

ENHANCING FOOD SECURITY IN OMAN: INSIGHTS FROM THE 2018/2019 HOUSEHOLD SURVEY

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Abstract:

This paper examines into the intricacies of food consumption patterns in Oman, drawing insights from the comprehensive 2018/2019 household survey. The analysis reveals that, on average, food accounts for approximately 25% of the total consumption expenditure of Omani households. Notably, within this product, meat and pottery emerge as essential components of the Omani family diet. However, a critical observation arises when contrasting consumption against production. The data emphasizes a significant gap, indicating that only 44% of the total meat consumption is met by domestic production and the country dependent on import for cereal and other strategic products. This discrepancy holds profound implications for Oman's economic landscape, potentially hindering long-term growth. To mitigate these challenges and foster economic resilience, it becomes imperative for the country to develop a strategic approach towards bolstering the security and self-sufficiency of essential food products, especially meat and pottery. In light of these findings, the paper proposes that policymakers prioritize the formulation of sustainable food security policies. One crucial factor to be considered in this endeavor is the growth rate of the population, as it directly influences the demand for food. Consequently, any effective strategy must account for the evolving demographics to ensure a resilient and sustainable food supply for the Omani population.

Keywords. Oman; Food consumption; food production; food sufficiency.

Introduction

In the Sultanate of Oman, non-renewable resource based fuels and mineral products exports constitute a major part of the trade balance, the increase in hydrocarbon exports was mainly due to higher crude oil prices, which went up by 39.7 percent in 2021. As a result, the contribution of oil and gas exports in total merchandise exports increased to 58.5 percent in 2021 as compared with 54.4 percent in 2020 (Oman central bank, 2021). Food imports represent 14.8% of total imports values in 2022 (NCSI,2023).

Oman imported 44% of the food consumed, 100% of rice and about 95% of wheat. Expenditure on food is the largest percentage (26.4%) of the total household income followed by transportation (13.4%) (ncsi , 2019). The phasing down of fuel subsidies may further aggravate poverty and household food security. In this context the specific objective of the study was to conduct a quantitative analysis on the impact and sensitivity of food and fuel price changes on incidence of

poverty to address the objective of assessing policy options to mitigate poverty and manage public finances.(Kotagama & Boughanmi, 2019)

Agriculture, forestry & fishing are among the key areas of focus of the 10th Five-Year Development Plan (FYDP) for the Omani economy. The sector can play a critical role in reducing the country's dependence on imports and also contributing to exports and diversification process of the economy. Nominal output from agriculture, forestry and fishing showed a marginal decline of 0.2 percent during 2021 against a growth of 6.7 percent during 2020. The contribution of agriculture and fishing in total GDP declined to 2.1 percent in 2021 from 2.5 percent in 2020.

Oman in no doubt can be considered as an agriculture-dependent nation, although mechanized agriculture is almost non-existent. Oman, a middle-income GCC country, has unpredictable weather conditions, although agriculture is heavily dependent on rain (weather). In recent times, adoption of modern agricultural technologies and cultural practices such as irrigation, fertilizer application, use of resistant varieties, good planting and harvesting times, among others. The adoption of these modern practices are hindered by financial constraints as these farmers are smallholder farmers with limited financial support. Moreover, commercial banks, private partners and insurance companies are not ready to support them adopt and apply these technologies. Challenges in the agriculture sector are not only limited to cultivation, there are serious concerns when it comes to postharvest storage and marketing. The major cause of food insufficiency in Oman is attributable to the greater percentage of the climate change. The objective of this paper was to review literature on general agricultural trends and challenges in Oman. Food insecurity, and some policy plans to reduce the dependent on the import of food for food security sustainable were also highlighted.

