

WHAT GETS MEASURED GETS MANAGED

Assessing Public Financing for Improving Nutrition Outcomes and Human Capital in Bhutan

DISCUSSION PAPER

January 2020

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Health, Nutrition, and Population (HNP) Discussion Paper

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“What Gets Measured, Gets Managed:”

Assessing Public Financing for Improving Nutrition Outcomes and Human Capital in Bhutan

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Abstract: This study summarizes estimates and lessons learned from application of the Scaling Up Nutrition (SUN) methodology to assess public financing for nutrition in Bhutan. Using Bhutan’s classification of nutrition interventions, per capita public financing for addressing malnutrition is estimated to be Nu 2,003 (approximately US\$29, 1 percent of gross domestic product [GDP], and 3 percent of total government expenditures), 30 percent of which was for nutrition-specific activities, and about one-third the level of public spending on health. The level of public spending for nutrition is similar in magnitude—and in the shares across nutrition-specific and nutrition-sensitive interventions—when compared with other developing countries; recent estimates from Asia indicated an average of 2 percent of aggregate government expenditures went toward addressing nutrition, with a 20 percent share for nutrition-specific interventions. Despite the level of spending increasing from Nu 1,744 in financial year (FY) 2013-14, there does not appear to be any increase in priority to nutrition over the course of the 11th five-year plan (FYP): increases in the levels of expenditure for nutrition have resulted from growth of the economy and not because of higher budget allocation to addressing nutrition. The largest nutrition-specific expenditures were those related to the national school feeding program and the largest nutrition-sensitive expenditures were those related to water, sanitation, and hygiene (WASH) programs. Notably, the financing locus for nutrition-related expenditures lies within the Ministry of Education (MoE) and the Ministry of Works and Human Settlement (MoWHS). Although Bhutan defines nutrition-specific and nutrition-sensitive interventions somewhat differently from how they are defined globally, the magnitude of resources allocated toward improving nutrition appears similar to those in other developing countries even when adjusted to enhance global comparability.

Keywords: Bhutan, nutrition, public expenditure.

Disclaimer: The findings, interpretations, and conclusions expressed in the paper are entirely those of the authors and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

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SUMMARY

The Bhutanese population has undoubtedly become healthier in recent decades. Life expectancy at birth is now over 70 years, slightly higher than that of neighboring India, up from 53 in 1990 and from only 40 in 1970. The under-five mortality rate declined by more than two-thirds between 1990 and 2015: from 128 to 33 per 1,000 live births, exceeding the Millennium Development Goal (MDG) target. At current trends, Bhutan is on the fast track for attaining the Sustainable Development Goal (SDG) target of having an under-five mortality rate below 25 per 1,000 live births by 2030. At 1.7 births per woman, fertility is now below replacement levels. Bhutan fares relatively well across a range of population health indicators relative to comparator countries in its income range.

Despite progress in recent decades, malnutrition—a key risk factor for human capital accumulation—remains a policy concern in Bhutan, especially in rural areas and in the eastern region of the country. Recent estimates indicate that one-fifth of all children under five are stunted; there is high prevalence of anemia among children, adolescent girls, and women of reproductive age; and the country is facing a growing disease burden from overnutrition. Improvements in stunting will require increases in optimal infant and young child feeding (IYCF) practices, including early breastfeeding and exclusive breastfeeding for the first six months of life, attention to appropriate complementary feeding during the 6 to 24 months period when child growth falters, and treatment of childhood illnesses. Lack of dietary diversity and low levels of nutrient-rich food intake have contributed to the high rates of anemia and other micronutrient deficiencies among children under five, children of school age, adolescent girls, and women. Delays in seeking antenatal care (ANC) and low rates of pregnant women completing the recommended minimum of eight ANC visits contribute to the problem. Lack of adequate sanitation facilities in rural areas as well as poor water and sanitation in health facilities are additional barriers to achieving good nutrition outcomes in the country.

Bhutan's expanded focus on malnutrition in the 12th five-year plan (FYP) for 2018 to 2023 is notable; the country is currently tracking the implementation of a multisectoral nutrition action plan that includes several activities that contribute directly (nutrition-specific) and indirectly (nutrition-sensitive) to improving nutrition outcomes. These activities include revitalizing the baby-friendly hospital initiative for early initiation of breastfeeding and monitoring exclusive breastfeeding, providing micronutrient supplementation, strengthening IYCF counseling, promoting locally available foods and recipes, improving the quality of complementary feeding for children age 6 to 59 months, providing midday meals in schools, ensuring food fortification, ensuring availability of subsidized seeds and tools to improve kitchen and community gardens, and investing in water and sanitation, among others.

One missing piece of information in the tracking and implementation of the nutrition action plan is that the level and distribution of public financing for addressing malnutrition is unknown. The availability of robust and regular financing data is essential for informing policy making to address malnutrition, not only to increase accountability but also to enable adjustments so that funds can be prioritized and allocated efficiently and equitably. Information on nutrition expenditures, in conjunction with regular data on nutrition outputs and outcomes, helps assess adequacy of financing by comparing expenditures with the estimated costs of implementation so that any financing gaps can be identified and filled. Bhutan is not unique in this regard; estimating public financing specifically for malnutrition is a challenge, given the multisectoral nature of interventions aimed at addressing it. Previous methods based on National Health Accounts (NHAs) have grossly underestimated nutrition-related financing by focusing solely on expenditures that flow through the health sector. New estimation methods, such as those developed by the Scaling Up Nutrition (SUN) initiative that focus on estimating multisectoral nutrition-related expenditure flows, are increasingly being applied across many countries globally. These methods entail a detailed review of nutrition-related budgetary line items—either programmatic or activity based—across a multiplicity of relevant ministries that are implementing interventions designed to improve nutrition outcomes.

This study summarizes estimates and lessons learned from the application of the SUN methodology to assess public financing for nutrition in Bhutan. Using Bhutan's classification of nutrition interventions, per capita public financing for addressing malnutrition is estimated to be Nu 2,003 (approximately US\$29, 1 percent of gross domestic product [GDP], and 3 percent of total government expenditures), 30 percent of

which was for nutrition-specific activities, and about one-third the level of public spending on health. The level of public spending for nutrition is similar in magnitude—and in the shares across nutrition-specific and nutrition-sensitive interventions—when compared with other developing countries; recent estimates from Asia indicated an average of 2 percent of aggregate government expenditures went toward addressing nutrition, with a 20 percent share for nutrition-specific interventions. Despite the increased level of spending from Nu 1,744 in FY2013-14, there does not appear to be any increase in priority to nutrition over the course of the 11th FYP; increases in the levels of expenditure for nutrition have resulted from growth of the economy and not because of a higher budget allocation to addressing nutrition concerns. The largest nutrition-specific expenditures were those related to the national school feeding program, and the largest nutrition-sensitive expenditures were those related to water, sanitation, and hygiene (WASH) programs. Notably, the financing locus for nutrition-related expenditures lies within the Ministry of Education (MoE) and the Ministry of Works and Human Settlement (MoWHS). Although Bhutan defines nutrition-specific and nutrition-sensitive interventions somewhat differently from how they are defined globally, the magnitude of resources allocated toward improving nutrition appears similar to that in other developing countries even when adjusted to enhance global comparability.

Lack of budgetary estimates in the national nutrition action plan, insufficient budgetary granularity for some relevant activities, bundling of nutrition interventions with other interventions, unclear subnational allocations of central expenditures, and agglomeration of salaries and operating costs in reported budgetary data were some of the challenges in estimating public financing for nutrition. Despite some of these challenges, and in keeping with the adage “What gets measured, gets managed,”¹ the study recommends improving the tagging and recording of budgetary data and institutionalizing the estimation of public financing for nutrition so that it becomes a routine part of tracking the progress in implementation of the national nutrition action plan. Doing this in conjunction with work on costs and results of interventions will enable assessments of effectiveness and efficiency of interventions, as well as financing gaps.

Some key policy-relevant messages include the need to prioritize financing for nutrition-specific interventions in the early years. This includes prioritizing financing for interventions including promotion of appropriate IYCF and maternal nutrition practices and increasing the coverage and quality of ANC. Given the low coverage rates of early initiation and exclusive breastfeeding and inadequate appropriate complementary feeding practices, greater priority toward financing for addressing these problems should be considered, both nationally and subnationally. This could include geographic convergence across multiple ministries in regions where problems are more severe. Investments would be required to build the capacity of health and other workers on behavior-change communication interventions and monitoring, and on the incidence of expenditures by geographic region and target population. Currently, the largest financing for nutrition is for school feeding programs and for WASH-related interventions, neither of which are effective or cost-effective for addressing stunting among children under five. While feeding children in school is important to increase attendance and to provide basic nutrition, among other reasons, it does not do much (if anything) to prevent or reverse stunting. It also misses the critical years when anemia sets in at about six months of age, affecting cognitive development. Given that this is the largest financing for nutrition, it may be prudent to reevaluate its impact to better inform policy.

Furthermore, the nutrition action plan should consider prioritizing overnutrition in addition to undernutrition. Although problems related to undernutrition rightfully receive prominent policy attention, there is need to address the growing burden of disease attributable to overnutrition. The “mal” in malnutrition refers to both “over” and “under” nutrition, and the importance of diet and exercise for addressing overnutrition will increasingly need to be prioritized in the coming years. Finally, the study underscores the importance of raising awareness about malnutrition across ministries and local government. Given the multisectoral nature of malnutrition, both in terms of interventions designed to address it and in terms of malnutrition’s impact on outputs of other sectors such as education and labor, raising awareness is key to giving nutrition a more prominent profile as a cross-cutting development challenge facing the country and to make this explicit in strategies and action plans of the different ministries so that accountability can be shared.

