

The Hashemite Kingdom of Jordan

The Final Version

The National Food Security Strategy

Translation from Arabic

June 2021

Glossary of Acronyms

Acronym	Definition
ACC	Agricultural Credit Corporation
ADER	Average Dietary Energy Requirement
ADESA	Average Dietary Energy Supply Adequacy
AOAD	Arab Organization for Agricultural Development
CARI	WFP Consolidated Approach to Reporting Indicators
COVID-19	Corona Virus Disease 2019
CSOs	Civil Society Organizations
D.G.	Director-General
DES	Dietary Energy Supply
DoS	Department of Statistics
EU	European Union
FAO	Food and Agriculture Organization 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 Organization
M4P	Make Markets Work for the Poor
MoA	Ministry of Agriculture
MoE	Ministry of Education
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 Organizations
POU	Prevalence of Undernourishment
RSS	Royal Scientific Society
SDGs	Sustainable Development Goals
S.G.	Secretary General
SPS	Sanitary and Phyto Sanitary
SWOT	Strengths, Weaknesses, Opportunities and Treats
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	the United Nations Relief and Works Agency for Palestine
USA	United States of America
USD	United States of America Dollar
WFP	World Food Programme
WHO	World Health Organization

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1. Chapter One: Introduction

1.1 Background

After the onset of covid-19, and on several different previous occasions during the past few months, H.M. King Abdullah II Ibn Al-Hussein has stressed food security as a major concern and priority for Jordan. H.M. emphasized several topics that require deep thinking and taking the appropriate measures on them, among 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 isn’t 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 the light of urbanization, globalization, 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 COVID19 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 constitutes 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 center 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 foodstuffs. Food security in Jordan has, therefore historically, almost solely been associated with agriculture. In this regard, it is worth

¹ Statement of His Majesty 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 of 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

noting that the first agricultural policy for Jordan was endorsed in 1992 and included several associations with food security⁴. 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 security strategy for Jordan⁵.

Despite the fact that food security in Jordan depends to great extent on agriculture production, but 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 a multi-dimensional and multi-institutional issue that requires cooperation and coordination among different institutions and stakeholders, These include government institutions, private sector entities, civil society organizations, and international organizations. Food security is a function of several factors that are mutually inclusive, such as nutrition, consumption, access, governance, stability and sustainability.

Jordan is committed to achieving the S.D.G.s 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 targets 2.1 and 2.2, which are closely linked to hunger, food security and nutrition. It is to be noted that business as usual and even providing more of the same will not suffice and will not achieve our desired objective. Thinking 'outside of the box' is required, and intensive efforts need to be exerted in order for Jordan to meet its obligations and commitments towards achieving the S.D.G.s 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, signals a kick start of joint national and international 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 Kingdom's second century.
2. Support realization of the role of Jordan as a strategic regional hub for food security that will serve as a center for storage and logistics, agricultural production, food processing, irrigation systems, plastic houses, technology and knowledge transfer and as a hub to provide emergency 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 S.D.G. targets.
5. Build resilience to climate change and its impacts.
6. Mitigate the impact of COVID19 on food security.

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

⁵ The last was the National Food Security Strategy May 2017, an inclusive document supported by several subject matter technical papers prepared by WFP and UNDP upon request of the Ministry of Agriculture.

7. Address the consequences of the Syrian refugee crisis as a protracted crisis on food security in Jordan.

1.3 Methodology and Approach

The Ministry of Agriculture has approached its partners to support the development of the NFSS. The W.F.P., F.A.O., UNDP, ESCWA and the Dutch Embassy have all expressed their willingness and readiness to support the Ministry in this important undertaking. The Ministry convened a meeting with the five partners on 9 September 2020 in order to exchange views on procedures, partnerships and process lead. The Minister of Agriculture also underlined the need for a comprehensive strategy that addresses all pillars of food security. This endeavour requires the engagement of multiple government institutions and their relevant developmental counterparts. To ensure inclusiveness, the Minister of Agriculture asked F.A.O. and W.F.P. to co-facilitate the process under the leadership of the Ministry. ⁶

