

Linking trade, food and nutrition security in Nepal

For: South Asian Coalition for Improved Nutrition (SACIN)
Submitted by: SAWTEE
October 2025
Working Draft



Background	3
Trade and fiscal policies for food and nutrition security	6
Food and nutrition security in Nepal	6
Trade nexus	9
Some stylized facts about trade, food and nutrition security nexus	12
Trade in food products	18
Food expenditure and calorie consumption	22
Tariff structure	26
Policy review	30
Nepal Health Sector Strategy Implementation Plan 2016-2021	30
National Food Safety Policy 2019	30
Right to Food and Food Sovereignty Act, 2075 (2018)	31
Consumer Protection Act, 2075 (2018)	31
Food-Based Dietary Supplement Guideline 2016	32
Zero Hunger Challenge National Action Plan (2016 - 2025)	32
Iodized Salt (Production, Sale, and Distribution) Act, 2055 (1998)	33
National School Health and Nutrition Strategy Nepal 2006	33
Strategy for Infant and Young Child Feeding: Nepal 2014	34
National Nutrition Policy and Strategy 2004	35
Multisectoral Nutritional Plan (2013—2017), (2018 —2022) and (2023-2030)	35
Government-run programmes for food and nutrition security	40
In a nutshell	42
Food and security in different plans and programmes	42
Way forward and recommendations	53
Strengthen domestic food production and invest in climate-resilient agriculture	53
Reform agricultural support and market systems	54
Manage import dependence and trade risks	54
Strengthen nutrition-sensitive policies	55
Enhance governance and coordination	56

Background

With one in five people engaged in farming, while a fourth of the country's gross domestic product is generated from the agricultural sector, Nepal is predominantly agrarian. Despite this, about 37 percent of the population is reported to be moderately to severely food insecure.ⁱ Although production is one of the important aspects to achieve food security, there are other considerations that bridge the gap between farm to the table. Hence, food security is attributed to four dimensions—food availability, economic and physical access to food, food utilization, and stability over time. Domestic production alone may not be sufficient to address all these dimensions. Hence, food imports are crucial dynamic to ensure food security. Moreover, prevalence of undernourishment of 5.7 percent of the population signals that, in spite of Nepal's progress in terms of reducing poverty, efforts are necessary to meet food and nutrition security requirements.ⁱⁱ

Food and nutrition security for a household depends on whether people can get enough food to eat, whether that food is safe and nutritious, and whether they can do so regularly. In Nepal, this depends on a mix of things—how much people earn, what food is available in local markets, how much they grow themselves and what social or government support they can rely on when times are tough. For rural households, food security still relies a lot on their own farming. Many families produce food mainly for themselves, so if there is a bad harvest, drought, or pest attack, their food supply immediately suffers. In the hills and mountains, where land is scattered and not very fertile, people often face shortages during the lean season and depend on food brought in from the plains. Urban households, on the other hand, depend more on market prices, so when prices rise because of import costs, transport problems, or inflation their ability to buy nutritious food gets worse.

Nutrition security is a deeper issue. Even when people have enough food, it doesn't always mean they are eating the right kinds of food. In Nepal, diets are still heavily based on rice, with limited fruits, vegetables, pulses, meat, or dairy. This is partly because of cost and partly due to food habits. Poor households often choose cheaper, filling foods rather than diverse or protein-rich ones. Women and children are usually the most affected by this, showing higher rates of anemia and stunting. Remittances also play a big role now. Many households depend on money sent from abroad to buy food and other essentials. This income helps improve food access, but it also shifts diets toward more market-based and processed foods, which are not always nutritious. Access to roads, markets, and storage facilities also affects food security—places with poor connectivity often face higher prices and limited choices.

Food and nutrition security remains a critical developmental challenge in Nepal, a landlocked and agrarian country where access to adequate, nutritious and affordable food is deeply influenced by structural vulnerabilities, climate risks and economic shocks. Food and nutrition security is still a serious challenge in Nepal, even though the country has made progress in reducing hunger and poverty. Many Nepali households still struggle to afford or access a healthy diet. National surveys show that around 25% of children under five are stunted, 8% are wasted, and 19% are underweight.ⁱⁱⁱ While this is better than a decade ago, it still means a large part of the population is not getting enough nutrients for healthy growth. The problem is worse in the hills and mountain regions—especially in provinces like Karnali and Sudurpaschim—where poverty, limited roads, and poor access to markets make both food and healthcare hard to get.

A big reason behind this is the country's dependence on food imports and its low level of agricultural production. Nepal now imports a wide range of food—from cereals and oils to fruits, vegetables, and meat products. The food import bill reached over Rs 360 billion in 2025.^{iv} This

dependence makes Nepal highly vulnerable to price shocks and trade disruptions from neighboring countries like India. When India restricts rice or onion exports, for example, prices in Nepali markets shoot up almost overnight. For poorer families who already spend more than half their income on food, such price hikes directly cut down the quantity and quality of what they eat.

Even when food is available, the nutritional quality of the average Nepali diet remains poor. Many people eat mainly rice and lentils but very few vegetables, fruits, or animal products. Protein intake is low, and anemia remains widespread, especially among women and children. In rural areas, poor irrigation, small landholdings, and lack of storage facilities reduce farmers' ability to grow diverse crops year-round. Meanwhile, urban diets are becoming more dependent on imported and processed foods, which are often high in sugar, oil, and salt. Altogether, these issues—low income, high food prices, poor dietary diversity, and weak production systems—keep food and nutrition security a persistent developmental challenge in Nepal.

Despite some progress in poverty reduction and nutritional outcomes over the past decades, a significant portion of the population continues to face chronic food insecurity and malnutrition. According to recent national surveys, stunting, wasting, and underweight prevalence among children under five remain concerning, while food insecurity persists in both rural and urban areas.^v

Trade and fiscal policies play a central but often underexamined role in shaping food and nutrition security outcomes. Trade policies, such as tariffs, import restrictions, and export incentives, affect the availability, affordability, and diversity of food products in domestic markets. In Nepal, where food imports form a substantial share of the national food supply, particularly in food-deficit regions, trade liberalization has had a profound impact on food accessibility and market stability. However, reliance on food imports also raises concerns about vulnerability to international price fluctuations and external supply shocks.

At the same time, fiscal policies, including public expenditure on agriculture, subsidies, food price controls, taxation, and social protection programs, significantly influence production incentives, household purchasing power, and access to nutritious food. For example, government spending on fertilizer subsidies, nutrition-sensitive agriculture, school meal programs or targeted cash transfers can directly or indirectly impact household-level food security and dietary diversity.

In the context of Nepal, where fiscal space is limited and the agricultural sector is underfunded relative to its contribution to livelihoods and GDP, understanding the synergy and trade-offs between trade and fiscal instruments is essential. Moreover, Nepal's commitments to the Sustainable Development Goals (SDGs), particularly SDG 2 (Zero Hunger), and its obligations under various regional and global trade frameworks make the alignment of these policies even more crucial.

This study aims to explore the complex interplay between trade and fiscal policies and their combined effects on food and nutrition security in Nepal. It seeks to identify policy coherence gaps, assess their distributional impacts on different population groups, and provide evidence-based recommendations to enhance food and nutrition security through integrated economic policy design. For the purpose, study examined the trade and food security nexus through Nepal's trading practices—especially imports. Alongside, tariffs imposed by the government of Nepal on major consumable products, combustion patterns of households based on different criteria was also analyzed in the first section. The second section has done a review of food and nutrition security related policies and plans and how they take into account Nepal's import-dependence reality while designing these policies. The same section also includes review of the policies aimed at agricultural development and trade facilitation address the food and nutrition security issues.

For this purpose, a comprehensive desk research was conducted of the existing information with regard to food and nutrition security and their relation with trade and fiscal policies in the global context but specifically in Nepal's case. Similarly, trade and tariff database, Nepal Living Standard Survey reports, Nepal's Sustainable Development Goals database, etc were analyzed. A comprehensive review of policies and programmes related to food and nutrition security, trade and

fiscal policies were undertaken to understand policy landscape. In addition, consultations with policymakers and experts were undertaken to understand the nuances underlining these issues.

The report is divided into three major sections. The first one assess the food and nutrition security situation and how trade is an essential part of it in Nepal. The second section looks into existing policies and programmes to assist food and nutrition security as well as how these matters are reflected in agricultural and trade policies. Based on these two sections, final section provides recommendations and way forward.

Trade and fiscal policies for food and nutrition security

Food and nutrition security in Nepal

The food and nutrition security situation in Nepal presents a complex picture of progress alongside persistent challenges. While Nepal has made significant strides in poverty reduction and improving its Global Hunger Index (GHI) score—moving from the "alarming" category to "moderate"—a substantial portion of the population remains food insecure and malnourished.^{vi} Disparities are still stark, with remote, mountainous, and hilly areas generally more affected than the Terai and urban centers. Key drivers of food insecurity include dependence on subsistence rain-fed agriculture, poor infrastructure and socio-economic inequalities based on geography, caste, and gender that has been exacerbated by climate change-induced vulnerabilities. Malnutrition, in all its forms, remains a major public health concern. According to the World Food Programme, about 17 percent of people in Nepal (that is about 4.91 million people) are food insecure as of late 2022, up from 13.2 percent in mid-2022.^{vii} The average household food stocks that an average household holds is about 403 kilograms of food supply. The food stock held by households in Terai, Mountains and Hills are highly varying as households in Terai hold about 575 kilo, Mountains 351 kilo and Hills about 224 kilos.^{viii}

The Global Hunger Index (GHI), one of the measures to estimate how well a country or household is doing in terms of food security, analysts use several key indicators that capture different dimensions such as food availability, access, utilization, and stability, has been tracking Nepal since 2000. The GHI, which combines four components the share of the population who are undernourished, the proportion of children who are stunted (low height for age), the proportion of children who are wasted (low weight for height), and child mortality (which reflects both malnutrition and disease), have shown that Nepal has been consistently improving in its ranking (See Table 1-3). In 2024, Nepal's GHI score was 14.7, placing it 68th among 127 countries with enough data, and classifying its level of hunger as "moderate".

Table 1-3

GHI score and level over the years		
Year	Global Hunger Index	Level
2000	37.0	Alarming
2008	28.5	Serious
2016	20.6	Serious
2025	14.8	Moderate

According to the State of Food and Nutrition Security reports, Nepal's progress is mixed in terms of these measures over last two decades. On one hand, there has been clear improvement in hunger reduction, but on the other, new challenges like food insecurity and diet-related diseases are becoming more visible.

The prevalence of undernourishment in Nepal dropped sharply from 17 percent in 2004–06 to 6.7 percent in 2021–23, showing major gains in food availability and access. Nepal now performs

slightly better than the global average of 9.1 percent, reflecting progress in reducing chronic hunger. But the prevalence of food insecurity, especially at the moderate or severe level, has worsened. It increased from 29.5 percent in 2014–16 to 37 percent in 2021–23, higher than the world’s 29 percent. Severe food insecurity alone rose from 10.4 percent to 13.5 percent, showing that while fewer people are undernourished overall, more households are facing temporary or seasonal shortages. This points to instability in access rather than availability — many families can’t afford or regularly access nutritious food despite there being enough in the market.

State of Food and Nutrition Security in Nepal

Indicator
PREVALENCE OF UNDERNOURISHMENT IN THE TOTAL POPULATION
PREVALENCE OF SEVERE FOOD INSECURITY IN THE TOTAL POPULATION
PREVALENCE OF MODERATE OR SEVERE FOOD INSECURITY IN THE TOTAL POPULATION
PREVALENCE OF WASTING IN CHILDREN (<5 YEARS)
PREVALENCE OF STUNTING IN CHILDREN (<5 YEARS)
PREVALENCE OF OVERWEIGHT IN CHILDREN (<5 YEARS)
PREVALENCE OF OBESITY IN ADULT POPULATION (≥18 YEARS)
PREVALENCE OF ANAEMIA IN WOMEN (15–49 YEARS)
PREVALENCE OF EXCLUSIVE BREASTFEEDING AMONG INFANTS (0–5 MONTHS)
PREVALENCE OF LOW BIRTHWEIGHT
Source: FAO (2024) State of Food Security and Nutrition in the World

This data shows Nepal has made serious progress on some core hunger issues, but the general food access situation is getting worse. The problem shifts when you look at security and access. Food insecurity—meaning people struggling to get enough food—has clearly gotten worse since 2014–16. Both severe and moderate/severe food insecurity shot up. By 2021–23, a massive 37 percent of Nepalis were moderately or severely food insecure, much higher than the world's 29 percent and up from 29.5 percent just a few years earlier. This means while fewer people are technically undernourished, a lot more are worried and struggling to feed themselves.

Nutritional outcomes also show progress but with uneven trends. Stunting among children under five fell from 40.8 percent in 2012 to 26.7 percent in 2022, one of the strongest improvements in South Asia. Wasting also declined from 7 percent to 4 percent, better than the world average. However, anaemia among women remains stubbornly high at 33.7 percent, and low birth weight is still common (about 19.7 percent). Chronic malnutrition (stunting) has been cut massively, dropping from an alarming 40.8 percent to 26.7 percent. Acute malnutrition (wasting) is also down.

But Nepal still fights high rates of low birthweight (19.7 percent vs. 14.7 percent globally) and high rates of anaemia in women (33.7 percent vs. 29.9 percent globally). Finally, the rate of exclusive breastfeeding has oddly dropped from 69.6 percent to 56.4 percent, which is a major concern for infant health. Meanwhile, new nutrition problems are emerging — obesity in adults doubled from 3.4 percent to 7 percent, and child overweight increased slightly. The data show that on one hand, there has been clear improvement in hunger reduction, but on the other, new challenges like food

BOX 1: Dimensions of food security

Food security generally has four main dimensions, which are all connected to each other. In Nepal's context, these dimensions show how access to enough, safe, and nutritious food is affected not just by production, but also by income, markets, and stability.

Availability: This is about whether enough food is physically present in the country. It comes from local production, imports, or food aid. In Nepal, food availability depends heavily on agriculture (which is still affected by land fragmentation, poor irrigation, and changing weather) and on imports from India. Since Nepal is a net food importer, availability often fluctuates with trade restrictions, transport costs, and exchange rate changes.

Access: Even if food is available, people need the means to get it—through income, employment, or social support. In Nepal, access is a major issue because a large share of households depend on unstable daily wages or remittances. When food prices rise, especially for essentials like rice, oil, or vegetables, low-income households cut back on both quantity and diet quality. Rural areas with weak roads and markets face additional physical barriers to food access.

Utilization: This refers to how well the body uses the food people eat, which depends on diet diversity, health, and sanitation. In Nepal, many people still suffer from malnutrition and micronutrient deficiencies because diets are dominated by rice and dal, with limited fruits, vegetables, or animal products. Poor water, sanitation, and hygiene (WASH) conditions also make it harder for children to absorb nutrients

insecurity and diet-related diseases are becoming more visible.

Trade nexus

Trade plays a big role in Nepal’s food security. The country imports a large share of its daily food items—like rice, wheat, lentils, oil, and vegetables—from India and other countries. Because domestic production can’t meet national demand, Nepal’s food system depends heavily on open trade and cross-border supply. This dependence makes the country highly vulnerable to external shocks such as India’s export bans or rising global prices for essential goods. When transport costs go up or export restrictions are introduced, food prices in Nepal rise almost immediately. For a landlocked country with limited storage and processing capacity, trade keeps food available in the short term, but it also discourages long-term investment in domestic production.

The problem becomes clear when we look at how trade policies and tariffs affect the affordability of key food items. Certain essential foods like rice, lentils, and cooking oil—central to household nutrition—are sometimes taxed at rates that make them more expensive. Meanwhile, imported processed or luxury food items often have similar or even lower tariffs. This imbalance means that while families can buy snacks or packaged foods cheaply, the cost of basic nutrition stays high. It shows how tariff policies don’t always align with food and nutrition goals. For example, instead of supporting affordable imports of nutritious items like pulses or oilseeds, the tariff structure often favors processed goods that add little to dietary quality. This affects poorer households the most, as they spend a higher share of income on food.

In Nepal, food security depends on how food is produced, traded and accessed by people. On the supply side, food availability mainly comes from domestic production, which includes both subsistence farming and crops grown for markets. But this production is often unstable because of weather shocks, poor irrigation, limited mechanization, and small landholdings. National food stocks—both at household and government level—are small, and the country relies heavily on food imports to fill the gap, especially for rice, wheat, and cooking oil. Hence, food accessibility is tied not only to domestic production but on ease of import of food products.

On the demand side, most households now depend on markets for food, rather than their own production. This means that access to food is tied to income and purchasing power. For the country as a whole, access to food also depends on foreign exchange reserves, since Nepal imports a large share of its food. When the balance of payments or remittance inflows are weak, the ability to pay for these imports declines.

Table 1 Nepal’s food production, export and import quantity

	Production (in MT)	Import quantity (in MT)	Export quantity (in MT)	Domestic supply quantity (in MT)	Food supply quantity (kg/capita/yr)	Share of import in domestic supply (in %)
Wheat and products	2155	189	9	2343	53.2	8
Rice and products	5487	1123	0	6647	139.5	16.9
Cereals, other	19	327	90	256	0.6	127.7

Table 1 Nepal's food production, export and import quantity

Potatoes and products	3411	314	0	3639	92	8.6
Pulses, Other and products	400	116	3	524	13.8	22.1
Vegetables, other	4249	91	13	4366	131.2	2.1
Mutton & Goat Meat	77	0	77	2.5		0
Poultry Meat	206	0	206	6.7		0
Source: FAOSTAT						

Government efforts to increase food supply often focus on improving agricultural productivity through input subsidies, training and infrastructure. However, investment in agriculture remains low and support systems, such as irrigation, market access and storage, are limited. Food security in Nepal, therefore, is not only about self-sufficiency but also about being able to afford food from other sources. In many years, remittances have helped maintain imports and keep markets supplied, but this dependence also makes Nepal vulnerable to external shocks.

