

Beyond the Budget: Investigating Food Accessibility, Affordability, and Nutrition Amid the Food Price Crisis in the Arab Region

Majed Skaini
Amman, Jordan
December 6-7, 2023



Shared Prosperity Dignified Life



Food Inflation in the Arab Region: The Dual Threat of Affordability and Accessibility

The incidence of food insecurity is increasing in the region, making the target of achieving **Zero Hunger by 2030** even further out of reach.

The main reason for this challenge lies in the severe vulnerability of most Arab countries to global economic shocks, primarily the Covid-19 pandemic and the conflict between the Russian Federation and Ukraine.

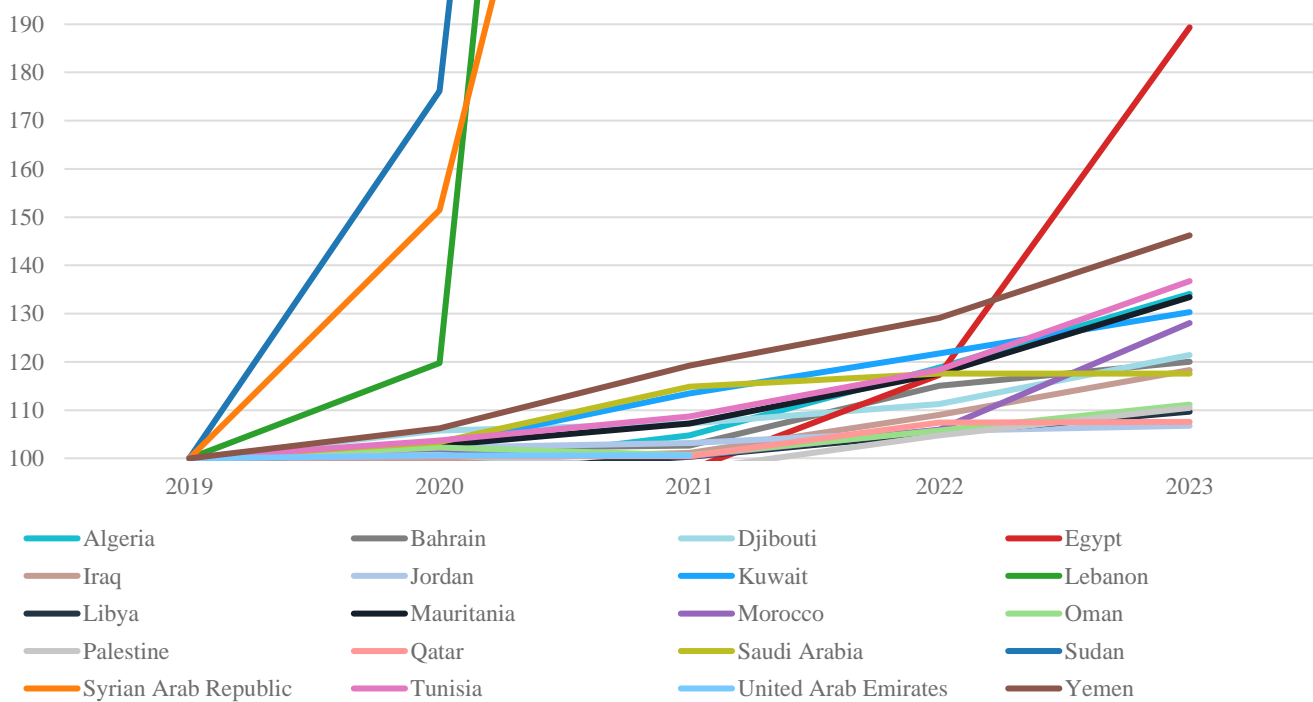
This makes them subject to two threats: the first one is a price threat, where global market prices rise in a way that makes them no longer affordable to an importing country, and second, a supply threat, where supplies may no longer be accessible for countries to import them.

The aim of this briefing is to shed light on two key aspects that are critical to achieving **SDG2**:

The first aspect relates to the accessibility and affordability of food, which remains a major challenge in several countries.

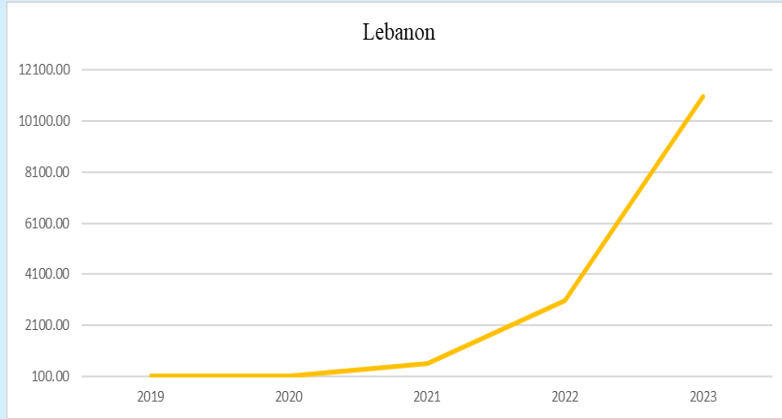
The second aspect pertains to a key factor of malnutrition, namely the cost of a healthy diet, which could result in possible deficiencies, surpluses, or imbalances in an individual's intake of energy and/or nutrients.