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

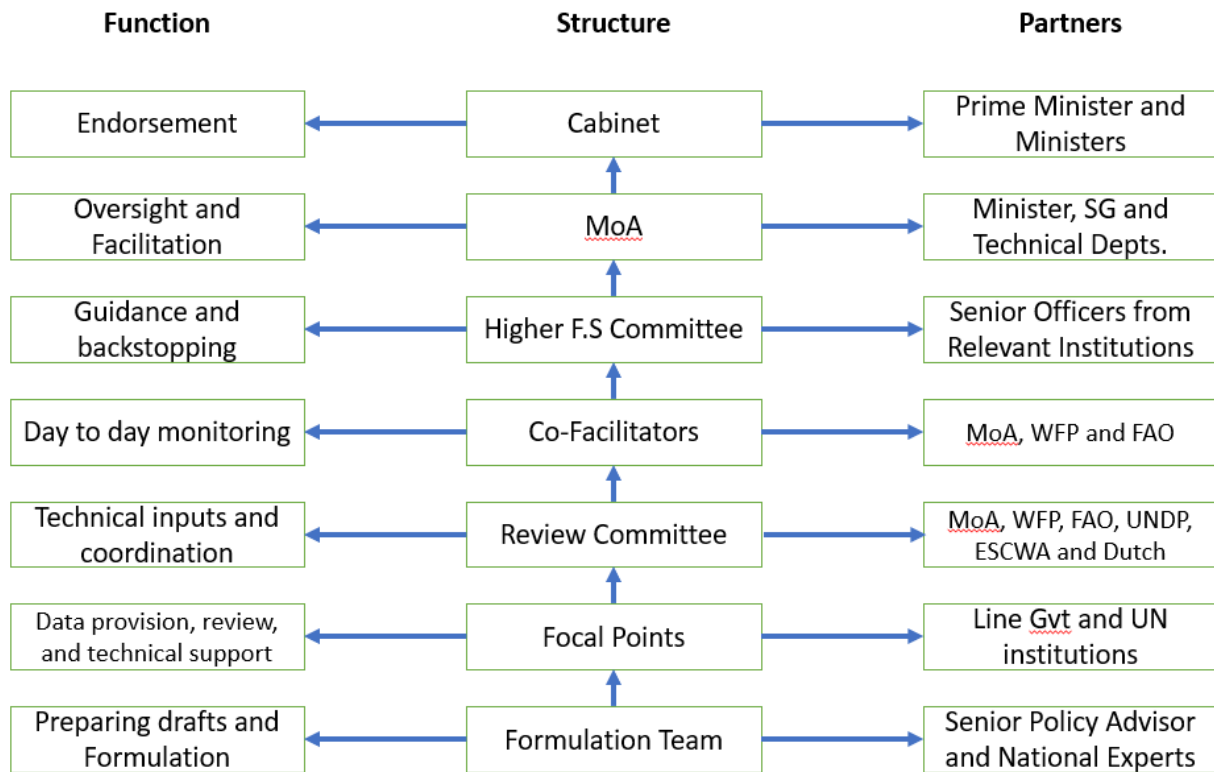
The preparatory work, consultations, data collection and review of the literature was started in late September 2020, and consequently, the draft inception report was prepared by the senior policy adviser and discussed by MoA and the Review Committee on 27 October 2020. The final draft of the Inception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

All relevant stakeholders participated actively in the review and planning workshop held between 9th-10th February 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 conducted on 22 April for the validation and completing some missing parts of the strategy. Both workshops were attended by the focal points from 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 31 May 2021 and recommended its approval to the Cabinet, which in turn granted its approval on..... Annex (2) shows the activities and events which were undertaken, their purpose, and implementation dates.

The schematic diagram below depicts the different entities 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 prepared to constitute a basis and to guide the strategy formulation process



NFSS Structure and Functions

2. Chapter Two: Status of Food Security in Jordan

2.1 Macro-economic, 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 areas and around 12% of whom are Syrian refugees. The national G.D.P. reached USD 44 billion, and the per capita income amounted to circa USD 4 thousand in 2019.

The absolute poverty rate reached 15.7% in 2017⁸ compared to 14.4% in 2010. During the fourth quarter of 2020, unemployment reached an all-time high at 24.7%⁹ (22.6% and 32.8% for males and females, respectively).

Jordan is one of the most water-scarce countries in 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 freshwater resources while contributing just 5% of national G.D.P in 2019.¹⁰ Moreover, Jordan is an energy-poor country – in 2019, the country imported more than 95% of its energy, with a value of USD 3.062 billion.

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

Among Jordanians, 3% of 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-Tafielah is by far the most food-insecure region, with 20% of households being food insecure.¹¹

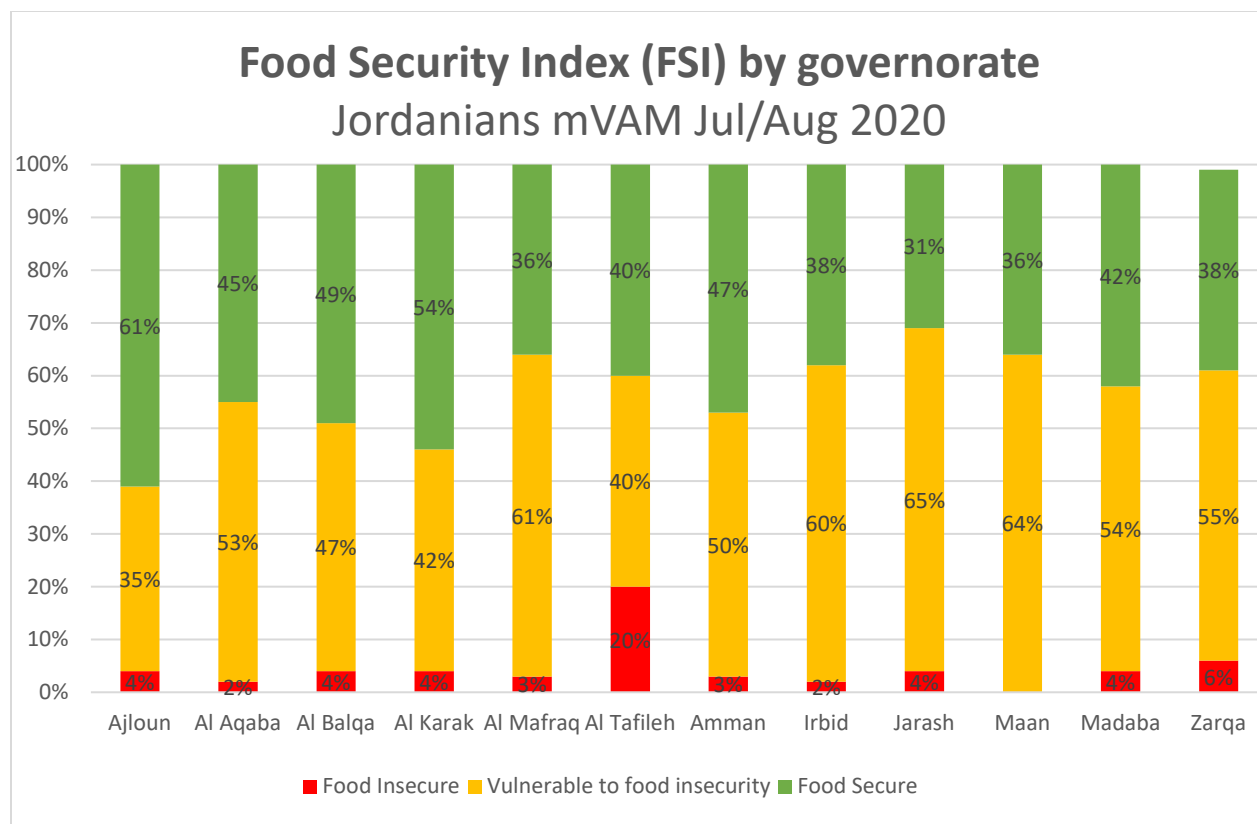
⁷ DOS, 2020. [online] Available at: <<http://dosweb.dos.gov.jo/>>

