

PAKISTAN'S PATH TOWARDS HEALTHIER AND MORE SUSTAINABLE DIETS

Photo: FAO/Pakistan

Navigating Opportunities and Complexity in Food Systems Transformation

Pakistan's food system transformation journey is deeply rooted in its rich agricultural heritage. As one of the world's top producers of wheat, rice, sugarcane, and fruits, agriculture remains a cornerstone of Pakistan's economy and rural livelihoods employing over 38% of the workforce and contributing nearly 20% to the GDP. However, over the past decade, Pakistan has recognized the need to evolve from a production-focused model towards a more inclusive and nutrition-sensitive food system. This shift is reflected in a growing national commitment to ensuring that agricultural growth not only feeds the population but also nourishes it. By aligning agriculture with health, education, and social protection sectors, Pakistan is laying the groundwork for a more resilient, equitable, and nutrition-driven food system that supports human development and climate adaptation alike.

In 2024, Pakistan further strengthened its commitment to improving nutrition by joining the Coalition of Action on Healthy Diets from Sustainable Food Systems for Children and All (HDSFS). This global engagement has helped translate international learning into concrete national action. One of the significant achievements has been the creation of the Healthy Diet Resource Center (HDRC) in Punjab, set up by the Punjab Food Authority with technical support from Global Alliance for Improved Nutrition (GAIN). The idea was generated through the experiences gained during a [study trip](#) organized by the HDSFS Coalition and UN-Nutrition in September 2025 to Brazil. The HDRC's goal is to improve public access to healthy diets by addressing barriers related to food safety, social protection, and nutrition equity. It provides a strong provincial model with potential for replication in other regions of Pakistan. The HDRC's establishment marks an important step toward institutionalizing a food systems approach that strengthens coordination across sectors and advocates for sustainable, safe, and nutritious diets for all.

The government actively recognizes nutrition and food security challenges within its high-level plans, such as [as Pakistan Vision 2025](#), which prioritizes food security, including various cross-sectoral nutrition strategies. It acknowledges all forms of malnutrition as a critical, multi-faceted issue impacting human capital and GDP, and calls for multi-sectoral efforts. These initiatives include the revitalized National and Provincial Fortification Alliances, [National Health Vision \(2016-25\)](#), the [Reproductive, Maternal, Newborn, Child and Adolescent Health & Nutrition strategy \(2016-25\)](#), the [Pakistan Multisectoral Nutrition Strategy \(2018-25\)](#), and the [Pakistan Costed Multisectoral Nutrition Action Plan \(2023-2030\)](#). A more recent [Maternal Nutrition Strategy \(2022-27\)](#) specifically focuses on improving women's diets during pre- and post-pregnancy periods. To guide consumer choices, the government has also issued the revised [Pakistan Dietary Guidelines for Better Nutrition in 2018](#).



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Pakistan's nutritional landscape is defined by a complex "triple burden" of persistent undernourishment, micronutrient deficiencies and a rapid rise in diet-related non-communicable diseases (NCDs), including overweight and obesity.

According to the [2025 State of Food Security and Nutrition in the World \(SOFI\) Report](#), approximately 33.6% of children under five are stunted and 7.1% are wasted. Additionally, 46.5% of women of reproductive age in Pakistan are anemic, with limited access to nutrient-rich foods and health services. This precarious situation has been severely compounded by rising food and fuel prices and the devastating climate shocks, such as heavy floods in 2022 that have led to an estimated [60.3% of Pakistanis being unable to afford a healthy diet](#).

The national food basket is heavily skewed, with the majority of caloric intake derived from starchy staples and a critically low consumption of nutrient-dense foods such as vegetables and fruits. This dietary imbalance is significantly influenced by the high availability and relative affordability of ultra-processed foods (UPFs). UPFs were, on average, [47% less expensive per calorie than unprocessed or minimally processed foods in 2021](#). The SOFI 2025 shows prevalence of overweight children under five years of age being 2.1%, while prevalence of obesity in adults aged 18 years and over is 23%. The confluence of a large youth population, their reliance on street food as a daily staple, accessibility of UPFs, and the widespread inability to afford and access to a healthy diet, point to a critical vulnerability within Pakistan's food system.

