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Nepal: Nutrition Profile

Malnutrition in childhood and pregnancy has many adverse consequences for child survival and long-term well-being. It also has far-reaching consequences for human capital, economic productivity, and national development overall. The consequences of malnutrition are a significant concern for the Government of Nepal (GON), since an estimated 36 percent of children under five years are stunted (have low height-for-age) and 10 percent are acutely malnourished or wasted (have low weight-for-height) (MOH, New ERA, and ICF 2017).

Background

Landlocked between India and China, Nepal is among the poorest countries in the world. Thirty-six percent of its population live below the national poverty line of US\$0.50 per day (WFP 2020). It ranks 147th out of 189 countries on the United Nations Development Programme's (UNDP) 2019 Human Development Index (HDI), and when adjusted for inequality, Nepal's Inequality-adjusted Human Development Index (IHDI) is 25.8 percent lower (UNDP 2019). The country is going through a prolonged transition to peace and stability after 20 years of political turmoil and 10 years of violent conflict, which ended in 2006 with a peace agreement. The country has transitioned to a federal democratic government, and elected a parliament in December 2017 and a new prime minister in February 2018 (World Bank 2019).

Nepal faces many challenges to nutrition and food security, including mitigating the impact of COVID-19 on the health and nutrition status of women and children. It is estimated that an additional 60,000 children need services for acute malnutrition due to COVID-19 and its secondary impacts. Bottlenecks to public and private investment, poor infrastructure, a difficult regulatory environment, limited access to power, the lowest road density in South Asia, high susceptibility to climate change (including floods), and weak governance further hinder economic growth and human development (USAID 2020a; World Bank 2019; USAID 2020b). Compounding this situation are complex gender, ethnicity, and caste relationships. These play an important role in food security as the majority of women and many marginalized group members work in agriculture and often do not have access to their own land, cash, or other productive assets (USAID 2020a).

The agricultural sector employs around 70 percent of the population, but it struggles to produce an adequate food supply for the country. Low agricultural productivity, weak market linkages and coordination, poor infrastructure, and inadequate government resources contribute to the underlying causes of hunger, poverty, and undernutrition in Nepal (USAID 2020a). As a result, addressing food security is a priority for the GON, which has made commitments to reduce food insecurity and improve resilience to shocks (USAID 2020a).

Currently, Nepal ranks 103rd out of 162 countries in progressing toward meeting the Sustainable Development Goals (SDGs) (Sachs et al. 2019). According to the most recent Nepal Demographic and Health Survey (NDHS) in 2016, the maternal mortality ratio is 239 per 100,000 live births, meaning one out of every 167 women has a lifetime risk of dying due to pregnancy or childbearing. Nepal has made significant strides in reducing neonatal, infant, and under-five mortality (an estimated 60 percent reduction between 1996 and 2016), but additional work is required to further reduce child mortality and to meet the SDG targets for neonatal and under-five mortality (MOH 2017).

Nutrition and Food Security Situation

Nepal has made impressive strides in reducing the prevalence of stunting nationally, which fell from 57 percent in 2001 to 36 percent in 2016 (MOH, New ERA, and ICF 2017; Family Health Division et al. 2002). Nationally, stunting is most prevalent among children aged 24–35 months (MOH, New ERA, and ICF 2017). Wasting affects around 10 percent of children under five, which is high according to the 2017 World Health Organization (WHO) public health prevalence thresholds (MOH, New ERA, and ICF 2017; WHO and UNICEF 2017b).

