

A study by **right to protein**



Pakistan Protein Perception Study

An understanding of Pakistan's protein knowledge, behavior, and perception for key interventions.

Research conducted by **YouGov**

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Executive Summary

According to the 2023 first-ever digital census conducted by the Pakistan Bureau of Statistics (PBS), Pakistan's total population has now reached an impressive 249.5 million individuals, growing by 35 million in just six years. While the country has been working towards improving healthcare and nutrition as well as reducing poverty, Pakistan remains at emergency levels of acute malnutrition and is prone to natural disasters such as floods and earthquakes. Moreover, in recent years, the country's agricultural sector has faced serious challenges - drought, increasing soil salinity, plant stress and other impacts of climate change threaten the nation's agricultural growth rates, which are essential for the economy to bounce back. In addition to these issues, the recent surge in food inflation has not contributed positively to Pakistan's ongoing efforts to manage the situation. Indeed, it is the most significant challenge Pakistan has confronted in the recent history.

This is why, the 'Right To Protein' initiative, powered by the U.S. Soybean Export Council (USSEC) along with its supporters, developed the first-ever 'Pakistan Protein Perception Study 2023', where we surveyed representative population groups to gauge the understanding and perception of adults in the country about protein requirements, food quality, affordability, and accessibility. This is crucial to understand and identify the practical challenges that pose as a barrier to protein consumption in Pakistan.

This study comes at a critical time, considering the prevailing issue of food inflation currently affecting Pakistan. Amidst the challenges posed by an increasing population and global climate change, ensuring food security remains a pressing concern. Simultaneously, it is imperative to implement policy measures that address the issue of protein consumption in the country. This study evaluates the citizens and their priorities to help identify strategies to combat protein energy malnutrition and promote reforms to bolster protein production. Key facets of these reforms involve enhancing the accessibility and affordability of animal feed, exploring alternative sources of protein-rich foods, and fostering greater awareness of the pivotal role that protein plays in nutritional well-being and the overall nutrition security of the nation.

Food security continues to be a challenge with the rising population and global climate change concerns. At the same time, policy actions will need to be taken to safeguard protein consumption in the country to counter protein energy malnutrition and support reforms to aid in protein production, such as accessibility and affordability of animal feed, alternate sources of protein foods, and better awareness of the importance of protein in nutritional well-being and for the country's overall nutrition security.

Prologue

Why protein matters?

Proteins, often referred to as the fundamental building blocks of life, are omnipresent in the human body, serving crucial roles in the maintenance of our enzymes, muscles, tissues, and bones. Comprising 20 distinct amino acids, protein is a dynamic entity that demands continuous replenishment since the human body does not store amino acids. Nine out of these 20 amino acids are not naturally synthesized by the body and must be obtained from the daily food we consume. Hence, it becomes imperative for individuals to maintain a consistent daily intake of protein.

The benefits of protein for the human body are diverse and substantial, encompassing:



Promotion of muscle mass and strength



Boosting metabolism



Mitigating age-related health issues



Enhancing immunity and facilitating tissue repair

However, protein deficiency often goes unnoticed due to limited awareness of its symptoms. Inadequate protein intake can lead to symptoms like fatigue, slow wound healing, anemia, and conditions such as sarcopenia. In severe cases, protein deficiency in children can manifest as Kwashiorkor and Marasmus. The United Nations has recognized the urgency of addressing protein deficiency in developing countries, linking it to infant and child mortality, impaired physical growth, premature aging, and reduced work productivity.

The importance of addressing protein deficiencies holds true for Pakistan as well. The people of Pakistan are well-informed about protein sources and regularly include protein in their diets. Poultry contributes to approximately 40% of all animal protein consumption, while other sources like red meats (beef and mutton) are expensive, and fish availability varies throughout the year. By 2026, Pakistan is projected to consume 3.7 million tons of meat and 1.12 million tons of poultry.

However, Pakistan faces a concerning issue where nearly 40% of children are stunted, undernourished, or malnourished due to Protein Energy Malnutrition (PEM). Approximately one in three children is underweight, highlighting PEM as a leading cause of malnourishment and under-5 mortality, warranting top national priority. Nutrition security in Pakistan remains in a dire state, particularly in rural areas, where the prevalence of low weight for height has risen from 8.6% in 1997 to 15.1% in 2011 and further to 17.7% in 2018. Urgent attention is needed to combat this alarming trend.

This is where initiatives such as 'Right To Protein' play a key role in helping inform citizens about the role of protein in their daily diets, growing awareness of available sources of protein foods, mitigating perception issues of certain protein foods, and supporting key stakeholders in achieving protein security in Pakistan through awareness, advocacy and action.

The Pakistan Protein Perception Study 2023:

Conducted by YouGov in Pakistan with 500 respondents, the **Pakistan Protein Perception Study 2023** is designed to learn about three primary factors-



Knowledge

Understanding how much the respondents know about the various facts related to protein



Behavior

Understanding the different food habits related to protein consumption & actions taken to ensure adequate intake of protein.



Perceptions

Understanding the different perceptions related to protein, it's consumption, accessibility, availability & affordability.