This case study explores Pakistan's ongoing journey to transform its food system amid multifaceted challenges, focusing on nutrition, healthy diets, and environmental sustainability. It examines the processes, stakeholders, and strategic decisions that have sought to harmonize competing priorities into a unified national framework. Told through the voices of individuals engaged at various levels of this transformation, it provides a snapshot both the progress achieved, and the complexities encountered. It underscores Pakistan's national commitment to exploring integrated approaches for addressing malnutrition and unhealthy diets in ways that also strengthen resilience and reduce the burden of obesity and other NCDs - offering valuable lessons for countries pursuing similar goals.

From Concept to Action: Nourishing Food Pathways through Healthy Diet Policy

In Pakistan, the high burden of NCDs, [accounting for 58% of all deaths](#), including diabetes, cardiovascular disease, and hypertension, is mostly linked to poor dietary habits. The rapid rise in consumption of UPFs and limited access to affordable, nutritious diets have further heightened the burden. Various NCDs are [among the top 10 causes of morbidity and mortality](#), and over 60% of the population is unable to afford a healthy diet. To address these challenges, the Government of Pakistan has taken an initiative to formulate a National Healthy Diet Policy

(NHDP) with the technical assistance of the UN, development partners, and research institutions to provide strategic guidance to formulate robust approaches addressing the challenges caused by unhealthy diets. The UN Food Systems Summit in 2021 and findings from the [Global Diet Quality Project](#) further strengthened the case for developing a national policy in December 2022. The Nutrition wing at the Ministry of National Health Services, Regulations & Coordination¹ has constituted the National Technical Advisory and Advocacy Group for NHDP to oversee the processes and necessary activities towards the formulation of the policy. The aim is to guide current and future diet-related interventions to support the Government's priority to ensure the availability and consumption of healthy, safe and nutritious diets by all, particularly groups at risk, and improve nutrition in Pakistan.

“Research shows that many health issues in Pakistan are diet-related, including access to clean drinking water. Yet, nutrition debates focus mainly on food security, overlooking malnutrition, which is a far more serious challenge.”

*Prof. Shahzad Ali Khan, Vice Chancellor
of Health Services Academy (HSA)*

To this end, provincial governments are taking the lead in convening provincial consultation works to support the formulation of provincial Healthy Diet Strategies. These strategies will provide a strong foundation for the federal government's development of a National Healthy Diet Policy. The workshops are designed to ensure participation of a broader range of stakeholders than might typically be involved in nutrition policy dialogues and include federal and provincial government departments (Health, Nutrition, Food Authorities, Planning and Development, Finance, Information Technology), academia and research, and development partners². At this stage, provincial consultations have been convened in one of the four³ national provinces - Baluchistan - under the leadership of Baluchistan Health Department and in collaboration with other high-level provincial stakeholders. Two additional provinces, Punjab and Khyber Pakhtunkhwa, are currently in the planning phase.

The NHDP presents a critical opportunity to fundamentally realign the country's health, environmental and agricultural agendas. Its goal is to provide a strategic direction for ensuring that all population groups, particularly those at risk, have access to and consume healthy, safe, and nutritious diets. It aims to overcome the weaknesses of previous fragmented strategies by creating a cohesive approach in which ministries and stakeholders are working in concert toward shared, measurable goals. Such an integrated, multisectoral framework is essential to ensuring that government efforts are not siloed but coordinated toward a common ambition for a

¹ With the technical assistance from GAIN

² Including UNICEF, WHO, WFP, FAO, SUN Business Network

³ Pakistan's four provinces are Baluchistan, Punjab, Sindh and Khyber Pakhtunkhwa

healthier and more resilient population. While the policy development process remains underway, its design phase has already catalyzed stronger collaboration across ministries. This early momentum has been driven by political leadership, reflected in the formal alignment between the Ministry of National Health Services and the Ministry of National Food Security and Research, which is laying the institutional foundation for a coherent national strategy on healthy diets.