Poor maternal nutrition, especially among adolescent girls, significantly contributes to the inter-generational cycle of malnutrition and poverty. Forty-one percent of women suffer from anemia, which increased from 35 percent in 2011 (MOHP, New ERA, and ICF International Inc. 2012). In addition, 17 percent of women aged 15–49 years are underweight (body mass index [BMI] <18.5), and 30 percent of those are adolescent girls aged 15–19 years. Although undernutrition remains a significant issue in Nepal, overweight and obesity are also becoming health concerns, with 22 percent of women overweight or obese (MOH, New ERA, and ICF 2017).¹

Thirty-six percent of adolescent girls have begun childbearing by the age of 19, a prevalence which has only reduced by 5 percentage points since 2001 (MOH, New ERA, and ICF 2017; Family Health Division et al. 2002). The high prevalence of adolescent underweight and anemia, combined with the persistent and high adolescent pregnancy rate, is a disturbing trend. Adolescent pregnancy is associated with a 50 percent increase in the risk of stillbirth and neonatal death, and an increased risk of low birth weight, premature birth, asphyxia, and maternal mortality (Bhutta et al. 2013; WHO 2007). Furthermore, the risk of stunting is 36 percent higher among first-born children of girls under 18 in South Asia (Fink et al. 2014). Reducing the adolescent fertility rate and delaying first pregnancy beyond adolescence will reduce these risks to maternal and child health and survival, and will allow adolescent girls to grow to their full potential, protecting their own nutritional status over the long term.

Inadequate infant and young child feeding (IYCF) practices also contribute to the high prevalence of undernutrition. The prevalence of exclusive breastfeeding of children under six months declined from 70 percent in 2011, to 66 percent in 2016. Only 55 percent of infants were put to the breast within an hour of birth. Additionally, complementary feeding practices are poor, with only 36 percent of breastfed children 6–23 months receiving a minimum acceptable diet (MOH, New ERA, and ICF 2017).

Iodine deficiency has become less of an issue in Nepal² due to the effective salt iodization policy. Ninety-five percent of children under five live in households using iodized salt. However, other micronutrient deficiencies are still highly prevalent. Although a majority (86 percent) of children 6–59 months were reached through the vitamin A supplementation program in the six months preceding the 2016 NDHS, the consumption of vitamin A-rich foods among children 6–23 months stands at only 63 percent. This suggests that vitamin A deficiency may still be an issue, particularly among children 6–11 months. Also, anemia continues to be a widespread problem, with prevalence increasing from 46 percent in 2011 to 53 percent in 2016 among children 6–59 months, and from 35 percent to 41 percent among women of reproductive age over the same time period (MOH, New ERA, and ICF 2017; MOHP, New ERA, and ICF International Inc. 2012).

¹ Note that women in the highest wealth quintile are more likely to overweight/obese at 45%, as compared to 10% of women in the lowest wealth quintile.

² As is typical in many countries, iodine deficiency and excess may exist in areas throughout Nepal.

Nepal Nutrition Data (NDHS 2011 and 2016)		
Population 2020 (UN Data Projection 2020)	29.2 million	
Population under 5 years of age (0–59 months) 2020 (UN Data Projection 2020)	2.8 million	
	NDHS 2011	NDHS 2016
Prevalence of stunting among children under 5 years (0–59 months)	41%	36%
Prevalence of underweight among children under 5 years (0–59 months)	29%	27%
Prevalence of wasting among children under 5 years (0–59 months)	11%	10%
Prevalence of low birth weight (less than 2.5 kg) (of children whose birth weight was known)	12%	12%
Prevalence of anemia among children 6–59 months	46%	53%
Prevalence of anemia among women of reproductive age (15–49 years)	35%	41%
Prevalence of underweight among women of reproductive age (15–49 years) (BMI < 18.5)	18%	17%
Prevalence of underweight among adolescent girls (15–19 years) (BMI < 18.5)	26%	30%
Prevalence of children 0–5 months exclusively breastfed	70%	66%
Prevalence of children 4–5 months exclusively breastfed	53%	41%
Prevalence of early initiation of breastfeeding (i.e., put to the breast within one hour of birth)	45%	55%
Prevalence of children who receive a pre-lacteal feed	28%	29%
Prevalence of breastfed children 6–23 months receiving minimum acceptable diet	24%	36%
Prevalence of overweight/obesity among children under 5 years (0–59 months)	1%	1%
Prevalence of overweight/obesity among women of reproductive age (15–49 years)	14%	22%
Coverage of iron supplements for pregnant women (for at least 90 days)	56%	71%
Coverage of vitamin A supplements for children (6–59 months)	90%	86%
Percentage of children 6–59 months living in households with iodized salt	73%	95%