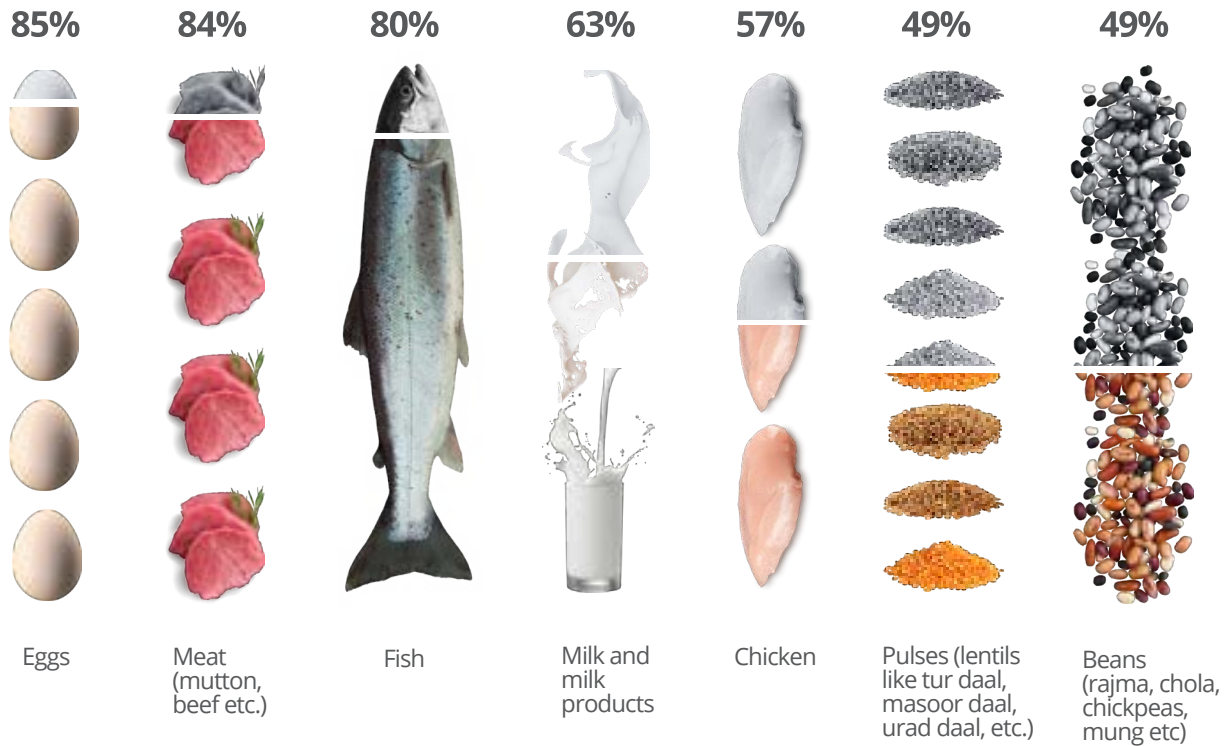
Key Findings:

How informed is Pakistan about protein as a source of nutrition?

1. There is high awareness of non-vegetarian protein foods but 40% citizens incorrectly identify fruits, vegetables and whole grain cereals as high-quality products

The study has revealed that there is a good understanding of protein sources as most Pakistanis are accustomed to consuming non-vegetarian food in their diets regularly. In fact, there seemed to be higher awareness about animal sources of protein and lower awareness about plant sources of protein. Young consumers in the age group of 25-34 years identified vegetables, roots, and tubers as great sources of protein.

Higher awareness about animal products being high sources of protein



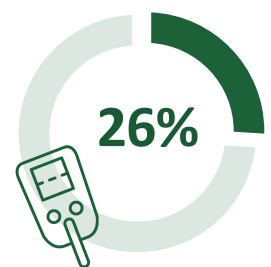
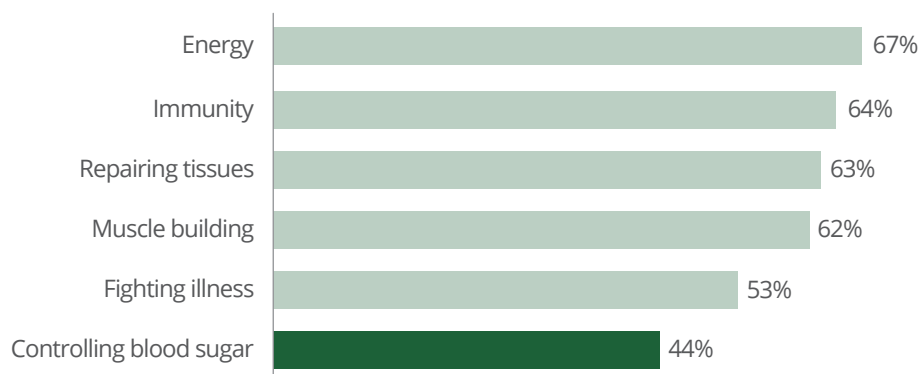
40%

classified fruits, vegetables and whole grain cereals as 'high-protein'. Almost 1/3rd were unsure whether these are sources of protein.



Most important benefits of consuming protein

There is also a decent amount of awareness about the main benefits of protein consumption. Majority of respondents ranked higher energy, a better immune system, repairing of tissues and building muscles as primary benefits gained from eating protein. Over 26% of the respondents were not sure whether controlling blood sugar was a benefit derived from consuming protein. Nearly one-third of respondents felt that building muscles, controlling blood sugar, and fighting illness were secondary benefit from protein consumption.