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, IFAD and WFP July-August 2020



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

2.2 State of Food Security and Nutrition¹²

Food security is defined as **“The state when 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 life¹³.”** Food security consists of four main factors or components, which are closely linked and mutually inclusive. The nodes 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 food¹⁴**. Whilst food security is an overarching national objective, and a food system is an approach, these terms are commonly used interchangeably.

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 food¹⁵.

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

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

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

While Jordan is emphasizing the priority of food security in 2021 and beyond, two international summits will also be conducted in that 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 specialized agencies and the Global Food Security Index applied by the Economist Intelligence Unit. Moreover, ESCWA in cooperation with AOAD and FAO has developed the Arab Food Security Monitoring Framework, which generally consistent with the U.N. system¹⁶. Annex (3) contains a summary of the status of food security in Jordan according to the indicators of the Arab Monitoring Framework. In 2020¹⁷ Jordan achieved 60.4 out of 100 points on the Global Food Security Index, accordingly, was ranked 62 among the 113 countries included in the survey. Furthermore, Jordan was ranked 11 out of the 13 Arab countries included in the same survey.

2.3 Other 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 rather 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 fostered solidarity within local communities as well as the dominant subsistence agricultural pattern and food systems, especially in rural areas and Badia. However, urbanization, high population growth rates, rural/urban migration, abandonment of agricultural lands, the sudden surge in population due to inward movements of refugees, and the volatile international market prices have all contributed to increased levels of hunger in Jordan. Jordan is, however, categorized among the low severity hunger countries on the Global Hunger Index (GHI).¹⁸

In this regard the following should be mentioned:

- Poverty in Jordan is increasing as it reached 15.7% in 2017 compared to 14.4% in 2010.

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 Intelligence Unit of the Economist (E.I.U.)

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

- During 2017-2019, the Prevalence of Undernourishment (P.O.U.) 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 P.O.U. during the period 2017-2019 compared with the period 2004-2006 ¹⁹.
- Covid 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 with other regions and worldwide.

Geographic level	Period	Jordan	West Asia	West Asia and North Africa	Upper Middle-Income Countries	World
P.O.U. %	2004-2006	5.6	15.6	10.7	7.5	12.5
	2017-2019	8.5	12.1	9	3	8.5
Number in million	2004-2006	0.3	24	42	178	819
	2017-2019	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 leads to increased unemployment, worsening hunger and

¹⁹ SOFI 2020

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

²¹ DOS Website 7 April 2021

the inability of social protection programmes to meet the needs of the needy. Moreover, it contributed to decreasing public expenditure, budget deficit and increasing the public debt.

2.3.2 Agriculture

Jordan's cultivated area is about 2.12 million du²². 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 du while vegetables and fruits occupy 0.374 and 0.784 million du, respectively. The Forest area is mounted to 1.049 million du while the rangeland area is around 8.5 million du. The ruminant flock size is around 3.9 million heads of which 77 thousand cows, 3.01 million sheep, 765 thousand goats and 10 thousand camels.²⁴

Agriculture contributed to around 5.6% of the G.D.P. at Current Basic Prices in 2019.²⁵ It is worth noting that when the forward and backward linkages to agriculture are considered, its contribution to G.D.P. will reach 15%- 20%. Moreover, agriculture constitutes a source of income to 118 thousand families in rural areas and Badia region.²⁶ Agriculture employs 91 thousand Jordanians of which 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 which 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 Moreover and despite that 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 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. This in addition to weak marketing and export promotion activities and facilities, and 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 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.

²² 1 du equals 1000 m²

²³ Agriculture in Figures 2008-2018, MoA, 2019

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, UNWOMEN and REACH, 2018

2.3.3 Water Scarcity

Water scarcity in Jordan is one of the most important challenges and problems experienced by Jordan, where Jordan is one of the poorest countries in the world water and per capita fresh water is less than 100 cubic meters compared to a global average of 7,000 cubic meters. Water scarcity affects 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 consumed about 75% of Jordan's water 25 years ago. Despite the considerable financial efforts and resources allocated to the development of this sector, it continues to suffer from several challenges and constraints, the most important of which is the 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/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 the European countries. On the other hand, Jordan depends heavily 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 USD 3.418 billion, while the value of exported food and live animals was USD 917 million. The food balance deficit in 2018 was USD 2.501 billion, which makes Jordan vulnerable to global market changes .