Oman's Food Production

The United Nations (UN) Agenda 2030 provides a vision for achieving global sustainable development (FAO 2020). SDG 2 focuses on hunger, food security, nutrition and sustainable agriculture, with the food security concept gaining particular momentum amongst researchers, governments and the private sector (FAO 2020; UN 2020). There are concerns about how the target 'Zero Hunger by 2030' will be achieved (FAO2020)

The total area of Oman (31.4 M ha) but, the arable land in Oman is about 2.2 M ha which is 7% of the total area. However, the actual cropped area in the Sultanate is 62,000 ha, which is 2.8% of the total arable land and 0.2% of the total area of the country. Due to continuous efforts to achieve food security in the country, an increase of 7.9% in the cultivated land area was noted during the year 2018 (Muhammad Farooq, 2021)

According to the (NCSI, 2019) the household survey report, about 25% of household consumption is for food and the total consumption of food around 2.7 million O.R. In reference to the NCSI, 2023 the population of Oman (5.1 million people) and the projection indicated that by 2040 the total population in Oman 8.3 million people (NCSI, 2023). The statistics indicated that the total of

food production in Oman in 2022 around 4,433 billion O.R, more than 80% used for local consumption and 20 % as the export (figure 1)



Figure 1: Oman’s Food Production value, 2021

Item	Total Value	Local production	Import	Export
Total of food production	4,368,974	1,909,974.6	1,714,325.7	744,673.4
Agricultural products	1,711,152	849,677.7	639,774.4	221,700.4
Fishing	573,255	447,398.8	15,809.8	110,046.5
Food industrial products	2,657,821	1,060,296.9	1,074,551.3	522,972.9

Oman imported 44% of the food consumed, 100% of rice and about 95% of wheat (Kotagama & Boughanmi, 2019). Expenditure on food is the largest percentage (25%) of the total household income followed by transportation (14.2%) that is largely cost on fuel (National Centre for Statistics Information, 2019)

Oman need around 1.214 billion O.R % of Agricultural products are for locally consumption which around 81% and around 96 % of fishing products however, more than 26 % of industrial of food export. On the other hand the food import value in 2022 around 2.2 billion O.R which around 14.8% of the total import in 2022 and at the same period the total export of food production by around I billion O.R (NCSI, 2023)

- **Oman’s Food Sufficiency**

According to the report by NCSI (2023), there are fluctuations of food sufficiency in some food products in Oman. The report indicated that although there are improved in sufficiency in some products other product has drop figure 2