Price Trends of Food and Non-Alcoholic Beverages from Feb 2019 to Feb 2023

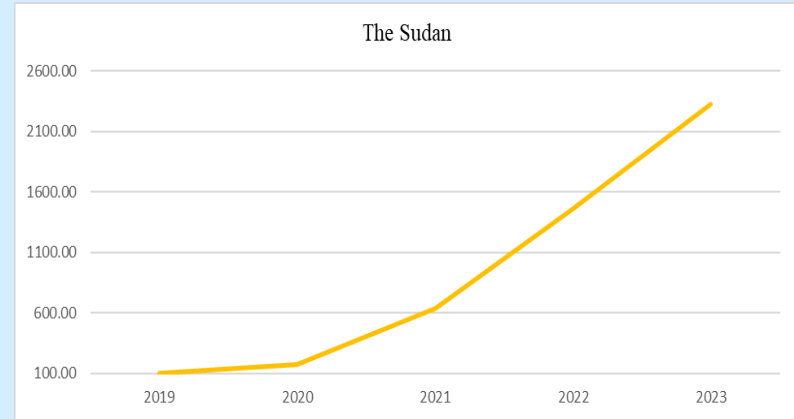


Source: ESCWA calculations based on official national data

Price Trends of Food and Non-Alcoholic Beverages from Feb 2019 to Feb 2023 Cont.

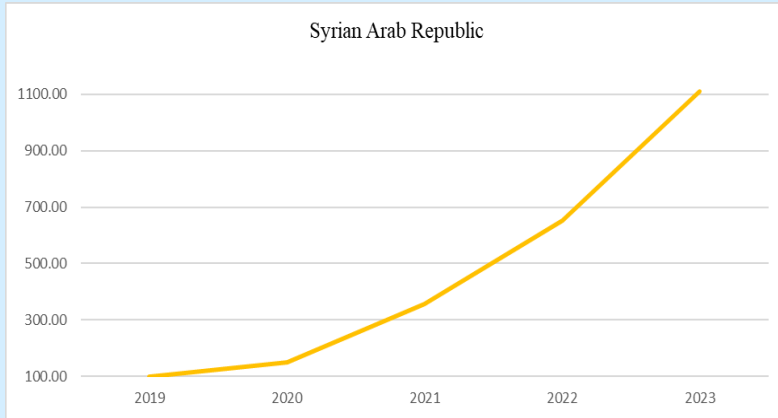


Lebanon began to experience a rise in the prices of food and non-alcoholic beverages in 2021, with this increase recording its highest point so far in 2023, reaching a price level **110** times the price level in 2019.

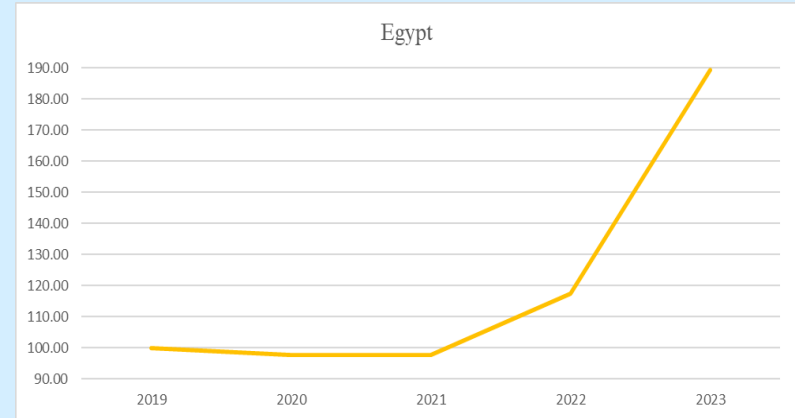


In the Sudan, prices of food and non-alcoholic beverages skyrocketed in 2021 and continued to an even steeper rise by 2023, surpassing **23** times the price level in 2019.

Price Trends of Food and Non-Alcoholic Beverages from Feb 2019 to Feb 2023 Cont.



Syria has witnessed a rise in food prices in 2020 and 2021, which emerged from several factors. The inflation in food prices shot even more steeply between 2022 and 2023 reaching **11** times the price level in 2019.



Moving to Egypt, the figure shows the trend of price increase in food and non-alcoholic beverage in the country, revealing the accelerating increase in food prices between 2021 and 2023.