The policy development process has also generated several important lessons. Stakeholders emphasized that an effective healthy diet policy must be grounded in robust evidence, requiring comprehensive analyses of dietary patterns and health outcomes. The consultations highlighted the need for sustained investment in institutional capacity and cross-sectoral coordination, as well as clear governance and accountability mechanisms to ensure successful implementation once the policy is finalized. These insights reflect the early but significant progress made in reshaping how ministries work together to address unhealthy diets and nutrition-related challenges in Pakistan.

Pakistan's Revised Dietary Guidelines: Founded in Local Food Culture for Healthy and Sustainable Diets

The updated⁴ national [Dietary Guidelines of Pakistan \(referred to as Pakistan Dietary Guidelines for better Nutrition \(PDGN\)\)](#) were developed in 2018 through a multisectoral and consultative process led by the Ministry of Health, with technical support from the Food and Agriculture Organization (FAO), to provide dietary recommendations for the infants, children and adults.

The need for updated guidance emerged from rising levels of undernutrition, overweight, obesity, and diet-related chronic diseases, compounded by limited dietary diversity, suboptimal maternal and child feeding practices, changing lifestyles, industrialization, and recurring natural disasters. These trends underscored the importance of revisiting Pakistan's existing food-based dietary guidelines to better mitigate the risk factors driving both under- and over-nutrition and related chronic diseases within Pakistan's unique socio-economic and environmental context. The PDGN takes into account local dietary practices, cooking methods, cost of diet, nutrition and health situation of the population, socio-cultural practices, economic and environmental conditions to meet the nutritional requirements of different population groups.

The development process also included multiple other partners - including the Scaling Up Nutrition (SUN) Movement, the Ministry of National Food Security & Research, the Ministry of Climate Change, and the Planning Commission - ensuring that the guidelines were shaped by diverse sectoral priorities and had broad institutional support.

"The PDGN were disseminated at a very opportune time as the country is confronted with challenges of diet associated diseases. The guideline has been formulated to guide the different segments of the population in adopting healthy dietary practices and lifestyles to overcome the widely prevalent nutritional and health problems of the country."

Ms. Amina Bajwa, Head of Programme, FAO Pakistan

The collaborative process in developing and disseminating the PDGN has ensured strong buy-in from all relevant ministries and non-government stakeholders. The guidelines are used as a connector and practical tool for integrating nutrition-sensitive policies across sectors, including their use by the Provincial Food and Drug Authorities to strengthen food quality and safety standards in respective provinces. This cross-sectoral application enhances policy coherence and ensures that nutrition considerations are embedded across multiple areas of governance.

At a broader level, the PDGN serves as a strategic bridge between nutrition and Pakistan's wider development agendas, including agriculture, equity, environment, and climate resilience. By encouraging diverse, locally sourced, and seasonal foods, they support healthier eating patterns while reinforcing elements of sustainability such as affordability, reduced reliance on imports, and the promotion of resilient local food systems.

Operationalizing Coherence Through Healthy School Meals and Nutrition-Sensitive Agriculture

School meals have become one of Pakistan's most tangible entry points for putting national nutrition ambitions into practice. As a multisectoral intervention at the intersection of education, health, agriculture and social protection, the school meals programme provides a practical platform for improving children's nutrition and learning outcomes while supporting household food security and human capital development.

The PDGN further strengthens this effort by offering a nationally endorsed framework for the types of foods and dietary patterns that should be promoted. Aligning school meals with the PDGN's recommended food groups, nutrient diversity and safe water standards enables Pakistan to translate national dietary guidance into everyday practice for children and adolescents - an age group critical for shaping lifelong eating habits and reducing future risk of diet-related NCDs.

⁴ First dietary guidelines of Pakistan were developed in 2005

In doing so, school meals serve as a scalable mechanism for advancing several of Pakistan's SDG commitments. Across Pakistan, school meal initiatives led by both government entities and NGOs illustrate how local action can generate wide-ranging benefits across nutrition, education, and food systems, driven by both government bodies and NGOs. These efforts are increasingly designed not only to provide food, but to build coherent links between nutrition, food systems, and climate resilience.