Unaware that protein helps with blood sugar level management

2. There is consensus on importance of protein consumption but unawareness on symptoms of protein deficiency

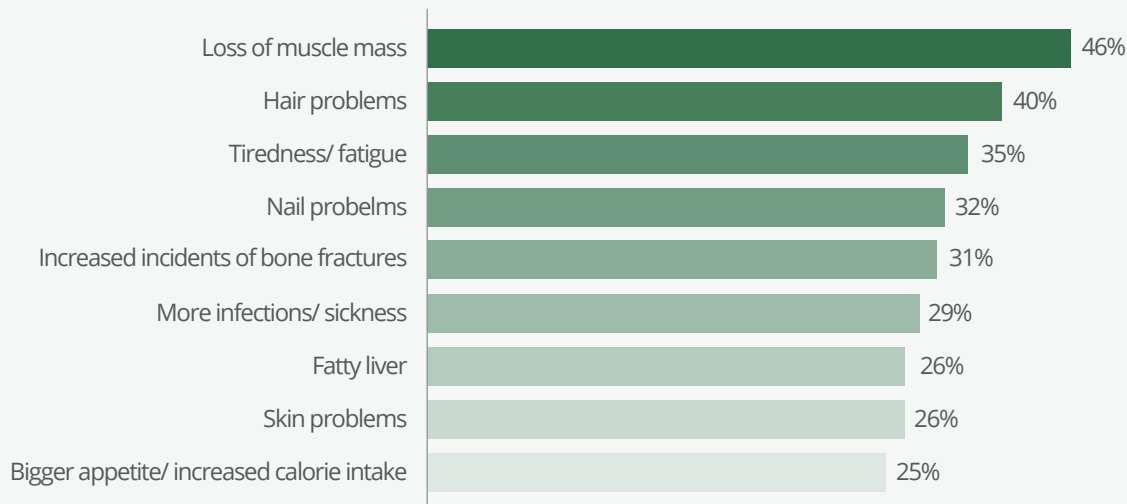
There is a clear need to create awareness about the pitfalls of not consuming protein. The most common symptoms of protein deficiency are related to lifestyle issues which people might be unable to attribute to lack of a single nutrient, such as protein. However, close to 60% of respondents agreed that a lack of protein will affect their overall health.

60%

respondents agreed that a lack of protein will affect their overall health with lifestyle issues being the most common symptom that can lead to protein deficiency



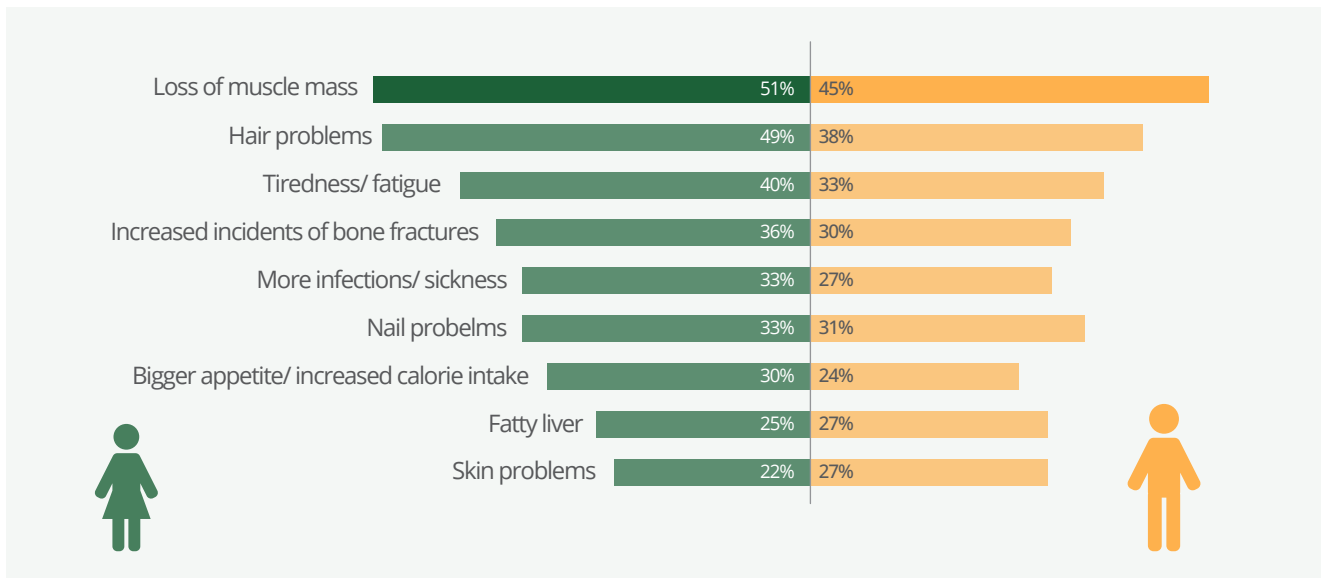
Sure symptoms of protein deficiency



3. There are gender disparities in protein awareness; women are more protein-aware

This is encouraging, as witnessed, in most families, women tend to be the main decision makers regarding the family's dietary habits.