Global and Regional Commitment to Nutrition and Agriculture

Nepal has made the following global and regional commitments to nutrition and agriculture:

Year of Commitment	Name	Description
2012	Committing to Child Survival: A Promise Renewed	Nepal pledged to reduce under-5 mortality to 20 or fewer deaths per 1,000 live births by 2035 by reducing the leading preventable causes of child mortality, including undernutrition (UNICEF 2017a).
2011	Scaling Up Nutrition (SUN) Movement	In 2011, Nepal joined SUN, a global movement that unites national leaders, civil society, bilateral and multilateral organizations, donors, businesses, and researchers in a collective effort to improve nutrition. Nepal successfully conducted a SUN global gathering in November 2019 in Kathmandu. SUN's priority commitments in Nepal are to implement and scale up evidence-based, cost-effective nutrition programs outlined in the Multi-Sectoral Nutrition Plan (MSNP) and National Nutrition Strategy 2020; develop and implement a long-term National Food Security and Nutrition Action Plan; strengthen key sectors to implement and monitor the MSNP II, National Nutrition Strategy, and National Food Security and Nutrition Plan.

National Nutrition Policies/Legislation, Strategies, and Initiatives

Nepal's commitment to improving nutrition is outlined in the following documents, which are aligned with the government's Vision 2030:

- Multi-Sectoral Nutrition Plan II (MSNP II) 2018–2022
- National Nutrition Strategy 2020
- Multi-Sectoral Action Plan for the Prevention and Control of Non-Communicable Diseases (2014–2020)
- Health Sector Strategy for Addressing Maternal Undernutrition (2013–2017)
- Food and Nutrition Security Plan (2013) (part of the Agriculture Development Strategy)
- Mandatory Flour Fortification (2011)
- Maternal, Newborn, and Child Health Communication Strategy (2011)
- Five-Year Plan of Action for the Control of Anemia among Women and Children in Nepal (2006–2009)
- National School Health and Nutrition Strategy (2006)
- Advocacy and Communication Strategy for Multi-Sector Nutrition and Food Security (2016–2020)

Government initiatives have been underway for more than three decades, with national nutrition strategies developed in 1978, 1986, 1998, 2004, and 2020. The Multi-Sectoral Nutrition Plan (MSNP) 2013–2017 served as a common results framework for improving nutrition outcomes and setting out plans of action for implementing nutrition-sensitive policies and strategies for key sectors, including agriculture; health; water, sanitation and hygiene (WASH); and education. On December 14, 2017, the GON launched the MSNP II. The objectives of the MSNP II are to reduce the prevalence of stunting to 28 percent and of wasting to 7 percent among children under 5, and to reduce undernutrition (BMI < 18.5) to 12 percent among women 15–49 years of age.

USAID Programs: Accelerating Progress in Nutrition

As of April 2020, the USAID programs below, with a focus on nutrition, were active in Nepal. The U.S. Government selected Nepal as 1 of 12 Feed the Future target countries for focused investment under the new U.S. Government Global Food Security Strategy (GFSS). The U.S. Government's Global Hunger and Food Security Initiative, and Nepal's GFSS, recognize the need to build resilience among vulnerable populations in response to changing climates, low agricultural productivity, weak market linkages, poor extension services, rising food prices, and inadequate consumption of nutritious food. The strategy comprises three separate, but mutually reinforcing, components: (1) inclusive and sustainable agricultural-led economic growth; (2) resilience among people and systems; and (3) a well-nourished population, especially among women and children; with the overall goal of sustainably reducing hunger, malnutrition, and poverty.

The GFSS Nepal Country Plan builds on the successes from the 2011–2017 Feed the Future Multi-Year Strategy, which improved the productivity of participating farmers in targeted value chains and expanded access to markets and services to marginalized and disadvantaged groups. The GFSS targets 25 districts in the Hill and Terai areas in most of Province 5 and parts of Province 3, 6, and 7. These districts were selected based on poverty and hunger indexes, sales of household assets due to food insecurity, male and youth migration, prevalence of female-headed households, and potential for returns on investment.