1. Peter Drucker. 1954. *The Practice of Management*. New York: Harper & Row.

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARI	Acute Respiratory Infection
BHU	Basic Health Unit
BMI	Body Mass Index
C4CD	Care for Child Development
CDD	Control of Diarrheal Diseases
COPD	Chronic Obstructive Pulmonary Disease
CRA	Council for Religious Affairs
ECCD	Early Childhood Care and Development
FCBL	Food Corporation of Bhutan Limited
FNS	Food and Nutrition Security
FYP	Five-Year Plan
GDP	Gross Domestic Product
GNHC	Gross National Happiness Commission
GNI	Gross National Income
HCI	Human Capital Index
HCP	Human Capital Project
HIV	Human Immunodeficiency Virus
HNP	Health, Nutrition, and Population
IMCI	Integrated Management of Childhood Illnesses
IYCF	Infant and Young Child Feeding
LDC	Least Developed Country
LDL	Low-density Lipoprotein
LMIC	Low- and Middle-Income Country
LSS	Lower Secondary School
MDG	Millennium Development Goal
MoAF	Ministry of Agriculture and Forests
MoE	Ministry of Education
MoF	Ministry of Finance
MoH	Ministry of Health
MoHCA	Ministry of Home and Cultural Affairs
MoWHS	Ministry of Works and Human Settlement
MSS	Middle Secondary School
NCD	Noncommunicable Disease
NHA	National Health Account
NNTF	National Nutrition Task Force
NWFP	Non-wood Forest Products
OECD-CRS	Organisation for Economic Co-operation and Development-Common Reporting Standard

OOP	Out-of-pocket
PNC	Postnatal Care
RC	Religion & Culture
RWSS	Rural Water Supply and Sanitation
SAFANSI	South Asia Food and Nutrition Security Initiative
SAM	Severe Acute Malnutrition
SDG	Sustainable Development Goal
SED	School Education Division
SEN	Special Education Needs
SHINE	Sanitation Hygiene Infant Nutrition Efficacy
SUN	Scaling Up Nutrition
TB	Tuberculosis
UDE	Urban Development & Engineering
UN	United Nations
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation, and Hygiene
WDI	World Development Indicators
WFP	World Food Programme
WHO	World Health Organization

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“WHAT GETS MEASURED, GETS MANAGED”: ASSESSING PUBLIC FINANCING FOR IMPROVING NUTRITION OUTCOMES AND HUMAN CAPITAL IN BHUTAN

I. INTRODUCTION

Addressing malnutrition is critical for economic and human development. Malnutrition can affect individuals at all stages of their life and is typically classified into two forms: (a) undernutrition, due to insufficiency of nutrient intake; and (b) overnutrition, due to overconsumption of macronutrients, such as carbohydrates, proteins, and fats. Typically, as countries grow and develop, they undergo a “nutrition transition”: a decline in the prevalence of undernutrition, while facing growing problems related to overnutrition.² It is possible, however, for individuals to suffer from both overnutrition and undernutrition at the same time, or from both at different points in their life cycle. Undernutrition—especially during the first 1,000 days (from conception to two years of age)—can have lifelong consequences for health outcomes affecting accumulation of human capital, economic development, and poverty reduction. Undernutrition is responsible for almost half of all child deaths, and early childhood malnutrition is highly correlated with poor cognitive development, reduced schooling attainment, and lower adult wages and can sometimes increase the risk for adult onset of noncommunicable diseases (NCDs), all of which make children less likely to escape poverty as adults.³ On the flip side, overnutrition and obesity are key risk factors for several chronic conditions among adults, including diabetes and cardiovascular diseases. Certain population subgroups—neonates, infants, preschool-age children, women of reproductive age, pregnant and lactating women, and the elderly—are more vulnerable to the deleterious effects of malnutrition than others.

Assessing the level, distribution, and composition of public financing for nutrition is key to informing the design and implementation of corrective policies. Despite progress in recent years, malnutrition remains a policy concern, especially in rural areas and in the eastern region of the country. Recent estimates indicate that one-fifth of all children under five are stunted; there is high prevalence of anemia among children, adolescent girls, and women of reproductive age; and the country is facing a growing disease burden from overnutrition. In the spirit of the adage, “what gets measured, gets managed,” and in line with the focus on domestic resource mobilization for development outcomes under the 2030 Sustainable Development Goals (SDGs), it is important to understand the extent to which the level, distribution, and composition of public financing may be a factor in addressing malnutrition.⁴

However, estimating public financing for nutrition is a challenge, given the multisectoral nature of interventions. Interventions to address malnutrition go beyond the health sector, with important contributions from education, agriculture, water, sanitation, and other relevant sectors. For example, addressing malnutrition may require improvements in hygiene that are associated with improvements in access to water and sanitation. Similarly, promoting dietary diversity may require encouraging production, import, and consumption of certain types of nutritious foods. In

2. B. Popkin. 1993. “Nutritional Patterns and Transitions.” *Population and Development Review* 19 (1): 138–157.

3. L. Adair, D. Fall, C. Osmond, A. Stein, R. Martorell, M. Ramirez-Zea et al. 2013. “Associations of Linear Growth and Relative Weight Gain during Early Life with Adult Health and Human Capital in Countries of Low and Middle Income: Findings from Five Birth Cohort Studies.” *Lancet* 382 (9891): 525–534.

R. Martorell, B. Horta, L. Adair, A. Stein, L. Richter, C. Fall, S. Bargava et al. 2010. “Weight Gain in the First Two Years of Life Is an Important Predictor of Schooling Outcomes in Pooled Analyses from Five Birth Cohorts from Low- and Middle-income Countries.” *Journal of Nutrition* 348–54.

4. Previously in 2013, the World Bank had conducted a public expenditure review that focused on human development, namely health and education sectors; the study had identified that undernutrition was a key challenge for economic productivity and recommended that more focused attention was needed in terms of coordinated multisectoral action. See World Bank. 2013. *Kingdom of Bhutan: Human Development Public Expenditure Review*. Thimphu: World Bank.

addition, malnutrition is generally not addressed through stand-alone interventions; implementation is often bundled together with other health and nonhealth interventions. Even within the health sector, nutrition interventions are often provided in conjunction with those aimed at improving reproductive, maternal, and child health; for example, nutrition counseling as well as iron and folic acid supplementation are generally provided during antenatal care (ANC) and postnatal care (PNC) visits.

Newly developed methods for estimating public financing for nutrition are increasingly being applied across many countries globally. Unlike previous approaches based on National Health Account (NHA) methods that focus primarily on capturing nutrition financing that flows through the health sector, these new methods—for example, as recommended by the Scaling Up Nutrition (SUN) initiative—entail a detailed review of nutrition-related programmatic and activity-based budgetary line items across a multiplicity of relevant ministries.⁵ These line items reflect interventions classified as nutrition-specific—that is, where the primary intent is to improve nutrition status—including, for example, those activities that support early and exclusive breastfeeding for six months together with appropriate complementary feeding thereafter, micronutrient supplementation, and treatment of severe malnutrition. Others represent nutrition-sensitive interventions—that is, activities with other primary objectives but also reflecting a conscious effort to improve nutrition status—such as supporting small farms for women and families, as well as clean water and sanitation that can reduce infection and disease. These methods, initially developed to assess public financing for addressing malnutrition in Tanzania, are being piloted across several developing countries such as Bangladesh, Indonesia, Nepal, and Sri Lanka.⁶

This study summarizes findings from the application of the new multisectoral budgetary tracking methods to estimate public financing for nutrition in Bhutan. In doing so, the study identifies challenges, outlines lessons learned, and makes recommendations that could potentially facilitate future routine estimation of public financing for nutrition. The remainder of the study is organized as follows: Section II provides background information for Bhutan; Section III outlines the methodology used for estimating public financing for addressing malnutrition and its application to Bhutan; Section IV summarizes key findings, including a discussion of challenges faced during estimation; and Section V concludes with lessons learned and recommendations.

II. BACKGROUND

With a population of 735,000, Bhutan is a small, landlocked, mountainous South Asian country nestled between India and China (Figure 1).⁷ With a gross national income (GNI) per capita of US\$3,080 in 2018, Bhutan is classified by the World Bank among the low and middle income countries (LMICs) and by the United Nations (UN) as a least developed country (LDC). In per capita terms, Bhutan's national income is similar to Morocco and Moldova's. Almost two-thirds of the country's population lives in rural areas. The national poverty rate stands below 8 percent; US\$1.90-a-day poverty is less than 2 percent, and US\$3.10-a-day poverty is about 12 percent. Average per capita economic growth rates have exceeded 5 percent per year over the past decade, albeit with significant year-on-year volatility; economic growth rates are expected to remain at similar magnitudes in the near term. Bhutan is expected to graduate from the UN's list of LDCs by 2023. Government expenditures are high relative to comparator countries, in the

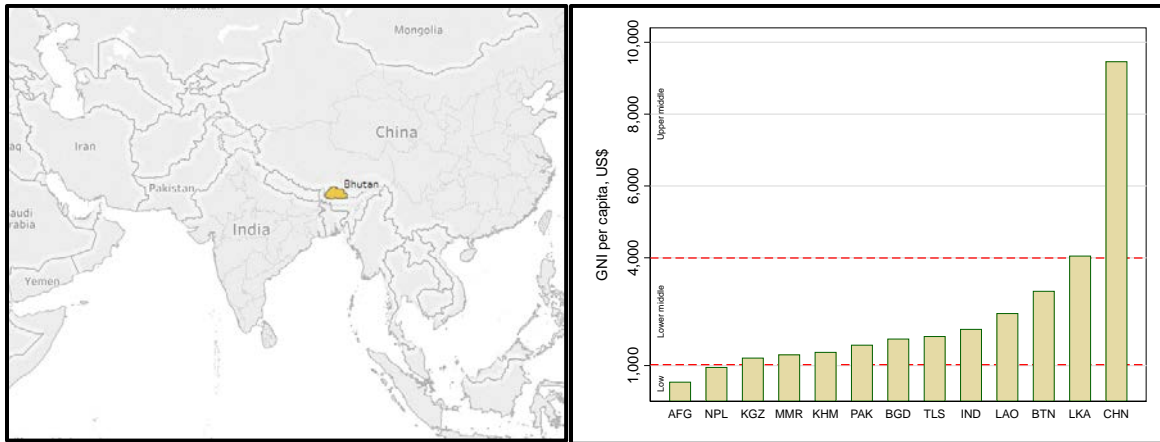
5. SUN Movement. 2018. "Budget Analysis for Nutrition: A Guidance Note for Countries." Geneva.