In Nepal, food insecurity is less about total availability and more about access. Poor households, landless workers, and people in remote areas face difficulties buying enough food even when it is available in markets. Low wages, rising prices, and loss of jobs—especially during economic slowdowns—reduce purchasing power. Removing food subsidies or increasing fuel and transport costs also adds pressure on household food budgets.

Nepal's food security is shaped by both domestic production limits and its dependence on imported food. Ensuring stable access will require better agricultural support, stronger safety nets and economic policies that protect poor households from market shocks. The principles connecting a nation's macroeconomic environment—its systems for trade, spending, and money management—to its ability to feed itself are critically important, and nowhere is this more visible than in Nepal. This is not just theory; it is about how exchange rates, government budgets and global markets determine whether basic staples are affordable and available.^{ix} For Nepal, a country defined by high out-migration, low domestic production, and heavy reliance on its neighbours, these macroeconomic mechanisms create a complex dilemma that the same forces that provide short-term stability often obstruct long-term reform.

The primary mechanism shaping Nepal's food security is the flow of international resources, dominated by remittances. When domestic production can't meet demand, countries turn to imports, often financed by external borrowing or remittances. This is exactly what happens in Nepal. Millions of Nepali citizens work abroad, sending home billions of dollars each year, equivalent to nearly one-fourth of Nepal's GDP.^x This massive inflow of foreign currency finances the

country's growing need for imported food, fuel, and fertilizer. The paradox is that remittances keep the population fed but delay needed reforms in agriculture. Why invest heavily in boosting farm productivity if imported rice is cheap and the money to buy it keeps flowing from overseas workers?

Fiscal policy—government spending and taxation—is another major factor. The state supports farming through fertilizer subsidies, seed programs, and irrigation. In addition, to providing electricity at NPR2 per unit tariff for irrigation purpose compared to NPR 9 per unit rates applied to households. Government often steps in with temporary price controls or distribution drives, which help in the moment but these controls have limited impact due to their limited footprint.^{xi} Moreover, the open border with India and prominence of cross-border informal trade at household levels and commercial scale mean government's attempts of price control, rationing and/or ban remain futile.^{xii}

As Table 1 shows, about 23 percent of Nepal's staple food needs are met through imports, trade becomes a major tool to meet three of the four dimensions of food security —access, availability and stability. Also, it is worth noting that these figures only represent the products that are officially recorded as imported and exported at the border points. Given the extent of informal trade of agricultural that takes place through informal channels between Nepal and India border, it is difficult to ascertain the actual volume of trade. Despite that fact, Nepal is dependent on imports on staples such as rice, pulses and cereals for imports to meet the country's domestic demand is established. Hence, any changes in the supplier markets, especially India, affects Nepal's food security as well.

Food security in Nepal depends on how food is produced, traded and accessed. Domestic production covers part of demand, but limited irrigation, poor roads, and small landholdings keep yields low. Only about 1.4 million hectares of farmland are irrigated year-round out of more than 3 million hectares cultivated.^{xiii} To fill the gap, Nepal imports large volumes of rice, wheat, lentils, and edible oil—imports that reached over NPR 250 billion in 2023.^{xiv} Most households now rely on markets rather than their own crops hence access to food depends on income, wages, and foreign exchange.

Government plans promote improved seeds, fertilizer use, and mechanization, but actual public investment in agriculture remains under 3 percent of the national budget.^{xv} Agriculture employs over two-thirds of Nepal's workforce, yet contributes only about 23 percent of GDP.^{xvi} Country's food consumption is dependent on imports, but they also create dependence and reduce policy urgency. This leaves Nepal vulnerable to external shocks, like India's export restrictions on rice or global price spikes in fuel and fertilizer.^{xvii}

Food prices vary widely across seasons and districts. Mountain areas often pay 30–50 percent more than the Tarai, where most of the farming takes place, for the same items.^{xviii} In addition, lack of proper infrastructure resulting in poor storage—not sufficient cold storage or warehouses—in necessary locations, weak transport links and limited local production make long-term stability hard to achieve.

Nepal's food problem is less about total availability and more about access. Food prices in Nepal have stayed high for the past few years and have become one of the biggest reasons overall inflation keeps rising. Poor households, daily wage labourers, and those in remote districts face chronic food shortages even when markets have stock. The food and beverage inflation usually stayed between 6 percent and 10 percent year-on-year, but in late 2023 and early 2024, it jumped to around 10–12 percent.^{xix} Food inflation outpaces non-food inflation in Nepal, especially for cereals, oil, and vegetables.^{xx}

Rising costs of food and fuel, along with wage stagnation, squeeze household budgets. Nutrition adds another layer. Unaffordability of food results in limited nutrition intake. Despite progress, 25 of Nepali children under five are stunted, 8 percent are wasted, and 19 percent are underweight.^{xxi} Around 45 percent of children aged 6–59 months are anemic, and many lack micronutrients such as vitamin A, iron, and zinc.^{xxii} Malnutrition rates are higher in the mountains and among poorer households. Women’s nutrition remains a key issue—around 17 percent of women of reproductive age are undernourished, which contributes to low birth weights and intergenerational undernutrition (MoHP, 2023).^{xxiii}

Diet diversity remains poor as most families depend heavily on rice and lentils, with limited fruits, vegetables, and proteins. Though stunting rates have fallen from 57 percent in 2001 to 25 percent in 2022, progress has slowed in recent years.^{xxiv} (NDHS, 2022).

Nutrition outcomes are shaped by the same macro and market pressures that define food security. When imports rise and prices fluctuate, poor households cut back first on nutrient-rich foods. Higher fuel costs and the removal of subsidies increase the price of cooking oil, milk, and vegetables, directly lowering diet quality even when rice and wheat remain available.

Nepal’s food and nutrition system shows a deep structural imbalance. Remittances and imports keep food accessible, but the agricultural base is weak and nutrition gains are uneven. Long-term food and nutrition security will require stronger domestic production, better irrigation, and investment in nutrition-sensitive programs—from maternal health and school meals to food fortification. Without this, Nepal’s economy may keep the country fed, but not necessarily nourished or resilient.

Some stylized facts about trade, food and nutrition security nexus

As a net food-importing country, trade—especially imports—plays a crucial role in ensuring food security in Nepal. Being open to trade in agricultural and food products, that is not restricting imports and exports, allows countries to meet their food security needs by getting access to essential and staple food products at lower prices. Hence, removing or lowering barriers to trade of agricultural food products is considered an effective move towards ensuring a stable supply of food at accessible prices. However, this consensus weakens when evidence showing import openness leading to import dependency while domestic productivity erodes. The interaction of trade policy with the country’s agricultural policies and other support mechanism could help determine whether trade openness complements or displaces domestic food production.

International trade plays a crucial role in enhancing food security by mitigating price volatility and ensuring consistent food availability, especially during periods of domestic shortages. And food imports in particular, play a key role in enhancing food security by stabilizing markets, supplementing domestic food supplies, and increasing dietary diversity—all of which are essential for both short-term resilience and long-term nutritional well-being. When domestic food production falls short, access to global markets helps stabilize prices by truncating the upper end of price spikes, thereby reducing the risk of food insecurity and malnutrition.^{xxv} Even in years when domestic production is average, imports are essential for maintaining an adequate and affordable food supply, especially for net food-importing countries.

Studies widely agree that trade acts as a balancing mechanism—connecting supply and demand across borders—enabling countries to smooth consumption and respond more efficiently to production shocks.^{xxvi} Rather than displacing domestic production, food imports often complement it by expanding the overall availability of food. This helps to ensure that consumers have access to

food items that might be scarce or expensive to produce locally, thus supporting affordability and access.

Empirical evidence supports the positive relationship between trade and food security. Studies, such as those by the OECD (2013)^{xxvii} and by Gillson and Fouad (2015)^{xxviii}, highlight that trade liberalization tends to improve food security by increasing availability, affordability, and diversity of food. In fact, research by Remans et al. (2014) shows that food availability—when including imports—is significantly more diverse than food production alone in many developing regions. This greater diversity, measured through indicators of nutritional variety, is vital for improving diet quality and nutritional outcomes.

Hence, lowered tariff and non-tariff barriers are advocated to enhance food security. Reducing tariffs on food imports can play a crucial role in enhancing food and nutrition security, particularly in developing countries where the majority of poor households are net food buyers. Lower tariffs reduce consumer prices, increase food availability, and expand dietary diversity—key components of food security. These benefits are especially important in regions where domestic production alone cannot meet nutritional needs affordably or consistently.

Lower tariffs help align domestic food prices with global market levels, which benefits consumers directly through reduced food costs. While such liberalization reduces protection for domestic producers, it increases prices for producers in exporting countries, creating incentives for more efficient global food supply chains. Importantly, for most poor families in developing countries—both rural and urban—who are net purchasers of food, lower food prices translate into improved access to nutrition.^{xxix}

Empirical studies consistently find substantial welfare gains from agricultural tariff liberalization. Across a sample of 54 countries, tariff reductions were found to increase real household income per capita by an average of 2.5 percentage points.^{xxx} These gains are primarily driven by consumption improvements resulting from lower food prices, which outweigh the income losses associated with reduced protectionism. For example, consumption gains averaged 4.64 percentage points, while income losses were 2.15 percentage points, leading to a net positive effect.

Trade liberalization also enhances the diversity and availability of food. Remans et al. (2014) show that food imports increase the nutritional diversity of diets in developing countries beyond what is possible through domestic production alone. This dietary diversification is critical for addressing undernutrition and micronutrient deficiencies.

Moreover, studies such as those by Fathelrahman et al. (2021)^{xxxi} and Bonuedi et al. (2020)^{xxxii} demonstrate that eliminating tariffs improves food availability and access, particularly in countries like India, Egypt, and across Africa. These improvements support both short-term welfare and long-term food system resilience. Similarly, Wacziarg (2008)^{xxxiii} and Mamonto (2023)^{xxxiv} find that trade openness contributes to higher food supply and improved food security through its positive impact on income and food expenditure.

Importantly, trade liberalization does not necessarily displace domestic agriculture. Instead, it can complement domestic efforts by increasing investment, technology adoption, and cash crop production—all of which can improve local incomes and enable farmers to manage risk better.^{xxxv} This, in turn, supports food production and contributes to nutrition security indirectly through higher earnings and better access to inputs and markets.

While some advocate for trade barriers (TBs and NTBs) in the name of self-sufficiency, a growing body of evidence suggests that these restrictions often reduce consumer choice, widen trade gaps,

and undermine food availability. In contrast, countries embracing trade openness—such as those in Central Asia—have experienced improvements in food security once past certain liberalization thresholds.^{xxxvi}

There is growing empirical evidence that trade openness, particularly through the reduction or elimination of tariffs, contributes significantly to improved food and nutrition security. High ad-valorem tariffs—taxes imposed as a percentage of the value of food imports—are consistently linked to lower nutritional outcomes. For instance, Tantraporn (2012) found a significant negative correlation between such taxes and the mean protein supply, indicating that trade restrictions diminish the availability of essential nutrients. Similarly, Mgeni (2018) observed a strong inverse correlation between tariff levels and food energy consumption, suggesting that trade barriers reduce access to basic dietary energy.

The removal of tariffs, therefore, has the potential to improve both the quantity and quality of food accessible to populations, with important welfare implications across all food commodities. As tariffs are reduced, food becomes more affordable and available, allowing for improvements in both caloric intake and nutrient diversity—two critical components of food and nutrition security.

Quantitative studies support these conclusions. Dithmer and Abdulai (2017)^{xxxvii}, using System Generalized Method of Moments (SGMM) estimations, demonstrated that trade openness significantly increases food supply and dietary diversity in both developed and developing countries.^{xxxviii} These findings move beyond earlier case studies, which suggested a connection between trade and nutrition but could not isolate trade effects from broader policy or economic trends.

Moreover, trade liberalization has the potential to stimulate more diversified domestic production. Expanded market access can incentivize producers to grow a broader range of crops, including non-traditional and nutrient-rich foods, without necessarily displacing staple crops. This production diversification, facilitated by trade, can contribute directly to improved dietary diversity and nutritional outcomes. Positive links between dietary diversity and anthropometric indicators—such as child growth and reduced malnutrition—further reinforce the importance of trade in achieving nutrition security.

High tariffs and trade restrictions are detrimental to food and nutrition security by limiting access to affordable, diverse, and nutrient-rich foods. Conversely, lowering trade barriers fosters greater food availability, enhances dietary diversity, and supports better health outcomes, particularly in resource-constrained settings.

Trade has helped developed countries to access food at power prices, deriving advantage of other countries' agriculture subsidy for domestic production. These subsidies often lead to increased domestic output and greater exports, while reducing the demand for imports. While this helps stabilize food prices at home, it also tends to depress global market prices for food commodities.^{xxxix} For many developing countries, especially those with comparative advantages in agriculture, this creates an uneven playing field. Their farmers struggle to compete in global markets, leading to a decline in agricultural incomes and heightened food insecurity. However, this is not a universal outcome. Some low-income countries that are net importers of food may actually benefit from lower global prices, which can help make food more affordable for their populations. Thus, the impact of global price shifts caused by agricultural subsidies is nuanced and highly context-dependent.

To protect their domestic food systems from such external pressures, many developing countries adopt tariff barriers (TBs) and non-tariff barriers (NTBs). These measures are used to encourage

local food production and shield domestic markets from international price volatility.^{xi} Tariffs are particularly critical as a defensive tool against the adverse effects of subsidies in developed nations, and they help stabilize local agricultural economies during periods of sharp price drops.^{xii} However, trade liberalization policies, which often involve reducing or removing these tariffs, can lead to a decline in food self-sufficiency and increased reliance on imported food supplies. This process may compromise national food security, especially in the initial phases of liberalization. According to McCorrison (2013), the relationship between trade openness and food security in less developed countries often follows a U-shaped pattern—initial declines in food security followed by improvements as economies adapt and cross a certain threshold of openness.

The mixed evidence on the effects of trade liberalization has led researchers to question the universal benefits of open agricultural trade. While trade openness can reduce food shortages through increased imports, it also raises concerns about dependency and vulnerability, especially among net food-importing developing countries.^{xiii} For example, Nepal, with one of the lowest tariff rates in South Asia, showed improvement in food security indicators, suggesting that under the right circumstances, openness can be beneficial.^{xiiii} On the other hand, an excessive influx of cheap food imports can flood domestic markets, depress local food prices, and erode the income base of smallholder farmers who rely on agricultural sales for nutrition and livelihoods.^{xliv} Meanwhile, agricultural exports may provide a more positive outcome by leveraging comparative advantages to generate income, increase food access, and improve national trade balances.^{xlv} However, high tariffs on imported food can contribute to food price inflation, which disproportionately affects poor households.^{xlvi}

Critics of agricultural trade liberalization argue that it has exacerbated food insecurity and undernutrition in many developing nations.^{xlvii} The existence of substantial subsidies in rich countries creates competitive imbalances that prevent poorer nations from realizing the theoretical gains of trade.^{xlviii} While trade can lower consumer food prices and enhance availability, the reduction in agricultural incomes in rural areas can have severe consequences. Most rural households in developing countries rely heavily on farming for income, so depressed farmgate prices due to import competition can undermine their purchasing power and access to food.^{xlix} Furthermore, imported food often displaces traditional food crops, and substitution effects may result in diets with lower caloric or nutritional value (Hawkes, 2006). Although trade can facilitate more stable food supplies by enabling greater import capacity, it also makes countries vulnerable to disruptions in export policies of trading partners, as observed during global crises.¹

Beyond questions of availability and access, trade's impact on food utilization and nutrition outcomes is also contested. Much of the literature links trade primarily to supply-side indicators, such as price and quantity, often ignoring distributional and nutritional dimensions. This is problematic because trade openness can increase food supplies without necessarily improving nutrition among the most vulnerable populations.^{li} Evidence suggests that a 10 percent increase in food trade openness is associated with a 6 percent increase in undernourishment, particularly affecting food-importing countries with less competitive agricultural sectors. Moreover, dietary patterns in developing countries have bifurcated: poor populations often consume energy-dense but nutrient-poor diets, while higher-income groups have access to healthier food options.^{lii} This “nutrition transition” is associated with dual burdens—rising obesity and chronic diseases alongside persistent undernutrition and micronutrient deficiencies. Thus, simply increasing trade is insufficient; complementary policies addressing income inequality, food affordability, and nutritional education are essential.

Finally, structural inequalities and limited resources often prevent small-scale producers—especially women—from benefiting from trade liberalization.^{liii} These producers may lack access to land, credit, technology, and markets needed to compete in an open trading system. As trade displaces domestic production through cheaper imports, smallholder farmers and rural workers may lose their primary sources of income. In some cases, this leads to lower food prices and benefits for consumers, especially in urban areas. But if the losses to producers outweigh the consumer gains, the result may be an overall increase in poverty and food insecurity.^{liv} Moreover, dependency on international trade reduces countries' policy autonomy, binding them to WTO agreements and making it harder to protect vulnerable sectors.^{lv} In sum, while trade can contribute to food security under the right conditions, its impact remains uneven and deeply contingent on complementary domestic policies, market institutions, and broader socio-economic frameworks.