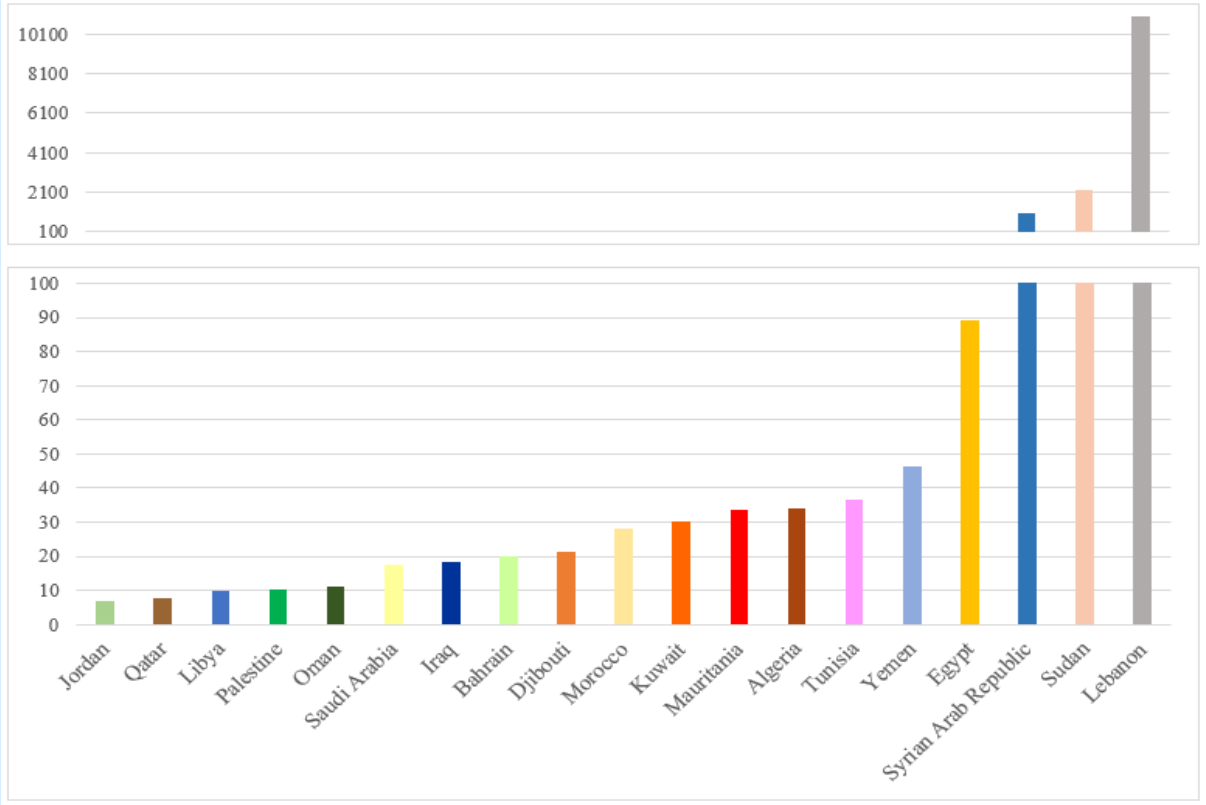
Did the recent economic crises have a similar effect on food inflation across the entire Arab region?

All GCC countries did experience food inflation during this period, but they managed to uphold a relatively conservative level.

This could be attributed to their monetary policy frameworks that prioritize the stability of exchange rates.

The containment of domestic energy prices, as well as the regulation of selected food product prices through subsidies and price caps have also played a pivotal role in maintaining relatively low levels of inflation during these recent years in the GCC countries

Inflation Rates of Food and Non-Alcoholic Beverages in Arab Countries between Feb 2019 and Feb 2023



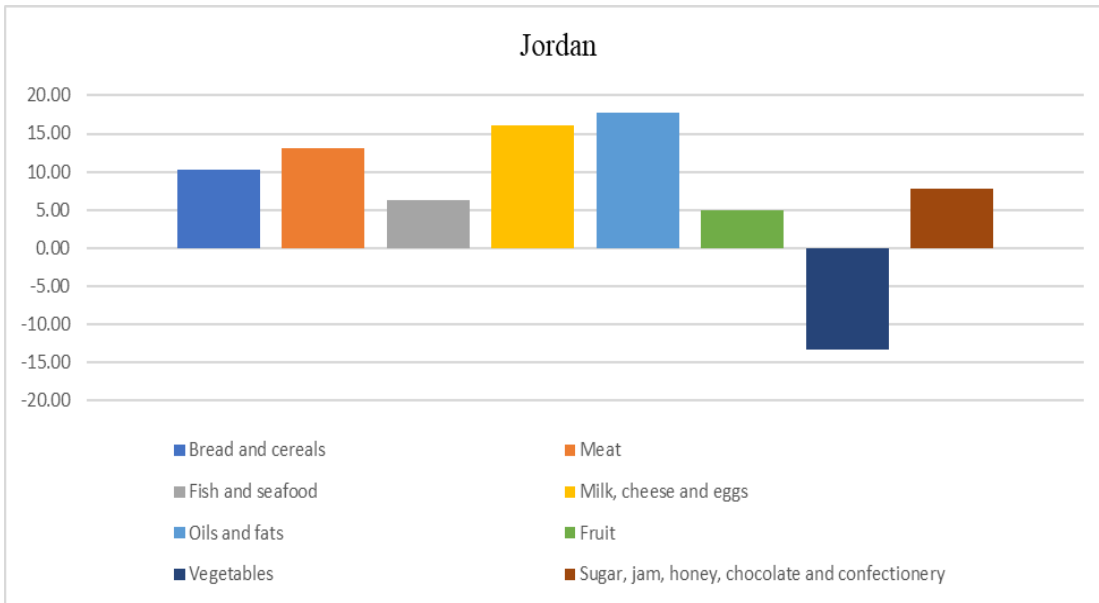
- ▣ Kuwait stands out and exhibits the highest food inflation within the Gulf Cooperation Council (GCC) group, recording an inflation rate of **30** percent between Feb 2019 and Feb 2023
- ▣ Lebanon, followed by the Sudan, and then Syria, witnessed skyrocketing inflation on food and non-alcoholic beverages reaching **10,973**, **2,228** and **1,011** percent, respectively.