6. Development Initiatives. 2017. *Global Nutrition Report 2018: Nourishing the SDGs*. Bristol, UK: Development Initiatives.

7. The statistical yearbook lists the population at 779,666.

range of 30 percent of gross domestic product (GDP). Roughly one-third of government revenues comes from foreign grants; hydroelectric power is an important contributor to nontax revenues.

Figure 1: Bhutan—Geography and Gross National Income Per capita Relative to Comparators



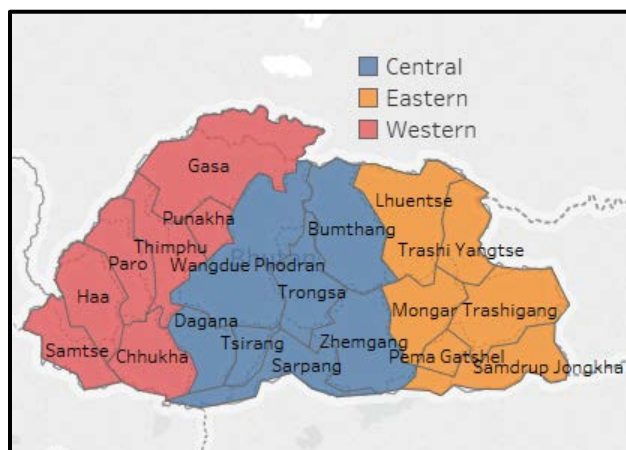
Source: World Development Indicators (WDI), 2019.

Note: GNI = Gross national income; AFG = Afghanistan; NPL = Nepal; KGZ = Kyrgyz Republic; MMR = Myanmar; KHM = Cambodia; PAK = Pakistan; BGD = Bangladesh; TLS = Timor-Leste; IND = India; LAO = Lao People's Democratic Republic; BTN = Bhutan; LKA = Sri Lanka; CHN = China.

Administratively, Bhutan is divided into 20 districts (*dzongkhags*) and 205 subdistricts (*gewogs*). In addition, the 20 districts are divided into three geographic regions: central, eastern, and western (Figure 2). Roughly 70 percent of all government expenditures occur at the central level, with the remaining at the subnational level (comprising districts and subdistricts); there is generally a 60:40 division between spending at the district versus subdistrict levels. Resource allocation to subnational administrative units is formula-based, determined by population, area, a transport cost index, and the multidimensional poverty rate. The latter includes indicators related to child mortality, food security, water, sanitation, and livestock ownership. Bhutan's health sector is predominantly public, both in terms of financing and service delivery. Health care is mandated to be free at the point of service by the Constitution and covers all health services (curative, promotive, preventive, and rehabilitative) and is delivered at all levels (primary, secondary, and tertiary). Almost the entire population lives within three hours walking distance of a public health facility.⁸ Private health care provision within the country is limited to selected diagnostic services and pharmacies, mostly in urban areas. In addition to a national referral hospital located in the capital, there are two regional referral hospitals for tertiary care. At the district level, there are hospitals and basic health units (BHU-I); the latter also provide about 10 inpatient beds in addition to primary care services. Within districts, there are BHU-II units, which provide basic primary care services with up to 5 inpatient beds, subposts manned by health assistants, and monthly outreach clinics.

8. Despite this, service coverage estimates for key interventions are quite high (averaging 80 percent). See WHO (World Health Organization). 2019. 2019 Health SDG Profile: Bhutan. Thimphu: WHO.

Figure 2: Districts of Bhutan



Source: National Statistics of Bhutan

Recent estimates indicate per capita health expenditures were US\$90, about 3.5 percent of GDP. Unlike other countries in the South Asia Region, more than two-thirds of financing for health in Bhutan is public. Health constituted 9 percent of the total government budget, less than the global average of 11 percent but much higher than the average for South Asia Region countries (7 percent). Bhutan maintains one of the oldest health trust funds in the world, specifically dedicated for the financing of critical primary health care services (for example, for vaccines and essential medicines). The initial capitalization of this trust fund was based on financing from external sources, domestic financial institutions, and voluntary donations. The fund is currently also financed through a 1 percent salary deduction from formal private sector employees and civil servants. The trust fund is administered by an autonomous body and a board made up of representatives from the Ministries of Health and Finance, the Gross National Happiness Commission (GNHC), and the private sector. The external financing share of health spending has been declining steadily and currently stands at less than 5 percent of the total. Out-of-pocket (OOP) sources accounted for only 20 percent of total health expenditures; this estimate excludes expenses of health-related prayer ceremonies, which are estimated to account for more than half of all health-related OOP expenditures by households but are excluded from estimation according to global guidelines.⁹ Most OOP spending was for transportation; unlike in other LMICs, less than 10 percent of household spending was for medications.

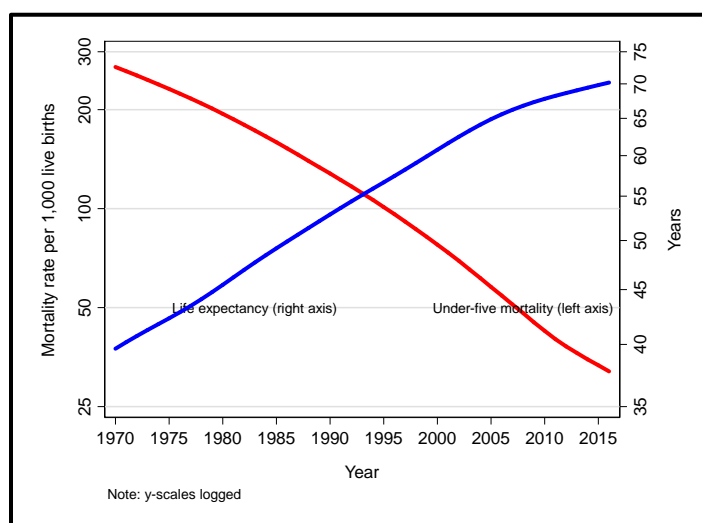
The Bhutanese population has become healthier in recent decades. Life expectancy at birth is now over 70 years, slightly higher than that of neighboring India, up from 53 in 1990 and from only 40 in 1970 (Figure 3). The under-five mortality rate declined by more than two-thirds between 1990 and 2015, from 128 to 33 per 1,000 live births, exceeding the Millennium Development Goal (MDG) target.¹⁰ At current trends, Bhutan is on the fast track to attain the SDG target of an under-five mortality rate below 25 per 1,000 live births by 2030. At 1.7 births per woman, fertility is now below replacement levels.¹¹ Bhutan fares relatively well across a range of population health indicators relative to comparator countries in its income group (Table 1).

9. Ministry of Health. 2018. *National Health Accounts*. Thimphu: Royal Government of Bhutan; <http://www.health.gov.bt/wp-content/uploads/afd-files/2015/11/NHA-2014-15-and-2015-16-final-2018.pdf>.

10. These are adjusted estimates from global databases; national census data from 2017 indicated an under-five mortality rate of 34 (2017 Population and Housing Census of Bhutan, 2018).

11. National Statistical Bureau. 2017. *Population and Housing Census of Bhutan*. Thimphu: Royal Government of Bhutan.

Figure 3: Life Expectancy and Under-five Mortality in Bhutan, 1970–2016



Source: World Development Indicators (WDI), 2019

Table 1: Key Population Health Outcomes—Bhutan versus Comparators, 2016¹²

Country	Population (millions)	Fertility ^b	Life Expectancy (years)	Under-five Mortality ^c	Maternal Mortality ^d	Adult Survival ^e
Afghanistan	35.5	4.6	64	70	396	78
Bangladesh	163.2	2.1	72	34	176	87
Bhutan	0.8	1.7^a	70	34^a	89^a	80
Cambodia	16.0	2.6	69	31	161	83
China	1,390.1	1.6	76	10	27	92
India	1,316.9	2.3	69	42	174	83
Kyrgyz Republic	6.3	3.1	71	21	76	83
Lao PDR	6.7	2.7	67	66	197	81
Myanmar	52.6	2.2	67	51	178	81
Nepal	29.3	2.1	70	35	258	85
Pakistan	197.3	3.5	66	77	178	84
Sri Lanka	21.4	2.0	75	9	30	87
Timor-Leste	1.2	5.5	69	49	215	85
<i>LMICs</i>		3.2	68	40	194	80

Source: World Development Indicators (WDI), 2017

Note: LMIC = Low- and middle-income country.

a. 2017 national census estimates; b. Average number of births per woman of reproductive age; c. per 1,000 live births; d. per 10,000 live births; e. Percentage share of the population at age 15 expected to live to age 60.