Protective measures such as tariffs and subsidies are frequently used to shield domestic agriculture, especially in politically organized sectors like dairy and sugar.^{lvi} Rich countries, despite having fewer farmers, tend to offer higher protection rates than poorer ones, highlighting the exceptional status of food in trade policy (Aksoy, 2005; Ibrahim, 2024). Food safety concerns have become increasingly prominent in justifying trade restrictions, especially in developing countries grappling with modernizing food systems and shifting hazard-mitigation responsibilities to public and industry actors.^{lvii} As developed countries impose stricter food regulations, developing countries face new trade-related implications for food security. Trade barriers are assessed through contrasting metrics: some studies focus on food availability and access, which directly respond to trade facilitation^{lviii}, while others emphasize food self-sufficiency and import dependency.^{lix} Tariffs, while offering revenue generation, can reduce consumer access to food^{lx} and curtail national policy autonomy on social and environmental issues.^{lxi}

The relationship between trade openness and food security remains complex and heterogeneous, varying significantly by country context, food category, and the structure of domestic agriculture. While trade liberalization can enhance supply and lower prices, it also intensifies competition, often at the expense of small-scale farmers who struggle to compete due to low yields and fragmented plots, potentially leading to land concentration and rural disempowerment. Employment shifts from agriculture to off-farm sectors can initially improve dietary intake through increased income, but in the long run, reduced agricultural engagement may hurt production and local food access.^{lxii} Higher agricultural production, conversely, supports better earnings and nutritional outcomes.^{lxiii} However, many studies measure trade's impact only through food quantities or prices, overlooking utilization and nutrition. Trade may increase food supply, but access for the most vulnerable does not necessarily follow. Evidence suggests a 10 percent increase in food trade openness can lead to a 6 percent rise in undernourishment in developing countries, with exporters faring better due to comparative advantages.^{lxiv}

Trade liberalization influences global food prices, trade patterns and economic structures, though its exact impact remains difficult to isolate due to overlapping macroeconomic variables. Empirical studies show mixed outcomes: among 34 reviewed studies, 13 reported improvements in food security, 10 declines, and 11 mixed or context-dependent results.^{lxv} The variability stems from differences in trade policies assessed (e.g., tariff reductions vs. export measures), food security metrics used, and the diverse initial conditions of country economies.^{lxvi} As such, food trade policy impacts are not universal; they hinge on structural factors like domestic economic programs, heterogeneity among economic agents, and global economic dynamics. Even proponents of trade openness recognize that it is not a panacea for growth or poverty alleviation, but one of many variables in a broader policy framework.^{lxvii} Ultimately, the interaction between trade reforms and

domestic socio-economic realities shapes whether trade liberalization promotes or undermines food security.^{lxviii}

Hunger and malnutrition remain persistent challenges in Nepal, disproportionately affecting specific communities and household types. While food insecurity is widespread across the country, its severity varies based on social, economic, and geographic factors. Within the same physiographic regions, marginalized groups—particularly those relying on subsistence agriculture or depending on market purchases—are more vulnerable due to limited income diversification and inflated consumer food prices.^{lxix}

Empirical studies reveal notable disparities in household food security. Female-headed households are generally more food insecure than their male-headed counterparts, whereas food security tends to improve with the age of the household head. Factors that contribute positively to food security include larger areas of irrigated farmland, engagement in off-farm occupations, greater livestock holdings, and ownership status of land. In contrast, food security declines with increasing household size and longer distances to the nearest market. Geographically, eastern mountain districts are relatively more food secure than those in the far-western regions. These patterns point to the need for targeted support—both monetary and non-monetary—for female-headed households and economically active members, including investments in skills development and value-added agriculture. Public investment in rural infrastructure such as roads, markets, and irrigation systems is also crucial for improving food access and land productivity.

Historically, Nepal was food self-sufficient at the national level. In the early 1970s, the country even recorded significant food surpluses, particularly in the Terai region, although poor infrastructure hindered redistribution to food-deficit districts. For instance, a food balance estimate in 1970/71 showed a national surplus of 294,051 metric tons, despite 34 districts being food-deficit. This surplus increased to over 539,000 metric tons in 1974/75.^{lxx} However, food insecurity intensified during years of climatic stress, such as the 1972 drought and the 1980 food crisis.

More recent data from 2001/02 to 2009/10 reflect a decline in the food balance, with four of the nine years experiencing national food deficits. These shortfalls, ranging from 0.43 percent to 6.22 percent of total requirements, were largely due to climate variability impacting crop yields.^{lxxi}

Regional trade plays a critical role in bridging Nepal's food production-consumption gap. The Nepal-India Trade Treaty, which has undergone several revisions since 1991, has had mixed implications for food security. While early iterations (especially the 1996 version) liberalized trade by allowing duty-free access for Nepalese goods to Indian markets and easing export procedures, later amendments in 2002 introduced stricter rules of origin, quotas, and safeguard provisions that limited Nepal's trade flexibility.

Nepal's ability to use trade as a tool for food security is also challenged by its declining capacity to finance food imports with non-food exports. Between 2000/01 and 2009/10, the ratio of net food imports to non-food exports rose from 2 percent to 25 percent, indicating increased reliance on food imports and a shrinking export base—partly due to domestic instability and reduced industrial productivity.^{lxxii}

Seasonal food shortages are widespread, primarily driven by Nepal's monsoon-dependent agriculture, inadequate storage infrastructure, and poor market connectivity (Sonogo, 2008). Although the country's agro-ecological diversity offers opportunities for internal trade to balance regional shortages, these opportunities remain largely untapped.

Trade in food products

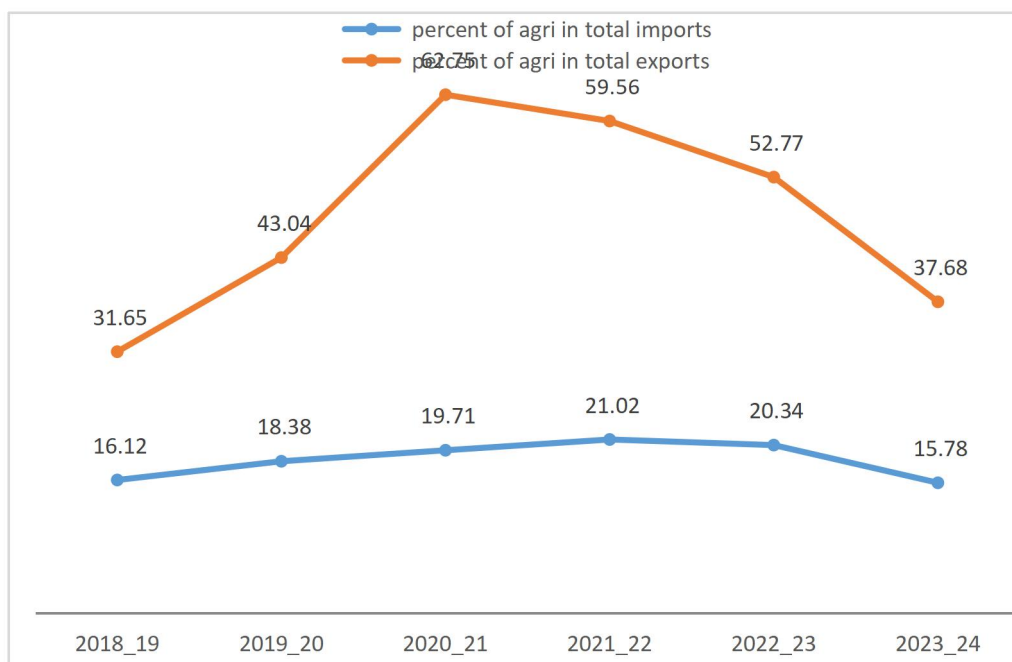
Because domestic food production often falls short of national needs, the country depends heavily on imports to fill the gap—especially for rice, wheat, edible oils, pulses, and fertilizers. This dependence means that Nepal’s ability to ensure food availability is tied not just to its farms, but to its trade balance and foreign exchange reserves. When global prices rise or when trading partners like India restrict exports, the impact is felt immediately in local markets. Unlike many developing countries that primarily export agricultural products, Nepal’s export footprint in agricultural products are limited to cash crops not cereals. At the same time, limited agricultural exports mean Nepal earns little foreign currency from farm products to offset the rising import bill. This trade imbalance has long-term consequences for both national food stability and household access to food. The figure shows the share of agricultural and food products (HS 01 to 24) in Nepal’s total imports and exports between fiscal years 2018/19 and 2023/24.

Agricultural and food products make about one-fifth of Nepal’s total trade. In value terms, agricultural and food imports made about 18 percent of total imports while the same category of products exported were about almost half between 2018 and 2024 (see Table 1).

	Total Imports (Rs.in `000)	Agri and foodImports (Rs.in `000)	Total Exports (Rs.in `000)	Agri and food Exports (Rs.in `000)
2023_24	1,592,985 ,528	256,757,2 08.66	15 2,381,244	48,223, 413.80
2022_23	1,611,731 ,770	296,303,2 50.00	15 7,140,695	67,626, 486.00
2021_22	1,920,448 ,349.38	378,605,1 16.08	20 0,030,961. 70	125,51 0,320.21
2020_21	1,539,837 ,067.89	323,669,3 06.98	14 1,124,080. 46	84,054, 830.73
2019_20	1,196,799 ,053	243,435,1 39.29	97, 709,105	51,564, 990.36
2018_19	1,418,535 ,343	223,834,9 34.58	97, 109,521	36,594, 141.78

The share of agriculture in total exports was at 31.65 percent in 2018/19, rose sharply to 62.75 percent in 2020/21, and then fell steadily to 37.68 percent in 2023/24. Nepal’s agricultural and food products export share seems higher because of re-exports that happen to India due to tariff differentials. Nepal's dramatic surge in refined edible oil, primarily palm oil, soybean oil etc, exports post 2017, is driven mainly by exploiting the tariff differential with its largest trading

partner, India.^{lxxiii} This trade mechanism involves Nepali traders importing crude oil (like soybean oil from Brazil and Argentina) at low duties, performing minimal refining and packaging, and then re-exporting the refined product duty-free to India under agreements like SAFTA, thereby bypassing India's much higher tariffs on refined oils. While this pivot to soybean oil has artificially inflated Nepal's overall export figures—with soybean oil sometimes accounting for over 40 percent of total exports—the entire sector is extremely volatile and vulnerable, soaring when India raises tariffs and plunging drastically when India lowers them. This boom is considered to represent artificial growth that does not stem from genuine domestic agriculture or manufacturing, leaving the industry constantly exposed to sudden Indian policy shifts and



scrutiny over the adherence to regional Rules of Origin. Hence, the rise and fall of overall agri and food export resonates with the Indian rules changes or tariff changes in crude palm or soybean oil imports.

The share of agriculture in total imports remained lower and more stable. It increased from 16.12 percent in 2018/19 to 21.02 percent in 2021/22, then dropped to 15.78 percent in 2023/24. This pattern shows that Nepal consistently imports a large amount of food and farm-related goods, even as global and regional conditions change.

		Imports (in NPR '000)						
HS Code	Chapter Description	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	AVERAGE
1	Live animals	4,098,651.12	955,761.39	1,607,8	1,743,279.3	910,28	878,99	1,699,1

				87.97	3	5.00	5.11	43.32
2	Meat and edible meat offal	159, 941.60	60,0 27.13	31,265. 22	6,295.41	24,850. 00	8,265.8 0	55,107. 53
3	Fish and crustaceans, molluscs and other aquatic invertebrates	1,89 4,018.33	1,76 5,136.34	1,698,0 60.55	346,580.0 0	1,030,4 14.00	1,350,2 14.10	1,514,0 70.55
4	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified	1,82 2,920.02	2,20 6,600.91	1,995,0 40.40	148,072.2 1	2,554,8 40.00	2,512,7 40.65	2,206,7 02.36
5	Products of animal origin, not elsewhere specified	141, 763.84	53,2 74.45	72,341. 17	8,860.50	101,71 0.00	113,62 5.85	91,929. 30
6	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	209, 258.79	268, 931.98	385,38 9.18	27,278.94	283,55 7.00	225,86 7.50	283,38 0.57
7	Edible vegetables and certain roots and tubers	28,6 65,129.10	33,0 57,090.89	38,500, 618.04	6,544,598. 61	31,872, 481.00	28,314, 347.97	32,825, 710.94
8	Edible fruit and nuts; peel of citrus fruit or melons	18,1 06,124.95	20,7 46,292.61	21,343, 836.09	4,998,566. 08	20,563, 133.00	23,445, 780.33	21,533, 955.51
9	Coffee, tea, maté and spices	11,6 40,026.70	11,5 74,073.28	9,491,8 31.11	042,291.6 0	8,770,3 67.00	11,206, 678.45	10,287, 544.69
10	Cereals	51,8 02,396.22	56,8 84,306.79	79,592, 746.26	4,283,706. 53	56,625, 346.00	45,797, 475.33	60,830, 996.19
11	Products of the milling industry; malt; starches; inulin; wheat gluten	1,68 3,571.01	1,37 5,118.74	1,878,2 11.57	674,576.0 1	2,926,0 01.00	2,521,7 53.31	2,176,5 38.61
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder	15,3 09,627.66	19,4 82,942.83	20,643, 721.38	2,911,369. 58	24,277, 819.00	21,775, 273.55	22,400, 125.67
13	Lac; gums, resins and other vegetable saps and extracts	270, 252.66	266, 653.49	383,24 4.09	56,564.96	523,32 1.00	558,79 0.31	409,80 4.42
14	Vegetable plaiting materials; vegetable products not elsewhere specified	265, 429.07	274, 004.93	364,65	60,442.06	513,79	111,25	331,59

				9.94		9.00	8.55	8.93
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	37120344.71	50248067.02 62019	829070 14.593 2186	12046452 6.930228	868187 67	482746 65.113 6978	709722 30.895 5577
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	104, 898.58	107, 675.99	76,064. 42	23,677.17	123,73 0.00	95,736. 44	105,29 7.10
17	Sugars and sugar confectionery	3,12 7,035.66	4,27 5,571.76	12,263, 392.79	411,275.9 5	5,028,4 65.00	4,054,3 49.51	6,026,6 81.78
18	Cocoa and cocoa preparations	1,93 7,596.56	1,61 9,956.67	1,926,3 36.63	351,935.5 8	2,167,2 70.00	2,523,7 41.25	2,087,8 06.11
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	6,93 5,164.74	6,06 4,005.79	8,114,9 92.21	609,458.4 0	7,914,2 01.00	7,851,8 17.33	7,581,6 06.58
20	Preparations of vegetables, fruit, nuts or other parts of plants	2,36 1,560.16	1,44 0,448.63	1,712,6 89.23	136,132.3 7	2,611,5 27.00	2,505,5 18.43	2,127,9 79.30
21	Miscellaneous edible preparations	10,0 54,909.52	8,39 5,162.32	10,383, 198.18	3,368,310. 64	13,719, 427.00	15,847, 982.57	11,961, 498.37
22	Beverages, spirits and vinegar	6,58 1,381.93	3,90 3,782.70	3,070,2 69.41	074,833.0 0	3,300,3 89.00	4,138,1 42.63	4,178,1 33.11
23	Residues and waste from the food industries; prepared animal fodder	16,6 46,032.29	15,1 25,973.58	22,039, 430.74	9,319,695. 35	20,083, 113.00	27,347, 861.75	21,760, 351.12
24	Tobacco and manufactured tobacco substitutes	2,89 6,899.36	3,28 4,279.06	3,187,0 65.80	692,788.8 5	3,558,4 38.00	5,296,3 26.83	3,652,6 32.98
	TOTAL	223, 834,934.58	243, 435,139.29	323,66 9,306.9 8	78,605,11 6.08	296,30 3,250.0 0	256,75 7,208.6 6	287,10 0,825.9 3

Source: DoC, GoN

As is illustrated in the Table above, In the past six fiscal years the highest imported agri-food item has been animal or vegetable fats, which is the inputs for palm, soybean and sunflower oil, that are exported more than used for domestic consumption. Besides that, other top import items are cereals and vegetables, signifying dependency on imports for domestic consumption. Together, these trends show that Nepal’ s trade structure is heavily dependent on agricultural imports and narrow in its export base. Food security, therefore, depends not only on how much Nepal produces but also on its capacity to maintain import levels through remittances and foreign exchange earnings. When either is disrupted, availability and prices in the domestic market are quickly affected.

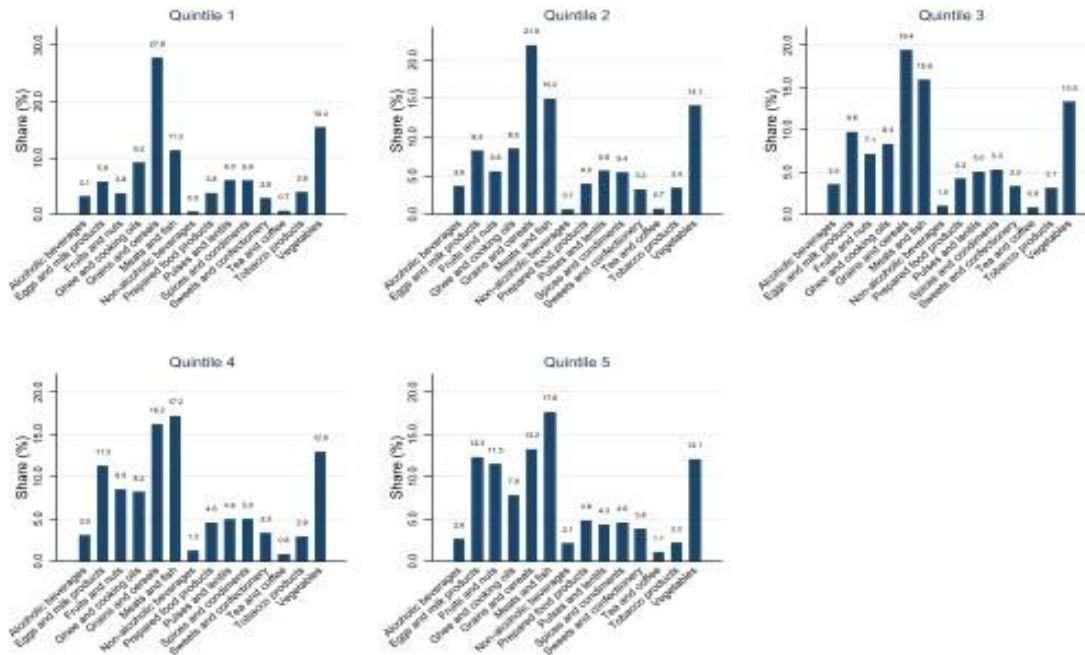
Food expenditure and calorie consumption

The NLSS data presents a compelling narrative of dietary stratification within Nepal, vividly illustrating how income and poverty status dictate not only what households can afford to eat but also the nutritional quality of their diets.

