or not enough financial resources made available. - Unexpected risks and uncertainties; i.e. economic, political, health and natural
Farmers' groups and associations	- Production of food commodities and by-products - Consumers - Investors	- Improve income and livelihood. - Implement the Strategy.	- Natural and economic risks. - Negative effects on farmers. - Unfair competition in the local market.
Private sector	- Provision of services. - Production. - Trading and marketing. - Investment. - Food processing.	- Additional and new business. - Greater regional role. - New competitors entering the market.	- Frequent policy and regulatory changes. - Not enough protection of local production, especially the new and infant industries and businesses
International, regional, and bilateral organisations	- Provision of technical and financial support. - Improvement of people's livelihoods. - Creating economic growth.	- Achieving peace, security and stability in Jordan. - Sustain Jordan's role as positive contributor and example of stability in the region. - Assist Jordan in achieving SDGs and other international conventions and agreements	- Increasing country's debt - Capacity of Jordan to sustain reform momentum. - Frequent changes in the leadership of counterpart institutions - Weak capacities in counterpart institutions

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Category	Relevant Tasks	Expectations and Interest	Concerns and challenges
• U.N. organisations	- Provision of policy advice, technical assistance and institutional support - Implementation of developmental and humanitarian projects, such as social assistance, agriculture, nutrition and health. - Assist in achieving relevant SDGs.	- Serving the U.N. organisations mandates. - Support Jordan's efforts in different fields. - Jordan provides enabling environment for U.N. organisations to perform properly and promptly.	- Frequent changes in the leadership of counterpart institutions. - Weak capacities in counterpart institutions. - Secure proper funding.
• Civil society and NGOs	- Promotion/ support of civil society and marginalised people's needs and demands. - Tackle poverty and food insecurity.	- Fair and equitable treatment to all people. - Serve their own mandates and objectives.	- Negative attitude towards civil society and NGO organisations. - Diminishing funding.

Annex (5): Problem Tree and SWOT Analysis

Problem Analysis



SWOT Analysis

Strength	Weaknesses
1. Political support given to food security at the highest level. 2. Security and stability. 3. Diversified climate and agro-ecological zones. 4. Skilled farmers. 5. Active and experienced private sector. 6. Proximity to high demand markets. 7. Conducive investment conditions, services and infrastructures. 8. Active civil society organisations. 9. Relatively cheap production costs.	1. Water scarcity. 2. Climate change effects. 3. High dependency on imports and foreign labour. 4. Unfair competition of local production with subsidised import. 5. Limited budget allocated to support productive sectors. 6. Weak institutions and services provided to producers. 7. Low productivity and profitability of local production. 8. Limited access to finance. 9. Contradiction of policies and poor coordination among relevant institutions.
Opportunities	Threats
1. Active international partners. 2. International support and solidarity. 3. High potentials for increasing productivity. 4. Existence of trade agreements and preferential treatments.	1. COVID-19. 2. Protracted crisis in the neighbouring countries. 3. Relatively high poverty and unemployment rates. 4. Low participation of women and youth in economic activities. 5. High population growth and dependency ratios and high numbers of refugees. 6. Fluctuated international prices. 7. Decreased assistance and support of the international community to refugees.