Source: ESCWA calculations based on official national data

Inflation Rates of Different Food Groups in Jordan from Feb 2019 to Feb 2023

Jordan appears to be the least affected by food price inflation, recording only an inflation rate of 6.77 percent between 2019 and 2023, which could be attributed to:

1. The successful maintenance of its currency peg to the US dollar
2. Its increasing focus on food security in the recent years



Source: ESCWA calculations based on official national data

Jordan experienced a decrease in the prices of vegetables, which in turn has offset some of the increase in the prices of the remaining food groups.

Which food groups recorded the highest inflation in the region?

Oils and fats demonstrated the highest inflation among food groups in the region, with an inflation rate exceeding 40 percent in many Arab countries during the period 2019-2022, followed by dairy products, and then by meat.

Fruits, followed by sugar, jam, chocolate, and confectionery, and then by bread and cereals ranked the lowest.

Inflation of Each Food Group in Arab Countries between 2019 and 2022

	Bread and Cereals	Meat	Fish and Seafood	Milk, Cheese and Eggs	Oils and Fats	Fruits	Vegetables	Sugar, Jam, Honey, Chocolate and Confectionery
Bahrain	3.45	18.87	59.85	24.37	43.81	9.90	8.23	21.03
Egypt	76.78	59.61	49.12	66.24	65.52	36.07	41.06	37.03
Iraq	9.33	19.87	30.59	21.41	16.81	14.44	11.74	7.52
Jordan	8.77	2.54	6.17	10.41	19.00	-4.33	-15.37	7.14
Kuwait	5.24	39.12	36.27	9.50	9.64	51.38	29.98	9.63
Lebanon	3715.49	4473.74	6393.80	5541.61	6398.51	46710.25	9541.58	6172.10
Mauritania	29.38	38.74	18.74	25.46	52.39	11.46	25.57	52.77
Oman	7.37	11.54	-1.00	8.01	24.42	10.18	1.50	4.40
Palestine	6.43	4.40	-1.64	8.80	21.13	-5.01	5.18	4.82
Qatar	6.24	17.88	23.21	7.17	8.32	2.54	1.64	1.27
Saudi Arabia	15.17	24.00	13.12	31.65	23.48	8.91	33.78	19.30
Sudan	1831.63	747.96	915.61	1427.65	1249.13	1296.08	1681.52	1808.72
Tunisia	14.83	30.98	24.85	30.11	47.57	29.50	37.51	19.94

Source: ESCWA calculations based on official national data

In addition to the difference in inflations rates of each food group across countries, there are significant variations in the inflation rates across different food groups within a single country.

Rising Food Prices: How Bad is the Impact on the Poor?

Rising food prices in recent years have hindered the ability of many households to access food, reducing their **purchasing power**, and particularly affecting the poor who allocate a higher share of their income towards food and have limited ability to adapt to such shocks.

To deal with these shocks, some poor households might resort to different **coping mechanisms**, such as changing food consumption patterns, engaging in new income-generating activities, and reducing non-food expenses.

What are the key differences between an energy-based and a healthy-based basket?

- ❑ An energy-based food basket is constructed to solely meet the minimum energy intake required to survive at a minimum cost. These food baskets are somewhat deficient in most essential nutrients.

- ❑ The healthy-based food basket is formally defined by the food-based dietary guidelines, and it guards against diet-related non-communicable diseases by establishing a balanced food intake.

How would a shift from energy-based to healthy-based diets impact the poverty line?

The current poverty line is estimated based on the minimum expenditure basket.

If the measure of the poverty line was re-evaluated to incorporate a wider set of health and nutritional properties, it will rise, which will cause a larger number of households to fall below the poverty line.

However, the use of a healthy diet basket as a benchmark offers a more comprehensive perspective on poverty and would help align anti-poverty programs with other global development goals.

Indeed, the achievement of **SDG2** does not only rely on food accessibility and affordability, but also on ensuring good nutrition and ending of all forms of malnutrition.

The Cost of Good Nutrition in Lebanon: A Look at Different Food Baskets

To further explore the impact of food prices on nutrition, we have chosen to focus on the case of **Lebanon**, as the country scored the highest food inflation for each food group compared to other countries in the region between 2019 and 2022.

Alarming statistics about poverty and food insecurity are widespread in Lebanon. According to the UN ESCWA (2021), the substantial inflation experienced in Lebanon between 2019 and 2021 led to a notable increase in income poverty, with figures rising from 25 percent in 2019 to 55 percent in 2020, and nearly 74 percent in 2021.

Through examining the prices of different food baskets, we aim to shed light on the challenges of achieving good nutrition in Lebanon.

How much does the energy-based basket cost in Lebanon?

➤ Cost of the Energy-Based Basket of Lebanon in Local Currency Units

	Consumed Commodity	Weight of one serving	Price on July 12, 2023
Cereals and Grains	Bread	234 g	LBP 10,706
	Pasta	60 g	LBP 11,968
	Bulgur	65 g	LBP 8,208
Fruit	Rice	80 g	LBP 6,917
	Apples	50 g	LBP 7,778
Vegetables	Cabbage	90 g	LBP 1,729
	Carrots	20 g	LBP 1,610
	Potatoes	70 g	LBP 2,434
	Tomato Paste	20 g	LBP 13,332
Low-fat milk and dairy products	Powder Milk	20 g	LBP 11,712
Protein-rich foods	Sardine	15 g	LBP 8,235
	Eggs	15 g	LBP 3,166
	Lentils	25 g	LBP 2,608
	Chickpeas	30 g	LBP 4,639
	White Beans	10 g	LBP 1,720
Discretionary Foods	Sugar	20 g	LBP 1,766
	Tea	4 g	LBP 4,502
		828 g	LBP 103,030

*Source: Serving decomposition provided by the World Food Programme. Prices collected by ESCWA from a popular outlet in Lebanon.