Women are more aware than men about the pitfalls of protein deficiency



4. Misinformation about protein requirements exists about specific segments of the population

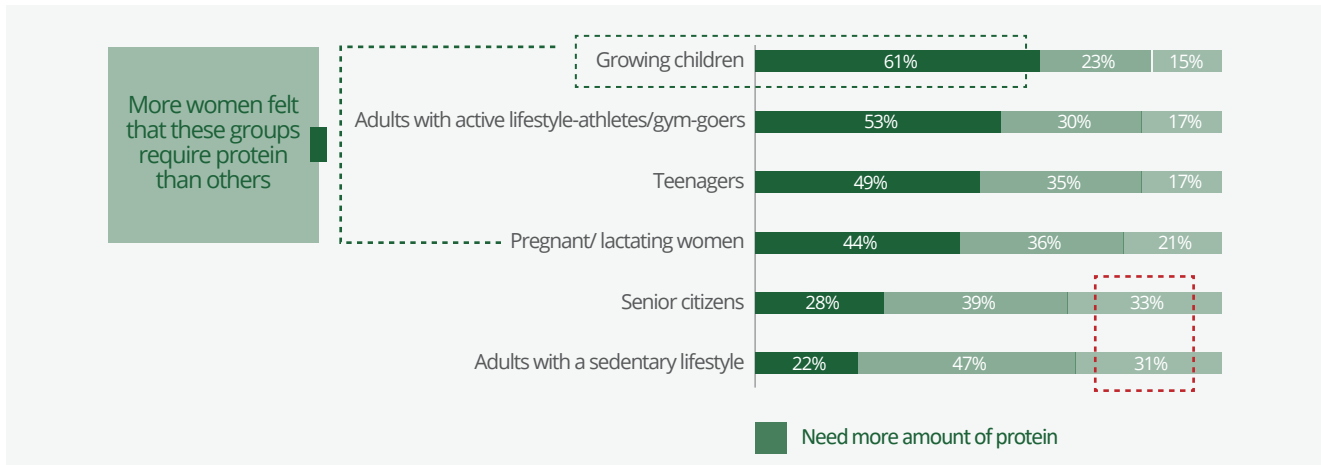
Misinformation plays a significant role in incorrect choices made about food and nutrition. Nutrition misinformation spreads easily because food facts are hard to obtain, and our increasing disconnection from food production. Not only does nutrition misinformation confuse consumers about the right dietary advice to follow, but acting on misinformation can result in detrimental health and economic consequences.

Majority respondents felt that only growing children, teenagers, physically active adults, pregnant women, and new mothers have a higher need to consume protein-rich diets over other people. This belief was significantly more prevalent amongst women respondents. Such skewed beliefs might lead to skewed consumption of protein within households.

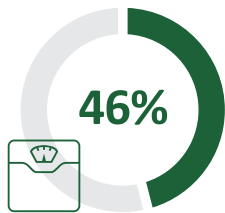


Myths such as only growing children and physically active adults, require a protein-rich diet, as compared to the other age groups lead to imbalanced consumption of protein within households.

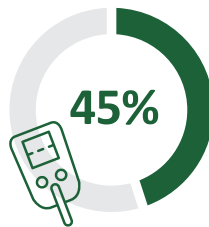
Perception about Protein needs for different group



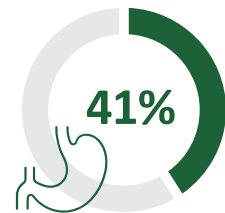
There also exist other misconceptions about protein having certain harmful effects on the body. Many respondents acknowledge the advantages of protein in improving immunity and energy levels. However, their belief that it leads to weight gain contradicts this knowledge. As a result, they may not actively consume high levels of protein.



Respondents believe that high consumption of protein leads to weight gain



Respondents believe that controlling calorie intake is more important than consuming protein

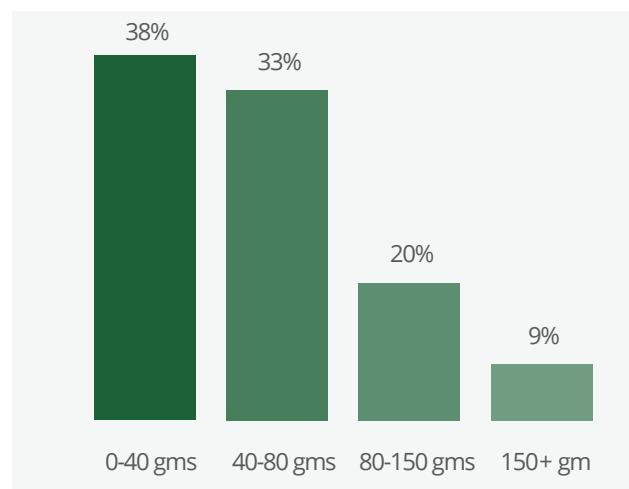


Respondents believe protein is hard to digest and also believe that its absence won't affect their overall health

5. Most Pakistanis are confused about their average daily protein requirement

According to the recommendations of different agencies, the average daily protein intake for an average individual in Pakistan should be 56-80 g/day¹. However, when asked what is the ideal amount of protein to be consumed daily, varied answers emerged, indicating a lack of consensus about the ideal protein consumption for a healthy body. A majority (38%) felt that up to 40 grams of protein was adequate, while 33% felt that between 40-80 grams of daily protein is essential. About 29% identified a daily protein consumption of above 80 grams as ideal.

Perceptions - How much protein is ideal per day?



6. Pakistan consumes high protein foods weekly, not daily

The average daily diet choices of Pakistanis reveal the importance attributed to protein.



Note: Foods are listed from top to bottom based on frequency of consumption. Some foods are listed in more than one category.

As is evident from the chart, protein-rich foods are consumed on a weekly basis, rather than daily. This could be due to many factors such as childhood habits, family structures, availability, access, and affordability of certain food items, etc. For example, ~85% of respondents with children or in the 45+ age groups consumed milk and milk products daily as compared to an average of 78% for other consumer segments. Similarly, more respondents with children (63%) consumed eggs daily than married respondents without children (47%).

However, respondents did not perceive they were consuming adequate quantities of carbohydrates, proteins, and fats, indicating that there is potential for guiding Pakistani citizens towards healthier food choices.



Daily consumption of Eggs



63%

Respondents with children

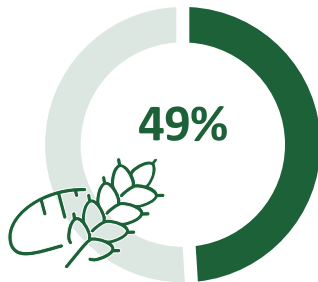


47%

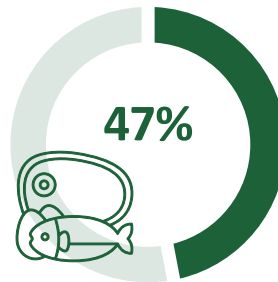
Respondents without children

< 50%

Less than 50% of respondents felt they were consuming adequate amount of carbohydrates, fats, and proteins



Responders feel they consume adequate amount of carbohydrates



Responders feel they consume adequate amount of protein



Responders feel they consume adequate amount of fats

7. Pakistan spends only 10-20% of it's food budget on protein

Majority of the respondents are spending between 10-20% of their monthly food budgets on protein sources. An average respondent's monthly food budget was 31,592 Pakistani rupees. However, the level of monthly food expenses was higher for respondents with children versus those without children.