Despite improvements in population health, malnutrition remains a significant problem in Bhutan. Recent estimates indicate that more than one-fifth of all children under five are stunted, that is, they have low height-for-age, representing chronic undernutrition. National stunting rates have declined rapidly—from 37 percent in 2008 to 35 percent in 2010 to 22 percent in 2015 among children ages 6 to 59 months—but remain high in the eastern region of the country as well as among the poor and in rural areas.¹³ More than one-third of all poor children are stunted compared to only 5 percent among the rich (Figure 4). About 9 percent of all children under five are underweight, that is, they have low weight-for-age, and an alarmingly large proportion (44 percent) are anemic.¹⁴ Wasting rates, that is, low weight-for-height indicating acute undernutrition, are

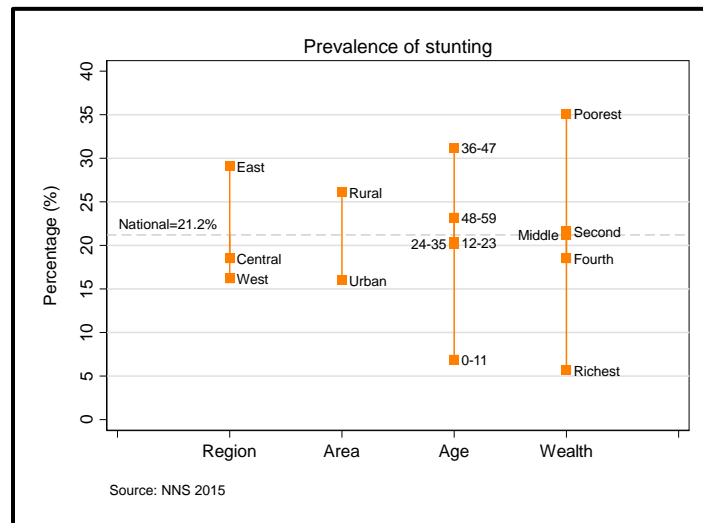
12. For more relevant data, see 2019 Health SDG Profile: Bhutan. Thimphu: World Health Organization.

13. At 5 percent, stunting rates are relatively low among those that are 0 to 6 months old; in general, Bhutan's stunting rates are lower than those of regional comparators such as India, (20.1 percent; Source: India 2015–16 National Family Health Survey); Nepal (13.5 percent; Source: Nepal Demographic and Health Survey, 2016); and Bangladesh (14.0 percent; Source: Bangladesh Demographic and Health Survey, 2014).

14. Anemia is most often caused by deficiencies in iron. Consequences of anemia include greater risk of maternal mortality, reduced cognitive performance, and lower productivity.

relatively low nationally but remain high at 7 percent among poor children. There is limited information on national-level estimates of micronutrient deficiencies; nevertheless, prevalence is likely to be high. Smaller-scale investigations often find micronutrient deficiencies: for example, a 2014 study found high prevalence of vitamin B deficiency among school children.¹⁵ The prevalence of malnutrition among other population subgroups also remains a concern in Bhutan. For instance, anemia rates among adolescent girls and women of reproductive age range between 27 percent and 36 percent, indicating a lingering prominent public health problem.

Figure 4: Prevalence of Stunting across Bhutan



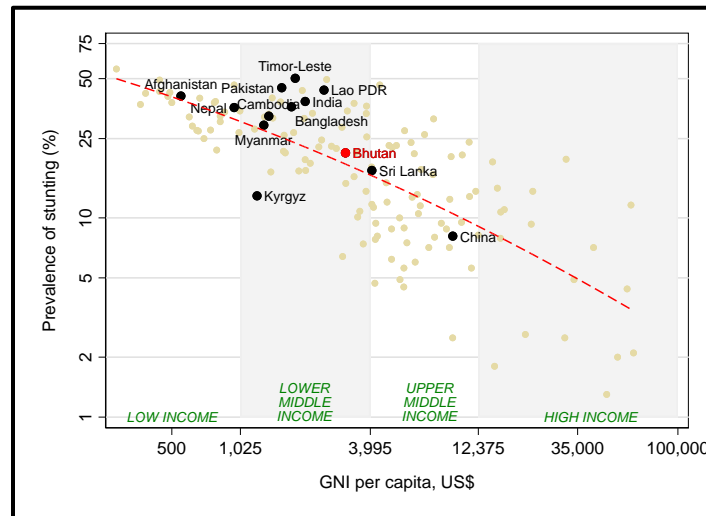
Source: National Nutrition Survey, 2015.

Stunting rates in Bhutan are about average for what might be expected for its income level. Other than China and the Kyrgyz Republic, almost all comparator countries in the region had stunting rates that were much higher than what might be expected for their income levels (Figure 5). Countries such as Timor-Leste, Lao People’s Democratic Republic, Pakistan, India, and Bangladesh are particularly egregious in this regard. Bhutan’s stunting prevalence is about average for what might be expected for its income level. The estimated income elasticity of stunting rates to economic growth in Bhutan was also about average (-0.7) among comparators using data since the late 1980s; a 1 percent growth in national income has resulted in a 0.7 percent decline in stunting rates.¹⁶ In contrast, the estimated income elasticity was less than -0.5 in Timor-Leste, India, Myanmar, and Lao PDR and higher than 0.8 in Bangladesh, China, the Kyrgyz Republic, and Nepal.

15. WHO and Ministry of Health, Royal Government of Bhutan. 2016. Report on Bhutan Global School-based Student Health Survey (GSHS) 2016. New Delhi: World Health Organization.

16. Income elasticity measures the percentage response of any indicator to percentage changes in per capita national income. In this case, it measures the percentage change in stunting prevalence for every percentage change in per capita national income. The income elasticity of stunting was calculated as the coefficient from a log-log regression between stunting and per capita national income.

Figure 5: Prevalence of Stunting versus Income—Bhutan versus Comparators



Source: World Development Indicators (WDI), 2019. Note: GNI = Gross national income.

In general, causes of undernutrition are complex and multisectoral, ranging from supply-side factors such as low coverage rates for key nutrition-related interventions, prevalence of risk factors such as poor access to water and sanitation, and lack of adequate and effective public financing.¹⁷ In addition, a range of demand-side factors such as poor quantity and quality of food, low levels of knowledge and awareness regarding nutrition among households, low levels of women's education and empowerment, and continued adherence to harmful traditional beliefs and superstitions contribute to undernutrition across countries. In addition, there are intergenerational effects: undernourished girls become undernourished mothers, with a higher likelihood of delivering babies with low birth weight. Stunting is also associated with increased morbidity and mortality from infections, leading to a cycle of poor nutritional status.¹⁸

There are several underlying reasons for malnutrition in Bhutan. These include low rates of exclusive breastfeeding (51 percent) and poor diets: only 12 percent of children are provided with the recommended minimum acceptable diet; only 17 percent are given iron-rich foods; and just 15 percent are provided with four or more food groups; and there is generally low consumption of micronutrient-rich food.¹⁹ Further improvements in stunting will require increases in optimal infant and young child feeding (IYCF) practices, including early breastfeeding and exclusive breastfeeding for the first six months of life, attention to appropriate complementary feeding (timely and adequate dietary diversity and food quantities) during the 6 to 24 months period when child growth falters, and treatment of childhood illnesses. Lack of dietary diversity and low levels of nutrient-rich food intake have contributed to the high rates of anemia and other micronutrient deficiencies among children of school age, adolescent girls, and women. Delays in seeking ANC and low rates of pregnant women completing the recommended minimum of eight ANC visits, which remains an issue all over the country, contribute to the problem. Lack of adequate sanitation facilities in rural areas and poor water and sanitation in health facilities are additional barriers to

17. C. Rokx. 2000. "Who Should Implement Nutrition Interventions? The Application of Institutional Economics to Nutrition and the Significance of Various Constraints to the Implementation of Nutrition Interventions." Washington, DC: World Bank.

18. A. Prendergast and J. Humphrey. 2000. "The Stunting Syndrome in Developing Countries." *Pediatrics and International Health* 34(4): 250–65.

19. Previous work has also pointed out the relative scarcity of meat—which is imported—in rural areas. See S.J. Atwood, S. Nagpal, M. Mbuya, and L. Laviolette. 2014. "Nutrition in Bhutan: Situational Analysis and Policy Recommendations." HNP Discussion Paper 94290, World Bank, Washington, DC.

achieving good nutrition outcomes in the country. For instance, adequate provision of water, sanitation, and hygiene (WASH) can help prevent diarrhea and intestinal parasitic infections; a high prevalence of both can make absorption of nutrients difficult.²⁰ Bhutan has made great strides in ensuring its people have access to WASH services. Nearly all households have access to an improved water source.²¹ However, data suggest that lack of access to improved sanitation facilities continues to be of concern. Almost 12 percent of households in rural Bhutan—where 65 percent of the population resides—lack sanitation facilities, while this share is less than 3 percent in urban Bhutan. Wide variations can be seen across districts: 99 percent in Mongar in the eastern region and 97 percent in Thimphu and Samtse in the western region had the highest proportion of households with improved sanitation. Punakha (72 percent) and Gasa (77 percent), both in the western region, had the lowest proportion, among districts, of households with improved sanitation.²²

Reducing malnutrition matters critically for both economic and human development. To galvanize country efforts to decrease the proportion of stunted children—along with improving under-five and adult survival rates and the quantity and quality of education—the World Bank has recently launched the Human Capital Project (HCP).²³ Human capital is necessary for improving productivity and encouraging innovation in economies; children who are malnourished, in addition to the negative impact on their health, are also at significant risk for cognitive underdevelopment, hampering their ability to learn. As part of stimulating the quality and quantity of investments in health and education, HCP has estimated an index of human capital to help benchmark attainment across countries and within countries (for example, across subnational administrative units and over time). The Human Capital Index (HCI) ranges from 0 to 1; if a newly born child in a country achieves full health (proxied by no stunting and 100 percent survival to age 60) and full education (proxied by 14 years of high-quality school by age 18), then that country will score a value of 1 on the index.²⁴ For the three health-related indicators that are part of HCI, Bhutan remains at or around the bottom 50 percent of countries globally for under-five survival, adult survival, and proportion of children under five who are not stunted (Figure 6).²⁵ This suggests significant room for improvement to realize the full potential of a key national resource: Bhutan's people.