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 Consuming (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 percent of the local market share; it has 11 sub-sectors, including bakery and sweets, dairy production, meat, and fruits and vegetables. The food industry also accounts for 15 percent of the total number of Jordan's industrial facilities, with up to 2,645 industrial establishments 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 through all steps (production, distribution and consumption) have a big potential for improving and increasing its efficiency. This will mainly materialize through the adoption of new technologies, innovative approaches and good practices such as the adoption of hydroponic farming, efficient 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 neighbouring regional markets. In the future the agro-food industries will be more important and will gain more potentials of growths.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 subsidized prices.

Food trading and manufacturing in Jordan suffer from limited post-harvest and post-production services and weak investments, especially foreign investments, non-tariff and 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 Waste

A sizeable share of the food produced or imported is either lost or wasted through the food supply chain.³² It should be noted that there is a lack of appropriate data on the amount of FLW in Jordan. Globally 14% of the produced food is lost during the post-harvest stage before reaching the retail stage³³. The amount of wasted food in Jordan reached 93kg/capita/year compared with

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

³⁰ Ibid

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

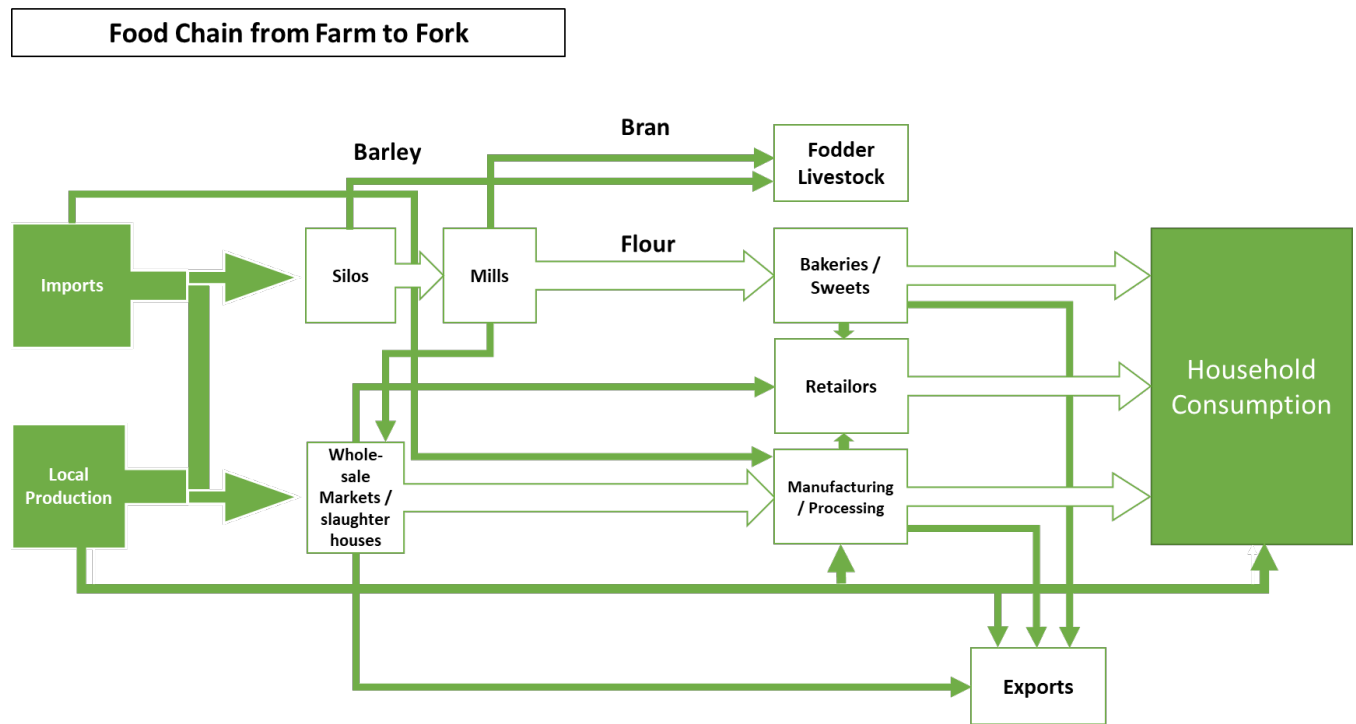
121 kg at the global level. The total amount of wasted food in Jordan reached 930 thousand tons in 2020 while it reached 931 million tons globally.³⁴

In Jordan, with scarce water resources, food losses and waste have a multiplier effect, 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 minimizing food loss and waste is the in-depth understanding of where, how and why FLW is happening and identifying mitigation measures. Solutions should be prioritized according to specific criteria, including economic, social and environmental. Accordingly, adopting the best compromises that could potentially maximize benefits and minimize damages and costs.

The sketch below depicts the food value chain and its main nodes in Jordan.

Note: delete household in the sketch



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

³⁴ Food Waste Index, United Nations Environment, 2021

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 modernization of value chain nodes and structures.
5. Overproduction of certain commodities at certain periods and seasons and ineffective subsidy policy.