Selected Projects and Programs Incorporating Nutrition in Nepal

Name	Dates	Description
Knowledge-Based Integrated Sustainable Agriculture in Nepal II (KISAN II) Project	2017–2022	KISAN II contributes to GFSS’s overarching goal of global food and nutrition security through “inclusive agriculture growth” and aims to reach up to 900,000 rural Nepalese by working with 200,000 farm households through agriculture interventions that improve food security and increase income in the target geographic areas. The activity focuses on small farmers in districts with the highest prevalence of food insecurity and includes measures to target traditionally excluded and marginalized groups, and vulnerable households. To increase the productivity and efficiency of small-scale commercial agriculture, KISAN II employs a “push-pull” approach to its outreach and engagement with beneficiaries. Push strategies help poor farmers and individuals build their capacity to participate in market-oriented intensification, diversification, and value-addition activities. Pull strategies increase the demand for smallholder production, labor, and related goods and services; and improve the affordability and accessibility of skills, resources, inputs, and supporting services needed to participate in competitive markets. KISAN II will tailor its approach to empower and graduate farming households into more productive, reliable, and lucrative agricultural enterprises—evolving from vulnerable to developing—then commercial enterprises, and, finally, competitive household agricultural enterprises. KISAN II focuses its interventions on maize, rice, lentils, high-value vegetables, and goats to improve local nutrition, as well as generate income through sales and marketing, working in close collaboration with the Suaahara II project for improved nutrition.
Nepal Seed and Fertilizer (NSAF) Project	2016–2022	NSAF facilitates sustainable increases in Nepal’s national crop productivity, income, and household-level food and nutrition security by promoting the use of improved seeds and integrated soil fertility management technologies, along with effective and efficient extension across 20 districts. The project specifically increases the availability of technologies to improve productivity in cauliflower, lentils, maize, onions, rice, and tomatoes. NSAF’s work on biofortified maize helps to accelerate progress on nutrition in Nepal, and focuses on three main dimensions: (1) competitive product testing and registration of biofortified maize, including quality protein, provitamin A-enriched, and zinc-enriched varieties; (2) development of a market for biofortified maize; and (3) enhanced collaboration and linkages among value chain actors to improve the use of nutritious maize directly as food and indirectly as animal feed (particularly for poultry). The seed companies with which NSAF partners are developing markets for the new biofortified products for household consumption and sale as green cobs. The trial results show significant yield advantage with added nutritional value that will be the basis for demand pull from farmers. Based on the market feedback and experiences of end users, NSAF will partner with private food-processing companies to understand and propose sustainable market models for nutritious food systems that cater to the needs of rural and urban consumers. NSAF will partner with food-processing industries to pilot the use of biofortified maize in their products and commercialize it in areas where the impact of these products can be scaled up and contribute to Nepal’s nutrition goals.

Suaahara II - Integrated Nutrition Program (Good Nutrition)	2016–2023	The goal of the project is to improve the nutritional status of women and children in all “first 1,000-days” households in 42 out of 77 districts in Nepal. Suaahara II covers 45% of the population of Nepal, or about 14 million people. It is a comprehensive, household-based program that improves household nutrition and health behaviors, improves the use of quality health and nutrition services, increases access to diverse nutrient-rich food, and accelerates the roll-out of the national MSNP through strengthened local governance. Suaahara II complements the GON’s nutrition and health priorities for pregnant and lactating women, children under 5, and their families. The project focuses on improving nutrition; maternal, newborn, and child health services; reproductive health/family planning services; WASH; and home-based gardening. The project focused on the most disadvantaged groups to reduce equity gaps. The project works within the government system as an integrated nutrition program, with its efforts driven primarily by female community health volunteers (FCHVs) and other community extension workers. FCHVs disseminate critical health messages, services, and commodities at the household level and through mothers’ group discussion forums. They also use homestead food production and village-model farm techniques to promote better access to nutritious foods. Health facility capacity building includes training on growth monitoring, IYCF counseling, nutrition education, integrated management of acute malnutrition, and micronutrient supplementation.
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