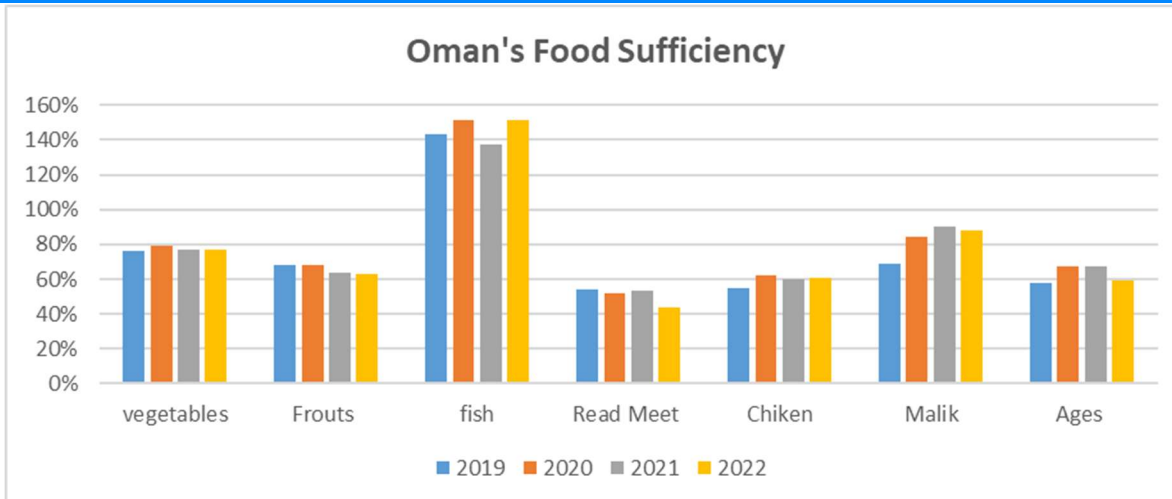


Figure 2: Oman’s some food sufficiency 2022

During the period between 2019 and 2022 the sufficiency of vegetables in Oman still not more than 77% in average which shows that the country import around 27% of vegetables. For read meet the country has insufficiency in this products so. Although the household consumption of meet around 20 % of the food expenditure the country just produce around only 50% in average which shows that 50% of needed of meet is import. Oman is one of the highest of fish production the total production of fish around 463 billion O.R which more than household need for that there is opportunity for export this production. The structure of food expenditure of household in Oman as figure 2

Oman Family income distribution

Based on household survey (NCSI, 2019) the average income of an Omani household is 1575 OR/ month the income distribution of Oman upon which the analysis mainly depends is given in table 2. The table provides insight into the income distribution among Omani populations. For example, in the Omani population, the majority of households (55.9%) have an income of 1100 and more, and the distribution is more evenly spread, with the highest percentage (17.0%) falling in the 100-199 income range.

Table 2. Distribution of Household in Oman according to monthly income categories:

Omani Household% Income groups

Omani Household%	Income groups									
	Less than 100	-100 199	-200 299	-300 399	-400 499	-500 599	-600 699	-700 899	-900 1099	1100 and more

	0.0	0.8	1.6	2.6	3.5	5.6	6.7	13.6	9.8	55.9
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Omani Household size and income

The survey of household (NCSI,2019) results show the relationship between the number of family members and their monthly income, as we find that about 48.2% of Omani families have more than 6 members. We also find that the family's share of monthly income increases proportionally with the number of its members, while the average per capita share increases of income, the smaller the number of family members. The "Average Family Numbers" section shows the distribution of families based on size, with the majority falling in the "4-6" category. For the percentage of income associated with each family size category out of the total income. The highest income percentage is associated with the "1-3" family size category as it represent around 37% and for the Income Average Per Capita the result of household survey shows the highest average of income per capita is associated with the "1-3" family size category. Overall, the total income average per capita is 228.1. The following table shows the details:

Table 3. Omani Household size and monthly household income

Average of family numbers	Out of Total household (%)	Out of that income (%)	The income average per capita
3-1	14.2	7.6	353.2
6-4	37.6	29.3	240.3
9-7	30.2	33.8	223.2
12-10	12.0	16.8	201.9
13 and more	6.0	12.5	207.2
Total	100.0	100.0	228.1

Omani Household Expenditure

The survey results showed that the value of the food basket at the Omani family level to about (216.9) Omani riyals. The table below show that the distribution of the food basket to groups Food according to value and proportion of each group according to the nationality of the head of the family. For around (27.1%) Cereal products constitute a significant portion of Omani family consumption, representing staple foods. This suggests that grains and cereals play a crucial role in the Omani diet. Meat and poultry with 49.3 % make up almost half of the Omani family

consumption, indicating the importance of these protein sources in the diet. This high percentage may also reflect cultural preferences for meat-based dishes. The survey also shows, for around 21.4% that the percentage of Dairy products and eggs contribute significantly to the Omani diet, providing a source of calcium and protein. This suggests the importance of dairy in meeting nutritional needs. Given Oman's coastal location Fish represents (17.5%) a notable but smaller proportion of Omani family consumption.

Table 5. Household expenditure

Food items	Omani Family consumption	
	Value (O.R)	(%)
Cereal products	27.1	12.4
Meat and poultry	49.3	22.7
Fish	17.5	8.1
Milk products and eggs	21.4	9.9
Oil and fats	4.3	2
Fruits	19.2	8.9
Vegetables and	16.3	7.5
Sugar and honey	7.5	3.5
Soft drink	12	5.5
Restaurant	25.4	11.7
Self-products	5.6	2.6
Other	11.3	5.2
Total	216.9	100

The Concept and Development of Food Security

Food security is a complex concept that covers a wide range of factors related to the accessibility, affordability, availability, and utilization of food. Food security was defined by the FAO (2021) as "a situation where all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (Bose et al., 2010). This definition is a popular, holistic, and complex term because it integrates the environmental, military, economic, social, and political aspects (Ben Hassen & El Bilali, 2019).