2.3.6 COVID-19

COVID-19 is taking its toll on food security in Jordan. 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 countries' abilities to maintain effective social protection schemes. As the crisis drags on, people are resorting to negative coping strategies (for example, using savings and selling productive assets)³⁵. COVID19 has also impacted global food systems as it has affected the demand and supply dynamics.

In Jordan, COVID19 has forced restrictions on trade, left many people jobless, increased prices of certain services and commodities and limited access to production facilities which resulted in non-optimal production measures at most of the productive sectors.

Despite the direct impact of covid 19 on all aspects of life, the food supply in Jordan has remained stable. Moreover, Jordan was also able to sustain a relatively stable level of production and export of agricultural and food commodities to other countries in the region. The Government took 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 program, run by the National Aid Fund. While the short-term effects of COVID19 were at their peak during the first three months of the breakout, the cumulative and long-term negative impact constitutes a major challenge to all economic sectors, households and individuals, especially women, children and the elderly. 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 marriages³⁷. 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 monetize part of their W.F.P. entitlement

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>.

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

to meet essential needs other than food, and this comes at the expense of household food security³⁸.

2.3.7 Regionalism

The outbreak of COVID19 stressed 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 minimize and cope with the economic, social and environmental impact of it. 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 stabilizing 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 E.U. and U.S.A., VI) availability of qualified and skilled manpower.

Regionalism entails achieving the following among others:

facilitating trade, minimizing non-tariff barriers, coordinating policies and adapting them between the countries of the region and 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 maximizes the interrelations between food, water and energy and builds policies and technologies that are based on vision and prioritization.³⁹

It should be noted here that 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 obstacles that must be overcome in order to bring hope to regional cooperation.

2.3.8 Stakeholders, Institutional and Legal Framework

Several institutions, organizations 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) summarizes the tasks, expectations and concerns of food security stakeholder groups in Jordan.

³⁸ Ibid

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

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

1. Absence of 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. Doing business environment is not always conducive (Despite the remarkable improvement in 2019 as Jordan was ranked 75 out of 190 countries listed in Ease of Doing Business Scale compared to 104 in 2018⁴⁰).
4. Weak participation of private sector in the decision-making and taking 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 most from the consequences of food insecurity as individuals and mothers. As decision influencers, women can contribute heavily to improving food security at the household and national levels.

The unemployment rate in Jordan surged to 24.7 percent in the fourth quarter of 2020 from 19 percent in the same period of the previous year, amid 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 percent vs. 17.7 percent in Q4 2019) and women (32.8 percent vs. 24.1 percent in the same quarter of 2019)⁴¹. The Jordanian labour market is characterized by large gender differences; labour force participation among women stands below 15%, compared to around 60% for men.⁴²

In Zaatiri 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 counterparts⁴³.

When given the opportunity to manage household finances, studies show that women are more likely than men to spend on their family's nutritional needs, healthcare, and school fees for

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

⁴¹ Dos Website, 2021

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

children. Therefore, empowering women to increase access to and control over resources is critical to attaining food security⁴⁴.

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 lives 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 they depend heavily 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 percent. 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 ecosystems⁴⁶.

Refugees:

Jordan is considered to be 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 limited water resources, increased food import and affected to different degrees the livelihood of the host communities.

Donors through U.N. organizations and others have contributed generously 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 for food security but also for 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 provided to refugees.

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

2.3.10 Problem Analysis and SWOT Analysis

The analysis included in annex (5) depicts both the problem analyses (problem tree) and the SWOT analysis. The problem analysis identified the “The high prevalence of food insecurity and malnutrition” as the Core Problem facing food security in Jordan, which is resulted 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 minimize and overcome the effects and impacts of weaknesses and threats.

3. Chapter Three: The National Food Security Strategy

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

3.1 Issues Related to Food Security

The following issues represent a synthesis and conclusion of the analysis in chapter two in order to consider and respond to while formulating 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 between the institutions and weak policy coherence between relevant sector strategies and plans (agriculture, industry, trade, water -food, nutrition, health, labour, etc.).
3. Weak participation of 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 COVID19.
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 and negatively impact agricultural value chain and food systems.
7. Inefficient utilization 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 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:

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

This means that Jordan will:

Seek to achieve food security by 2030 by addressing, holistically, 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 modernization and creativity in food security. Moreover, Jordan is expected to be a center 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 Appendix (6). At the international level, Jordan will seek to achieve defined targets in the relevant S.D.G.s 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, utilization 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 after this strategy being endorsed by the Council of Ministers. The prioritization and categorization of the short, medium and long-term interventions will be conducted in accordance with clear prioritization modality and criteria. It should be stressed again that this strategy and its action plan are not meant to replace or duplicate the existing national and sectoral strategies, rather they 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 relies heavily 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 emphasizes 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 very much 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 jeopardize 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/increase the local production of food.

Following 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 utilization of limited resources to maximize their returns, particularly ground, surface and treated water, optimizing 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, 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:

- Maximize the efficient use of the available natural resources, particularly water, through the use of modern irrigation systems, the use of low-quality water and the utilization of rainwater mainly through water harvesting and optimizing the product mix. Moreover, adopting efficient production systems such as hydroponic, aqua and permaculture culture, exploiting neglected arable land and increasing the productivity and 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 industrialization and generation of decent

employment, in particular for rural women and youth, i.e., Making Markets Work for the Poor (M4P).

- Organize 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.
- Development of post-harvest and postproduction services mainly by improving packaging, grading, packing, transport, storage and manufacturing.
- Introduce climate-smart agriculture, adapt to climate change, capitalize on renewable energy resources and preserve biodiversity.
- Development of viable and high productivity commercial livestock stock sector
- Promotion of aquaculture as a promising source of protein.