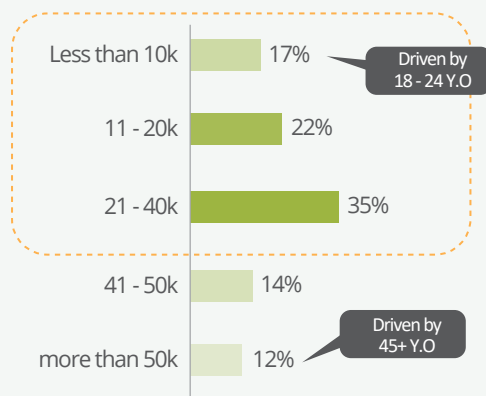


31,592 rupees
is the average monthly food budget

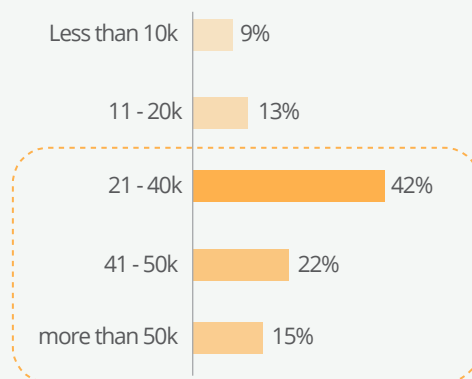


10-20%
is the average spends on protein foods from the total monthly food budgets

Level of expense on food in a month - all respondents



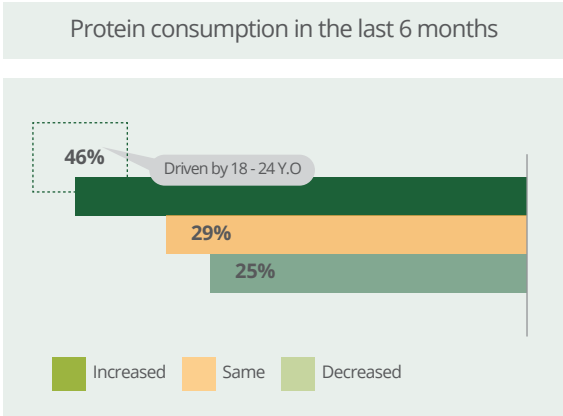
Level of expenses for Parents with kids



Average Mean: 31,592 Pakistani Rupee

8. Protein consumption in larger households, especially meat and fish, dropped due to a possible inflationary impact

It is important to assess the nature of consumption, access, and affordability of protein in view of the ongoing food crisis and severe inflation which has hit Pakistan since 2022. Pakistan is a net importer of food. The Russia-Ukraine war has led to a surge in commodity prices coupled with an exchange rate depreciation and the recent floods which have impacted food supply and prices severely, resulting in double digit inflation since November 2021². As a result, food inflation has soared, reaching 46.8 percent in urban areas and 52.2 percent in rural areas between April 2022 and April 2023.