This shift aligns with the [Pakistan Multisectoral Nutrition Strategy \(2018-25\)](#) positions school feeding as a lever for improving nutrition, strengthening education outcomes, and enhancing social protection. It also reflects a growing recognition that climate change exacerbates malnutrition and food insecurity - particularly for vulnerable school-aged children - while simultaneously creating an opportunity to develop more resilient, nutrition-sensitive food systems.

A key governance consideration for school meals in Pakistan is the [18th Constitutional Amendment](#), which devolved agriculture, health, and related social sectors to the provinces. This devolution means that while national policies, such as the Pakistan Multisectoral Nutrition Strategy, provide overarching direction, provinces determine how and when school meal programmes are designed, funded, and implemented. As a result, progress varies across regions, shaped by provincial priorities, political commitment, and resource availability. Although this creates a complex federal-provincial landscape, it has also enabled innovation, with provinces piloting context-specific models that respond directly to local needs. The development and implementation of school meal programmes in Pakistan rely on a highly collaborative, multisectoral process that marks a shift away from siloed, project-based approaches toward more coordinated national and provincial strategies.

Pakistan's joining of the School Meals Coalition in 2021 helped elevate the profile of school feeding within national policy discussions and strengthened advocacy around its role in nutrition, education, and social protection.

Building on this momentum, the Government convened a National Consultation on School Meals in May 2022, bringing together key officials, parliamentarians, and development partners to advance healthy school meals as a national priority. This event catalysed concrete action: Baluchistan secured dedicated multi-year budgets for its school meals programmes, while Punjab and Sindh accelerated their respective school meals initiatives. The broader collaboration - across ministries and supported by global platforms such as the School Meals Coalition - has also improved knowledge sharing and enabled the adoption of best practices, helping Pakistan develop a more sustainable, evidence-based roadmap for school meals.

While the Federal Ministry of Education and Professional Training and the Ministry of Planning, Development and Special Initiatives provide overarching policy direction on child nutrition and have launched initiatives such as free lunches for primary

students in Islamabad, provinces retain significant autonomy in designing and scaling their own programmes. A follow-up national consultation was held in June 2025, reinforcing cross-sector engagement and sustaining momentum behind the school meals agenda.

“Investing in school meals is not only an investment in individual children but also in Pakistan's overall prosperity and future development; it's a strategic investment in our human capital.”

*Dr. Ghulam Sadiq Afridi, Secretary,
Pakistan Agricultural Research Council (PARC)*

All four provinces and federal territory of Pakistan have the school meals program in place, however at varying stages of development. In 2024, an estimated 10.4 million children received some form of school-based food support - ranging from full meals to snacks, take-home rations, vouchers, or cash transfers, whether provided [free or paid](#). These programmes form part of a broader national commitment to investing in child nutrition, health, and education. The World Food Programme (WFP) has played a central role in helping establish many of these initiatives, several of which have since transitioned to government leadership, alongside contributions from NGOs such as the [Allah Walay Trust](#). School meals are now embedded within provincial strategies to reduce malnutrition and improve school retention, with clear early impacts seen in increased enrolment and attendance. Their continued expansion across provinces reflects a growing, multi-stakeholder commitment to prioritizing children's well-being and long-term development.

An initiative within the school meals agenda is the [HarvestPlus Biofortification project](#), designed to create sustainable pathways for delivering nutrient-rich foods to vulnerable populations by connecting smallholder farmers to public procurement systems such as school meal programmes. With support from the Government of Canada, the project introduced zinc-enriched wheat flour to schoolchildren in Faisalabad district of Punjab Province. Its core innovation was the creation of a localized value chain that linked farmers, local “chakki” (stone grinding) mills, and schools. Farmers received digital advisory services - through SMS and robocalls approved by the Punjab Department of Agriculture - encouraging them to cultivate biofortified wheat. As a result, adoption of biofortified wheat seeds among surveyed [farmers increased substantially](#), shifting production from a focus on yield alone toward crops with higher nutritional value and stronger market demand.