Expenditure Disparities: Cost of Diverse Diet

When examining Mean Food Expenditure Shares by Food Groups across Poor vs. Non-Poor Households, a clear divergence emerges. While both groups allocate a significant portion of their food budget to essential items, the composition of this expenditure differs markedly. Non-poor households, for instance, tend to show a relatively more diversified expenditure pattern, potentially allocating more towards fruits, vegetables, meats, and dairy products. In contrast, poor households are often constrained to prioritize staple grains and less expensive food items to meet their basic caloric needs. This expenditure pattern strongly suggests that for lower-income households, the primary objective is to acquire sufficient calories, often leading to a "calories-first" approach where staple grains, being more affordable per calorie, dominate both consumption and expenditure (Gibson 2007).

Mean household food expenditure shares by food groups across quintiles



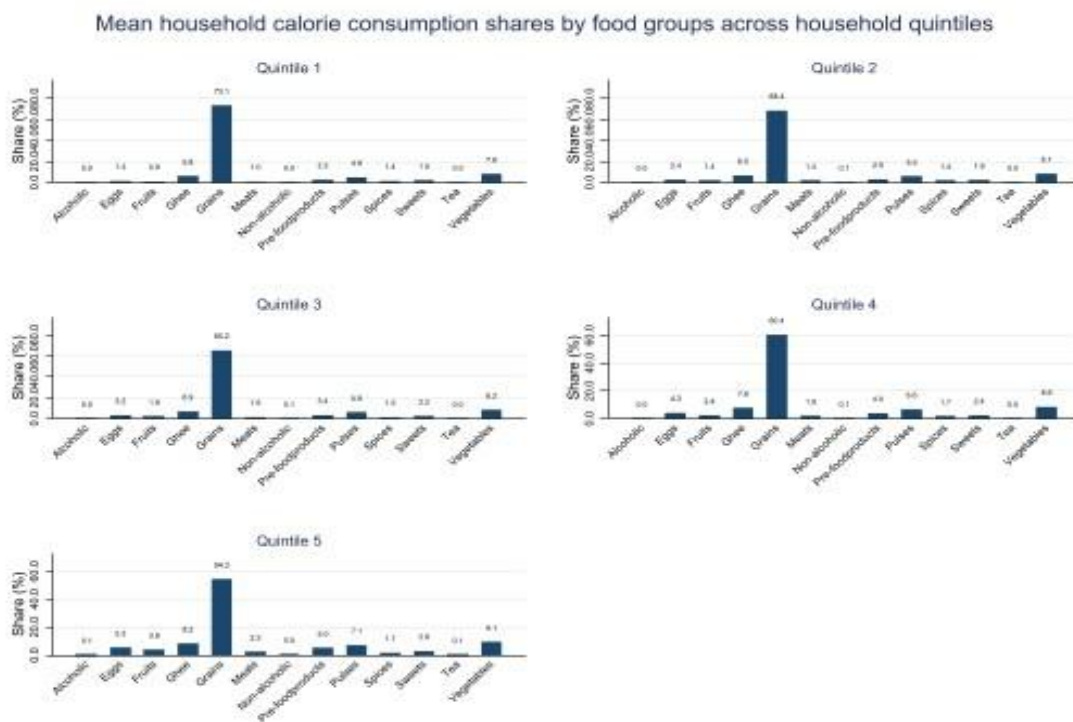
Source: NLSS 2022/23, author's calculations

As income rises across quintiles, a clear shift in household food expenditure patterns emerges. The poorest households (Quintile 1) allocate the largest portion of their food budget to "Grains" (26.35 percent) and "Vegetables" (15.40 percent), reflecting a focus on basic caloric intake, with minimal spending on "Meats and fish" (11.3 percent), "Fruits and nuts" (3.8 percent), and "Eggs and milk products" (5.8 percent). However, with increasing income, the expenditure on "Grains" generally declines, dropping to 13.2 percent in the wealthiest quintile (Quintile 5). Conversely, higher-income households significantly increase their spending on more nutrient-dense and diverse food groups. For example, "Meats and fish" rises to 17.6 percent in Quintile 5, and "Eggs and milk products" sees a substantial increase from 2.0 percent in Quintile 1 to 12.3 percent in Quintile 5. "Fruits and nuts" also show a slight increase in higher-income brackets. This trend demonstrates that as disposable income grows, households' transition from a diet centered on staple foods to one with greater variety, indicating improved dietary quality and better nutritional outcomes. This diversification is a hallmark of the nutrition transition, where increased purchasing power allows households to move beyond basic calorie acquisition to prioritize dietary quality and variety (Popkin 2002).

There appear to be some interesting differences arise When comparing Mean Household Food Expenditure Shares across Male- vs. Female-headed: female-headed households allocate a slightly higher share to nutrient-rich food groups such as "Eggs and milk products" (9.9 percent vs. 9.7 percent), "Fruits and nuts" (7.9 percent vs. 7.5 percent), and "Vegetables" (13.7 percent vs. 13.2 percent), as well as "Prepared food products" (4.9 percent vs. 4.0 percent) and "Spices and condiments" (5.5 percent vs. 5.0 percent). In contrast, male-headed households show a considerably greater expenditure on "Alcoholic beverages" (3.9 percent vs. 2.0 percent) and "Tobacco products"

(3.7 percent vs. 2.0 percent). These patterns suggest divergent household priorities, with female-headed households potentially emphasizing more diverse food groups, while male-headed households exhibit higher spending on discretionary items.

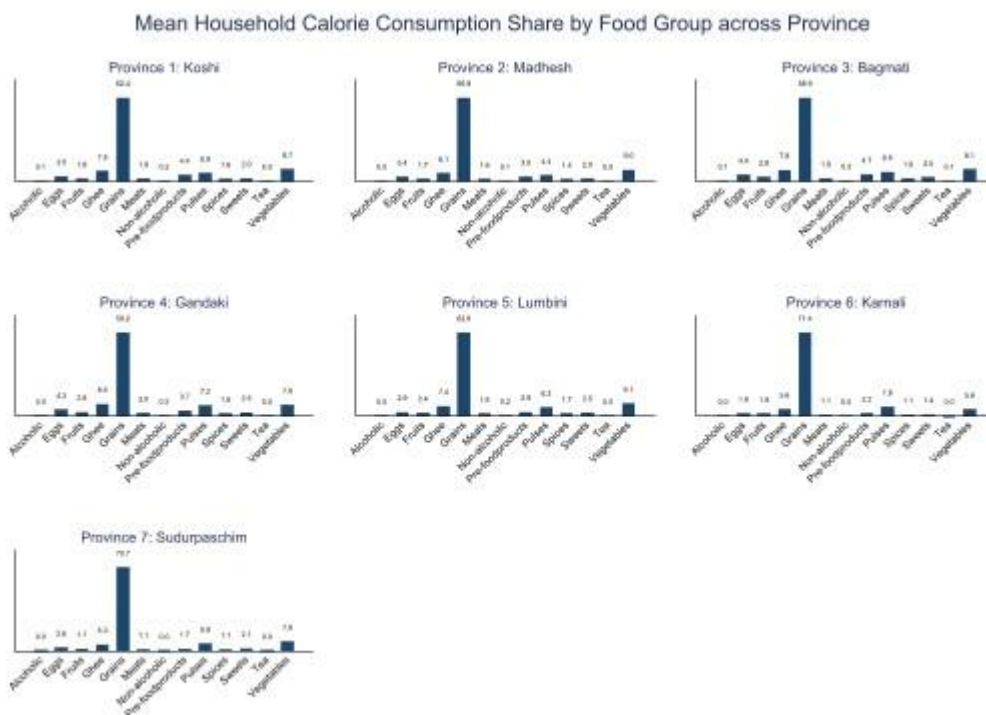
Analyzing the Mean Household Calorie Consumption Share by Food Group reveals a significant disparity in calorie sourcing between poor and non-poor households, underscoring the income-nutrition nexus. For poor households, an overwhelming 73.1 percent of caloric intake originates from "Grains," with "Fruits" contributing only 0.9 percent and "Vegetables" a mere 7.8 percent. This heavy reliance on staple grains for caloric sustenance suggests a high probability of micronutrient deficiencies despite potentially adequate overall calorie consumption. In contrast, non-poor households demonstrate a more diversified calorie intake. While "Grains" remain the primary source, their share decreases substantially to 61.4 percent. This reduction is offset by increased contributions from other food groups, notably "Ghee" (7.4 percent), "Fruits" (2.5 percent), and "Vegetables" (8.5 percent), indicating a diet that is generally associated with a superior nutrient profile. As incomes rise, populations tend to shift away from this heavy reliance on staples towards more diversified diets that include higher proportions of animal-source foods, fats, sugars, and processed foods (Drewnowski 2009).



Source: NLSS 2022/23, author's calculations

Examining calorie consumption across household quintiles highlights a consistent pattern: grains are the predominant calorie source across all income levels, although their share decreases slightly with increasing wealth. Quintile 1 (lowest income) shows the highest reliance on grains at 73.1 percent. This share gradually declines to 68.4 percent in Quintile 2, 65.1 percent in Quintile 3, 60.3 percent in Quintile 4, and 54.1 percent in Quintile 5 (highest income). Conversely, the consumption of more diversified food groups like eggs, fruits, ghee, meats, and pulses generally sees a modest increase as household income rises. Vegetables maintain a relatively stable share across quintiles, ranging from 7.79 percent in Quintile 1 to 9.08 percent in Quintile 5.

Calorie consumption patterns vary significantly by settlement type. In Kathmandu, grains account for 56.0 percent of calorie intake, which is notably lower than in other regions, suggesting a more diversified diet in the capital. Vegetables contribute 8.4 percent, while fruits, ghee, and pulses also have more pronounced shares compared to other areas. "Other Urban" areas show a higher reliance on grains at 62.9 percent, with vegetables at 8.4 percent. Rural households exhibit the highest dependence on grains, which make up 67.0 percent of their calorie consumption, emphasizing the foundational role of grains in rural diets and potentially indicating less dietary diversity in these areas.



Source: NLSS 2022/23, author's calculations

Provincial analysis further illustrates regional disparities in calorie sources. Grains are the primary calorie source across all seven provinces, although their exact share varies. Province 1 (Koshi) shows 62.4 percent from grains, Province 2 (Madhesh) at 66.8 percent, Province 3 (Bagmati) at 58.9 percent, Province 4 (Gandaki) at 59.2 percent, Province 5 (Lumbini) at 62.9 percent, Province 6 (Karnali) at 71.4 percent, and Province 7 (Sudurpashchim) at 70.7 percent. Provinces like Bagmati, which includes Kathmandu, tend to have a slightly lower grain reliance, while others, particularly those with a larger rural population, show a higher dependence. Vegetables generally remain the second most significant calorie source across all provinces.

Several other socio-economic markers provide further insights into calorie consumption. Households operating enterprises show 60.6 percent of calories from grains, while those without enterprises report 64.2 percent. This slight difference might indicate that enterprise-owning households have slightly more diversified diets. Landholding households derive 64.9 percent of their calories from grains, very similar to non-landholding households at 60.6 percent, suggesting that land ownership does not significantly alter the primary calorie source. For households with Non-Communicable Diseases (NCDs), grains account for 63.3 percent of calorie intake, mirroring the 63.3 percent in households without NCDs, indicating that NCD status does not significantly impact the proportion of calorie intake from different food groups at this aggregate level.

Popkin’s seminal work on the nutrition transition emphasizes how rapid economic growth, particularly in Asia, has accelerated these dietary changes, leading to both improvements in nutrient intake for some and a rise in diet-related non-communicable diseases for others due to increased intake of unhealthy fats and sugars (Popkin, 2002). Similarly, households receiving social assistance consume 68.8 percent of calories from grains, slightly higher than the 63.3 percent in households not receiving assistance. Finally, both male-headed households (64.0 percent grains) and female-headed households (62.1 percent grains) show a strong reliance on grains, with female-headed households showing a slightly more diversified diet. Overall, these markers generally confirm the pervasive role of grains as the dominant calorie source, with minor variations in other food groups.

In conclusion, this NLSS analysis strongly suggests that in Nepal, similar to global trends described by the nutrition transition framework, lower income is profoundly associated with less nutritious food intake. This is characterized by a higher share of staple grains in both calorie consumption and expenditure, coupled with a lesser consumption of diverse, nutrient-rich foods such as fruits, vegetables, and animal products. This indicates that poorer households are often compelled to adopt a "calories-first" approach to food security, prioritizing energy intake from affordable staples, often at the expense of dietary quality and diversity, which are crucial for optimal nutritional outcomes (Kennedy et al. 2004).

Tariff structure

The tariff structure for agricultural and food products shows how Nepal’s trade policy can influence both food availability and nutrition. The table lists average import tariffs for key food groups from India, SAARC countries, and others. It highlights how some essential foods that matter most for nutrition and food security are taxed lightly, while others—often important for dietary diversity—face higher duties.

Staple foods such as cereals, including rice and wheat, face the lowest tariffs, around 10 percent, which helps make imported staples more affordable when local harvests are poor. Edible vegetables and tubers have similarly modest rates between 12 percent and 14 percent, keeping basic food items within reach for low-income households. These lower tariffs help manage the supply of everyday foods and protect against local shortages, especially since Nepal relies heavily on imported rice and onions from India.

On the other hand, tariffs are higher for items that contribute to dietary diversity and nutrition quality. Dairy products, which are important for protein, calcium, and child nutrition, are taxed around 30–31 percent. Fruits and nuts, rich in vitamins and micronutrients, face rates near 20–22 percent, which can discourage imports during off-seasons when domestic supply drops. These foods are essential for balanced diets, yet such high import duties make them more expensive for ordinary households, particularly in urban areas where people depend heavily on markets rather than home production. Meat and fish imports are similarly taxed between 18 percent and 21 percent, discouraging consumption of animal protein. High tariffs on these foods can limit access to nutrient-rich products for households that already struggle with affordability.

		SAARC	SAARC	Other countries	Other countries
--	--	-------	-------	-----------------	-----------------

HS code	Description	Import Tariff on India	Import Tariff on Other countries in SAARC except India	Import Tariff on Tibet	Import tariff on Other countries except Tibet
02	Meat and edible meat offal	15.61	15.61	20.02	19.95
03	Fish and crustaceans, molluscs and other aquatic invertebrates	19.45	18.63	20.77	21.43
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified	30.52	30.52	31.38	31.61
07	Edible vegetables and certain roots and tubers	12.51	12.59	12.91	14.05
8	Edible fruit and nuts; peel of citrus fruit or melons	19.74	19.92	20.81	22.41
10	Cereals	9.96	11.50	9.96	
11	Products of the milling industry; malt; starches; inulin; wheat gluten	22.19	22.19	23.27	23.84

17	Sugars and sugar confectionery	81.93	81.93	81.93	81.93
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	81.93	81.93	81.93	81.93
20	Preparations of vegetables, fruit, nuts or other parts of plants	47.08	47.08	48.66	48.66
22	Beverages, spirits and vinegar	58.20	58.20	58.20	58.20

Source: Department of Customs 2082/83

FoodGroup_code	SARRC		Other country	
	India	Import Tariff on Other countries in SAARC expect India	Tibet	Import tariff on Other countries expect Tibet
Alcoholic Beverages	58.20	58.20	58.20	58.20
Eggs and Milk Products	30.52	30.52	31.38	31.61
Fruits and Nuts	20.48	20.64	21.97	23.26
Grains and Cereals	9.96	11.50	9.96	14.60
Meats and Fish	18.57	17.95	20.60	21.09
Prepared Food Products	48.74	48.74	51.21	51.21
Pulses and Lentils	22.19	22.19	23.27	23.84
Sweets and Confectionery	28.60	28.60	31.78	31.78
Vegetables	12.51	12.59	12.91	14.05

Source: Department of Custom 2082/83; NLSS 2022/23

Meanwhile, processed and high-sugar foods face extremely high tariffs. Prepared food products are taxed above 48 percent, and sweets and confectionery exceed 28–31 percent, while alcoholic beverages are at 58 percent. These high rates likely reflect revenue and protection goals rather than public health concerns. They show how Nepal’ s trade policy prioritizes domestic production and fiscal gains, even though such policies can have unintended nutritional effects. While these are not essential foods, the high tariffs reflect a protective stance toward domestic processing industries rather than a nutritional concern. However, such high rates also show that tariff policy is shaped more by revenue collection and trade protection objectives than by public health or food system goals.

From a food security perspective, Nepal’ s tariff structure shows a strong focus on price stability for staple foods but much less on nutrition security. Tariffs favour basic caloric staples but do little to make nutrient-dense foods like milk, fruits, fish, and nuts more affordable. This matters because national data still show poor nutritional outcomes, according to the Nepal Demographic and Health Survey (NDHS 2022), around 25 percent of children under five are stunted, and 19 percent are underweight and dietary diversity remains poor across rural households as shown in the section above.

Policy review

This section looks at Nepal's major nutrition-related policies and plans to understand how they address food and nutrition security. It reviews key frameworks like the Right to Food and Food Sovereignty Act, National Nutrition Policy, IMAM Guidelines, and the three phases of the Multisectoral Nutrition Plan (MSNP I, II, and III). The analysis focuses on what these policies aim to achieve, how effectively they have been implemented, and where the gaps remain. It also explores how these policies deal with broader issues such as agricultural productivity, food imports, and economic vulnerability. While Nepal has made progress in reducing malnutrition and improving access to nutrition services, many challenges still persist, especially in ensuring sustainable food systems and reducing dependency on imported food. This review helps identify Nepal's policy framework for improving food and nutrition security.