20. Although randomized control trial evidence of impact from WASH interventions remains elusive. See J. Humphrey, M. Mbuya, N. Ntozi, L. Moulton, R Stoltzfus, N Tavengwa et al. 2019. "Independent and Combined Effects of Improved Water, Sanitation, and Hygiene, and Improved Complementary Feeding, on Child Stunting and Anemia in Rural Zimbabwe: A Cluster-randomized Trial." *Lancet*. More recently, a Sanitation Hygiene Infant Nutrition Efficacy (SHINE) trial among women and children in Bangladesh and Kenya showed that WASH intervention (individual water, sanitation, and handwashing groups, and combined water, sanitation, and handwashing groups) had no effect on length-for-age Z scores and integrating WASH with IYCF had no additional benefit on linear growth than implementation of IYCF alone. See C. Null, C. Stewart, A. Pickering, H. Dentz, A. Benjamin, J. Benjamin-Chung, T. Clasen et al. 2018. "Effects of Water Quality, Sanitation, Handwashing, and Nutritional Interventions on Diarrhea and Child Growth in Rural Kenya: A Cluster-randomized Controlled Trial." *Lancet Glob Health*; S. Luby, M. Rahman, A. Benjamin, L. Unicomb, S. Ashraf, P. Winch, C. Stewart et al. 2018. "Effects of Water Quality, Sanitation, Handwashing, and Nutritional Interventions on Diarrhea and Child Growth in Rural Bangladesh: A Cluster-randomized Controlled Trial." *Lancet Glob Health*.

21. National Statistical Bureau. 2017. *Bhutan Living Standards Survey 2017*. Thimphu: Royal Government of Bhutan.

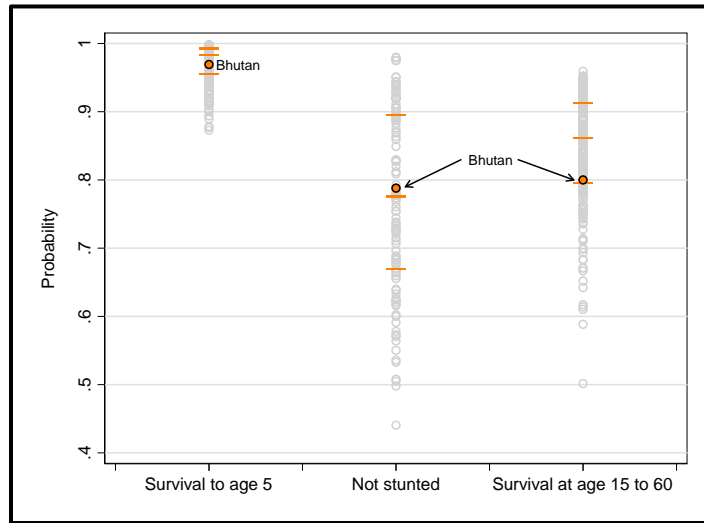
22. *Ibid.*

23. World Bank. 2018. *The Human Capital Project*. Washington, DC: World Bank.

24. In other terms, an HCI value of 0.70 would imply that the productivity as a future worker for a child born today is 30 percent below what it could have been with complete education and full health; among those countries that had data, Singapore was estimated to have the highest human capital, and Chad the lowest.

25. Bhutan's full HCI was not calculated as part of the first round of estimates, as credible data on the quality of education were not available.

Figure 6: Bhutan’s Relative Attainment for the Three Health-related Indicators in the Human Capital Index



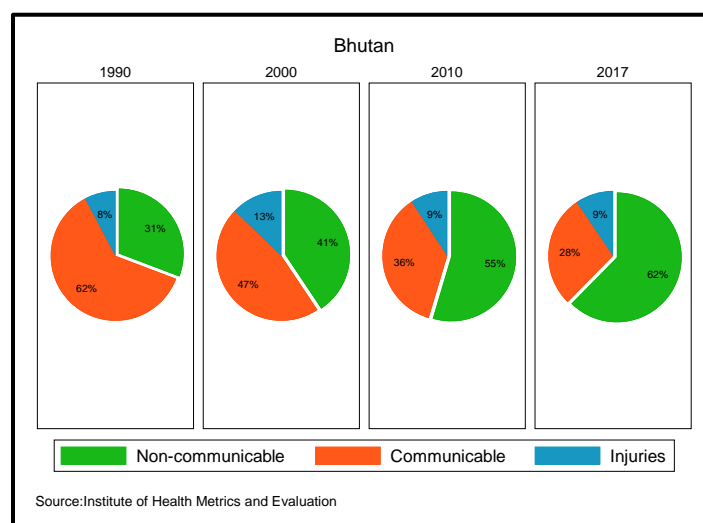
Source: World Bank, 2018.

Note: The small red lines mark the 25th, 50th, and 75th percentiles.

Malnutrition remains a key concern even as Bhutan’s disease pattern rapidly shifts from communicable diseases to noncommunicable diseases. In 2017, almost two-thirds of the overall disease burden was due to NCDs, compared to less than one-third in 1990 (Figure 7).²⁶ The share of NCDs such as ischemic heart disease and chronic obstructive pulmonary disease (COPD) has increased rapidly. Nevertheless, conditions directly linked to undernutrition remain significant, and the share of the disease burden from dietary iron deficiency has actually risen (Table 2). Declining mortality and fertility rates have resulted in population aging and rising dependency ratios. Currently, about 5 percent of the population is 65+ years of age; however, this share is projected to grow rapidly in coming years. This will increase demand and cost pressure on the health system and require a reorientation toward management and treatment of chronic diseases.

26. This is, in part, also due to rising life expectancy.

Figure 7: Burden of Disease in Bhutan, 1990–2017



Source: Institute of Health Metrics and Evaluation, 2019.

Table 2: Top 10 Conditions Contributing to Disease Burden, 1990–2017

Rank in 2017	Top 10 Diseases/Conditions in 2017	DALYs Lost Share (%)			
		1990	2000	2010	2017
1	Ischemic heart disease	2.3	3.5	5.4	6.4
2	COPD	2.2	2.7	3.4	3.8
3	Neonatal preterm birth	7.3	6.2	5.3	3.7
4	Dietary iron deficiency	2.8	3.4	3.6	3.6
5	Lower respiratory infections	12.7	10.2	6.2	3.4
6	Low back pain	1.0	1.6	2.6	3.3
7	Migraine	1.0	1.4	2.4	2.9
8	Neonatal encephalopathy	3.9	3.7	3.2	2.4
9	Diarrheal diseases	6.6	4.3	2.7	2.4
10	Other musculoskeletal disorders	0.7	1.1	1.7	2.1
DALYs (100,000)		3.4	2.6	2.3	2.3
DALYs per 100,000		55.9	44.1	36.4	33.5

Source: Institute of Health Metrics and Evaluation, 2019. Note: COPD = Chronic obstructive pulmonary disease; DALY = Disability-adjusted life year.

Metabolic and behavioral factors linked to both overnutrition and undernutrition are dominant risk factors. Low birthweight and short duration of gestation—a major determinant of prenatal mortality and morbidity—was the leading risk factor in 2017 (Table 3); low birthweight is largely determined by maternal nutrition and availability and quality of ANC. In addition, dietary iron deficiency—a critical indicator of maternal and child undernutrition—shows no signs of declining over time in terms of its relative share.²⁷ On the other hand, risk factors reflective of overnutrition such as high fasting blood sugar, high body mass index (BMI), high low-density lipoprotein (LDL) cholesterol, and high sodium are rising and are expected to continue to do so.²⁸

27. Dietary iron deficiency refers to anemia.

28. In 2013, the prevalence of overweight and obesity was 35.3 percent, up from 31.5 percent in 1990, higher than the average for South Asia (28.9 percent in 2013). Recent studies done in children under 5 years and adolescents show relatively high obesity. Prevalence of overweight children under 5 years in Bhutan is 3.9 percent (Bhutan: National Nutrition Survey 2015). It is higher in the eastern region (5.4 percent) than in the central and western regions (2.6 percent and 3.4 percent, respectively). Moreover, a global school-based student health survey conducted in 2016 showed overweight of 11.4 percent and obesity of 2.0 percent in school children of ages 13–17 years.