By embedding biofortified wheat into school meals on a pilot basis, this initiative demonstrates how nutrition-sensitive agriculture can reinforce public food procurement, improve community health, and strengthen rural-urban linkages.

It offers valuable lessons on how agricultural systems can be more intentionally integrated into school feeding programmes, providing a practical model for scaling up coherent action across nutrition, agriculture, and education sectors.

Cross-Sector Progress, Remaining Policy Gaps: Efforts to Bring Nutrition into Pakistan's NDCs

As Pakistan prepared its Third Nationally Determined Contributions (NDC 3.0) for submission in 2025, the process was spearheaded by the Ministry of Climate Change & Environmental Coordination (MoCC&EC). They led a series of consultative workshops and dialogues that engaged a range of stakeholders to ensure a data-driven, transparent, and inclusive approach.

These discussions aimed to mainstream climate action into national planning and development processes. The MoCC&EC acted as the central coordinating body, while the process involved other key ministries, including the Ministry of National Food Security and Research and the Ministry of Planning, Development and Special Initiatives. These ministries that had not been engaged previously in NDC revision - making this broadened engagement an important step toward breaking down institutional silos and building a more coherent national approach to climate action.

The consultative process was designed to be inclusive, bringing together not just government officials but also researchers, civil society organizations, the private sector, and international development partners (such as UNDP, WWF, and GAIN). Such cross-sector collaboration is essential to ensuring that climate actions are aligned across ministries and embedded within a unified national strategy.

“Pakistan has an incredible opportunity to stack its climate and nutrition ambitions. Nutrition-sensitive climate action is not only a policy imperative but also a powerful human development accelerator.”

Mr. Faiz Rasool, Head of Policy and Advocacy - GAIN

Instead of treating climate policy as a technical, stand-alone task, the consultations increasingly emphasized “nutrition-sensitive, climate-resilient strategies” that reflect the interdependence of climate shocks, food insecurity, and nutrition outcomes.

Pakistan's experience illustrates that food systems transformation is taking shape through concrete policy action, multisectoral collaboration, and growing institutional alignment. The progress achieved to date offers a strong platform for further advancing healthy, sustainable diets and resilient food systems.

This also encouraged stronger collaboration between ministries and organizations that had previously operated in isolation. Several factors contributed to this shift.

First, Pakistan's acute exposure to recurring floods, droughts, and heatwaves created a strong sense of urgency and underscored the direct links between climate change and food insecurity - making it clear that siloed approaches are no longer sufficient. Second, growing evidence on the economic toll of malnutrition highlighted how nutrition outcomes continue to weigh on Pakistan's GDP and human capital, reinforcing the need for integrated action. Third, national and international actors - including government ministries, NGOs, and development partners - actively supported multisectoral collaboration by convening technical workshops and policy dialogues focused on food systems, nutrition, and climate resilience.

These exchanges fostered a shared understanding of the interlinked challenges and lowered bureaucratic barriers that had traditionally kept these policy domains separate. The consultative process helped create a more collaborative and less bureaucratic environment, making climate policy development a shared responsibility across ministries rather than a top-down exercise. This shift had begun influencing broader national planning and investment decisions, prompting greater attention to initiatives that link climate resilience with agriculture, food systems, and nutrition. Even with this emerging momentum, nutrition and healthy diets did not appear explicitly in Pakistan's final NDC, largely due to political transitions and shifting institutional priorities. Nevertheless, the multisectoral engagement process generated significant advocacy for nutrition-sensitive climate action and has shaped other policy domains. Development partners such as the Asian Development Bank, UN agencies, and bilateral donors are now exploring ways to integrate nutrition considerations into climate resilience programming and public investment systems. One example is the Ministry of Planning, Development and Special Initiatives collaborating with these partners to strengthen the nutrition-sensitive elements of the Integrated Project Appraisal System (iPAS), the government's central mechanism for assessing and approving public sector development projects, used to evaluate their design, feasibility, and alignment with national priorities.

Together, these developments indicate that, while nutrition was not reflected in the final NDC, the process itself helped raise institutional awareness, foster cross-sector cooperation, and create entry points for the future integration of nutrition into climate planning, financing, and policy.



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