Nepal Health Sector Strategy Implementation Plan 2016-2021

The Nepal Health Sector Strategy Implementation Plan (2016–2021) focuses on making the country's health system stronger, more efficient, and more inclusive by using evidence-based planning and better financial and managerial practices. The plan aims to improve how the government prepares for and responds to public health emergencies, ensures financial stability in the sector, and provides fair and quality healthcare services to all people. It highlights the need for better budget allocation and timely use of public funds, stronger financial oversight in hospitals, and regular reviews of how money is spent to make sure resources are being used wisely.

The plan also talks about introducing subsidies and tax exemptions for individuals or organizations that contribute to the health sector, and budgeting for free care for sick newborns. A health financing strategy is to be developed to make the system sustainable, with performance-based funding for hospitals and private or community providers. It also encourages partnerships with the private sector and foreign investors to raise funds and modernize health services.

On the trade side, the plan includes measures to improve the medical supply chain, ensure the quality of imported medicines, and promote local drug manufacturing by providing subsidies and loans. It also supports taxing harmful products like alcohol and tobacco to fund healthcare, while reducing import duties on medical equipment. Overall, the plan suggests a mixed approach where both public and private sectors play key roles, with a strong focus on financial discipline, better management, and local production of essential medicines.

National Food Safety Policy 2019

The National Food Safety Policy 2019 focuses on protecting consumer health, improving food trade, and supporting safe and sustainable agriculture. It aims to strengthen food safety rules, improve compliance, and build technical capacity in Nepal. The policy wants to make Nepali food exports more competitive, manage risks better, and spend government money more efficiently while still protecting public health.

On the fiscal side, the policy talks about using a risk-based inspection system, meaning resources and money are used more on high-risk food products instead of random checks. This helps the government cut costs and spend more effectively. It also mentions financial support for labs, emergency response units, and outbreak management, such as Nepal's contact point for INFOSAN. The policy follows Codex Alimentarius standards so that Nepali food products can

enter global markets. Nepal has also set up a National Enquiry Point for SPS (Sanitary and Phytosanitary) issues to give transparency to trade partners.

On the trade side, the policy links strongly with international rules. It says Nepal will follow the SPS Agreement, ensuring food and plant/animal safety standards don't become barriers to trade. It also refers to the TBT Agreement, meaning food safety rules shouldn't create unfair restrictions. Imports and exports will go through inspection and certification systems to meet global safety standards. The policy also promotes mutual recognition and equivalence agreements so other countries accept Nepal's food safety measures and open up markets.

Right to Food and Food Sovereignty Act, 2075 (2018)

The Right to Food and Food Sovereignty Act, 2075 (2018) establishes the legal foundation for ensuring every citizen's right to food, food security, and food sovereignty in Nepal. Its main goal is to guarantee that all people have access to adequate, safe, and nutritious food by creating mechanisms and policies that uphold this constitutional right. The Act not only secures access to food but also emphasizes the importance of sustainable agriculture and self-reliance in food production.

From a fiscal perspective, the Act calls for government spending on research and development of agricultural and food security technologies, as well as immediate food supply during emergencies. It allows for free or subsidized food distribution, especially for vulnerable populations, and promotes the operation of food and nutrition programs across the country. It also focuses on price stability through public food distribution centers and fair price shops to make essential food items affordable. There are also implications for public debt and compensation mechanisms as part of the government's commitment to ensure steady food supply and security.

On the trade and production side, the Act supports importing food only when domestic production is insufficient but gives clear preference to local production and consumption. It encourages investment in agriculture, sets support prices for farmers based on production costs, and promotes access to markets to help farmers sell their goods more easily. At the same time, it gives special priority to exportable or cash crops, balancing food sovereignty with trade opportunities. Although tariffs are not directly mentioned, the overall focus remains on strengthening domestic agriculture and reducing dependence on imports.

Consumer Protection Act, 2075 (2018)

The Consumer Protection Act, 2075 (2018) aims to safeguard consumer rights in Nepal by ensuring quality goods and services, providing judicial remedies, and offering compensation for harm caused by unsafe or defective products. It consolidates legal provisions to uphold the constitutional rights of consumers.

In terms of fiscal policy, the Act requires government compensation for consumer harm, including medical costs, financial damages, and interim relief. It enforces business regulation by mandating that goods display the Maximum Retail Price (MRP), applicable taxes, and invoices, helping prevent tax evasion. The government is empowered to regulate prices of essential goods, establish price information centers, enforce transparency through price lists, and subsidize goods to ensure affordability.

Under trade policy, the Act creates three levels of market monitoring committees—local, provincial, and central—to oversee prices, supply-demand balance, and business ethics. It bans hoarding,

artificial shortages, monopolies, false advertising, and deceptive labeling, ensuring fair competition. Import regulations require goods to meet safety and labeling standards, with harmful or defective items confiscated or destroyed.

Food-Based Dietary Supplement Guideline 2016

The Food-Based Dietary Supplement Guideline 2016 provides a framework for regulating the production, distribution, and safe use of dietary supplements in Nepal. Its main purpose is to ensure that supplements are of good quality, used appropriately, and help meet the nutritional needs of the population without misuse or health risks. The guideline also aims to promote public health by setting standards for supplement production and marketing while preventing fraud and unsafe practices in the growing nutrition supplement market.

From an economic and fiscal perspective, the document discusses improving market accessibility and distribution systems so that food-based supplements can reach people in vulnerable communities. This implies the need for stronger supply chains and possible market interventions to make these products widely available and affordable. The guideline also highlights the importance of food fortification and encourages private-sector participation in fortifying foods with nutrients like iron and vitamin A. This kind of collaboration often involves fiscal incentives, such as subsidies or tax benefits, to motivate food producers to take part in national fortification programs.

It further promotes government and private-sector cooperation through public-private partnerships (PPPs) to improve food availability, affordability, and compliance with quality standards. Although subsidies are not directly mentioned, the emphasis on affordability suggests possible price control measures or government support to keep supplement prices low for low-income populations.

On the trade and regulation side, the guideline stresses the importance of a clear regulatory framework to ensure that imported and locally produced dietary supplements meet national health and nutrition standards. This could affect import and export policies, as only fortified or approved supplements would be allowed into the market. Overall, the document links nutrition improvement with market regulation, industry collaboration, and fiscal incentives, showing how coordinated trade and financial policies can support better public health and food security outcomes.

Zero Hunger Challenge National Action Plan (2016 - 2025)

The Zero Hunger Challenge National Action Plan was adopted as part of Nepal's national agenda to make the right to food a reality and end hunger, food insecurity, and malnutrition by 2025. On the fiscal side, the plan is very subsidy-heavy. The government puts a lot of money into agriculture and food security. This includes subsidies on fertilizers, irrigation, farm machinery, and budget support for smallholder farmers and landless producers. It also talks about an agriculture investment fund and direct income support for vulnerable groups. For food access, there are price stabilization measures, public food storage, food stamps, and social protection programs. Tax policies are farmer-friendly: farm equipment is tax exempt, unauthorized transport taxes are banned, interest on farm loans is capped at 6%, and banks are required to prioritize agricultural lending. Microfinance is also promoted to help farmers get easier credit.

On the trade side, the plan discourages hoarding and artificial price hikes, and promotes cold storage, warehousing, grading, and standardization to improve markets. It lowers barriers for exports, encourages "buy local" to reduce imports, and calls for better food safety in cross-border trade, especially livestock and dairy. The plan also references the Nepal Trade Integration Strategy (2010) to push exports of rice, tea, coffee, and dairy.

Overall, the approach is semi-regulated: the government plays a big role in subsidies and credit, while trade policy is protectionist for imports but supportive of agricultural exports.

Iodized Salt (Production, Sale, and Distribution) Act, 2055 (1998)

The Act was introduced to combat iodine deficiency and its harmful health effects by regulating the production, import, sale, and distribution of iodized salt in Nepal. It ensures public access to iodized salt as a public health investment.

Fiscal policy measures include strict licensing and regulation of businesses. Companies must obtain permits—valid for 15 years in production and 3 years for import, supply, and sale—with the government retaining the right to suspend or cancel licenses. Prices of iodized and non-iodized salts are regulated, and non-iodized salt cannot be sold without government permission. The Ministry of Health and Population oversees funding, awareness campaigns, and the Iodine Deficiency Disorder Prevention Committee.

Under trade policy, the Act restricts the import of non-iodized salt, while imported salt must meet national quality standards. Both imported and domestically produced salt require certification from the Central Food Laboratory before distribution. Packaging must display producer details, iodine content, and expiration dates. Market access is tightly controlled: in a given area, only one licensed producer or supplier may operate if they can meet demand, thereby limiting competition. Violations lead to penalties, including fines, confiscation, imprisonment, and license cancellation.

National School Health and Nutrition Strategy Nepal 2006

The School Health and Nutrition Programme Strategy focuses on improving the overall well-being of school children by promoting health, nutrition, hygiene, and sanitation through school-based services and policies. Its main goal is to create a healthy, safe, and supportive learning environment where children can develop physically, mentally, emotionally, and academically. The strategy also includes life-skills-based health education and aims to make schools centers for promoting good health and well-being among students.

Although the document is not centered on financial or trade issues, it still carries several fiscal elements. It talks about allocating resources and funds as part of implementation planning, showing the importance of proper budgeting and the efficient use of available resources. The focus on “sustainability” suggests that programs are expected to use resources wisely over the long term. There are also hints of subsidy-like support, such as providing free or affordable health services, nutritional supplements, and meals to students. Incentives may not always be monetary but can include efforts to encourage healthy behavior and regular school attendance.

While trade-related matters are not directly discussed, the strategy indirectly connects to the economy by supporting local production of nutritious foods for schools, which could reduce imports. Overall, it is mainly a social and health-focused plan, with fiscal and trade implications

Box 2: SDGs and food and nutrition security

Food and nutrition security is not an isolated challenge as it sits at the nexus of the entire Sustainable Development Goals (SDGs) framework. At the core, SDG 2: Zero Hunger directly addresses FNS by aiming to improve nutrition and promote sustainable agriculture. However, the success of SDG 2 is entirely reliant on progress in other, seemingly distant, goals. The data clearly shows that SDG 1: No Poverty is the essential economic bedrock: reducing poverty ensures economic access to food, transforming availability into actual consumption. Similarly, SDG 3: Good Health and Well-being links directly, as resolving issues like anemia and under-five mortality is impossible without proper nutrition. The connection extends to the environment and resources through SDG 6 (Clean Water and Sanitation), necessary for both crop production and food utilization hygiene, and SDG 13 (Climate Action), which directly affects the stability of the entire food production system. This complex interdependence means that Nepal cannot improve FNS merely by boosting farm output; it must successfully tackle poverty, water quality, and gender equality simultaneously to achieve lasting food sovereignty.

Nepal's mixed progress

appearing more in the background than as central themes.

Strategy for Infant and Young Child Feeding: Nepal 2014

The Strategy for Infant and Young Child Feeding: Nepal 2014 sets out a framework to improve feeding and care practices that are essential for the survival, health, and development of infants and young children. It focuses on helping parents and caregivers adopt better feeding habits and provides a set of practical interventions to reduce undernutrition across the country. The strategy emphasizes the importance of improving both nutrition and early care as key steps toward healthier and more resilient communities.

From a fiscal point of view, the document highlights government spending and public investment in nutrition-related areas such as food fortification, maternal and child health programs, and community-level nutrition initiatives. It also introduces cash transfer schemes like the pilot Child Cash Grant program in the Karnali region, designed to support families and improve child nutrition through both financial aid and awareness campaigns. There are also mentions of subsidies and financial assistance for vulnerable populations and the need to maintain price stability so that quality food remains affordable, especially in areas affected by market fluctuations.

On the trade side, the strategy encourages local food production and links agricultural development with nutrition goals. It also supports setting national standards for fortified complementary foods and enforcing laws such as the Breast Milk Substitutes (BMS) Act, which regulates the marketing of infant formulas. While import and export issues are not directly discussed, the establishment of quality standards and food fortification requirements will likely influence trade in nutrition-related products. Overall, the strategy blends public investment, local production, and strong regulation to promote child nutrition and reduce dependency on imported foods.

National Nutrition Policy and Strategy 2004

The National Nutrition Policy and Strategy focuses on improving the nutritional status of people across Nepal by creating clear policies, strategies, and activities that make nutrition programs more effective and better coordinated. The overall goal is to strengthen how nutrition services are planned and delivered, linking them closely with health, agriculture, and economic development so that families have better access to nutritious food and healthier diets.

In terms of fiscal and trade policies, the document touches on several important areas. It highlights household food security through income generation, agricultural skills training, and promotion of kitchen gardening and livestock rearing, showing a focus on rural economic development and self-sufficiency. Encouraging food storage, preservation, and processing reflects the need for government investment in infrastructure and possibly subsidies or tax incentives for small farmers and local producers. Strengthening home-based food production also indirectly supports import substitution by reducing dependence on foreign food products.

The policy also covers fortified food production, with government oversight of universal salt iodization and fortification of foods with iron and vitamin A. This includes subsidized distribution of iodized salt to remote areas and possible import regulations or tax relief for producers to encourage compliance. In addition, it mentions tobacco taxation as a fiscal tool, where revenue from tobacco taxes is used to fund treatment for diseases like cancer and heart disease — showing how “sin taxes” are being redirected to support public health financing.

The strategy also emphasizes collaboration with international donors and NGOs, especially for supplementation and food security programs, which brings in foreign funding but also increases dependency on external resources. This can have effects on local food markets if imported aid competes with domestic products. The policy further suggests stricter import regulations on non-fortified or unhealthy foods and encourages promotion of safe, locally produced, fortified foods, which could affect trade agreements and lead to tariffs on certain imported goods. Lastly, the policy promotes decentralization, allowing provincial and local governments to plan and manage their own nutrition programs. This implies a shift in budget control and greater local spending responsibilities, requiring fiscal adjustments at the national level. Overall, the document links nutrition policy with economic and trade considerations, encouraging investment in agriculture, local food production, and targeted taxation, while balancing public health goals with broader fiscal and trade realities.

Multisectoral Nutritional Plan (2013—2017), (2018 —2022) and (2023-2030)

MSNP is Nepal’s flagship, whole-of-government nutrition strategy — created because malnutrition cannot be solved by the health sector alone. It was formulated to unite multiple sectors, improve coordination, and deliver integrated actions that ensure every Nepali child, woman, and

family has adequate nutrition for a healthy life.^{lxxiv} To jointly reduce malnutrition and improve nutrition outcomes in the country, MSNPs, under the leadership of the National Planning Commission, were formulated as the national strategy and implementation framework, bringing together multiple sectors and ministries — such as health, agriculture, education, water and sanitation (WASH), women and children, and local governance. This was an attempt to make nutrition everyone’s responsibility instead of leaving nutrition only to the Ministry of Health, the MSNP makes as good nutrition depends on many factors: food, clean water, education, women’s empowerment, health services, and income.^{lxxv} Before MSNP, many ministries and development partners were working on nutrition-related projects, but they were fragmented and not coordinated.

There have been three iterations of the MNSP since 2013, the first one was implemented between 2013 to 2017, second between 2018 and 2022 and the third and the latest one from 2023 to 2030 — coinciding with the end of the SDGs.

First MNSP 2013—2017

Nepal's First Multi-Sectoral Nutrition Plan (MSNP I) covered the period 2013-2017 and was a landmark effort to tackle malnutrition through a coordinated government approach. The overarching goal of MSNP I was to "improve human capital, especially among the poor segments of society, to improve maternal and child nutrition and health."The plan aimed to achieve this by strengthening multi-sectoral efforts and capacity development for improved nutrition at all levels of society, with a focus on accelerating the reduction of maternal and child under-nutrition. MSNP I emphasized interventions across different sectors, categorized as nutrition-specific interventions, nutrition-sensitive interventions and enabling environment. The direct interventions on the immediate causes of undernutrition (such as, healthcare, food/micronutrient supplementation) were dealt with by promoting optimal Infant and Young Child Feeding (IYCF) practices, micronutrient supplementation (Vitamin A, iron-folate), and management of Severe Acute Malnutrition (SAM).Similarly, interventions that address the underlying determinants of undernutrition by leveraging other sectors were emphasized such as improving food security (Agriculture), safe drinking water and sanitation (WASH), health services, education, and social protection. The Plan recommended strengthening multi-sectoral coordination mechanisms, capacity building, and resource mobilization through actions to support the policy, coordination, and financing of nutrition efforts.

Nepal made significant overall progress in reducing malnutrition during the period, continuing a longer-term trend. However, progress against the specific MSNP I targets was mixed.

Table 3.1 MNSP I targets achievement

Indicator	Baseline (approx.)	MSNP I Target (2017)	Achievement (NDHS 2016/17)
Stunting	41%	35%	36% (Narrowly Missed)
Underweight	29%	24%	27% (Missed)
Wasting	11%	9.9%	10% (Narrowly Missed)

Table 3.1 MNSP I targets achievement

Anemia (Children ≤5)	46%	36%	53% (Worsened)
Anemia (Women)	35%	28%	41% (Worsened)

The MSNP I was internationally recognized as an important policy innovation, but its implementation faced several significant challenges.^{lxxvi} MSNP I was a success in policy and governance, establishing the necessary political will and coordination architecture to address malnutrition multi-sectorally. However, it faced major implementation and resource challenges which led to mixed results, particularly missing key targets for stunting, underweight, and, most notably, failing to contain the worsening situation of anaemia. The review of MSNP I was crucial in informing and strengthening the subsequent plan, MSNP II (2018-2022).

Second MSNP (2018—2022)

The second Multi-Sectoral Nutrition Plan (MSNP II), which covered the period from 2018 to 2022, was designed to accelerate progress made under the first plan and align national efforts with global targets like the Sustainable Development Goals (SDGs) and the World Health Assembly (WHA) nutrition goals.^{lxxvii} The overall objective of MSNP II was to minimize the adverse effects of chronic malnutrition on human capital and social and economic development by reducing maternal and child undernutrition.^{lxxviii} The second plan also focused on the three areas — nutrition-specific interventions, nutrition-sensitive interventions, and strengthening the enabling environment. Based on the first plan’s performance, the MSNP II focused on scaling up interventions by expanding evidence-based nutrition-specific (e.g., breastfeeding support, micronutrient supplementation) and nutrition-sensitive (e.g., agriculture, WASH) services across the country. The plans were adapted to take into account Nepal’s three-tier government system following Nepal becoming a federal state. The MSNP II also broadened its scope by targeting pregnant/lactating mothers, children under two, and adolescent girls to break the inter-generational cycle of malnutrition. One of the the key interventions of the MSNP II has been to scale up multisector nutrition programmes across Nepal through equity and gender sensitivity —recognizing societal structure’s impediment in inclusive nutrition programmes.

