

Pulses Availability in the Indian Diet: Trends, Nutritional Importance and Challenges

Anand Kumar Yadav

Abstract: -

Pulses are a vital part of the Indian diet, providing affordable **protein, complex carbohydrates, dietary fibre, vitamins and minerals**, especially for predominantly vegetarian populations. India is the world's largest producer and consumer of pulses, but domestic supply has often been insufficient to meet nutritional demand, creating dependence on imports. Per-capita pulse availability increased from **43 g/day in 2013 to 54 g/day in 2022**. However, national availability does not necessarily reflect actual consumption because income, prices, distribution, regional preferences and food habits affect access. In 2023–24, monthly per-capita expenditure on pulses and pulse products was about **₹84 in rural areas and ₹98 in urban areas**. Thus, improving pulse availability is important for **food and nutritional security**. Government initiatives such as the **Mission for Aatmanirbharta in Pulses** aim to increase domestic production, improve seed availability, strengthen procurement and reduce dependence on imports.

Keywords: Pulses, Indian diet, per-capita availability, protein nutrition, food security, nutritional security, India.

1. Introduction:

Pulses such as chickpea, pigeon pea, lentil, black gram, green gram and field pea are important components of the Indian diet. They are rich in protein, particularly lysine, and complement cereals to provide a more balanced diet. Pulses are consumed in various forms, including dal, cooked grains, sprouts and flour.

India is both a major producer and consumer of pulses, but population growth,

climate variability, limited yields, changing food preferences and competition for land create challenges in maintaining adequate supply. The government therefore considers pulses important for **food and nutritional security**.

Per-capita availability refers to the theoretical quantity of pulses available per person after considering production, imports, exports and other supply factors. It should not be confused with actual consumption, because

Anand Kumar Yadav
Indian Institute of Pulses Research Kanpur (UP)

availability at the national level does not mean that every person consumes the recommended amount.

2. Status of Pulse Availability in India

India's per-capita pulse availability improved from **43 g/day (15.8 kg/year) in 2013 to 54 g/day (19.6 kg/year) in 2022**, reflecting increased production and growing awareness of pulses' nutritional importance. However, rising population and dietary demand continue to create a supply gap. In 2024–25, India produced about **25.7 million tonnes** of pulses but imported approximately **7.3 million tonnes**, accounting for around **23% of consumption**. This import dependence makes pulse prices vulnerable to international market conditions. Therefore, increasing **domestic production and productivity** is essential for stable and affordable pulse availability in India.

3. Pulses in the Indian Household Diet

Pulses are an important part of the Indian diet, consumed as dal, sambar, rajma, chana, khichdi, sprouts and besan-based foods. Besides protein, they provide **dietary fibre, folate, iron, potassium and magnesium**.

According to **HCES 2023–24**, monthly per-capita expenditure on pulses was about **₹84 in rural areas and ₹98 in urban areas**, accounting for 2.04% and 1.40% of total food expenditure, respectively. However, expenditure does not directly indicate the

quantity consumed because prices and product types vary.

Average daily protein intake was **61.8 g in rural India and 63.4 g in urban India**, with pulses serving as an important protein source, particularly for households consuming fewer animal-based foods.

4. Nutritional Significance of Pulses

Pulses are nutritionally important because they provide **protein, complex carbohydrates, dietary fibre, vitamins and minerals** such as iron, folate, magnesium, potassium and zinc. Their combination with cereals such as **rice and wheat** improves the overall amino-acid balance of the diet. Pulses are especially valuable for **children, adolescents, women and economically vulnerable groups**, as regular consumption can improve dietary diversity and help reduce the risk of nutrient deficiencies. Therefore, affordable and adequate access to pulses is an important component of **nutritional and food security**.

5. Factors Affecting Pulse Availability

Pulse availability and affordability in India are affected by **low productivity, limited irrigation, pests, diseases, climate variability, price fluctuations and competition for farmland**. Poor storage, post-harvest losses and inefficient supply chains further reduce effective availability. Ensuring a **stable and affordable pulse supply** requires

better seeds, farming practices, climate-resilient technologies, storage, processing, transportation and market systems.

6. Production, Imports and the Self-Sufficiency Challenge

India's large population makes domestic pulse production insufficient to meet total demand, so imports have traditionally helped maintain supply. To reduce import dependence, the **Mission for Aatmanirbharta in Pulses (2025–26 to 2030–31)** has been launched with a **₹11,440 crore** budget and a target of **350 lakh tonnes of pulse production by 2030–31**. The programme focuses on improved seeds, expanding cultivation, procurement, post-harvest infrastructure and market support. Greater domestic production can improve price stability, dietary access and food security, but achieving self-sufficiency will require improvements in **productivity, resource efficiency, climate resilience and market infrastructure**.

7. Availability Versus Recommended Intake

Per-capita pulse availability reflects overall food supply, but actual consumption varies with income, prices, access, preferences and regional factors. Since the recommended intake is about **85 g/day**, policies should focus not only on increasing production but also on ensuring **affordable and accessible pulses**, especially for vulnerable populations.

Improving pulse availability in India requires a **comprehensive approach** focused on higher productivity, quality seeds, improved farming practices, efficient water management and climate-resilient varieties. Better **storage, processing and supply chains** can reduce post-harvest losses and improve farmers' incomes. Pulses should also be promoted as an important part of a **diverse and nutritious diet** through nutrition education. Finally, **government procurement, school meals and nutrition programmes** can strengthen demand and improve access to pulses, particularly for vulnerable populations.

8. Conclusion

Pulses are an important part of India's food and nutritional security. Per-capita availability increased from **43 g/day in 2013 to 54 g/day in 2022**, but remains below recommended levels. India needs not only higher pulse production but also **affordable, stable and accessible supplies**. Improving productivity, climate resilience, storage, markets and procurement can strengthen availability. The **Mission for Aatmanirbharta in Pulses** is an important government initiative toward self-sufficiency. Better pulse availability can improve **protein nutrition, dietary diversity, agricultural sustainability and food security**.