**Note: Collected prices correspond to the items with the lowest price.

- ❑ An assessment of the Lebanese energy basket reveals that individuals approximately need **LBP 103,030** per day as of July 2023 to meet their minimum food intake.
- ❑ However, the energy-based basket promotes an unhealthy diet, focusing mostly on cereals and grains that do not include enough micronutrients, which raises the need to create a healthier basket.

How much does the healthy basket cost in Lebanon?

➤ Cost of the Healthy Basket of Lebanon in Local Currency Units

Recommended Intakes of the Five Food Groups	Examples of One Serving of Each of the Food Groups	Weight of one serving	Price on July 12, 2023
Cereals and Grains (at least 6 servings per day, with at least ½ being whole-grain)	¼ big loaf of Arabic whole-wheat pita bread	32 g	LBP 6,182
	1 slice of whole-wheat loaf (toast) bread	7 g	LBP 2,796
	½ cup cooked 'Burghul', whole wheat, brown rice, whole-wheat pasta or noodles	125 g	LBP 30,109
	1 cup ready-to-eat breakfast cereal (unsweetened)	25 g	LBP 19,825
Fruit (2 servings per day)	1 small apple	200 g	LBP 31,110
	1 large banana, orange, or peach	166 g	LBP 17,417
	½ cup dried fruit (dates, prunes, raisins, apricots)	125 g	LBP 152,234
Vegetables (2 - 3 servings per day)	1 cup fresh fruit juice	240 ml	LBP 124,733
	1 cup raw vegetables	250 g	LBP 23,104
	2 cups raw green leafy vegetables	500 g	LBP 89,670
	1 cup cooked vegetables	250 g	LBP 50,630
Low-fat milk and dairy products (2 servings per day)	1 cup vegetable juice	240 ml	LBP 37,112
	1 cup liquid milk or yogurt	240 ml	LBP 31,403
	3 tablespoons powdered milk	45 g	LBP 26,352
	45 g white cheese	45 g	LBP 32,739
Protein-rich foods (5 - 6.5 servings per day)	8 tablespoons 'Labneh'	120 g	LBP 50,783
	30 g cooked lean red meat or white meat (poultry or fish)	30 g	LBP 28,054
	1 whole egg or 1.5 egg whites	60 g	LBP 12,664
	¼ cup legumes (beans, lentils, peas)	62.5 g	LBP 9,025
Discretionary foods (1 serving per day)	15 g unsalted nuts or seeds	15 g	LBP 9,417
	1 cup milk-based pudding such as 'Mhalbiyeh', 'Sahlab' or 'Riz Bi Halib'	250 g	LBP 22,875
<i>Based on a 2,000-calorie diet</i>	Price of a healthy diet per day		LBP 591,151

□ An individual needs approximately **LBP 591,151** per day to afford a healthy diet as of July 2023, around 6 times higher than the cost of the energy-based basket.

□ This suggests the need for Lebanon to offer another type of diet that provides the needed micronutrients but at a lower cost.

*Source: Serving decomposition provided by the Lebanese Ministry of Public Health . Prices collected by ESCWA from a popular outlet in Lebanon.

**Note: Collected prices correspond to the items with the lowest price.

The Least-Cost Healthy Diet

The high cost of the healthy diet suggests the need for Lebanon to offer another type of diet that provides the needed micronutrients but at a lower cost.



The least-cost healthy diet combines both the energy-based and the healthy baskets providing the inclusion of vital micronutrients while maintaining a relatively affordable price compared to the healthy one.



However, transitioning from a healthy diet to a least-cost healthy diet entails some trade-offs, such as reduced food diversity and the need to obtain the essential nutrients from only limited resources.

What will be the cost of the least-cost healthy basket in Lebanon?