Table 3: Top 10 Risk Factors Contributing to Disease Burden, 1990–2017

Rank in 2017	Top Risk Factors in 2017	DALYs Lost Share (%)			
		1990	2000	2010	2017
1	Low birthweight and short gestation	19	17	14	9
2	High systolic blood pressure	3	4	6	7
3	High fasting plasma glucose	2	3	4	5
4	Particulate matter pollution	9	7	6	5
5	High BMI	1	2	3	5
6	High LDL cholesterol	1	2	3	4
7	Iron deficiency	3	4	4	4
8	Smoking	2	2	3	3
9	Alcohol use	2	2	3	3
10	Impaired kidney function	1	2	3	3
<i>DALYs (100,000)</i>		1.9	1.3	1.1	1.1
<i>DALYS per 100,000</i>		33.4	21.9	14.0	11.2

Source: Institute of Health Metrics and Evaluation, 2019.

Note: BMI = Body mass index; LDL = Lipoprotein; DALY = Disability-adjusted life year

Bhutan’s Food and Nutrition Security (FNS) policy lays out the overarching nutrition strategy.²⁹ The National Nutrition Task Force (NNTF)—comprising focal points from different ministries and development partners—coordinates and tracks nutrition-related interventions across different sectors in Bhutan. Although the FNS policy notes the role of multiple ministries in delivering on food and nutrition, two ministries are formally mentioned as having the primary mandate to do so: (a) the Ministry of Agriculture and Forests (MoAF) for food security policy and strategic action plans, and (b) the Ministry of Health (MoH) for leading and coordinating the implementation of nutrition security programs. Subsequently, the NNTF developed an action plan aimed at accelerating the implementation of specific interventions targeting vulnerable groups—adolescent girls, under-five children, women of reproductive age, and pregnant and lactating women—to reduce micronutrient deficiencies and improve nutrition status.³⁰ The 12th five-year plan (FYP) calls for a reduction in the child stunting rate to 15 percent by 2023.³¹ In addition, the 12th FYP describes other nutrition-related targets including a reduction in food-insecure households to less than 3 percent of all households and an increase in the proportion of school-age children with a normal BMI from 84 to 88 percent by 2023. Additional examples of nutrition-related targets from the 12th national FYP are summarized in Table 4.

Table 4: Examples of Nutrition-related Indicators and Targets in 12th National Five-year Plan³²

Result Area	Indicators	Baseline (%)	Target (2023) (%)
General population	Stunting	21.2 ^a	15.1
	Wasting	4.3 ^a	<4.3
	Facilities implementing “growth monitoring plus” ³³	95 ^b	>98
	Anemia in children 6–59 months of age	43.8 ^a	31.29
	Anemia in adolescent girls 10–19 years of age	31.3 ^a	17.89
	Minimum acceptable diet	11.7 ^a	21.7

29. Ministry of Agriculture and Forestry. 2014. “Food and Nutrition Security Policy of the Kingdom of Bhutan 2014.” Thimphu: Royal Government of Bhutan.

30. National Nutrition Task Force. 2018. *Accelerating Actions for Reducing Undernutrition and Micronutrient Deficiencies among Women and Children*. Thimphu: Royal Government of Bhutan.

31. The previous 11th national plan called for a reduction in stunting rates to be less than 30 percent by 2017–18, which was achieved; the current 12th national plan continues the focus on stunting but also has added other dimensions of malnutrition, such as wasting, anemia, and dietary diversity.

32. GNHC (Gross National Happiness Commission). 2018. *Twelfth National Plan 2018–2023*. Thimphu: Royal Government of Bhutan.

33. Growth monitoring plus consists of conducting routine measurement of a child’s growth and regular contact with mothers, informing them of their child’s growth, and acting as an entry point for counseling and negotiation on behavior change to promote growth and contribute to the prevention of chronic malnutrition.

Result Area	Indicators	Baseline (%)	Target (2023) (%)
Children and youth	Schools with access to WASH facilities	Functional ^b	Functional
		Water supply: 69	Water supply: 90
		Toilet: 84.5	Toilet: 95.0
	Students within acceptable nutritional levels (BMI)	Hygiene: 65	Hygiene: 80
84 ^b		88	
Households	Households with supply of safe drinking water 24-7	Boys: 83	Boys: 87
		Girls: 85	Girls: 89
		63 ^b	100

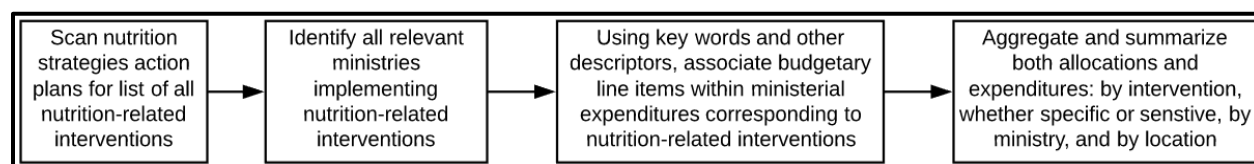
Source: GNHC (Gross National Happiness Commission). 2018. Twelfth National Plan 2018–2023. Thimphu: Royal Government of Bhutan.

Note: a. 2015; b. 2017.

III. METHODOLOGY TO ESTIMATE PUBLIC FINANCING FOR ADDRESSING MALNUTRITION

The methodology followed in this study is a variant of the one recommended by the SUN initiative.³⁴ First, nutrition-related strategies and action plans were reviewed to identify relevant ministries that were then formally identified as having a role in the delivery of nutrition interventions. Next, a review of relevant departments within the selected ministries was conducted to further hone in on identifying where the locus of financing for nutrition-related activities was within each ministry. Once departments were identified, a review of line-item budgets was conducted within those departments at both the activity and, where necessary, subactivity levels to pick up both allocations and expenditures that corresponded to nutrition-related activities referenced in strategies and action plans (Figure 7).³⁵

Figure 7: Summary of Estimation Methodology



To date, implementation of the SUN methodology for estimating public financing for malnutrition has varied across countries. The average public financing for malnutrition across the sample of developing countries for which these data are available was about 1 percent of GDP (Figure 8).³⁶ In some countries, the need for financing for malnutrition may be higher, and this may explain observed differences in allocations and expenditures; however, there are also differences in how these numbers have been estimated as well as whether or not weights have been applied. For example, in Tanzania—in addition to the standard nutrition-specific interventions—spending to improve agricultural productivity and to reduce year-to-year fluctuations in agricultural and livestock production was included in estimating public financing for nutrition.³⁷ In Indonesia, budget tagging for nutrition-specific interventions includes ensuring availability of medicines in all public primary health care facilities and for prevention and control of vector-borne diseases such as filariasis and malaria; expenditures for promoting consumption of healthy foods and drinks are also included as part of nutrition-sensitive spending.³⁸ Stipends

34. SUN Movement. 2019. “Tracking Nutrition Investments.” Geneva; <https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/>.

35. In some cases, an optional step for weighting line-item expenditures is also applied so as to not overestimate nutrition financing. Given recent discussions in the global literature on the subjectivity of using weights, this was not done for Bhutan.

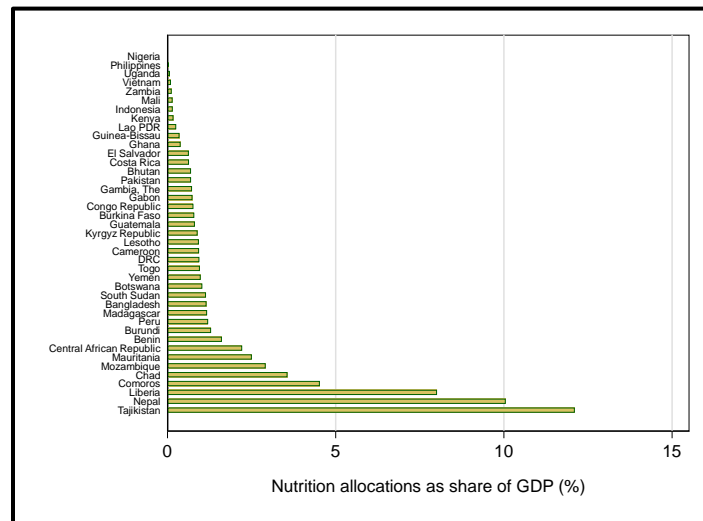
36. SUN Movement. 2019. “Tracking Nutrition Investments.” Geneva; <https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/>.

37. Ministry of Finance and Planning and United Nations Children’s Fund (UNICEF). 2014. Public Expenditure Review of the Nutrition Sector. Mainland Tanzania: United Republic of Tanzania.

38. Ministry of Finance. 2018. “Guidelines for Tagging, Tracking and Evaluating Development and Budget Performance to Prevent Stunting.” Jakarta: Republic of Indonesia.

for promoting enrollment in primary schools are included as nutrition-relevant expenditures in Bangladesh.³⁹ These variations in what constitute nutrition-related expenditure across countries—although relevant for assessing differences in country context and implementation—render global comparisons of estimates of public financing for nutrition difficult.

Figure 8: Nutrition Budgetary Allocations as Share of GDP in Selected Developing Countries⁴⁰



A range of nutrition-specific and nutrition-sensitive interventions are being implemented in Bhutan. These interventions include growth monitoring and counseling, nutrition rehabilitation units for severe acute malnutrition (SAM), deworming and vitamin A supplementation, use of multiple micronutrient powders, WASH promotion in schools, provision of ANC and PNC packages, and promotion of institutional deliveries in facilities, among others. To address the remaining gaps in implementation and improve the delivery of interventions, the NNTF has outlined a series of strategic objectives and identified the responsible lead ministries (Table 5). In addition to the MoAF and MoH noted in the FNS policy, the NNTF action plan highlights the role of two additional ministries—the Ministry of Education (MoE) and the Ministry of Home and Cultural Affairs (MoHCA)—as contributing to the implementation of nutrition-related activities. Based on discussions with relevant counterparts, one additional ministry—the Ministry of Works and Human Settlement (MoWHS)—was identified as relevant due to its role in implementing water and sanitation activities in urban areas of the country (water and sanitation activities in rural areas are housed within a department that is part of the MoH).⁴¹ Nutrition-specific activities are implemented by three ministries in Bhutan: the MoH, MoE, and MoHCA. Financing for seven MoH programs and divisions—Food and Nutrition Division; Vaccine-preventable Disease Program; Health Promotion Division; Reproductive, Maternal, and Newborn Health Program; Integrated Management of Childhood Illnesses (IMCI)-Acute Respiratory Infections (ARIs) and Control of Diarrheal Diseases (CDD) Program; Village Health Worker Program; and the Adolescent Health Program—within the Department of Public Health represents nutrition-specific financing according to definitions in NNTF’s action plan. Activities related to the community parenting program are also included under the umbrella of nutrition-specific expenditures in the country.