Table 3.2 MSNP II targets and achievements

Indicators	MSNP-II Target (2022)	Baseline Data (NDHS 2016/17)	Achievement (NDHS 2022)	Target Achieved
Prevalence of Stunting (Children under 5 years)	28.0%	35.8%	24.8%	Yes (Exceeded Target)
Prevalence of Wasting (Children under 5 years)	7.0%	9.7%	7.7%	No (Near Target)
Prevalence of Low Birth Weight	10.0%	12.0%	11.5%	No

Table 3.2 MSNP II targets and achievements

Prevalence of Overweight/Obesity(Children under 5 years)	1.4%	2.1%	1.0%	Yes (Exceeded Target)
Prevalence of Anemia (Children 6-59 months)	28.0%	52.7%	43.1%	No
Prevalence of Anemia (Women of Reproductive Age)	20.0%	41%	34%	No

During the MSNP II, the prevalence of stunting saw a substantial decline to 25 percent, continuing Nepal's recognized global success in this area.^{lxxxix} Similarly, MSNP-II was scaled widely — interventions were being implemented in many local governments as by FY 2021/22, MSNP-II had been rolled out in 720 local levels across 72 districts. However, not all targets were met as prevalence of anemia in children and women remained the way above targets. Moreover, MSNP II is hounded by criticism for its inability to spend the allocated budget.^{lxxx}

Third MSNP (2023 — 2030)

The MSNP III meant for 2023 —2030 builds upon the first two editions of MSNPs. Its high level goals were to reduce child under-nutrition by targeting the first 1,000 days, adolescents (esp. girls), pregnant/lactating women and young children — focusing on reducing stunting, wasting and micronutrient deficiencies (notably anaemia). This third edition further planned to integrate nutrition-sensitive interventions in health, WASH, agriculture, education, social protection and local government planning; ensure nutrition actions are included in the periodic plans and annual budgets of all 753 municipalities. Unlike previous plans that were of four-year tenures, this plan is being implemented for six years to eliminate undernutrition as a major public health problem by the end of the decade, aligning with the Sustainable Development Goals (SDG 2). The implementation of the plan is estimated to be about NPR 172.86 billion over the six year period.^{lxxxi}

Table 3.3 MSNP III Targets (Source: Multi-Sector Nutrition Plan III (2023–202030))

Indicator	Target by 2030
Child Stunting (children under 5 years)	Reduce to 15%
Child Wasting (children under 5 years)	Reduce to less than 4%
Child Underweight (children under 5 years)	Reduce to 10%
Anemia in Children (under 5 years)	Reduce to 10%

Table 3.3 MSNP III Targets (Source: Multi-Sector Nutrition Plan III (2023–20230))

Anemia in Women of Reproductive Age (WRA)	Reduce to 10%
Exclusive Breastfeeding (0-5 months)	Increase to over 90%
Low Birth Weight	Decrease prevalence
Childhood Overweight	Halt the increase
Adult Obesity	Reduce prevalence
Salt/Sodium Intake	Reduce consumption

In addition to the specific nutritional outcome targets, MSNP-III has several key goals related to governance and service delivery. MSNP-III’s primary enabling target is to institutionalize a nutrition-friendly governance system. This includes ensuring that at least 80 percent of local governments integrate nutrition into their annual programs and budget allocations by 2030. In addition to these nutritional targets, the plan focuses on improving the availability, quality, and accessibility of both nutrition-specific and nutrition-sensitive services for women, children, and adolescents.^{lxxxii}

Triple burden of malnutrition in MSNPs

The MSNPs not only address the undernutrition and micronutrients deficiency but also takes into account overnutrition resulting in obesity, hence contends with triple burden of malnutrition. From the first plan to the third one, the Plans demonstrate and evolution in their focus on obesity. The first one emphasized primarily on undernutrition — stunting, wasting, underweight, micronutrients but acknowledged the concept of overweight and obesity as one of the forms of malnutrition. It lacked any detailed strategies to directly tackle the emerging problem of overweight and obesity. The MSNP II, however, explicitly noted that both undernutrition and overnutrition persist among Nepali women and children, although undernutrition remained the more widespread issue. It included the World Health Assembly (WHA) global target to halt the rise in childhood overweight, although the plan's overall actions and budget allocation still focused on interventions for stunting and wasting.

MSNP III marks a significant step, fully integrating the response to the triple burden of malnutrition and linking it directly to the prevention and control of Non-Communicable Diseases (NCDs). MSNP-III has set specific targets to halt the increase of childhood overweight, adult obesity and reduction in the consumption of sodium intake (see Table above). MSNP III includes specific actions that directly target the drivers of obesity such as developing and implementing a national strategic roadmap to reduce the intake of salt and sugar. Fiscal policy is considered to be the tool to encourage healthy food production and discourage unhealthy food consumption. Implement restrictions on the marketing of unhealthy foods to children and develop regulations for food labeling and reformulation. Likewise, the focus in on transforming the food system to ensure increased availability and access to healthy, safe, and nutritious diets for all.

Government-run programmes for food and nutrition security

Midday meals

The GoN has been implementing the mid-day meal programme since 1967 with an objective of improving school enrollment, retention, and the overall learning capacity of the students. For achieving this objective, programme aims to keep children healthy and free from hunger by providing them with one nutritious meal in the school-day. The programme was initially implemented in the community schools across 37 districts and, since fiscal year 2019/20, the programme has been expanded nationwide. The program, now, cover students up to grade 5 studying in the community schools throughout Nepal. The program is implemented by the Ministry of Education, Science and Technology but, is directly administered by the local level governments - Municipalities and rural municipalities. The federal government provide the funds as conditional grant to the local level governments who then transfer the same to the community schools operating around their local level. The GoN has transferred the administration to the local level government to ensure that the school children are provided with nutritious food and it is easier for local level government to link the program for the promotion of local level agricultural production (see Table below to check the allocated budget and targeted number of beneficiaries).

Table 3.4 Allocated budget for midday meals by GoN

	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26
Allocated budget	NRs. 8.73 billion	NRs. 8.27 billion	NRs. 8.45 billion	NRs. 8.39 billion	NRs. 10.19 billion
Targeted No. of Students	3.5 million	Not available	3.2 million	3 million	2.8 million

Source: Budget details of respective fiscal years of Ministry of Education, Science, and Technology. Retrieved from: <https://moest.gov.np/category/1882/>

Iron and folic acid (IFA) supplementation

Iron and folic acid (IFA) supplementation - one of the priority projects of the GoN - is administered by the Ministry of Health and Population. One of the objectives of the National nutritional strategy, 2002 of the GoN is to improve health and nutritional status of its people thus, the concerned ministry has implemented the school health program, administered by family welfare division, department of health services under the Ministry, which provides adolescent girls of age 10-19 years with weekly IFA tablets on a biannual basis. This particular program is also supported by international agencies such as UNICEF and the Royal Norwegian government under the multi-sectoral nutrition plan.

Food fortification programmes

The objective of the food fortification program is to supply people with sufficient level of micronutrients, necessary for growth, brain development, and immunity, at regular food consumption rates. Micronutrient deficiencies, particularly among women and children, continue to be a health and well-being concern. Thus, food fortification is a critical intervention that provides several benefits - wide reach, passive intervention, and cost-effectiveness - to the government while ensuring people get sufficient level of micronutrients. Fortification of commonly consumed foods in Nepal enables the bridging of nutritional gaps without requiring significant dietary changes. Notably, programmes relevant to fortification of staple foods like wheat flour and salt has been implemented in Nepal and has been proven successful in reducing iodine deficiency disorders.

Nepal began its salt iodization program in 1973, through the "Iodized Salt (Production, sale, and Distribution, Act 2055 (1998)" and has continued to this date as well. The GoN has mandated iodization of all types of salt, domestically produced or imported. This programme is overseen by the Ministry of Health and Population (MoHP) and monitored by the Department of Food Technology and Quality Control (DFTQC) with mandatory concentration for iodine fortification of 50 ppm. Additionally, The GoN has also initiated fortification of wheat flour which was mandated in 2011 for all wheat flour, domestically produced or imported.

Balvita distribution programme

The GoN has initiated a programme to provide multiple micro-nutrient powder distribution - Balvita distribution program - in several districts of the country in 2015. Through the program, the micronutrient powder packets are distributed to the children, through the health departments of the local government, free of cost. Three different variants of nutrient powders are distributed - the first for children aged 6-11 months; the second for children between 12-17 months of age; and the third for children between 18-23 months. This program is overseen by the MoHP and is administered through the local government.

Food and nutrition security enhancement project (FANSEP) II

This initiative in Nepal is being implemented by the Ministry of Agriculture and livestock development under the Global Agriculture and Food Security Program (GAFSP) and is co-financed by the Government of Nepal (GoN) and the International Development Association (IDA). The first phase of the project, known as the Food and Nutrition Security Enhancement Project (FANSEP I), was launched for the period 2018–2024. Building on the achievements of the initial phase, a new agreement was signed in December 2023 to extend the initiative under FANSEP II. The second phase is currently underway and focuses on enhancing food and nutrition security across eight districts: Gorkha, Dhading, Sindhupalchowk, Dolakha, Dhanusha, Mahottari, Saptari, and Siraha. The core objective of FANSEP is to enhance climate resilience, improve agricultural productivity and nutrition practices of targeted smallholder farming communities in selected areas of Nepal, and the Component 3 of the initiative entirely focuses on improving nutrition security.

Table 3.5 Budget allocated and spent

	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26
Budget	NRs. 1.02	NRs. 1.06	NRs. 0.83	NRs. 1.06	NRs. 1.24

Allocated	billion	billion	billion	billion	billion
Actual Expenditure	NRs. 0.86 billion	NRs. 0.98 billion	NRs. 0.62 billion	Not available	Not available

Source: Annual progress reports, red book of Ministry of Agriculture and livestock development (Values allocated and spent are for the entire programme so, also include operational expenses such as staff cost, office management cost etc.).

In a nutshell

Nepal’s nutrition and food security policies—such as the Right to Food and Food Sovereignty Act, IMAM Guidelines, National Nutrition Policy, and Multisectoral Nutrition Plans (MSNP I, II, and III)—aim to improve nutrition, promote local production, and ensure food security. However, they largely overlook a major structural issue: Nepal is a net food-importing country. The country relies heavily on imported cereals, pulses, oils, and processed foods, mainly from India, making it vulnerable to external shocks like price hikes, trade disruptions, and border restrictions. Most policies focus on fortification, supplementation, and nutrition awareness rather than addressing declining domestic production, weak agricultural competitiveness, and trade imbalances that threaten long-term food security. In the following section, we will be discussing national plans and policies on trade, agriculture and five-year plans and their outlook about food and nutrition security.

This dependence on food imports has serious implications for nutrition and livelihoods. When import prices rise or supplies are disrupted, poor and rural households struggle to access affordable, nutritious foods. Overreliance on imported fortified or therapeutic foods also limits local capacity and sustainability. The MSNPs, while promoting dietary improvement and behavioral change, fail to link nutrition outcomes with broader economic and agricultural resilience. As cheap, calorie-dense imported foods replace diverse local diets, nutrition quality suffers. Without integrating trade, fiscal, and agricultural reforms, Nepal’s food systems remain fragile. Rising import dependency, low productivity, and underinvestment in local food systems make the country increasingly vulnerable to global market and climate shocks. To ensure sustainable food and nutrition security, Nepal must embed food self-sufficiency and agricultural resilience into its nutrition framework rather than relying on short-term interventions that leave structural vulnerabilities unresolved.

Food and security in different plans and programmes

Nepal has long faced significant challenges in ensuring comprehensive food and nutrition security (FNS) for its diverse population, grappling with high rates of stunting, underweight children, and chronic energy deficiency among women. To address this challenges in ensuring comprehensive food and nutrition security for its diverse population, different plans and programmes—including each five-year macroeconomic plans, agriculture development strategy and other strategies and plan related to trade also considers food and nutrition challenges.

Agricultural Development Strategy 2015-2035: A Framework for Food and Nutrition Security

The Agricultural Development Strategy (ADS) 2015-2035 is a major initiative of the Government of Nepal (GoN) that provides a long-term strategic framework aimed at transforming the country's agricultural sector. The ADS, guided by the vision "a self-reliant, sustainable, competitive, and inclusive agricultural sector that drives economic growth and contributes to improved livelihoods and food and nutrition security, ultimately leading to food sovereignty", seeks to drive economic growth, enhance livelihoods, and ensure food and nutrition security. Food and nutrition security is a central focus of the ADS, incorporating four key dimensions: food availability, food access, food utilization, and stability, as defined by the Food and Agriculture Organization (FAO) in 1996. Given that the agricultural sector plays a critical role in achieving these objectives, the ADS emphasizes agricultural transformation as the foundation for economic growth.

The ADS document has following targets and indicators specifically for achieving food and nutrition security in short-term, medium-term and long-term.

Targets and Indicators relevant to Food and Nutrition Security

Indicators	Existing Situation (2010)	Target Short-term (5 years)	Target medium-term (10 years)	Target Long term (20 years)
Food Poverty	24%	16%	11%	5%
- % stunting (height for age) among under 5 children	41.5% stunting;	29%	20%	8%
- % Underweight (weight for age) among under 5 children	31.1% underweight	20%	13%	5%
- Wasting (weight for height) among under 5 children	13.7% wasting;	5%	2%	1%
- Women in reproductive age with chronic energy deficiency (measured as low BMI)	18% women with low BMI	15%	13%	5%

**Food poverty is defined as the proportion of people below a poverty line determined by a basket of food consumption able to meet the caloric requirement of 2,200 kcal/person/day; Stunting is defined as % of children under 5 years age who are below a certain norm for height of age; underweight defined as the percentage of children under 5 years of age who are below a certain norm for weight for age; wasting defined as the percentage of children under 5 years of age who are below a certain norm for weight for height; and chronic energy deficiency of women in reproductive age, measure by a low Body Mass Index (BMI).*

Strategic Components of the ADS and Their Contributions to Food and Nutrition Security

The ADS has formulated strategies and action plans under four key components: governance, productivity, profitable commercialization, and competitiveness and each of the components will contribute directly or indirectly towards improving food and nutrition security. The ADS has defined food and nutrition security through four primary indicators: stunting, underweight, wasting, and chronic energy deficiency among women of reproductive age. Further ADS activities align with Nepal's Multi-Sectoral Nutrition Plan (MSNP), an existing five-year government initiative.

Component 1: Governance for Food and Nutrition Security

Governance plays a crucial role in ensuring food and nutrition security and under this component the ADS has introduced a national flagship program, the Food and Nutrition Security Program (FANUSEP), to improve food and nutrition security among disadvantaged groups. FANUSEP consists of three sub-programs:

1. Nepal Agricultural and Food Security Project (NAFSP): Developed under the Global Agriculture and Food Security Program (GAFSP).
2. Food and Nutrition Security Plan of Action (FNSP): Developed with technical assistance from FAO.
3. A comprehensive and targeted food and nutrition program: To be introduced in the second five-year ADS phase to complement NAFSP and FNSP.

These flagship programs would ensure that sufficient resource is allocated and that coordination among stakeholders is effective. Additionally, the ADS emphasizes gender equality, social inclusion (GESI), and nutrition mainstreaming within governance structures. It also supports the formulation of legal frameworks such as the Right to Food and Food and Nutrition Security Act, aligning with Nepal's constitutional commitment to food sovereignty.

To strengthen institutional capacity, the ADS will work to enhance central and district-level food security coordination mechanisms, including the High-Level Nutrition and Food Security Steering Committee (HLNFSSC), the Nutrition and Food Security Coordination Committee (NFSCC) at the National Planning Commission (NPC), and the District Nutrition and Food Security Steering Committees at the local government level.

Component 2: Productivity for Food and Nutrition Security

The ADS aims to improve food and nutrition security by achieving two key objectives: i) Sustainable growth in domestic food production; ii) Reduced vulnerability of farmers to shocks. To increase food production, the ADS promotes improved seed production and distribution, irrigation development, plant protection, soil nutrition management, livestock breeding, and animal nutrition. It also advocates for the sustainable use of natural resources and emphasizes self-sufficiency, with a potential transition toward trade surplus in key agricultural commodities.

A critical strategy under this component is mainstreaming nutrition in agricultural extension and education programs. By promoting a diversified agricultural system, the ADS aims to enhance access to nutrient-rich diets. Special attention is given to preserving and utilizing indigenous foods to improve nutrition in remote areas through community agricultural extension service centers established in each Village Development Committee (VDC).

To reduce farmers' vulnerability, the ADS prioritizes building resilience to climate change and external shocks. Specific strategies include: Establishing food, seed, and feed reserve systems,

implementing early warning systems for extreme weather events, and promoting climate-smart agricultural practices. These interventions help enhance farmers' preparedness and response to climate-related and economic shocks.

Component 3: Profitable commercialization for Food and Nutrition Security

Agricultural commercialization under the ADS contributes to food and nutrition security through three primary objectives: i) Increasing farmers' income; ii) Improving market access; iii) Reducing postharvest losses. To integrate smallholder farmers and farm workers into value chains, the ADS proposes national programs targeting key commodities such as dairy, vegetables, maize, and pulses. Strengthening value chains ensures a stable supply of nutrient-rich foods and enhances farmers' market participation. Additionally, reducing postharvest losses is a priority, as it directly impacts food availability and economic returns for farmers.