➤ Cost of the Least-Cost Healthy Basket of Lebanon in Local Currency Units

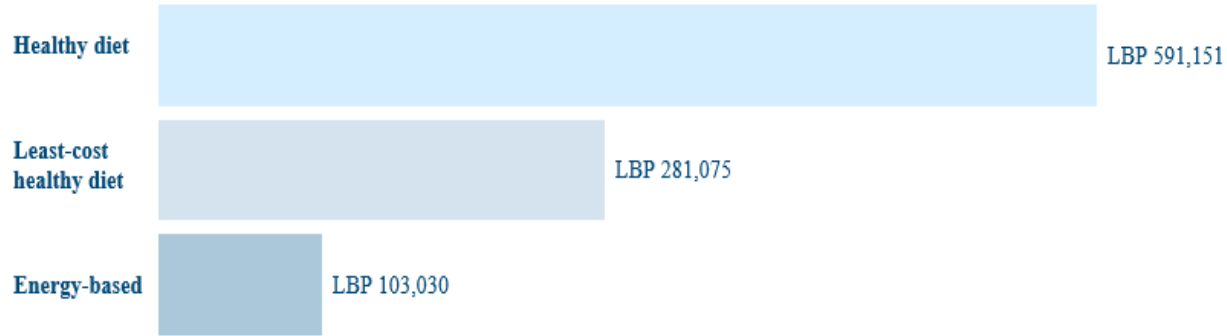
Recommended Intakes of the Five Food Groups	Examples of One Serving of Each of the Food Groups	Weight of one serving	Weight of total servings considered	Price on July 12, 2023
Cereals and Grains (at least 6 servings per day, with at least ½ being whole-grain)	¼ big loaf of Arabic whole-wheat pita bread	32 g	96 g	LBP 6,182
	1 slice of whole-wheat loaf (toast) bread			
	½ cup cooked 'Burgbul', whole wheat, brown rice, whole-wheat pasta or noodles	125 g	375 g	LBP 12, 581
	1 cup ready-to-eat breakfast cereal (unsweetened)			
Fruit (2 servings per day)	1 small apple			
	1 large banana, orange, or peach	166 g	332 g	LBP 14, 126
	½ cup dried fruit (dates, prunes, raisins, apricots)			
	1 cup fresh fruit juice			
Vegetables (2 - 3 servings per day)	1 cup raw vegetables	250 g	500 g	LBP 23, 104
	2 cups raw green leafy vegetables			
	1 cup cooked vegetables			
	1 cup vegetable juice			
Low-fat milk and dairy products (2 servings per day)	1 cup liquid milk or yogurt			
	3 tablespoons powdered milk	45 g	45 g	LBP 26, 352
	45 g white cheese	45 g	45 g	LBP 32, 739
	8 tablespoons 'Labneh'			
Protein-rich foods (5 - 6.5 servings per day)	30 g cooked lean red meat or white meat (poultry or fish)	30 g	60 g	LBP 20, 450
	1 whole egg or 1.5 egg whites	60 g	60 g	LBP 12,664
	¼ cup legumes (beans, lentils, peas)	62.5 g	62.5	LBP 7,247
	15 g unsalted nuts or seeds	15 g	15 g	LBP 7,549
Discretionary foods (1 serving per day)	1 cup milk-based pudding such as 'Mhalbiveh', 'Sahlab' or 'Riz Bi Halib'	250 g	250 g	LBP 22, 875
<i>Based on a 2,000-calorie diet</i>	Price of the least-cost healthy diet per day		1840 g	LBP 281,075

□ The least-cost healthy diet costs approximately **LBP 281,075** as of July 2023, which is higher than the cost of the energy basket, but much lower than the cost of the healthy basket.

*Source: Serving decomposition provided by the Lebanese Ministry of Public Health. Prices collected by ESCWA from a popular outlet in Lebanon.

**Note: Collected prices correspond to the items with the lowest price.

Comparison Between Diets Costs

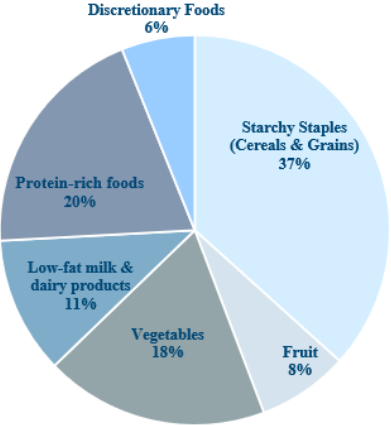


Source: ESCWA calculations

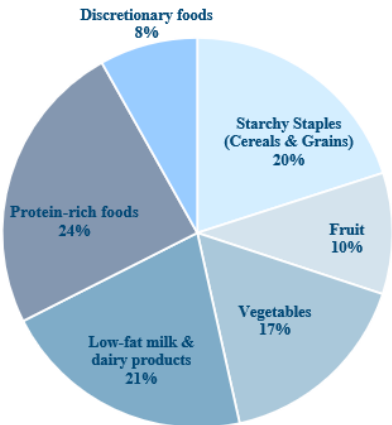
- ❑ A comparison between the costs of the dietary baskets reveals that the recommended healthy diet is almost **2** times more expensive than the least-cost healthy diet and **5.7** times more expensive than the energy-based one.
- ❑ However, the least-cost healthy diet is almost **2.7** times more expensive than the energy-based basket, and costs almost half as much as the healthy diet, making it the most suitable diet.