Annex (6): National Food Security Indicators Matrix

Series						
8. VISION: Safeguard Jordan's population against food insecurity and ensure access to safe, stable, affordable and nutritious supply of food at all times.						
Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
0.1) Jordan's score on the GFSI						
100-0	EIU	60.4 (2020)	64	70	75	The overall score of Jordan on the Global Food Security Index issued by the Economist's Intelligence Unit (E.I.U.), it includes 113 countries
0.2) Jordan's score on the GHI						
0-100	GHI	8.8 (2020)	6	<5	<5	The overall score of Jordan on the Global Hunger Index which includes 107 countries worldwide
0.3) Prevalence of Undernourishment POU						
0-100	FAO	8.5 (2017-2019)	6.5	4	<2.5	The number of undernourished people to total population.
STRATEGIC OBJECTIVES INDICATORS						
S.O.1 Ensure Availability of Food						
1.1) Self-sufficiency ratios of major crops						
100-0	DOS	100% (2020)	% of increase by commodity group	% of increase by commodity group	% of increase by commodity group	Percentage of the nationally produced food to totally consumed food
1.2) Food supply adequacy						
Dietary Energy Supply (DES) as a percentage of the Average Dietary Energy Requirement (ADER) 0-100	FAO	116% (2017-2019)	120%	125%	130%	A measure of the adequacy of food available for human consumption as a percentage of the average dietary energy requirement.

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Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
1.3) Productivity of major groups of agriculture commodities (vegetables, fruit, cereals, meat, poultry, milk, etc.)						
Ton/unit of production	D.O.S. and MoA	100% (2020)	% of increase by commodity group	% of increase by commodity group	% of increase by commodity group	Total production of different agricultural commodity groups divided by the production units
1.4) Productivity per cubic meter of water of major horticultural crops						
Kg/m ³	DOS, MoA and MoWI	100%	% of increase by commodity group	% of increase by commodity group	% of increase by commodity group	Total production of irrigated vegetables and fruits/total quantity of water used for irrigating vegetables and fruits
1.5) Strategic food stock reserve						
tonnes	MoITS	100% (2020)	% of increase by commodity	% of increase by commodity	% of increase by commodity	Amount of the strategic reserve of the major 12 commodities
1.6) Share of freshwater used in agriculture						
%	DOS, MoA and MoWI	100% (2020)	% of decrease	% of decrease	% of decrease	A measure of the percentage of freshwater used in agriculture/the total water used in agriculture
1.7) Capacity of food processing plants						
tonnes	DOS and MOITS	100% (2020)	110%	150%	200%	A measure of the number of food processing industries and their production capacities
1.8) Food loss						
Total loss as a percentage of total domestic supply	FAO	100% (2020)	85%	70%	50%	A measure of post-harvest and pre-consumer food loss as a ratio of the domestic supply (production, net imports and stock changes) of crops, livestock and fish commodities (in tonnes).

Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
1.9) Food waste						
Total waste as a percentage of domestic supply	FAO/UN Environment	100% (2020)	85%	70%	50%	A measure of food wasted from the retailer to consumer (in tonnes)
S.O.2 Enhance Access to Food						
2.1) Change in average food costs						
Annual change in Consumer Prices, Food Indices (2020 = 100)	DOS/FAO	83 (2019)	80	75	70	A measure of the change in average food costs, as captured through the Food CPI, which tracks changes in the price of the average basket of food goods.
2.2) Proportion of population under the global poverty line						
% of the population living under \$3.20/day	DOS/World Bank, World Development Indicators	10.5% (2017)	-10%	-15%	-20%	A measure of the prevalence of poverty, calculated as the percentage of the population living on less than US\$3.20/day at 2020 purchasing power parity (PPP) exchange rates.
2.3) Agricultural import tariffs						
%	MoITS/ WTO	55.4 (2020)	tbd	tbd	tbd	A measure of the average most-favoured-nation (MFN) tariff applied to all agricultural imports.
2.4 Food import geographical diversification						
Geographical distribution of import sources	MoITS	2020	tbd	tbd	tbd	A measure of the number of import sources (countries of origin) for major imported commodities
2.5) Safety nets' programmes						
Number	MoSD		tbd	tbd	tbd	Calculated as the weighted average of the scores of several sub indicators such as presence, funding, coverage, ... etc.

Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
2.6) Assistance provided by NAF						
Million JD	NAF	100%	120%	140%	160%	A measure of the annual expenditure of NAF divided over the number of people under the poverty line of 3.2 \$ in the same year
2.7) Assistance to refugees						
Million JD	MOPIC	100%	tbd	tbd	tbd	Value of the assistance provided to refugees/ number of total refugees
2.8) Access of farmers to agricultural credit						
Number and value of loans	ACC	100% (2020)	120%	150%	200%	A measure of availability of agricultural and agri-business credit
5.0.3 Optimise the Utilisation and Stability of Food						
3.1) Dietary diversity						
% non-starchy foods in dietary consumption	MoH/FAO	52.2 (2020)	55	60	65	A measure of the share of non-starchy foods (all foods other than cereals, roots and tubers) in total dietary energy consumption.
3.2) National dietary guidelines						
Qualitative rating 0-1	EIU scoring/ FAO/MoH	0.0 (2020)	1	1	1	An assessment of whether the Government of Jordan has published guidelines and conducted educational campaigns within the past 1-2 years to disseminate messages on a balanced and nutritious diet.

Annexes

Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
3.3) National nutrition plan or strategy						
Qualitative rating 0-1	Qualitative scoring by EIU analysts based on WHO, FAO and the Ministry of Health's documents	0.0 (2020)	1	1	1	An assessment of whether the Government of Jordan has a current, published national strategy to improve nutrition for both children and adults.
3.4) Obesity						
%	MoH/ UNICEF/ WHO	32.3%	30	25	20	Percentage of obesity in the adults (over 18 years)
3.5) Child stunting						
%	MoH/ UNICEF/ WHO		tbd	tbd	tbd	Percentage of children under 5 years of age affected by stunting
3.6) Child wasting						
%	MoH/ UNICEF/ WHO	tbd	tbd	tbd	tbd	Percentage of children under 5 years of age affected by wasting
3.7) Women anaemia						
%	MoH/ UNICEF/ WHO	34.7 (2016)	tbd	tbd	tbd	Percentage of anaemia among women of productive age (15-49)
3.8) Micronutrient availability such as Vitamin A, iron, zinc and protein quality						
Score 0-100	EIU calculation	68.6 (2020)	75	80	85	Score 0-100 calculated as the weighted average of the sub-scores identified by EIU mg/ capita/day
3.9) Food safety						
Score 0-100	EIU calculation	77.9 (2020)	82	87	90	Score 0-100 calculated as the weighted average of the sub-scores identified by EIU

Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
S.O.4 Strengthen the Governance of Food Security						
4.1) Public expenditure on agricultural development						
Agriculture shares of government expenditure (%) / Agriculture value-added share of GDP (%)	United Nations	9.4 (2020)	25	35	45	A measure of government spending on agricultural development, as captured through the Agricultural Orientation Index, a proxy indicator assessing public investment in agriculture.
4.2) Public expenditure on agricultural research, knowledge transfer and innovation						
Share of agriculture GDP and access to research and knowledge	MoA (NARC) and MoF	100% (2020)	300%	600%	1000%	A measure of spending on agricultural research and innovation as a ratio of the agricultural GDP, and access to research results and knowledge
4.3) Amount of food subsidy						
Millions of JDs spent on food subsidy	MoF/MOITS and other ministries	100%	100%	100%	100%	A measure of government financial support to subsidise the prices of food items
4.4) Food related legislations issued or amended						
Number	Related Institutions	100%	120%	130%	140%	A measure of legal reform and adjustments to align and cope with the strategic objectives
4.5) National food security entity						
Unit/entity	Prime Ministry	0 2020	100	100	100	A measure to gauge progress in putting the national food security structure in place
4.6) Food Security Information System (FSIS)						
System	Food Security Unit	0 2020	100	100	100	A measure to gauge the establishment and operationalisation of FSIS

