

Some Insights on Jordan's food security

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Many still confuse the concept of food security with self-sufficiency, which is defined as "the access of all populations at all times to adequate, safe and nutritious food that meets their nutritional needs and tastes in order to lead an active and healthy life". Self-sufficiency is known as the ability of any country to produce its food needs within its country borders and to rely on local resources without importing any of these needs. Self-sufficiency is difficult to achieve in most countries of the world, therefore countries work to achieve food security within their public policies through trade agreements with regional and international countries. In this regard, we find in general that food security in our region is quite insecure considering prevailing climatological conditions and global crises such as the Corona pandemic, the Russian-Ukrainian war, and other events on the international arena. The subject raised concern as figures indicate that Arab countries food import ranges between 40-95%, making it the one of the highest regions in the world in percentage of food import. Jordan, e.g., imports more than 95% of its grains' needs.

Countries that import most of their agricultural and food needs with inconsistent food security policies that lack integration will be most affected in terms of ensuring the supply of strategic and basic agricultural goods at affordable prices. Most recently we witnessed price increase due to disturbance of food production supply chains around the world in particular access to field cultivation, transportation, and others. The resulted high demand and low supply triggers the challenges of inflation, prices increase, higher subsidy, and forcibly increasing public debts with all associated risks of political and social instability. Arab food security policies are expected to be trembled by the disruptions of global agricultural food production chains, which attract many countries to return to policies of self-sufficiency through national agriculture that relies on scarce water resources and competes with the drinking water sectors on which they depend heavily. By doing so, such countries are adding crisis on the top of a chronic crisis. Although, instead of that, they shall be encouraged to raise efficiency of agricultural produce and food consumption.

In general, scarce water countries are poor food-producing countries, and most Arab countries fall within this classification, including Jordan. 18 out of 22 Arab countries lay below the water poverty line, and food production, particularly cereals, is relatively small. Declining levels of rainfalls due to climate change will impact in the first place the production of rain-fed cereals, which depend on rain without irrigation. Generally speaking, and considering climate change impact and urbanization without proper mitigation and adaptation plans, this kind of rainfed agricultural will be phased out gradually due to the mentioned reasons with all of its negative impact on food security.

In light of the above-mentioned challenges, the question remains, how do we in Jordan achieve affordable food security? To answer this question, it is necessary to work on a range of measures, programs and projects that will increase food production and stock and rationalize its consumption as much as possible.

In the short term, awareness campaigns must be launched for citizens on how to rationalize food consumption and prevent waste in its use, such a campaign shall be directed towards high-consumption layers, including restaurants and social events. Maybe at a certain point of time, we may need to draft

legislations considering the significant rise in food prices, which has exceeded 40% to date and is expected to increase in the coming months, as the Russian-Ukrainian war continues to move forward.

Regarding the aspects of animal production, there is a need for a crisis cell to help the private sector, especially in **raising and maintaining livestock, primarily for the purposes of producing meat, milk, and eggs**. Also support them to increase the number of their herds, increase their production and provide them with concessional loans and exemptions and make international contacts to secure feed at the cheapest possible prices, because the more they produce, the lower the prices and the better the food security situation will be. The door should also be opened to fish farms and technology transfer, especially in the Gordan Valley, which is a wonderful environment for fish farming and production, as well as to encourage them to establish food industries, especially long-term ones, even though a large part of them do not have a significant national production input.

As for plant production, much can be done to increase the efficiency of production, especially in the field of irrigated vegetable production, by encouraging, supporting, and providing financial facilities to farmers who convert to aquaculture, hydroponic and smart agriculture, which consume about 90% less water than traditional agriculture such as drip irrigation under greenhouses. Expanding the introduction of smart technology in agriculture and modern communications to spread knowledge and awareness among farmers with the aim of increasing production, improving quality, and saving water. Increased interest in specialized food agriculture of high quality and quality will have a good impact on food security.

Rainfed crops, especially wheat and barley, with very modest production and contribution does not cover more than 5% of total consumption. In this context, it may be appropriate to enact legislation to allow grain farmers to exploit fallow land for cultivation by them to be exploited free of charge under certain arrangement without jeopardizing owner rights even if it is privately owned. This to be done along with early advertising of next season prices to encourage farmers, which Whatever it costs, it will be cheaper for the country economically and socially.

In the med-long term pf planning horizon, increasing the capacity of national grain silos is important, in conjunction with the establishment of free zones and silos for storing grains and large food industries by attracting the local and regional private sector to invest in these areas. The government shall provide all forms of support away from the complexities of bureaucrats, especially since we have areas with a suitable environment for storage that are characterized by low humidity and suitable temperatures such as South of Wadi Araba south and Qwira, both close to the port and airport of Aqaba.

Working with neighboring countries to remove all trade and customs barriers that hinder the flow of food to and from Jordan, as well as establishing partnership for food production by utilizing the competitive and comparative advantages of each country or region.

These are some insights to improve the food security situation, which took into account water scarcity conditions, in addition to the agricultural development and food security strategies and their adjustments since 2002 and what the government is currently doing under the guidance of His Majesty King Abdullah II as part of the national efforts to achieve the desired food security even partially.