Cost Shares of Energy-Based and Least-Cost Healthy Baskets by Food Groups

Energy-based Diet



Least-cost Healthy Diet

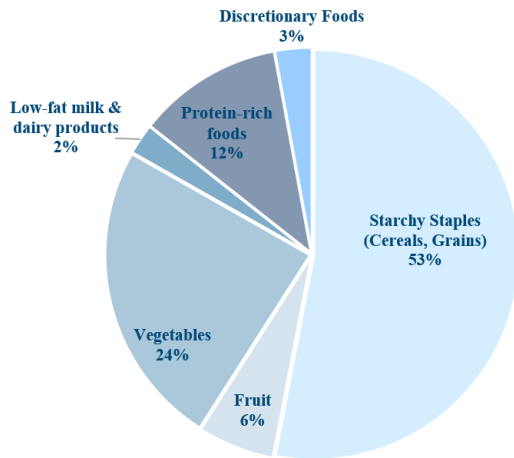


Source: ESCWA calculations

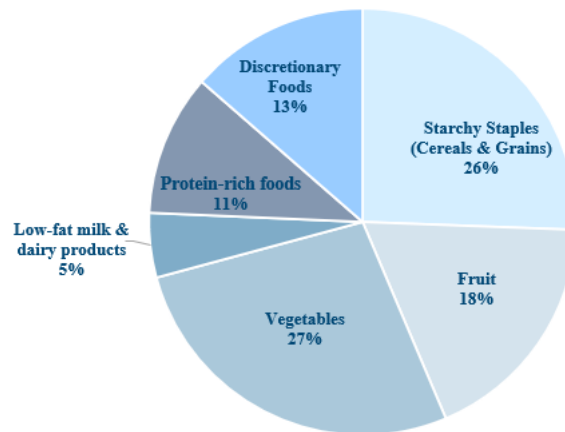
- The energy-based basket promotes a diet that mainly focuses on cereals and grains, which makes the cost share of starchy staples in the energy-based basket nearly double that in the least-cost healthy basket.
- The cost share of milk and dairy products in the least-cost healthy diet is seen to be almost double that of the same group in the energy-based basket

Energy Shares of Energy-Based and Least-Cost Healthy Baskets by Food Groups

Energy-based Diet



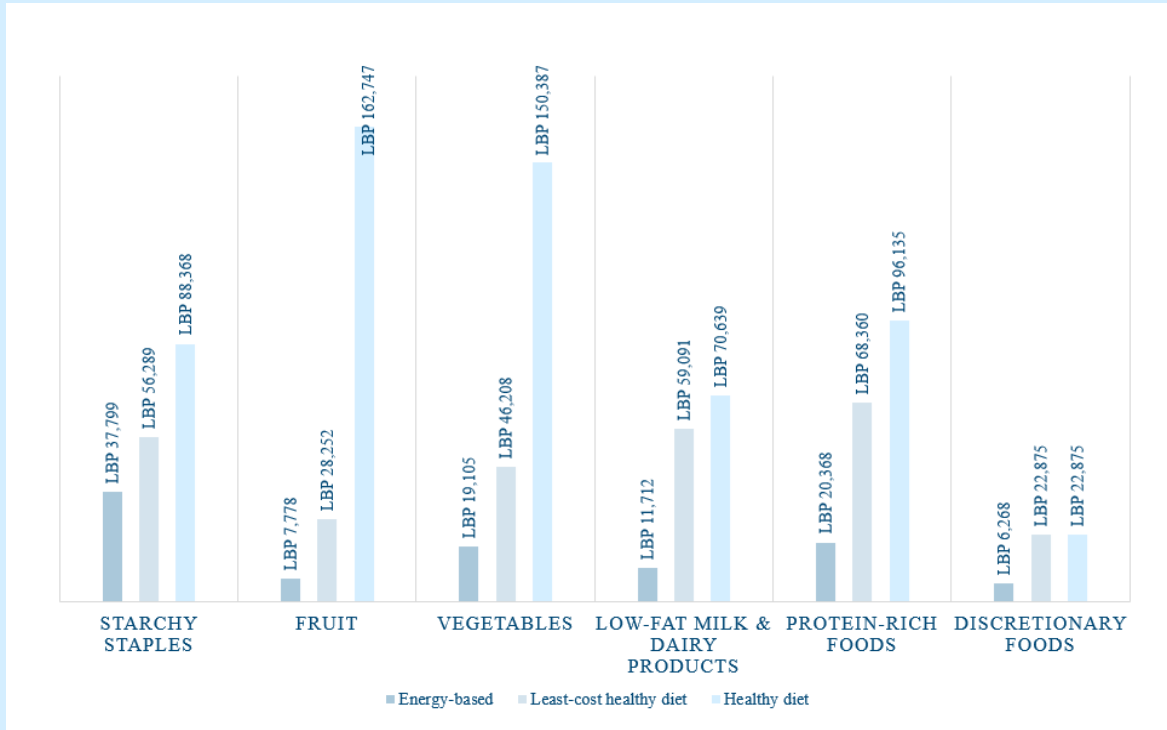
Least-cost Healthy Diet



Source: ESCWA calculations

The composition of energy shares for each food group is observed to be largely different between the energy-based basket and the least-cost healthy basket. Nearly half of the energy share in the energy-based basket emerges from starchy staples, compared to a quarter in the low-cost healthy diet.

Comparison Between Food Groups Costs




Source: ESCWA calculations


- ❑ The costs of nutritious food groups in the healthy basket are significantly higher than in the energy-based basket.

What would be the impact of shifting from energy-based to healthy-based diets on the poverty line in Lebanon?

A shift from an energy-based to a healthier diet would entail higher food expenses, subsequently raising the poverty threshold, as the food cost constitutes a significant share of the poverty line, estimated at **30** percent in Lebanon by the Central Administration of Statistics (CAS) in 2011.



In the case of Lebanon, if we assume the same share of the food poverty line still applies, transitioning to a healthy diet, which is **5.6** times costlier, would more than **double** the poverty line and would increase the number of people falling below it.