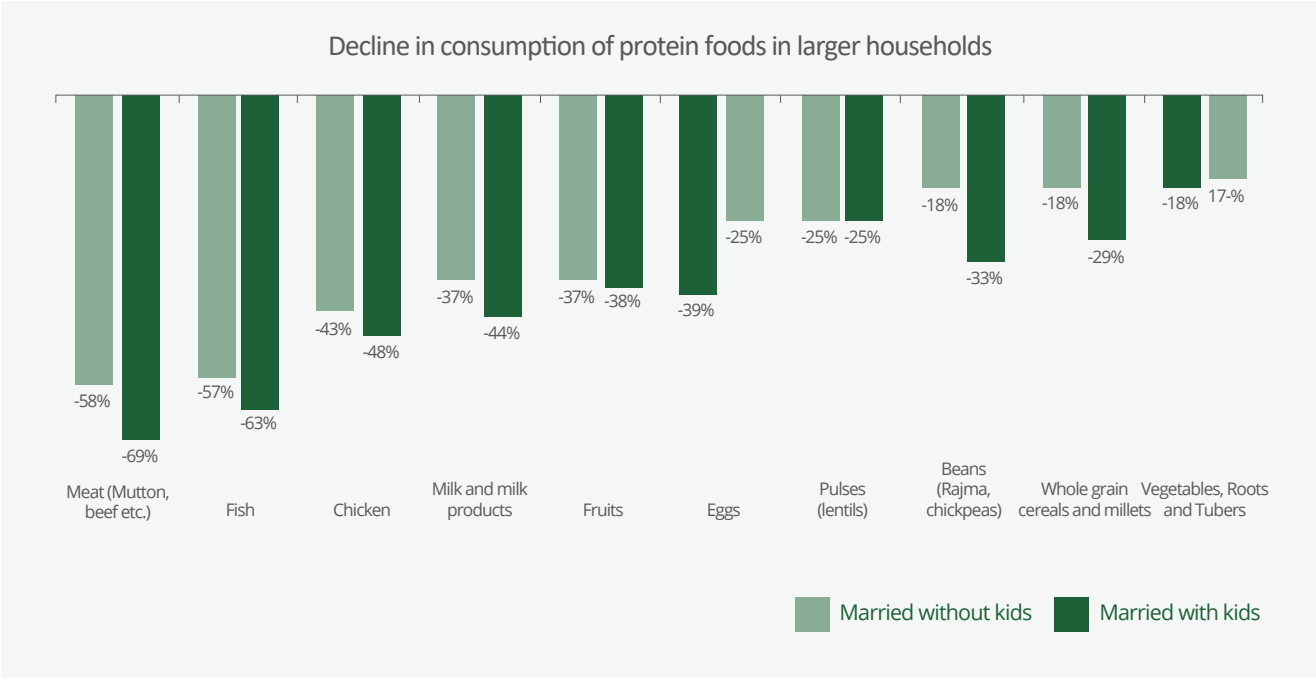


With regards to their protein consumption in the last 6 months, an encouraging proportion of 46% of the respondents reported an increase in protein consumption, indicating an increase in awareness and acknowledgement of the importance of incorporating protein into their daily diet. However, 25% of the respondents reported a decline and 29% reported no change. Respondents whose protein consumption decreased by a larger amount are largely larger households (married & have kids) compared to others. The decline in protein consumption was experienced majorly in the consumption of meat and fish, which are relatively more expensive as compared to other sources of protein.



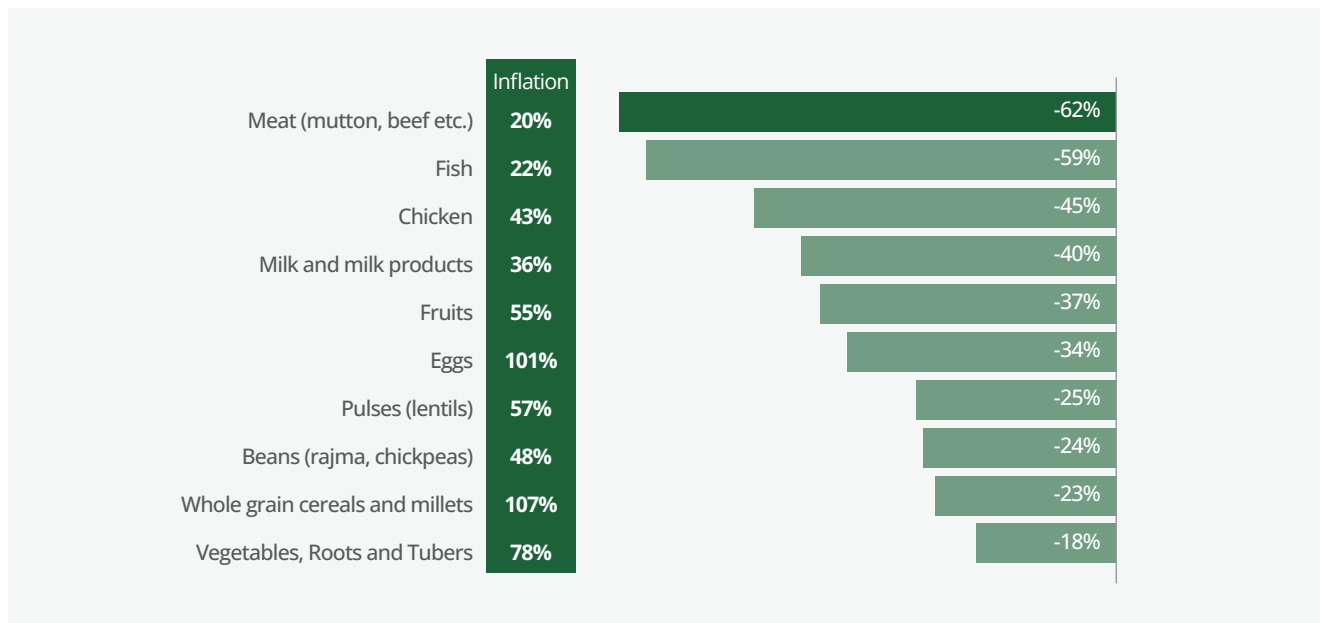
Larger households
Married & have kids

Consumption of meat and fish
relatively more expensive as compared to other sources of protein



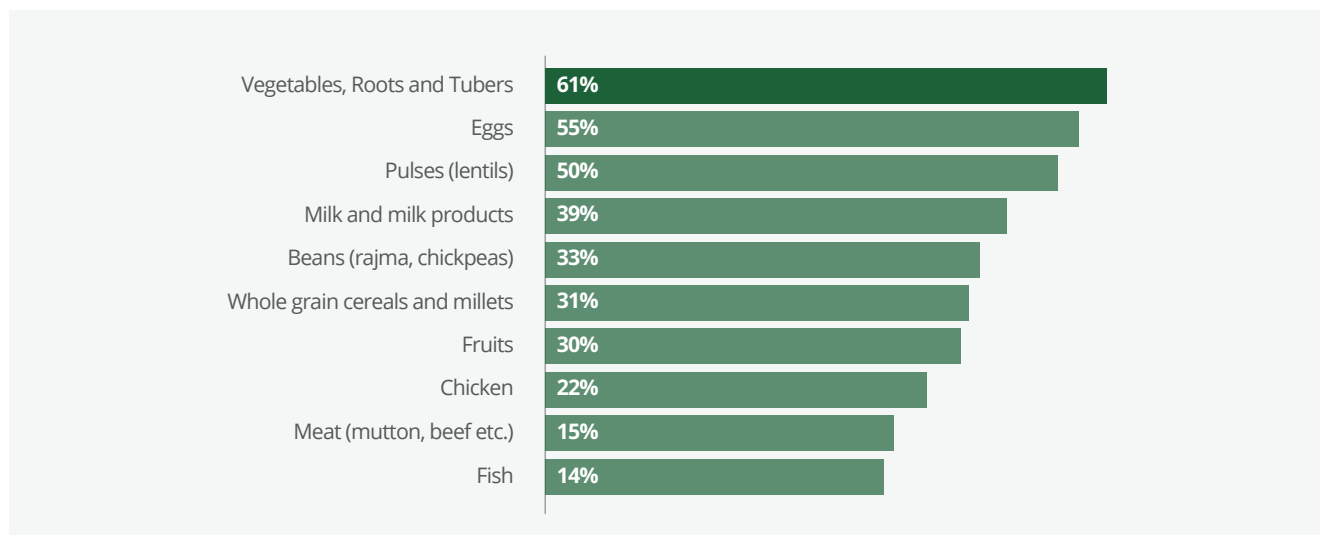
Additionally, most of the food items for which a major decline was reported have experienced high double-digit inflation in the last one-year period from April 2022 to 2023. While the increase in inflation was higher for plant protein items over animal protein items, the decrease in consumption was higher for animal protein items, which could be due to their higher overall cost, and hence a higher inflationary impact.