Food insecurity made its place in the development policy discourse due to the global food crisis that erupted during the 1970s (Mellor and Johnston, 1984). At the World Food Conference in 1974, the international community described food security as the availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to

offset fluctuations in production and prices (Upton et al., 2016). While disregarding food stability and utilization, the description given above indicates the need for more production of food in the phrase ‘at all times’. This is because; macronutrient hunger in the 1970s was thought to affect 25% of the global population (and more recent FAO revisions imply that up to 30% was then hungry) (Berry et al., 2015).

Achieving food security is critical to maintain sustainable development. As sustainable development has been regarded to be the dominant ideology of human life in the 20th century by the international community, the main concern is to provide modern regional policy regarding food security after considering market, social, and ecological aspects (Shevchuk and Khvyshechun, 2016; Marques and Almeida, 2013; (Nagyová et al., 2016). To achieve sustainable development in terms of environmental protection, economic efficiency, and solidarity in society, it is important to look into a profitable long-term future for farming and rural areas (Passel et al, 2007) (Nagyová et al., 2016).

According to Kurien (2004) and (Bose et al., 2010), the four key elements of food security - accessibility, affordability, absorption (i.e., intake of safe and nutritious food), and time - have crucial policy implications that must be considered when devising comprehensive policy packages to overcome food insecurity. The listed four elements are critical to ensure that food systems are sustainable in the long run (FAO, 2014). To achieve food security sustainable development, it is important to ensure that all four elements are met, in a way that is equitable, efficient, and environmentally sustainable. Food security is an integral component of the broader sustainability agenda that requires an integrated approach that considers social, economic, and environmental factors (FAO, 2021).

Several factors affect food security performance across the interrelated dimensions. Food arrival may be ensured through the capabilities of fleeing families to possess financial resources, which is vital to acquire sufficient food to achieve an integrated diet, simultaneously related to the level of income of individuals and families, the distribution of income in the country, and the level of food prices in the country (Suresh C. Babu et al., 2014; Jones et al., 2019). Some of these factors are mentioned in numerous studies. For instance, a study exemplified that the availability of food is settled mainly by enhancing the level of agricultural production because the food demand is influenced by multiple factors, including the population growth that leads a country to increase its imports to bridge the gap in the consumption of food quantities. If a crisis sparks, such as climate or political upheaval, the country will use its stocks to fill the deficit and prevent the population from experiencing starvation (Firdaus et al., 2019).

One’s ability to access food is dictated by two factors: economic and physical access (Susanti et al., 2017). Economic access relies on one’s income, price of food, purchasing power, and access to social support, while physical access depends on the availability and quality of the infrastructure required to produce and make food available where it is required (Susanti et al., 2017). Cafer and Kaiser (2016) measured affordability based on the income and social safety nets or expenditures in Missouri’s rural and urban counties by using the ordinary least square regression model. Food

utilisation demands a holistic approach that weighs in several factors (e.g., adequate diet, food safety, clean water, sanitation, hygiene, healthcare, and education) to attain nutritional well-being where all physiological needs are met (Mbage, 2013).

Conclusion

The paper discuss the situation of the structure of food consumption in Oman as the result of 2018/2019 household survey. Based on the data analysis, food consumption of Omani family represent around 25% of the family total consumption. Out of which, Meet and pottery is the most important product that need by Omani family. It is very important for the country to work the have the strategy to improve the security in this products as the data also shows that the country produce only 44 % of the total consumption from the read meet. Further leading to stagnated economic growth in the long term. Thus, a proper food security strategy is essential for all countries. Hence it is highly recommended to the policy makers to consider the growth rate of the population while framing food security policies for long term food sustainability in Oman. The recommendations presented herein emphasize the importance of long-term planning, strategic investments, and a nuanced understanding of population dynamics to secure Oman's food future.

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