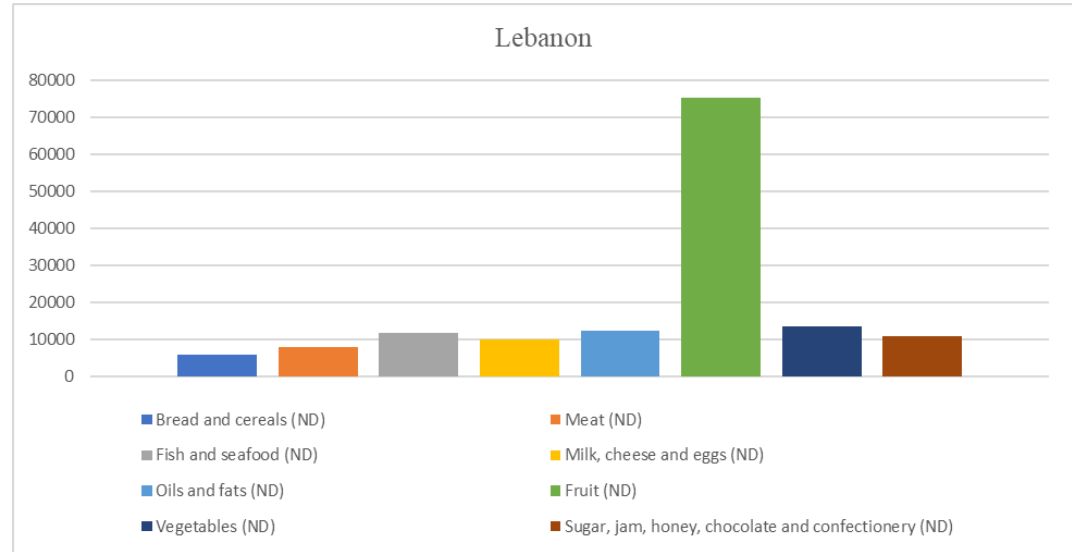
However, adopting the least-cost healthy diet that is only **2.7** times more expensive would result in a less significant impact on the poverty line with around **50** percent increase.

Has the cost gap between healthy and energy-based diets been growing or shrinking?

All food groups have experienced significant price increases in Lebanon between 2019 and 2023, with fruits, which are essential components of a healthy diet, exhibiting a particularly alarming inflation rate.

Conversely, bread and cereals, which constitute nearly half of the energy provided by an energy-based basket, have observed the least price increase compared to other food groups. Indeed, the inflation rate of the fruit food group between 2019 and 2023 is **12** times that of the bread and cereals food group

Inflation Rates of Different Food Groups in Lebanon from Feb 2019 to Feb 2023



Source: ESCWA calculations based on official national data

□ This indicates that the gap in costs between healthy and basic diets is **widening**.

Transitioning from Energy-Based Diet to Least-Cost Healthy Diet in the Arab Region Amidst the Crisis: How Much More Expensive?

- The Cost Percentage Change Associated with Transitioning from an Energy-Based-Diet to a Least-Cost Healthy Diet Over the Years 2019 to 2022

	Increase in the Transition Cost
Egypt	42.99%
Iraq	13.51%
Jordan	-2.73%
Lebanon	18265.12%
Mauritania	28.14%
Palestine	2.17%
Sudan	1503.73%
Tunisia	29.16%

Source: ESCWA calculations

- In addition to making healthy food less affordable, the escalating food prices within the Arab region have inflated the cost of transitioning to more nutritious diets, presenting a growing challenge for adopting healthier diets and combating malnutrition.

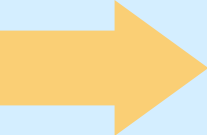
Transitioning from Energy-Based Diet to Least-Cost Healthy Diet in the Arab Region Amidst the Crisis: How Much More Expensive? Cont.

Lebanon and the **Sudan** stand out with the most notable cost escalation associated with transitioning to the least-cost healthy diet over the years 2019 to 2022.

Egypt follows with a comparatively moderate cost rise of **43** percent, indicating that over the years 2019 to 2022, switching from an energy-based to a least-cost healthy diet would be **43** percent more expensive in this country.

Interestingly, in **Jordan**, over the years 2019 to 2022, it became around **3** percent less expensive to shift from an energy-based diet to a least-cost healthy, attributed to the negative inflation encountered in both fruits and vegetables food groups.

Transitioning from Energy-Based Diet to Least-Cost Healthy Diet in the Arab Region Amidst the Crisis: How Much More Expensive? Cont.



This could provide policymakers with valuable insights, suggesting that monitoring and subsidizing food categories which exhibit the highest increased consumption in the case of a shift from energy-based diets to healthier options could facilitate the transition to healthier eating patterns and provide a steppingstone to the achievement of **SDG2** without negatively impacting the achievement of **SDG1**.

The Bottom Line

It is crucial for governments to recognize that achieving **SDG2** requires more than just providing food, but also prioritizing proper nutrition as a core element in these efforts.

An important step that governments can take is to track the overall cost of a healthy diet using food price data to identify areas that require intervention, including which nutritional requirements are most costly and which foods can best reduce the total cost of healthy diets.

Policymakers should shift their attention to the availability of all essential items needed for healthy diets and promote diversification in agriculture.

Providing increased support for nutrition assistance and social safety net programs would also be instrumental..

Thank You!



UNITED NATIONS

الأمم المتحدة

ESCWA

Shared Prosperity Dignified Life