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Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
4.7) Food and natural resources early warning system						
System	Several Institutions	0 2020	100	100	100	A measure to gauge the establishment and operationalisation of natural resources and food monitoring and early warning system
4.8) Food security regional hub						
Regional hub	National Food Security Unit	0 2020	100	100	100	A measure to gauge progress in establishment and operationalisation of the regional food security hub
4.9) Food safety mechanisms						
Score 0-100, 100 = best	MoH/WHO, Country-reported data	40.0 (2020)	50	60	70	A measure of the efficacy of food safety mechanisms, as captured by a WHO-assigned score based on a 20+ question country self-assessment on food safety, including national standards, legislation, guidelines, laboratory capacity assessments and food recall and tracing plans. Scores are provided on a 0-100 scale.
4.10) Maternity and child clinics						
Clinics	MoH	100% 2020	+10%	+20%	+25%	A measure to gauge the coverage of mothers and children health care

Annex (7): Goals, Programmes, Responsibilities, Duration and Budgets of Programmes

Strategy/Programme Objectives	Responsibility for supervision and monitoring	Responsibility for implementation	Year of start and completion	Budget (million dinars)
The first strategic objective: Availability of Food				
Sub-Objective 1: Achievement of the Maximum Potential of Local Food Production				
1. Improving Production and Enhancing Incomes of Farmers and Producers Programme.	MoA	Farmers, MoA, the National Centre for Agricultural Research and the Agricultural Credit Corporation	2022-2027	25
2. Conservation and Sustainable Use of Agrobiodiversity Programme	MoA, MoEnv	Farmers, MoA, MoEnv and National Research Center	2022-2030	15
3. Food Industry Development Programme	MOITS, Investment Promotion Corporation, Chambers of Trade and Industries, Banks	MOITS, Investment Promotion Corporation, Chambers of Industries and trade and Banks	2022-2024	5
Sub-objective 2: Provision of Sufficient and Stable Supply of Imported Food Items.				
1. Ensuring the Availability of Sufficient Strategic Food Stock programme.	MOITS	MOITS and Private Sector	2022-2027	T.B.D.
Sub-objective 3: Improvement of Regional Collaboration and Integration in the Different Aspects of Food Security.				
1. Establishing the Regional Food Security Hub Programme.	Food Security Unit	Food Security Unit, MOITS, IPC, MoA, Chambers of Trade and Industries	2022-2030	T.B.D.
Remarks : Budget will be decided after the study is prepared				
Sub-objective 4: Reduction of Food Loss and Waste and Enhance Food Safety.				
1. Food Loss and Waste Reduction Programme.	Food Security Unit	Food Security Unit, MoA, MOITS, MoEnv, MoH, Municipalities, Wholesalers, Retailers, Industrialists	2022-2030	20

Strategy/Programme Objectives	Responsibility for supervision and monitoring	Responsibility for implementation	Year of start and completion	Budget (million dinars)
2. Optimal Use of the Lost and Wasted Food Programme	Food Security Unit	Food Security Unit, MoA, MOITS, MoEnv, Municipalities, MoH, Private Sector, and NGOs	2022-2030	15
3. Food Safety Compliance Programme	JFDA, MoH	JFDA, MoH, and Municipalities	2022-2027	5
The second strategic objective: Enhance Access to Food				
Sub-Objective 1: Reduction of the Food Insecure Households				
1. Supporting the Social Protection Networks Programme	MoSD, NAF	MoSD, MoPIC, NAF, CSOs and Zakat Fund	2022-2024	30
Sub-objective 2: Creation of Sustainable Economic Opportunities				
1. Improving Rural Livelihood Opportunities Especially for Women and Youth Programme.	MoA, MoL, MoSD	MoA, MoL, MoSD, CSOs, Private Sector	2022-2030	40
2. Providing the Enabling Environment and Services for New Investments and Economic Opportunities Programme.	IPC, MOPIC, MoITS, MoA, Specialised Credit Institutions	IPC, MOPIC, MoITS, MoA, Specialised Credit Institutions	2022-2024	15
Sub-objective 3: Provision of Decent Living for Refugees				
1. Sustaining Decent Livelihoods to Refugees programme	MOPIC	MOPIC, MOFA, Donors and UN agencies	2022-2030	Not identified
Remarks : The budget will be determined later.				
The third strategic objective: Optimise the Utilisation and Stability of Food				
Sub-objective 1: Improvement of Food Quality for all People in Jordan				
1. Improving Food Quality Programme	JSMO, JFDA, MoH, MoA, MoITS	JSMO, JFDA, MoH, MoA, MoITS, Municipalities, CSOs	2022-2030	5
Sub-objective 2: Adoption of Effective Measures to Reduction of Malnutrition and Its Potential Effects.				
1. Enhancing Iodine and Wheat Flour Fortification Programme.	MoH, MoITS	MoH, MoITS, Food Industries	2022-2027	10