2. Conservation and Sustainable use of Agrobiodiversity Programme

The aims of this programme are to:

- Stop and 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.
 - 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 providing 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 that 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 effects and impact 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 organizations.
- Work as a regional hub for agricultural and food industries, including the establishment of modern and refrigerated stores.
- Make available a modern and organized transport fleet.
- Transform Jordan to be the regional center for technology transfer and training in the field of agriculture and food security.
- Create an investment company for food security.
- 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 organizing 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 it.
- 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 nodes.

2. Optimal Use of the Lost and Wasted Food Programme

The aims of this programme are to:

- Benefit from the excess and not consumed food as food, feed, energy and fertilizers.
- Creation of new jobs

- Promote the concept of Takaya and food banks to collect and distribute excess food to hunger-relief charities and support the needy.

- Improve the value-added 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.
- Harmonize food safety standards for selected food products following SPS/TBT requirements.
- Develop incremental/stepwise food safety schemes for selected sectors and roll them out for the 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 a 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. 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 food⁴⁷.

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 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 and labour 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.

⁴⁷ DOS, Household Expenditure and Income Survey 2017

- Promote home 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, H.B.B., etc.
- Mapping of working women in informal sectors. Provide additional sources of income, employment and opportunities for the poor, women and young people.

- Promote team and collaborative work

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

The aims of this programme are to:

- Improve governance related to labour, H.B.B., vocational areas, etc.
- Marketing (internal, external).
- Access to finance.
- Production subsidies.
- Improving 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, maternity, and childcare.

The Third Strategic Objective

Optimize the Utilization 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 institutionalized 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 Reduction of Malnutrition and its Potential Effects.

Relevant Interventions:

1. Enhancing Food Fortification by Elements and Minerals Programme.

The aims of this programme are to:

- Assess current nutrition and health interventions (fortification programs, mother and child health interventions and services).
- Provide fortified food to 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 (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 the 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 legislations, policies and national strategies, experiences of other countries that have significantly advanced in achieving food security suggest 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 institutionalizing the national mandate on food security and improving coordination among the relevant stakeholders.

Relevant Interventions:

1. Creating the 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 programs, interventions and policies.
- Enhance the capacities and capabilities of the institutions, staff and other stakeholders involved in food security.
- To 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.

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 with disaggregation of 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.
- Digitize 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 of the 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—further identifying 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.

4. Chapter Four: The Implementation Plan

4.1 Management and Monitoring

During the nine years of implementation 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 the light of achievement and funding while keeping the plan coverage for three years permanently, for example, the plan first will cover the years 2022-2024, in the second year it will cover 2023-2025, and in the third year, it will cover the years 2024-2026 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 on efficiency and effective implementation. In this context, it is necessary to take into account the following:

1. Food security is a sector that 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 constitute an overarching umbrella and will support the existing strategies and institutions.
3. The main role of the private sector and its various institutions and the importance of its role in decision making process.
4. The importance of establishing effective partnerships between different sectors in Jordan on the one hand and between them and partners from the region and beyond.
5. The regional dimension of food security and the importance of cooperation and coordination between 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. Minimization of the duplications overlaps and contradictions among policies and plans related to food security.

It is important that during the preparation of the strategy's action plan to benefit from systems and programmes that improves the prioritization, monitoring and decision making/aiding processes⁴⁸

General supervision of implementation and guidance will rest with a national committee, while the task of technical supervision and diligent monitoring and follow-up will be assigned to a high-level technical committee. The implementation of the strategy should be monitored and evaluated regularly. Annex (5) depicts the objectives and indicators of monitoring and evaluation for each strategic objective.

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

The implemented projects will provide quarterly and annual reports; moreover, the projects will be evaluated in the middle and end of the implementation period. An annual report entitled “The State of Food Security in Jordan” will be prepared. The report will include a review of the progress made annually in food conditions, achievements towards the strategic objectives and provide 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 deems appropriate and needed. This necessarily requires the establishment of effective serv

information, monitoring and evaluation system that is integrated and talks with the national information and monitoring systems and feeds directly into the decision-making processes. It is worth mentioning that provision of the 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 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, mainly: The Ministry of Agriculture, the Ministry of Industry, Trade and Supply, the Ministry of Health, the Ministry of Social Development, the Ministry of Labour, the Ministry of Planning and International Cooperation, the Ministry of Finance, the private sector, donors, United Nations organizations and relevant civil society organizations. Hence, it is important to adopt coordination mechanisms among all stakeholders to avoid conflict and duplication of work and to achieve the 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

There are a range of entities and institutions that will provide funding for strategic projects and interventions such as:

1. Government 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 and from local financial institutions.

4.3 Requirements for successful implementation

1. Providing political support at the highest level to food security and considering it a transitory priority for governments.
2. Review and modify relevant national policies, strategies and plans to align with the food security strategy.
3. Establish/identify the unit that will deal with food security and empower it with sufficient financial and administrative independence in order to carry out its work away from routine and bureaucracy.
4. Provide the required financial resources and government commitment to increase the budget of relevant public institutions.
5. Intensify contacts with the countries of the region and other partners, in particular in relation to the establishment of the Regional Food Security Hub.
6. Reaching out to donors and U.N. organizations to pay special attention to supporting food security in Jordan.
7. Adopt the proposed Action Programme annex (8) up to 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 organization and management of the NFSS, including:

1. The Ministry of Agriculture:

The Ministry will be the lead government institution and will have the overall responsibility all through the inception, formulation, and endorsement process of NFSS. More specifically, the Ministry 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 organizing 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 Cabinet's approval.**

2. The National Food Security Committee:

The national committee is chaired by H.E. the Minister of Agriculture and consists of S.G.s and D.G.s of the most relevant government institutions and senior officers from the private sector, U.N. and NGOs while formulating the NFSS; its role will be:

- **Provide overall guidance and backstopping.**
- **Facilitate the work and continuously monitor the progress.**

- **Review and endorse the draft of the NFSS.**
- **Advocate NFSS among key players i.e. parliament members, line ministries such as finance and planning, donors, and U.N. agencies.**

3. The Review Committee:

A Review Committee consists of a representative of the Ministry of Agriculture, WFP, FAO, UNDP, ESCWA and the Dutch Embassy will be established in order 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:

Several focal points from the relevant government and U.N. institutions 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 within and outside his/her own institution.

More specifically, the focal points will perform the following tasks:

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

The Formulation Team:

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

- **Data collection and data analysis.**
- **M&E 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 content and activity time framework and responsibilities for the upcoming six months.**
- **Prepare 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 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 materialized, 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 faces to face and virtual meetings.	Seek consultations, opinions and feedback, collect data and information and verify, 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 last was in 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 formulation of chapter three	9-10/2/2021
8.	The Validation Workshop	Review and validate the second	22/4/2021

		version of the strategy	
9.	The Meeting of the National Food Security Committee	Approve the strategy and recommend its endorsement by the Cabinet	31/5/2021
10.	The Cabinet 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

Core indicators:

1. **The P.O.U.** increased significantly from 5.7% (0.3 million people) during 2004-2006 to 8.5% (0.9 million people) during 2017.

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% (F.A.O., 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 Index⁴⁹ (GFSI), Jordan, with 60.4 scores 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

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.)

Yemen	113	96	113	109	96
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Source: Derived from the Global Food Security Index, The Economist 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, which in turn puts Jordan in 47th, 88th, 63rd and 44th positions out of the 113 countries⁵⁰. Annex (3) Arab Countries Ranking on the Global Food Security Index.

3. **Adult obesity** in Jordan stood at 32.6% in 2019, one of the highest recorded in the Arab region, and well above the region's average (28.4%). This is a concerning increase 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 to invest in agriculture. The MoA budget for 2019 was USD 87.7 million, of which USD 26.6 million was capital budget, while in 2020, the MoA budget was USD 89.5 million, of which USD 27.3 million was 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 2018⁵². 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,

⁵⁰ Global Food Security Index 2020

⁵¹ World Bank, World Development Indicators, 2019

⁵² DOS, Jordan in figures 2019

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 2017 Household Expenditure and Income Survey 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 S.D.G.s 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 reducing to c. 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%).

III: Food Utilization 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 S.D.G. 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 S.D.G. 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 (W.H.A.) of 12.2% (F.A.O. and others, 2019). However, it needs to be brought below 2.5%.
- **Anemia 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** is 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. This does not mean, however, that Jordan is completely safe from all impacts of climate change.