Decrease in consumption and level of inflation



The high inflation in prices of plant protein sources such as beans, milk, whole grain cereals and animal protein sources such as chicken, fish and meat results in a significantly high perception about their relative unaffordability.

Plant sources of protein perceived as more affordable than animal sources



Key Considerations

Pakistan's ongoing food crisis could destabilize the progress made in protein security

Pakistan is facing a five-fold crisis in its agriculture sector. If it remains unaddressed for an extended period, it will severely impact nutritional security and overall economic growth in the country ⁴.

5-F crisis in agriculture sector



Food



Fuel



Fertilizer



Feed



Finance



Food – High inflation and reliance on imported food commodities, such as edible oil, pulses, wheat, and other agricultural inputs has increased due to a shortage of domestic production. Pakistan's food imports increased to USD 8 billion, leading to a widening trade deficit of USD 2.6 billion in 2022⁵. The import of essential food commodities and agricultural inputs is getting hindered due to the ongoing fiscal crisis. As a result, Pakistan is importing about 10 percent of its wheat requirement, mainly from Russia and Ukraine. In the short term, prioritizing the imports of essential proteins to ensure food security.



Fuel – Fuel prices have increased due to the dependence on energy imports from Russia and Ukraine, leading to higher production and transportation costs, resulting in higher food prices and unaffordability.



Fertilizer – Import costs of fertilizers have shot up due to the Russia-Ukraine crisis, making it difficult for farmers to afford essential inputs, leading to a slowing down of agricultural production.



Feed – The poultry and dairy industry is also facing a feed shortage crisis due to the long-term restrictions on the import of soybeans, which are essential for providing high-quality animal feed in the poultry, dairy, meat and aqua industry.



Finance – The ongoing fiscal crisis in the country has led to a reduction in domestic subsidies while the increased volatility in the agricultural sector due to floods and global supply chain disruptions have led to drying up of financial support from financial institutions, further hindering the supply of essential food items.

Key Recommendations

Strategic policy interventions can help Pakistan navigate the food crisis

On various occasions, leaders of Pakistan have emphasized on multiple global forums the national priority of ensuring food security for the citizens of Pakistan. Several strategic measures could help ensure protein security for the future while ensuring nutrition security for the overall population.

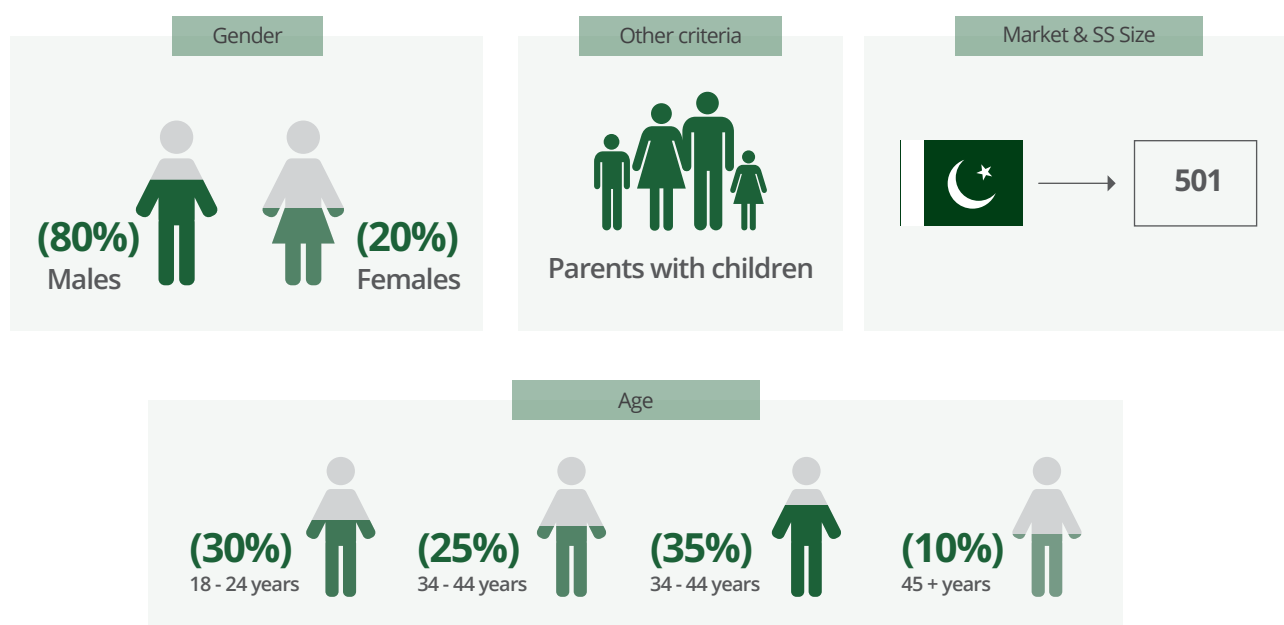
- 1. Immediate measures** – Identifying availability of superfoods can help with immediate solutions for Pakistan. This includes sustainable produce such as soybean, which can play an indirect yet crucial role in ensuring food security as it is a high-quality source of animal feed for the poultry and dairy industry. Superfoods such as soybean can help in making animal protein more affordable and opens up new sectors of plant protein, smart protein alternatives, aquaculture, and more, to support Pakistan on the journey of protein security⁶. Reclassifying items on the essential import list to include soybean will also help ensure adequate animal feed and therefore, higher availability of high-quality animal protein, such as poultry, aqua, meats, etc. for Pakistanis and avert any further increase in prices due to an impending shortage. Tying up with other countries to reduce the price of essential imports will also help in the short term.
- 2. Medium-term measures** – In the medium-term, policymakers can consider introducing free meals in schools that include egg and poultry to ensure nutrition security amongst young children and prevent the exacerbation of stunting and wasting of children, the prevalence of which is already a national emergency. This is already being experimented in one hundred schools in select regions of the country and can be expanded over time⁷. It is also essential that the government considers providing focused agricultural subsidies to expand the production of plant protein and animal feed to ensure the stability and growth of the poultry, aquaculture, dairy, and meat industry.
- 3. Long-term measures** – As international prices stabilize, Pakistan will get more breathing room to manage its food supply and policymakers could focus on spreading more awareness about the importance of protein consumption not just amongst a few segments, but also the overall population. In the long term, policymakers could also focus on investing in better infrastructure such as seeds and soy-based feedstock for increasing the supply of cheaper sources of protein such as fish.