The ADS also advocates for leveraging all the potential actors such as public, private and cooperatives towards agricultural development. In this regard, the ADS envisioned to utilize the successful private sector engagement models such as public-private partnerships (PPP), agri-business incubation centers, and contract farming models which all would support the farmers to integrate themselves into competitive business models.

Component 4: Competitiveness for Food and Nutrition Security

The ADS emphasizes competitiveness in the agricultural sector to enhance food and nutrition security by: i) Improving food safety standards; ii) Leveraging trade for a diversified diet; iii) Promoting micro, small, and medium agro-enterprises (especially for women, youth, and disadvantaged groups). The ADS acknowledges the need for substantial policy, institutional, and technological improvements to enhance food safety. As part of this effort, it envisions the establishment of district-level offices of the Department of Food Technology and Quality Control to enforce national food safety standards.

Recognizing the role of micro, small, and medium enterprises (MSMEs) in strengthening the agro-sector, the ADS calls for increased policy support and investment in these enterprises. It also emphasizes the development of the non-farm sector in rural areas as a means of increasing household income and reducing food poverty. The ADS has further envisioned the growing importance of regional and global trade integration to diversify Nepal's food supply and ensure high nutrition diet are available to the people.

The ADS 2015-2035 provides a comprehensive framework for transforming Nepal's agricultural sector, with food and nutrition security at its core. Through its governance, productivity, commercialization, and competitiveness strategies, the ADS aims to ensure sustainable food systems, enhance resilience, and improve livelihoods across the country. By aligning with Nepal's existing multi-sectoral policies such as Nepal's multi-sectoral nutrition plan (MSNP).

A Comparative Review: ADS 2015-2035 and Nepal's Post-ADS Development Plans on Agriculture and Food Security

ADS 2015-2035 and 14th Development Plan (2016/17 - 2018/19)

The 14th three-year plan, covering the period from 2016/17 to 2018/19, was Nepal's first development plan formulated after the GoN ratified the ADS 2015-2035. As such, it was pivotal in translating the vision and strategies outlined in the ADS into actual government policy. This connection is particularly evident in the 14th Plan, which incorporated numerous strategies from the

ADS and explicitly acknowledged that the ADS provided a significant opportunity for achieving the growth of agriculture sector. Notably, the plan has an entire sub-chapter on food and nutrition security within the chapter on agriculture, land, and forest sector.

The 14th Plan has set a vision for the agriculture, land, and forest sector: "Achieving food sovereignty and ensuring food and nutrition security for the country". The objectives outlined based on this vision closely aligns with the four strategic components of the ADS. Specifically, the objectives are: i) achieving self-sufficiency in agro-products through increased production and productivity in agriculture; ii) transforming agro-systems into profitable commercial ventures; iii) generating growth in income and employment through agro-enterprises; iv) enhancing the competitiveness of the agricultural sector to increase its contribution to the national economy.

The specific programs devised by the 14th plan that closely aligns with the strategies in ADS and is also core to achieving the targets of ADS are mainly two: First, programs under: increasing agricultural production and productivity included activities for value chain development, cost-share grants for fertilizer, tools and machinery, insurance premium etc. Second, programs under commercialization and market development of agro-products included activities for cost-share grant for storage facility construction, PPP programs such as "One village One product" etc.

Under food and nutrition security sub-chapter of 14th plan, it acknowledged that 26 districts from Karnali zone are currently facing food insecurity and thus, would be prioritized. The objectives of 14th plan for food and nutrition security included increasing food production, focusing approach towards high-risk locations and groups, and ensuring proportion and equal distribution of food and nutrition. Thus, the strategies included developing medium- and long-term solutions on food security targeting the food insecure groups and region, developing climate-smart solutions, diversification and specialization in agriculture, and extension of processing and consumption techniques.

All of the objectives and strategies closely align with the suggestions made by the ADS 2015-35. Thus, the 14th plan document closely aligns with the ADS 2015-35 and has forwarded the long-term strategies devised by the ADS towards implementation.

ADS 2015-35 and 15th Development Plan (2019/20 - 2023/24)

The 15th plan, covering the period 2019/20 - 2023/24, had an objective of bringing massive economic and social transformation towards addressing the development and prosperity expectations of the citizens and achieve rapid and high economic growth and ensure equitable distribution and redistribution. The 15th plan, among a list of quantitative targets, had set a target to increase the agricultural productivity from 3.1 to 4 metric tonnes per hectare, and reduce the percent of underweight children below five years from current 27 to 15 percent. The GoN, to achieve the set targets, has formulated several national strategies towards increasing production and productivity, protect and mobilize natural resources along with building resilience, and achieve rapid growth of all economic sectors including agriculture.

The 15th plan, citing ADS 2015-35, has formulated strategies specific for the agriculture sector towards its industrialization and mobilization of investments from all three levels of government. Though, the ADS 2015-35 envisioned food and nutrition security through four interrelated components: governance, productivity, profitable commercialization, and competitiveness, the 15th plan has adopted a narrow perspective, solely focused on food availability, access, and distribution,

thereby overlooking the broader strategic dimensions outlined in the ADS. However, some of the overlooked dimensions have been covered through broader strategies for the agriculture sector.

The food and nutrition sub-chapter within the 15th plan included strategies to leverage new three-tiers of government structure for addressing the issue of food security with dedicated focus on food insecure regions and groups and, also maintaining food reserves across the three governments. It also included strategies to conserve agro-biodiversity, adoption of new climate smart technologies, and protect as well as promote native food crops and livestock. There are two sector-specific strategies: First, increasing production and productivity by strengthening legal frameworks, integrating education, research and extension services, and mobilizing private sector investment through government facilitation. Second, profitable production and commercialization of the sector and adoption of new climate smart technologies.

Most of the strategies envisioned by the ADS 2015-35 have been incorporated either within the specific sub-chapter on food and nutrition security or within sectoral chapter on agriculture of the 15th plan. The 15th plan further has targets to reduce the status of severe food insecurity in the country from 7.8 percent to 2 percent, increase in number of households with basic food security from 48 percent to 80 percent and reduce population deprived of the daily minimum calorie intake from 8.9 percent to 4 percent by the end of FY 2023/24.

ADS 2015-2035 and 16th Development Plan (2024/25 - 2028/29)

The 16th plan, covering the period 2024/25 - 2028/29, had a vision of "good governance, social justice and prosperity" and the core strategy was to formulate transformative strategies for all the economic sectors. All these transformative strategies would all contribute to enhance production, productivity, and competitiveness and, remove the prevailing structural barriers, and all these factors were primary factors for achieving food and nutrition security as stated in ADS.

The relevant quantitative targets set in the plan document are:

S. No.	Indicator	Unit	Status of FY 2022/23	Target of FY 2028/29
1.	Households in high food insecurity situations	Percent	1.3	1.0
2.	Poverty below the national poverty line (absolute poverty)	Percent	20.3	12.0
3.	Labor productivity	NRs. Thousand	245	275
4.	Average productivity of agricultural commodities (major crops)	Mt. ton per hectare	3.3	3.7

The 16th plan had several strategies towards addressing the issue on production and productivity - key issue for food and nutrition security highlighted in the ADS. The plan document has strategized to consolidate and control fragmentation of fertile arable lands to strengthen the sector while creating a favourable and supportive environment for youths to engage in collective and cooperative farming on barren land and even allow the use the public land for the purpose, ensuring on-time supply of seeds and fertilizers, and offer agricultural credit and insurance services to real farmers. In addition, strategies to ensure availability of resources, tools, skills and technology will also contribute on enhancing production and productivity of the agriculture sector.

The transformative strategy on reduction of poverty and inequality and building an equitable society has included strategies and action points towards addressing the issue of poverty through targeted approach towards poor, disadvantaged and remote locations, ensuring optimum use of land through modernization, diversification and commercialization of agriculture, and establishing market linkages for those produces ultimately leading to improved farmer's standard of living and hence, ensuring food and nutrition security of farmers. There are also innovative programs such as "farm to factory" that would link agricultural production with the market creating employment opportunities.

The 16th plan accepted that low production and productivity is key barrier for underachievement of the entire sector thus, highlighted several strategies to address the issue. The first approach thus, is to map the resources located at different segregated location then, conduct programs specialized for that location based on this mapping. Further, it suggests the use of new technologies, adoption of PPP models, control the growing issue of land fragmentation for profitable commercialization.

The transformative strategy on healthy, educated and skilled human capital formation incorporated programs specially targeted towards obtaining nutrition security. It incorporated specialized programs like multi-sectoral nutrition program envisioned in ADS which would address to the issue of deficiency of micronutrients, giving priority to local and indigenous produce, and food diversification. This and other strategies thus targets to reduce the prevalence of stunting from 25 per4848cent in FY 2022/23 to 17 percent by FY 2028/29. The transformative strategy on development of quality infrastructure and intensive inter-connectivity incorporates developing irrigation infrastructure to provide the facility to all the agricultural land in the country and constructing water storage ponds in marginalized area as key strategies which is a must requirement for increasing land productivity, a key element for food and nutrition security in ADS.

The transformative strategy on biodiversity, climate change and green economy incorporated strategies and programs to build resilience of the sector and thus reduce vulnerability to climate change and external shocks - another key component highlighted within ADS. The 16th plan included plans to build risk reduction infrastructure for most vulnerable to climate change, promote climate-friendly agriculture and indigenous crops, special programs targeting directly affected communities including women, and preparing and implementing action plan to increase use of organic fertilizers while reducing the use of chemical fertilizers and pesticides.

Trade Policy 2015

Nepal' s Trade Policy 2015, while primarily aimed at boosting exports and narrowing the trade deficit, also carries implicit implications for the country' s food and nutrition security. By

emphasizing enhanced competitiveness and deeper integration into regional and global trading systems, the policy positions trade as a driver of economic growth and poverty reduction—two pillars closely linked to food security.

The overarching objective of the policy is to significantly increase the contribution of the export sector to the national economy. To achieve this, it outlines a set of strategies, including product and market diversification, provision of export incentives, implementation of trade facilitation measures (such as streamlined customs procedures and improved infrastructure), strengthening of trade support institutions, and more effective use of bilateral, regional, and multilateral platforms.

Among its priority sectors, the policy highlights agriculture and agro-based products—including ginger, tea, coffee, carpets, and textiles. Though designed to drive export performance, these strategies also have the potential to influence food and nutrition security outcomes. By supporting the production, commercialization, and competitiveness of agricultural goods, the policy creates opportunities to improve domestic food availability, raise farm incomes, and enhance market access—objectives that align closely with vision on food and nutrition security as cited in Nepal’s ADS 2015–2035.

The government, through the policy, commits to playing a facilitative role by encouraging private sector participation in the development of these priority products. It proposes a range of enabling measures such as tax incentives, access to financing, land for commercial agriculture, and support for the adoption of innovative technologies. These initiatives are expected to boost the productivity of the agriculture sector, promote profitable commercialization through increased farmer incomes, and improve market access.

Furthermore, the policy includes a dedicated strategy to enhance the production and competitiveness of priority sector products. Specific action points include: strengthening value chains for targeted products, improving food quality and safety standards, establishing laboratories for quality assurance, setting up regional-level processing centres, and promoting improved agricultural practices.

Importantly, the policy recognizes that several food items—such as basic staples, vegetables, and fruits—are being imported despite their potential for domestic production. It therefore proposes targeted support to boost domestic production, productivity, and quality in these areas.

In conclusion, while the Trade Policy 2015 was primarily designed to boost exports and address Nepal's trade deficit, it also contributes meaningfully to food and nutrition security. Through its focus on enhancing productivity, commercialization, and competitiveness of select agro-based products, the policy aligns with the ADS 2015–2035 framework and reinforces key components essential for improving the country’s food and nutrition outcomes.

National Action Plan on Reduction of Trade Deficit (2022)

Nepal’s trade deficit has been worsening year after year, a trend expected to intensify with the country’s planned graduation from Least Developed Country (LDC) status. In response, the Government of Nepal introduced the National Action Plan on Reduction of Trade Deficit in 2022, aiming to increase the contribution of exports of goods and services to GDP from 6.3 percent in FY

2021/22 to 20 percent by FY 2027/28. While the primary goal of the plan is to address the trade imbalance, several of its proposed strategies carry important implications for food security. These include improving the production and productivity of select goods with comparative advantage, increasing agricultural output, enhancing the quality of domestically produced goods, restricting the import of items potentially harmful to public health, strengthening industrial and trade infrastructure, and advancing trade facilitation measures.

The National Action Plan on Reduction of Trade Deficit (2022) outlines specific action points, each with an implementation timeline, expected outcomes, and assigned government agencies. Among these, several programs directly or indirectly contribute to improving food and nutrition security by targeting domestic production and productivity. The key initiatives include the Prime Minister's Nepali Production and Consumption Enhancing Program, program to identify and mass production of two export potential products from each province, and the One local level, One specialized product program. These programs, implemented under the Ministry of Industry, Commerce, and Supplies, aim to boost the production and commercialization of selected goods—many of which are agricultural and agro-based products essential for food security.

The Ministry of Agriculture and Livestock Development is responsible for action points that more directly address food and nutrition security. These measures focus on increasing agricultural production and productivity, ensuring price and market stability for farmers, and minimizing crop losses. The targeted products include those with significant export potential, particularly those whose export value exceeded NPR 1 billion. To achieve at least a 30 percent increase in production of these goods, the plan includes provisions such as providing concessional financing through financial institutions, providing loan against agro-produces of farmers, investment in agricultural research and seed development, construction of food storage facilities at local and provincial levels, enforcement of food quality and safety standards, reduction of post-harvest losses, promotion of insurance schemes to reduce farmers' risk exposure, and the establishment of floor prices with mechanisms for timely payments.

In summary, although the National Action Plan was designed to address Nepal's trade deficit, its strategies have notable implications for food and nutrition security. By prioritizing increased agricultural production, quality control, commercialization, and price assurance, the plan aligns with key components of food security—availability, access, and stability. In doing so, it complements broader national objectives set out in the Agricultural Development Strategy and supports the resilience of Nepal's food systems in the face of growing trade and economic pressures.

Trade Logistics Policy, 2022

Nepal's Trade Logistics Policy, 2022 was formulated in response to the country's persistently poor performance in trade logistics, which has led to high costs in both domestic and international trade. These inefficiencies have ultimately undermined the competitiveness of Nepali firms and producers. According to the Global Competitiveness Index 2019 published by the World Economic Forum, Nepal ranked 108th out of 141 countries. Similarly, the Logistics Performance Index by the World Bank placed Nepal at 121st out of 167 countries during the 2012–2018 period. Weak trade-related infrastructure, inefficient trade services, and governance bottlenecks have significantly increased the cost of trading. These elevated trade costs not only hurt export competitiveness but also lead to higher food prices, thereby negatively impacting household food access and the overall food security situation in the country.

While the Trade Logistics Policy, 2022 is primarily framed around improving trade efficiency and reducing costs, several of its objectives hold direct and indirect implications for food security in Nepal. The focus on developing transport and storage infrastructure—particularly cold storage units—is vital for reducing post-harvest losses, preserving the nutritional quality of perishable goods, and ensuring timely delivery of food products to markets. This not only helps stabilize food supply but can also lower food prices by reducing spoilage and inefficiencies in the supply chain.

Similarly, investments in supply chain management and resilience—including capacity building for logistics actors—can strengthen the distribution of food across rural and urban areas, making food more accessible, especially during crises or disruptions. Lastly, promoting good governance in logistics—through streamlined procedures, efficient regulation, and better institutional coordination—can shorten customs delays, cut handling times, and ultimately reduce the cost of imported food and agricultural inputs. Together, these policy measures, although not framed explicitly around food security, create a supportive ecosystem that can significantly improve the availability, accessibility, and affordability of food, thereby contributing to national food security goals.

Nepal Trade Integration Strategy (NTIS) 2023

The NTIS 2023 devised a series of action points towards improving sector-level competitiveness of products with huge export potential to be implemented between 2022/23 - 2027/28 with a mission to promote international trade flows from Nepal. NTIS 2023 has set a target to increase Nepal's export of goods and services from the baseline of 6.3 percent in FY 2021/22 to 20 percent by FY 2027/28. The NTIS 2023 primarily intends to improve export of select goods and services from Nepal and thus, prioritized several agricultural goods in-process thus, NTIS 2023 have positive contribution to enhancing the food and nutrition security situation inside the country.

NTIS 2023 thus, offer multidimensional approach focusing to bring institutional and regulatory reforms and capacity development to ensure Nepal's products meet international quality standards. On bringing regulatory reforms, NTIS 2023 has proposed to amend and implement relevant laws - food act, plant protection act, and livestock services act, formulation of new sanitary and phytosanitary (SPS) standards for 24 additional products with export potential. On institutional reforms, NTIS 2023 included action plan to operationalize the central phytosanitary and diagnostics laboratory, expanding e-Phyto certification system, and developing at least four internationally accredited laboratories. On one side, these efforts will contribute to make Nepali products exportable to foreign markets while, on other side, it would positively contribute to improving the quality of Nepali agricultural produce and thus, enhance food and nutrition security.

NTIS 2023 further incorporated action points towards enhancing capacity development of Nepali stakeholders by offering trainings on good agricultural practices (GAP), HACCP protocols, codex Alimentarius standards, and traceability systems to key stakeholders - farmers, inspectors, and processors. NTIS 2023 also incorporated action plans for improving production systems and market integration for select products. The specific actions devised included initiatives toward local value chain development - One local level, one product, establishment of wholesale markets and processing centres at province level.

Additional initiatives from NTIS 2023 are targeted towards surveillance and risk management efforts such as pest diagnostics, traceability, and expanded quarantine infrastructure for livestock. These aspects are included in ADS as well and will contribute towards enhancing food and nutrition security. Collectively, these interventions aim not only to enhance food safety and agricultural competitiveness but also to fortify Nepal's food and nutrition security framework in a manner aligned with its trade and development goals.