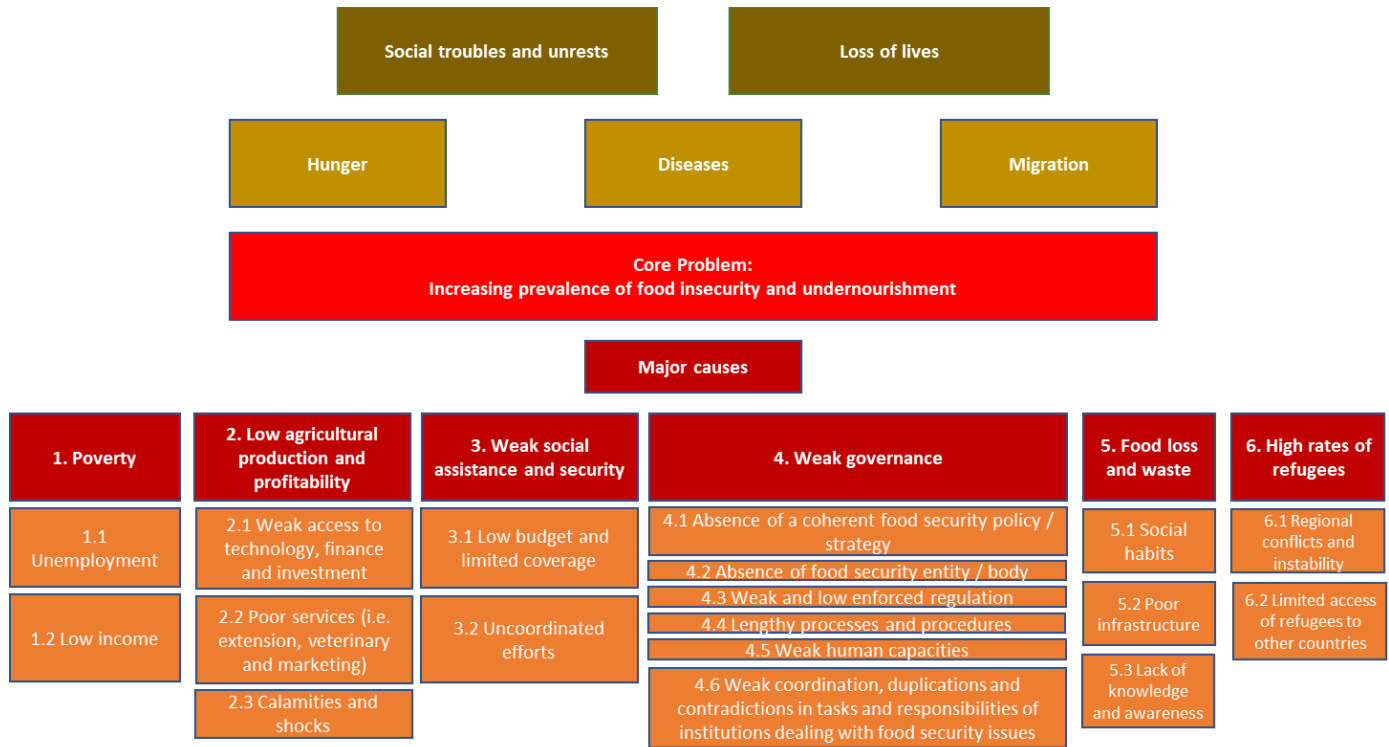
⁵³ DOS 2021

- **Food production variability** remained relatively small and consistent between 2010 and 2016 at about 6.4 thousand USD 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 2017⁵⁴). Considering the current ADESA, this is a safe margin of variability.

⁵⁴ FAOSTAT

Annex (5): Problem Tree and SWOT Analysis

Problem Analysis



SWOT Analysis

Strengths:

1. The 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 organizations.
9. Relatively cheap production costs.

Opportunities:

1. Active international partners.
2. International support and solidarity.
3. High potentials for increasing productivity.
4. Existence of trade agreements and preferential treatments.

Weaknesses:

1. Water scarcity.
2. Climate change effects.
3. High dependency on imports and foreign labour.
4. Unfair competition of local production with subsidized 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.

Threats:

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	Unit	Source	Baseline	Target 2024	Target 2027	Target 2030	Description
8. VISION: Safeguard Jordan's population against food insecurity and ensuring access to safe, stable, affordable and nutritious supply of food at all times.							
0.1) Jordan's scores 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 Intelligence Unit (E.I.U.), it includes 113 countries
0.2) Jordan scores 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 <i>Ensure Availability of Food</i>							
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 (D.E.S.) as a percentage of the Average Dietary Energy	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.

	Requirement (ADER) 0-100						
1.3) Productivity of major groups of agriculture commodities (veg., 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	D.O.S., 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).
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 C.P.I., 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	D.O.S./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 (P.P.P.) exchange rates.

2.3) Agricultural import tariffs	%	MoITS/WTO	55.4 (2020)	tbd	tbd	tbd	A measure of the average most-favored-nation (M.F.N.) tariff applied on 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..
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

S.O.3 Optimize the Utilization 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 has published guidelines and has conducted educational campaigns within the past 1-2 years to disseminate messages on a balanced and nutritious diet.
3.3) National nutrition plan or strategy	Qualitative rating 0-1	Qualitative scoring by E.I.U. analysts based on WHO, F.A.O. and the Ministry of Health documents	0.0 (2020)	1	1	1	An assessment of whether the Government 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 anemia	%	MoH/UNICEF/WHO	34.7 (2016)	tbd	tbd	tbd	Percentage of anemia 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 E.I.U. 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 E.I.U.
S.O.4 Strengthen the Governance of Food Security							
4.1) Public expenditure on agricultural development	Agriculture shares of government	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

	expenditure (%) / Agriculture value-added share of GDP (%)						indicator assessing public investment in agriculture.
4.2) Public expenditure on agricultural research, knowledge transfer and innovation	Share of agriculture G.D.P. 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 G.D.P., and the 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 subsidize the prices of food items
4.4) Food related legislations issued or amended	Number o	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 operationalization of FSIS
4.7) Food and natural resources	System	Several Institutions	0	100	100	100	A measure to gauge the establishment and

early warning system			2020				operationalization 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 operationalization 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 Budget of Programmes

Strategy/Programme Objectives	Responsibility for supervision and monitoring	Responsibility for implementation	Year of start and completion	Budget (million dinars)	Remarks
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	MOIST, Investment Promotion Corporation, Chambers of Industries and trade and Banks	2022-2024	5	

	and Industries, Banks				
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, I.P.C., MoA, Chambers of Trade and Industries	2022-2030	T.B.D.	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	
2. Optimal Use of the Lost and Wasted Food Programme	Food Security Unit	Food Security Unit, MoA, MOITS, MoEnv, Municipalities, MoH, Private Sector, and N.G.Os	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, Specialized Credit Institutions	IPC, MOPIC, MoITS, MoA, Specialized 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 U.N. Organizations	2022-2030	Not identified	The budget will be determined later.
The third strategic objective: Optimize the Utilization 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	
2. School Feeding Programme	MoE	MoE, MoH, MoSD and UN organizations	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 Digitization 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, C.S.O.s	2022-2027	15	
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Annex (8): The Action Programme Until the End of 2021

1. Approve the strategy and celebrate its launch.
2. Start directly 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 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. The formation of a high-level food security working group comprising representatives of the Government, the private sector, donors and United Nations organizations to improve coordination and harmonization between policies, plans and interventions **within three months** of the approval of the strategy.
9. Authorize the National Committee for Food Security, headed by His Excellency 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. Conduct 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, donors and U.N. organizations 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.