Appendix

Study Methodology

For this study, a survey about 'Protein Perception in Pakistan' was conducted from 5th June -12th June 2023 by a third-party researcher, YouGov, on behalf of the Right To Protein initiative. 500 respondents in Pakistan were surveyed using a quota-based sampling approach for representation of different age groups (18-45+ years) and genders.

This survey was conducted using an online interview (lasting ~10 minutes) administered in English, to a sample from members of the YouGov Pakistan panel that consists of nearly 69,500 individuals. The sample was representative of adult urban internet users (18 years of age and above), who can read and understand English, and the results reflect the general responses of such an audience.



About Right To Protein

'Right To Protein' is a public health awareness initiative, powered by USSEC, to educate citizens about the importance of adequate protein consumption for better nutrition, health and well-being. #RightToProtein initiative aspires to build knowledge of different types of protein sources, both, animal and plant protein-based, to meet larger nutritional goals. Right To Protein aims to develop an ecosystem of institutions, organizations, experts, professionals and more to drive protein awareness, debunk myths and misconceptions about protein and protein food sources and rally for nutrition security through adequate protein consumption. The ecosystem will aim to improve the production, consumption quality, and consistency of plant and animal proteins. Right To Protein is supported by several like-minded global individuals, academicians, professionals, and institutions and is open for those who would like to join and/or contribute in any capacity, including providing knowledge, and technical support or as promotion partners.

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About U.S. Soybean Export Council (USSEC)

The U.S. Soybean Export Council (USSEC) focuses on differentiating, elevating preference, and attaining market access for the use of U.S. Soy for human consumption, aquaculture, and livestock feed in 80+ countries internationally. USSEC members represent the soy supply chain including U.S. Soy farmers, processors, commodity shippers, merchandisers, allied agribusinesses, and agricultural organizations. USSEC is funded by the U.S. soybean checkoff, USDA Foreign Agricultural Service (FAS) matching funds, and industry. Visit www.ussec.org for the latest information on U.S. Soy solutions and news about USSEC and U.S. Soy internationally.

About YouGov

YouGov is an international online research data and analytics technology group.

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Our innovative solutions help the world's most recognized brands, media owners and agencies to plan, activate and track their marketing activities better. With operations in the UK, the Americas, Europe, the Middle East, India, and Asia Pacific, we have one of the world's largest research networks.

At the core of our platform is an ever-growing source of consumer data that has been amassed over our twenty years of operation. We call it Living Data. All of our products and services draw upon this detailed understanding of our 24+ million registered panel members to deliver accurate, actionable consumer insights. As innovators and pioneers of online market research, we have a strong reputation as a trusted source of accurate data and insights. Testament to this, YouGov data is regularly referenced by the global press, and we are the most quoted market research source in the world.

For more information, visit www.business.yougov.com

Annexure

¹Irfana Marium and Mukhtar Ali, 2001. Determination of Protein in Pakistani Meal. Journal of Medical Sciences, 1: 63-66.
<https://scialert.net/fulltext/?doi=jms.2001.63.66#:~:text=Protein%3A%20According%20to%20the%20recommendations,et%20al.%2C%201999>).

²Pakistan Economic Survey 2022-23, Inflation, https://www.finance.gov.pk/survey/chapters_23/07_Inflation.pdf

³Food and Agriculture Organization (FAO) of the United Nations

⁴Food and Agriculture Organization (FAO) of the United Nations

⁵Pakistan Economic Survey 2022-23, Inflation, https://www.finance.gov.pk/survey/chapters_23/07_Inflation.pdf

⁶<https://www.reuters.com/world/asia-pacific/pakistan-seeks-trade-deals-with-saudi-uae-oman-official-says-2021-09-26/>

⁷<https://propakistani.pk/2022/02/04/punjab-govt-launches-free-lunch-program-for-school-students/>