Ultimately, what we see in Nepal's planning documents—from the Agricultural Development Strategy (ADS) 2015-2035 to the latest 16th Development Plan and the associated trade policies—is a massive effort to think comprehensively about food and nutrition security. The good news is that they're not just talking about growing more rice. The ADS sets the standard by addressing all four dimensions of food and nutrition security—availability, access, utilization, and stability—through its governance, productivity, commercialization, and competitiveness pillars. Subsequent plans, like the 14th, 15th and 16th, have generally followed this lead, showing good institutional alignment by focusing on things like reducing farmer vulnerability, promoting climate-smart agriculture, and leveraging the new three tiers of government for food reserves. Even the Trade Policy and the National Action Plan on Trade Deficit, which are basically about making money, have to fold in strategies to ensure food quality, safety standards, and reduced post-harvest losses, which is a smart way to link economics to nutrition.

However, the major hang-up the documents point to is sometimes a narrowing of focus. The 15th Plan, for instance, seems to adopt a more limited view, focusing mostly on availability and access, almost overlooking the broader strategic dimensions that the ADS laid out. While the 16th Plan gets back on track by prioritizing the Multi-Sectoral Nutrition Program (MSNP) and fixing low production/productivity barriers, the constant need to revisit and re-strategize suggests that the long-term vision is not translating smoothly or quickly enough into on-the-ground reality. The targets are ambitious, such as reducing stunting from 41.5 percent to 8 percent by 2035, is huge but the plans themselves clearly signal persistent issues such as fragmented land, low productivity, and the ongoing vulnerability of farmers to shocks. So, while the plans are strategically brilliant on paper, the sheer complexity of implementation in a country like Nepal means they are an evolving, challenging and somewhat messy work-in-progress.

Way forward and recommendations

Food and nutrition security in Nepal has improved over time, but the progress remains fragile and uneven. The data shows that while undernourishment has declined, food insecurity and nutritional imbalances continue to affect large parts of the population. Nepal's growing dependence on food imports and limited support for domestic agriculture have created structural weaknesses that make the country vulnerable to global price shocks and supply disruptions. Moving forward, Nepal needs to focus on both domestic food system strengthening and economic resilience to ensure sustainable food and nutrition security.

First, boosting agricultural productivity must be a national priority. Productivity has stagnated because of low investment, poor irrigation, limited mechanization, and weak extension services. Public spending in agriculture should shift from subsidies alone toward improving irrigation networks, seed and fertilizer quality, storage, and market connectivity. Research and innovation for climate-resilient crops and farming practices should be expanded, especially in hill and mountain regions where food deficits are common. Land consolidation and better access to credit for smallholders would also help increase efficiency and production.

Second, Nepal needs a balanced trade and import strategy. Dependence on imported staples like rice, wheat, and cooking oil exposes the country to external shocks. Policies should aim to reduce tariff distortions that discourage local production while ensuring essential foods remain affordable. Strengthening buffer stocks and improving border logistics can help stabilize markets during shortages.

Third, a stronger focus is needed on nutrition-sensitive programs. Efforts to combat malnutrition should go beyond food quantity to emphasize dietary diversity, maternal health, and nutrition education. Expanding social protection programs—like school meals, food-for-work, and targeted nutrition support—can help vulnerable households access nutritious food even when prices rise.

Finally, governance and coordination across ministries remain key. Food security cuts across agriculture, health, trade, and finance. A coordinated national framework that connects macroeconomic stability with local food production and access would help ensure long-term sustainability. In short, Nepal must move from managing food shortages to building a resilient food system that ensures stable, nutritious, and affordable diets for all.

Strengthen domestic food production and invest in climate-resilient agriculture

Improving domestic food production is the first step toward reducing Nepal's import dependence. Expanding irrigation coverage, especially small and medium-scale systems, can help farmers grow crops year-round and reduce vulnerability to erratic rainfall. Promoting climate-resilient crops such as millet, maize, buckwheat, and pulses in the hills and mountains would make farming more reliable in areas facing water stress. Access to quality seeds and fertilizers also needs improvement, with stronger regulation to stop the spread of low-quality or fake products. Mechanization should be made affordable through subsidies or credit support for small and medium farmers, allowing them to save time and labor. Encouraging cooperative farming and land consolidation can help fragmented landholdings become more productive and commercially viable.

Only about 28 percent of Nepal's farmland has reliable year-round irrigation, leaving most farmers dependent on rainfall. To ensure stable production, investments should go into small-scale irrigation like solar or gravity-fed systems, particularly in hill and mountain regions. Promoting drought-tolerant and short-duration crop varieties will make agriculture less vulnerable to erratic weather. Similarly, expanding community-managed irrigation and water harvesting projects can improve local self-sufficiency, especially in rain-fed areas.

Reform agricultural support and market systems

Nepal's agricultural support system is often reactive rather than developmental. The focus should shift from short-term subsidies to long-term investments in infrastructure, post-harvest storage, and value chains that connect farmers to markets. Strengthening local cooperatives and rural markets can ensure that farmers receive fair prices while consumers have consistent access to food. Agricultural extension services should be made more active and field-oriented, giving farmers access to practical knowledge on sustainable and nutrition-sensitive practices. Policies like crop insurance and price stabilization funds can protect farmers from unpredictable market fluctuations or climate-related losses, helping to maintain a steady food supply even during crises.

A major reason for heavy food imports is post-harvest loss and lack of storage. The government should invest in modern grain silos, cold storage, and local warehouses to manage seasonal gluts and shortages. Establishing regional food buffer stocks for rice, wheat, and pulses would help stabilize market prices and reduce panic imports during bad harvests or trade disruptions. Encouraging local food processing—like milling, oil extraction, and packaging—would also add value, create jobs, and cut down dependence on imported processed foods.

Manage import dependence and trade risks

Nepal needs to manage its growing reliance on food imports more strategically. Reviewing tariffs and quotas can help find the right balance between protecting domestic producers and ensuring that staple foods remain affordable. Nepal can reduce its import dependence by prioritizing crops that form the bulk of food imports—such as rice, wheat, lentils, and edible oils. The government should identify specific agro-ecological zones suitable for these crops and provide targeted production incentives, including input subsidies, irrigation expansion, and guaranteed minimum support prices. For example, lentil and oilseed production could be scaled up in the Tarai plains with improved seed varieties and better post-harvest facilities. Encouraging contract farming and linking farmers to agro-industries can ensure stable demand and income, motivating higher domestic output. Diversifying import sources would also reduce the risks tied to over-dependence on India for essential goods like rice, lentils, and cooking oil. Establishing national buffer stocks of key food items would help stabilize markets during trade disruptions or global price spikes. Investments in border infrastructure and food storage facilities near customs points could further improve supply chain resilience and reduce delays during emergencies.

Nepal's tariff structure often makes it cheaper to import processed foods while discouraging domestic processing of raw materials. Tariff and non-tariff measures should be revised to protect key domestic food sectors without excessively raising consumer prices. For instance, tariffs could be adjusted to favour import of raw materials for domestic processing rather than finished food products. At the same time, reducing tariffs on agricultural machinery, fertilizer, and irrigation equipment can lower production costs. Nepal should also negotiate stable import arrangements with multiple countries (not only India) to avoid sudden supply shocks.

Since some imports will remain necessary, Nepal should focus on managing them smartly rather than aiming for complete self-sufficiency. A national import monitoring system could track essential food commodities in real time and forecast shortages. Trade agreements with neighboring and regional countries should ensure predictable food supply chains even during crises. Import substitution efforts should be phased—starting with products where Nepal already has comparative advantages, like maize, fruits, vegetables, and pulses.

Strengthen nutrition-sensitive policies

Food security should not only mean having enough food—it should also mean having nutritious food. Promoting dietary diversity through school meal programs, awareness campaigns, and community-based initiatives can help shift consumption patterns toward more balanced diets. Targeted nutrition programs for pregnant women, young children, and marginalized households should be scaled up, ensuring that no group is left behind. Integrating nutrition education into agriculture and health extension systems would help families make better food choices, improving long-term nutrition outcomes.

In Nepal, food production and nutrition programs have mostly worked in separate lanes, even though they are deeply connected. Agricultural policies often focus on increasing output—mainly of cereal crops like rice and maize—while nutrition programs focus on supplement distribution or awareness campaigns. This gap has meant that even when Nepal produces enough food, many people still lack access to diverse and nutritious diets. Linking agricultural planning directly with nutrition goals can make a big difference in improving food and nutrition security.

Agricultural programs should actively promote nutrition-sensitive farming systems. This means encouraging farmers to grow a wider range of crops, not just staples. Incentives and technical support should be provided for producing pulses, vegetables, fruits, and small livestock that add protein and micronutrients to diets. For example, local governments can integrate kitchen garden promotion into rural agriculture schemes, or provide subsidies for seed varieties that help households meet their own nutrition needs.

Public procurement and food distribution systems, like school meals, hospitals, and local relief programs, can be better linked to local agricultural production. If schools buy vegetables, milk, and eggs from local farmers, it not only improves children's diets but also strengthens local food economies. This kind of circular local food system helps ensure that nutritious foods are available and affordable while creating markets for small producers.

Nutrition education needs to be built into agriculture extension programs. Farmers and rural households should be informed not just about how to grow more food but also about what to grow and why a diverse diet matters. Agricultural training centers could include basic nutrition awareness—covering topics like dietary diversity, child feeding practices, and balanced meals using locally available crops.

Policies should aim to reduce the cost gap between nutritious and non-nutritious foods. Often, vegetables, pulses, and fruits are more expensive than processed or starchy foods. The government can lower input costs for nutrient-rich crops, improve transport infrastructure to reduce spoilage, and set up community-level storage and processing facilities to make perishable foods last longer.

There should be better coordination between agriculture, health, and education ministries to ensure nutrition outcomes are tracked and prioritized in agricultural programs. A shared monitoring system could track not only yield and income but also diet quality and child growth indicators. By doing so,

Nepal's food system can move beyond just producing calories to ensuring that everyone—especially children and women—has access to healthy, diverse, and affordable food every day.

Enhance governance and coordination

Finally, stronger governance is essential to make all these efforts work together. One of the biggest problems in ensuring food and nutrition security in Nepal is weak coordination between the different agencies working on agriculture, health, trade, and social protection. Many policies exist—the Agriculture Development Strategy, the Multi-Sector Nutrition Plan, and various food security programs—but they often work in isolation, each with its own priorities and funding channels. As a result, resources get spread thin and implementation becomes slow. For example, while the Ministry of Agriculture may focus on increasing cereal yields, the Ministry of Health may be running nutrition awareness programs that do not connect with what is actually being grown or sold in local markets. This kind of fragmented planning makes it difficult to address the real causes of malnutrition. The first step should be to establish stronger coordination among ministries through a central mechanism, possibly under the National Planning Commission, to ensure policies and budgets are aligned. Local governments, which now have major responsibility for implementing agriculture and nutrition programs under federalism, also need clear guidance and technical support to integrate food security objectives into their local development plans.

Good governance also means improving accountability and transparency at every level. There needs to be regular monitoring of how much of the agriculture and food security budget is actually reaching farmers and households. Many local governments still lack reliable data systems to track production, food availability, or nutrition outcomes, which makes it hard to plan and evaluate progress. Nepal can learn from countries like Rwanda and Vietnam, which have created strong multi-sector coordination platforms for food and nutrition security, linking ministries, civil society, and the private sector. For Nepal, building such systems could mean creating a national food and nutrition security council with representatives from federal and provincial levels, tasked with aligning trade, import, and agricultural decisions with nutrition goals. Coordination with the private sector and cooperatives is also essential since they play a growing role in food supply chains. Strengthening governance is not just about new policies, it is about making sure the existing ones talk to each other and are implemented effectively across all levels of government.



- ⁱ State of Food and Nutrition Security 2024 report. As of 2022
- ⁱⁱ State of Food and Nutrition Security 2024 report. As of 2022
- ⁱⁱⁱ NDHS 2022
- ^{iv} Kathmandu Post, 2025
- ^v Nepal Living Standards Survey 2022–23
- ^{vi} <https://www.globalhungerindex.org/ranking.html>
- ^{vii} <https://docs.wfp.org/api/documents/WFP-0000152236/download/>
- ^{viii} https://neksap.org.np/allpublications/food-security-bulletin-no-38?utm_source=chatgpt.com
- ^{ix} FAO 1998 Trade Policy and Food security
- ^x (World Bank, 2024).
- ^{xi} MoALD, 2023
- ^{xii} IFPRI 2023 Study
- ^{xiii} CBS, 2023
- ^{xiv} TEPC, 2024
- ^{xv} NPC, 2024
- ^{xvi} MoALD, 2023
- ^{xvii} NRB 2024
- ^{xviii} WFP Market Watch, 2024
- ^{xix} Nepal Rastra Bank' s Macroeconomic Report (2024),
- ^{xx} Central Bureau of Statistics (CBS). *Statistical Year Book of Nepal*, 2024.
- ^{xxi} Nepal Demographic and Health Survey, NDHS 2022.
- ^{xxii} UNICEF, 2023
- ^{xxiii} (MoHP, 2023)
- ^{xxiv} Nepal Demographic and Health Survey (NDHS), 2022.
- ^{xxv} Chavas, Hummels, & Wright, 2014
- ^{xxvi} OECD, 2013; Abbott, 2010
- ^{xxvii} OECD 2013
- ^{xxviii} Gillson and Fouad, 2015
- ^{xxix} Anderson et al., 2014
- ^{xxx} Arkolakis et al., 2012; Caliendo et al., 2019
- ^{xxxi} Fathelrahman et al., 2021
- ^{xxxii} Bonuedi et al., 2020
- ^{xxxiii} Wacziarg, 2008
- ^{xxxiv} Mamonto, 2023
- ^{xxxv} Achterbosch et al., 2014
- ^{xxxvi} Sun and Zhang, 2021
- ^{xxxvii} Dithmer and Abdulai (2017)
- ^{xxxviii} Dithmer and Abdulai, 2017
- ^{xxxix} Wright & Williams, 1988
- ^{xl} Oke et al., 2017; Pasara & Diko, 2019
- ^{xli} McCorrison, 2013
- ^{xlii} Bezuneh & Yeheyis, 2012
- ^{xliii} Pyakuryal, 2005
- ^{xliv} Mary, 2016

-
- xliv Bezuneh & Yeheyis, 2012; Khalid, 2015
- xlvi Khalid, 2015; Pyakuryal, 2005
- xlvii WTO, 2009; De Schutter, 2011; FAO, 2015a; Gayi, 2006; Singh, 2014
- xlviii Wise, 2008; Koning & Pinstrup-Andersen, 2007
- xlivx McCorrison et al., 2013; Dithmer & Abdulai, 2017
- ¹ FAO, 2016
- li Singh, 2014
- lii Hawkes, 2008
- liii De Schutter, 2011; Thomas, 2006
- liv FAO, 2016
- lv FAO, 2016
- lvi Anderson, 2009
- lvii Unnevehr, 2020; Disdier & Tongeren, 2016; Usman, 2018
- lviii Rudloff, 2015
- lix Clapp, 2015
- lx Zolin, Cavapozzi, & Mazzarolo, 2021
- lxi Matthews, 2010
- lxii Suman & Adhikari, 2023
- lxiii McCorrison et al., 2013; Levine & Rothman, 2006
- lxiv McCorrison et al., 2013; Levine & Rothman, 2006
- lxv McCorrison et al., 2013
- lxvi Díaz-Bonilla, 2015b
- lxvii McCorrison et al., 2013; Levine & Rothman, 2006
- lxviii Díaz-Bonilla, 2015b; McCorrison et al., 2013; Hawkes, 2006
- lxix Pant, 2012
- lxx Gurung, 1989
- lxxi Dahal & Khanal, 2010
- lxxii FAO, 2003
- lxxiii Trade Insight
- lxxiv Government of Nepal, National Planning Commission. (2023). Multi-Sector Nutrition Plan III (2023–2030): Accelerating the Reduction of Malnutrition and Ensuring Food and Nutrition Security. National Planning Commission, Kathmandu, Nepal.
- lxxv
- Government of Nepal, National Planning Commission. (2012). Multi-Sector Nutrition Plan (MSNP) Vol. I: Multi-Sector Nutrition Plan for Accelerated Reduction of Maternal and Child Undernutrition in Nepal (2013–2017). Scaling Up Nutrition. Retrieved from https://scalingupnutrition.org/sites/default/files/2021-12/Nepal_MSNP_Vol-I.pdf
- lxxvi United Nations Evaluation Group. (2019). *Impact Evaluation of the Multi-Sector Nutrition Programme (MSNP) in Nepal.* Retrieved from https://www.unevaluation.org/member_publications/impact-evaluation-multi-sector-nutrition-programme-msnp
- lxxvii <http://www.nmfsp.gov.np/navigation/mnsp#:~:text=After the completion of MSNP,as create an enabling environment.>
- lxxviii Government of Nepal, National Planning Commission. (2018). *Multi-Sector Nutrition Plan II (2018–2022).* FAOLEX. Retrieved from <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC184979/>
- lxxix
- Government of Nepal, National Planning Commission. (2023). *Multi-Sector Nutrition Plan III (2023–2030): Accelerating the Reduction of Malnutrition and Ensuring Food and Nutrition Security.* National Planning Commission, Kathmandu, Nepal.
- lxxx https://www.enonline.net/fex/13/en/meeting-global-nutrition-targets-2025-nepals-unfinished-agenda?utm_source=chatgpt.com
- lxxxii Government of Nepal, National Planning Commission. (2023). *Multi-Sector Nutrition Plan III (2023–2030): Accelerating the Reduction of Malnutrition and Ensuring Food and Nutrition Security.* National Planning Commission, Kathmandu, Nepal. <https://risingnepaldaily.com/news/49196>
- lxxxiii Government of Nepal, National Planning Commission. (2023). *Multi-Sector Nutrition Plan III (2023–2030): Accelerating the Reduction of Malnutrition and Ensuring Food and Nutrition Security.* National