39. T. Begum. 2018. *Bangladesh Public Expenditure Review on Nutrition*. Oxford, UK: Oxford Policy Management.

40. SUN Movement. 2019. “Tracking Nutrition Investments.” Geneva; <https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/>.

41. In addition, the budgets of two autonomous agencies—the Gross National Happiness Commission (GNHC) and the Council for Religious Affairs (CRA)—were also examined for nutrition-related expenditures.

Nutrition-sensitive activities are implemented by five ministries in Bhutan: the MoH, MoE, MoHCA, MoWHS, and MoAF. Under the MoH, three programs—Rural Sanitation and Hygiene, Rural Water Supply Program, and the School WASH Program—represented nutrition-sensitive expenditures in Bhutan. In addition, some subactivities under the Public Health Laboratory Services and the Emergency Medical Services Program—that is, those with key words “water,” “sanitation,” “hygiene,” “toilet,” or “wash”—were deemed nutrition-sensitive expenditures. Similar key words were used to identify subactivities under the MoE, MoWHS, MoAF, and MoHCA. In addition, for the MoAF, all subactivities under the Vegetable Go to School Program, the School Agriculture Program, and the Quality Seeds Program were included, as were all subactivities under the Water and Sanitation Division of the MoWHS.

Table 5: Nutrition-related Interventions and Lead Ministries

Type	Interventions	Lead Ministries
Specific	Revitalize Baby-friendly Hospital Initiative; micronutrition supplementation; strengthen IYCF; growth monitoring; acute malnutrition detection and referral; acute malnutrition treatment; Immunization, IMCI, care for child development (C4CD); school supplementation program (weekly iron and folic acid, deworming, vitamin A); monitoring of health and diet of school children; develop minimum nutrition package guidelines for adolescent girls; develop and implement advocacy material for social mobilization; develop preconception nutrition service package; strengthen ANC and PNC; and develop nutrition counseling toolkit	MoH
	Early childhood care and development (ECCD); healthy meals and hygiene; rice fortification; fortified food in boarding schools; review of school feeding program; midday meal in all schools; and nutrition and food safety training for teachers and students	MoE
Sensitive	Improve access to minimum nutrition package for adolescent girls and build capacity of service providers	MoH, MoE, and MoHCA
	Promote use of indigenous foods; encourage backyard poultry, fisheries, piggeries; provide subsidized seeds for kitchen/community gardens; and promote livestock rearing and local farm products in schools	MoAF
	Strengthen kitchen/community garden program and link schools with local farmers' cooperative group to purchase local farm products	MoAF and MoE
	Improve water and sanitation	MoH, MoE, MoHCA, and MoWHS
	Improve hygienic behavior and strengthen life skills education in schools	MoE

Source: National Nutrition Task Force. 2018. Note: IYCF = Infant and young child feeding; IMCI = Integrated management of childhood illnesses; ANC = Antenatal care; PNC = Postnatal care; MoH = Ministry of Health; MoE = Ministry of Education; MoHCA = Ministry of Home and Cultural Affairs; MoWHS = Ministry of Works and Human Settlement.

As in some other countries, Bhutan’s classification of nutrition-specific and nutrition-sensitive interventions differs from that in the global literature. Whereas interventions such as micronutrient supplementation are commonly classified as nutrition-specific, some others such as school feeding programs are classified as nutrition-specific in Bhutan whereas these are typically classified in the global literature as nutrition-sensitive interventions (Table 6).⁴² The following are some additional differences: Early childhood care and development (ECCD) is considered nutrition-sensitive in the global definition but nutrition-specific in Bhutan’s NNTF. Malaria and Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS)/Tuberculosis (TB) Program is considered nutrition-specific in the global definition but is not included in Bhutan’s NNTF. Mental health, women’s empowerment, gender equality, and lifestyle-related programs are included in the global definition but are not included in Bhutan’s NNTF. To help compare across countries, estimates of public financing to improve nutrition outcomes using the global classification of nutrition-specific and nutrition-sensitive interventions were also determined and reported. Nevertheless, Bhutan is implementing several interventions that are known to be cost-effective. To address stunting, for example, Vitamin A supplementation, growth monitoring, breastfeeding, and complementary feeding counseling are included, all of which are known to be cost-effective.⁴³ To address anemia, food fortification, iron

42. Globally, with some exceptions, direct interventions that target the first 1,000 days (from pregnancy to 24 months of age) are typically classified as nutrition-specific; the remainder are generally classified as nutrition-sensitive. See United Nations Children's Fund (UNICEF) reference. Immunization is likely classified as nutrition-specific in Bhutan due to the perception that illnesses are contributing directly to poor nutrition outcomes.

43. Shekhar, J. Katiekek, M. D'Alimonte. 2017. “Reaching the Global Target to Reduce Stunting: An Investment Framework.” *Health Policy & Planning* 32 (5): 657–68.

supplementation, and promotion of animal-sourced food through household production are being emphasized.⁴⁴

Table 6: Global Classification of Nutrition-related Interventions

Type	Intervention	Category
Specific	Adolescent nutrition for women	Adolescent nutrition
	Peri-conceptional folic acid supplementation for women; ANC interventions for pregnant women (i.e., iron and folic acid, micronutrient supplementation, balanced energy protein supplementation, and calcium supplementation during pregnancy); iron and folic acid supplementation for women of reproductive age; iodine supplementation through salt iodization; and staple food fortification for women and children	Micronutrient supplementation and food fortification
	Nutrition counseling for improved dietary intake during pregnancy; nutrition counseling for improved dietary intake during lactation after delivery; counseling and nutrition advice to women of reproductive age and mothers; and communication for behavioral and social change to prevent childhood obesity among women of reproductive age and mothers	Nutrition counseling
	Delayed cord clamping; early initiation of breastfeeding (within one hour of birth); kangaroo mother care for promotion of early and exclusive breastfeeding and care of preterm and small-for-gestational-age infants; neonatal vitamin K; appropriate infant feeding practices and antiretroviral treatment for HIV-exposed infants; breastfeeding promotion including exclusive breastfeeding for the first six months; control of marketing of breast milk substitutes; appropriate complementary feeding promotion in children 6–24 months of age and continued breastfeeding; public provision of complementary food; early stimulation; management of SAM; and dietary diversification in young children	IYCF
	ANC (including HIV testing and deworming for pregnant women), prevention and treatment of infectious diseases and deworming for children; prevention, treatment, and promotion of insecticide-treated bed nets for pregnant women in high-malaria areas; and intermittent presumptive treatment of malaria in pregnancy in malaria-endemic regions	Management and prevention of diseases
	Intervention package includes management of SAM and prevention and health promotion strategies, such as breastfeeding and complementary feeding education and support	Nutrition in emergencies
	Improved availability, access, and use of locally available foods for women and children	Food security
	Access to modern family planning services for women (including mothers)	Family planning
	Social safety nets (e.g., conditional and unconditional cash transfers, food, and in-kind transfer program); provision of healthy foods in schools; and maternity protection in the workplace	Social safety nets
	Promotion of increased age at marriage and reduced gender discrimination and gender-based violence; maternity protection in the workplace; and promotion of maternal mental health	Women's empowerment
Sensitive	Parenting and life skills for early childhood development	Early childhood development
	Promotion of handwashing with soap and improved water and sanitation practices	Water and sanitation
	Increased access to primary and secondary education for girls; early childhood education; and nutrition and physical education in school	Schooling
	Support for birth registration and strengthening of civil registration systems	Other

Source: National Nutrition Task Force. 2018

Note: SAM = Severe acute malnutrition; IYCF = Infant and young child feeding; ANC = Antenatal care.

Based on the NNTF action plan, detailed line-item budgetary data were analyzed by ministry, department, activity, subactivity, and accounting object. To identify nutrition-specific and nutrition-sensitive allocations and expenditures, a mapping of the interventions in Table 5 to the listing of budgetary activities and subactivities of the Ministry of Finance (MoF) was conducted. The fiscal year runs from July 1 to June 30, and each agency/ministry/sector processes its budgets and manages expenditures at three levels: national, district, and block. The MoF conducts a midyear review to ensure budget implementation is on track. Government expenditures are classified in two ways. First, into four categories: current expenditure, capital expenditure, lending, and repayment.⁴⁵ Second, these categories are further classified for assessing and monitoring resource allocations: functional classification (health, education, and so on); economic (current and capital); and object (also referred to as line-item classification). Each line item has an object code indicating the type of expenditure. Line items are linked with administrative unit, department, program, subprogram, activity, subactivity, and financing source by using codes. Therefore, the financial management system allows an analysis of line items by ministry, department, program, activity, and subactivity, as well as by capital and current expenditure.