Strategy/Programme Objectives	Responsibility for supervision and monitoring	Responsibility for implementation	Year of start and completion	Budget (million dinars)
2. School Feeding Programme	MoE	MoE, MoH, MoSD and UN organisations	2022-2030	30
3. Family Care Programme	MoH	MoH, MoSD and CSOs	2022-2025	15
The fourth strategic objective: Strengthen Governance of Food Security.				
Sub-objective 1: Enhancement of Food Security Governance Structure.				
1. Creating and enhancing the Institutional Framework for Food Security in Jordan Programme.	Food Security Unit	Prime Ministry, Food Security Unit, MoF and MOPIC	2022-2024	10
2. Programme for the Establishment of a Database and Monitoring System for Food Security in Jordan.	Food Security Unit	Prime Ministry, MOPIC, Food Security Unit	2022-2024	5
3. Adjusting the legal and regulatory framework for food security programme.	Food Security Unit	Food Security Unit	2022-2024	3
Sub-objective 2: Strengthening of the Food Systems Research, Innovation and Technology Dissemination and Digitisation of processes, procedures and services.				
1. Programme for Supporting Research, Knowledge Development and Transfer.	Food Security Unit, NARC, RSS	Food Security Unit, NARC, RSS, Universities, CSOs	2022-2027	15

Annex (8): The Action Programme until the End of 2021

- 1 - Approving the strategy and celebrate its launch.
- 2 - Directly start preparing a detailed implementation plan, including project documents to achieve different strategic objectives and programmes **within three months** of approval of the Strategy.
- 3 - Preparation of the Terms of References for the studies mentioned in Chapter Three **within three weeks** of the date of approval of the Strategy.
- 4 - Completion of studies mentioned in the Institutional Support Programme for Food Security **within six months** of the approval of the Strategy.
- 5 - Establishing the national entity/body that will supervise the food security in Jordan and determine its working modalities **within six months** of the approval of the Strategy.
- 6 - Allocating an emergency budget to the unit to be established in addition to attracting funding and emergency technical support for urgent activities **within three months** of the approval of the Strategy.
- 7 - Intensifying contacts with stakeholders, particularly donors and investors from the region and abroad, mainly in regard to the establishment of the Regional Food Security Hub.
- 8 - Forming a high-level food security working group comprising representatives of the Government of Jordan, the private sector, donors and United Nations organisations to improve coordination and harmonisation between policies, plans and interventions **within three months** of the approval of the Strategy.
- 9 - Authorising the National Committee for Food Security, headed by H.E. the Minister of Agriculture, to follow up on the implementation of the transition process until the establishment of the Special Food Security entity/unit. **(to be included in the letter of endorsement)**
- 10 - Conducting a conference on regional food security and food systems in Jordan in light of regional and international changes and developments **within six months** of the approval of the Strategy. The conference will be used as an opportunity to promote regional cooperation and to stress the role of Jordan in achieving and sustaining food security and food systems.
- 11 - Coming up with a new compact between the Government of Jordan, donors and UN agencies on the adoption of new mechanisms that take into account continuity in funding and the empowerment of refugees and enable them to recover (graduate) from the hotbeds of hunger, poverty and unemployment.