44. J. Mason, R. Martorell, and L. Saldanha. 2013. "Reduction in Anemia." *Lancet Global Health* 1 (2): E4–E6.

45. MoF (Ministry of Finance). 2016. *Budget Manual*. MoF, Royal Government of Bhutan.

Relevant line-item activities and subactivities were classified as nutrition-specific or nutrition-sensitive based on the NNTF definitions. Where budgeted activities were clearly deemed to be nutrition-specific or nutrition-sensitive according to the NNTF action plan, the total spending amounts were aggregated and extracted. In other instances, when it was not clear, key words such as “water,” “sanitation,” “hygiene,” and so on were used to identify subactivities within broader activities that appeared to be nutrition-related; in these cases, only expenditures for these subactivities was aggregated and extracted. Activities that were classified in the budget as “direction services” and “general administration” were initially excluded even if subactivities within these included relevant nutrition-related key words. Finally, “direction service” and “general administrative” activity expenditures—including expenditures for human resources—were proportionally allocated to estimate total nutrition-related expenditures. As reported in the next section, this exercise was conducted for the entire 11th FYP period for 2013 to 2018, and unweighted estimates were reported.

There are some methodological caveats. The distinction between central and subnational expenditures is not always clear. For example, for the health sector, the central level is mandated to implement system strengthening activities such as developing implementation guidelines for nutrition activities, providing supportive supervision, and training district workers. Bulk procurement of nutrition commodities—for example, nutrition supplements and equipment—takes place at the central level. Health facilities at the subnational level request commodities from the central level. As budgets are not channeled to subnational levels for implementing activities from central ministries, analyses of subnational allocations of central expenditure for nutrition-related activities were not always possible. To estimate how much national spending is distributed subnationally, ministerial-level internal budgetary data should also be analyzed. This would provide a more accurate picture of whether or not resources from all levels of government—not just expenditures at the district and block levels—are being directed to where they are needed the most and if some form of geographic convergence is happening. For this study, indirect expenditures at subnational levels were not estimated, as access to internal ministry-level data was limited. A second caveat relates to potential overestimation of nutrition-related expenditures. The SUN methodology initially recommended that line-item spending be weighted to properly account for the fact that not all spending for a given intervention is going toward addressing malnutrition. However, given the difficulty in assigning such weights, most countries that have conducted nutrition tracking have ended up reporting unweighted spending numbers. This is the approach taken for Bhutan as well, that is, unweighted estimates are reported. In some cases—for example, for WASH-related expenditures—this is likely to overestimate the levels of spending on nutrition per se. This is less of a problem if such expenditures are consistently not weighted over time, but still, this caveat remains and is noted. Some of the largest expenditures are nutrition-sensitive interventions for WASH-related infrastructure. Over time, this may cause fluctuations in the overall levels of estimated expenditures largely due to the “lumpiness” of capital spending estimates. Budgetary data from the MoF did not allow for estimation of subnational allocations and expenditures of national-level nutrition-relevant outlays.

IV. KEY FINDINGS

Per capita nutrition-related expenditures were estimated to be Nu 2,003 (approximately US\$29) in Bhutan for FY2016-17. This is equivalent to 1 percent of GDP and 3 percent of total government expenditures. These shares have remained largely stable throughout the 11th FYP period (Annex A). These figures are similar to those of other countries; recent estimates from Asian and other region countries indicated an average of 2 percent of aggregate government expenditures went toward addressing malnutrition, with a 20 percent share for nutrition-specific

interventions.⁴⁶ This was the case even when estimates were rerun using global definitions of nutrition interventions (as reported in Annex B). If nutrition were its own separate ministry, it would be about one-half the size of the MoH and about one-fourth the size of the MoAF in terms of expenditure outlays (Table 7). Despite the level of spending increasing from Nu 1,744 in FY2013-14, there does not appear to be any increase in priority to nutrition during the 11th FYP period; increases in nutrition expenditures are in line with economic growth rates; thus, the share of nutrition expenditures did not increase in the budget. Updated data that reflect changes in nutrition outcomes during the 11th FYP are not yet available, so the study is not able to make an assessment on the effectiveness of public expenditures over this period.

Table 7: Expenditure on Nutrition-related Activities (FY2016-17)

Category	Expenditure (Nu, millions)	Per Capita (Nu)	Share of GDP (%)	Share of Government Expenditure (%)	Ratio MoH (%)	Ratio MoAF (%)
Total nutrition	1,561	2,003	1.0	3.0	47.0	23.0
Central	682	875		2.0	38.0	19.0
Subnational	879	1,127		7.0	58.0	29.0
District	549	705		4.0	44.0	38.0
Block	330	423		12.0	119.0	20.0
Nutrition-specific	439	563	0.3	1.0	13.0	7.0
Central	417	535		1.0	13.0	12.0
Subnational	22	28		0.1	1.4	1.0
District	19	25		0.2	1.6	1.0
Block	2	3		0.1	0.8	0.1
Nutrition-sensitive	1,122	1,439	0.7	2.0	34.0	17.0
Central	265	340		1.0	15.0	7.0
Subnational	857	1,099		6.0	57.0	28.0
District	530	680		4.0	43.0	37.0
Block	327	420		12.0	118.0	20.0

Source: Estimated from MOF expenditure data (FY2016-17)

Expenditures for nutrition are more decentralized than those for other sectors. Unlike the 70:30 breakdown of the total government expenditures between central and subnational governments, nutrition-related expenditures were split more equally between the central and subnational levels, underscoring the importance of looking carefully at district- and subdistrict-level spending for tracing public financing for malnutrition, especially for nutrition-sensitive interventions. Among subnational levels, district-level expenditures were much higher than those at the subdistrict level. Detailed information was not available to determine whether or not there was geographic convergence of nutrition expenditures toward specific high-priority subnational areas, although available information suggests this has not been the case: geographic convergence—whereby multisectoral coordination and budgeting are conducted in targeted areas—is something that has proven to be effective in other settings (for example, in Peru and Brazil and is currently being implemented in Indonesia) and may be something for Bhutan to consider.⁴⁷

In recent years, nutrition-specific programs have accounted for 30 percent of the total of nutrition-related expenditures. This share is similar to that of other countries in the region.⁴⁸ The share increased from 10 percent in FY2013-14 (Figure 9).⁴⁹ The increase after FY2013-14

46. SUN Movement. 2019. "Tracking Nutrition Investments." Geneva. <https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/>

T. Begum 2018. *Bangladesh Public Expenditure Review on Nutrition*. Oxford, UK: Oxford Policy Management.

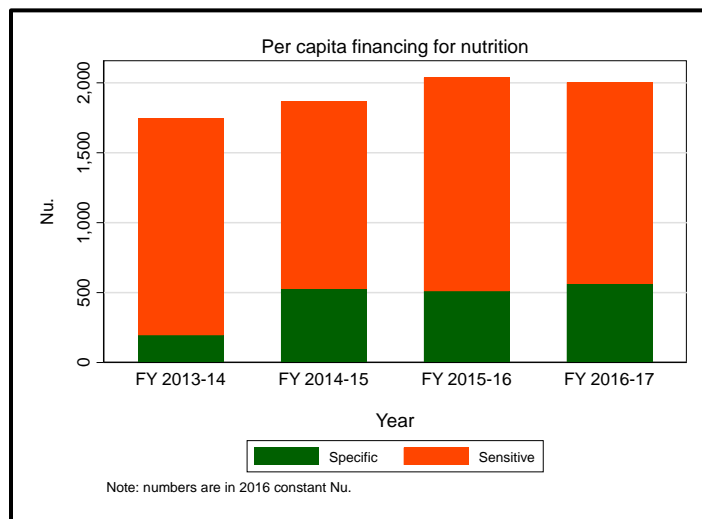
47. A. Marini, C. Rokx, and P. Gallagher. 2017. *Standing Tall: Peru's Success in Overcoming Its Stunting Crisis*. Washington, DC: World Bank; J. Levinson, Y. Balarajan, and A. Marini. 2013. *Addressing Malnutrition Multi-sectorally: What Have We Learned from Recent International Experience?* New York: UNICEF and MDG Achievement Fund.

48. SUN Movement. 2019. "Tracking Nutrition Investments." Geneva; <https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/>.

49. Although global comparisons are tricky, the 30 percent share of nutrition-specific expenditure to the total nutrition-related expenditure for Bhutan is higher than the average nutrition-specific allocation among developing countries that have estimated public

can be attributed to the MoE activities related to centralized procurement of the school feeding program.⁵⁰ In FY2016-17, nutrition-specific financing amounted to Nu 439 million, or Nu 563 (~US\$8) in per capita terms, and total nutrition-sensitive financing amounted to Nu 1,122 million, or Nu 1,439 (~US\$21) in per capita terms (Table 7).

Figure 9: Trends in Public Financing for Nutrition-specific and Nutrition-sensitive Interventions



Source: Estimated from MOF expenditure data (FY2013-14, 14-15, 15-16, 16-17)
 Note: Numbers are in 2016 constant Nu.

The 10 largest interventions in terms of financing accounted for more than half of all nutrition-related spending (Table 8).⁵¹ The central MoE’s school feeding program, ECCD, and special education needs (SEN) programs were in the top 10, as were several WASH-related interventions in urban and rural areas as well as at the central and subnational levels.⁵² The central MoH’s vaccine-preventable disease program was the only nutrition-related health intervention among the top 10; the remainder were either education-related, WASH-related, or agriculture-related interventions. The school feeding program is designed to reduce anemia and improve nutrition among school-age children (6 to 18 years of age). The intervention—provision of meals to students in public boarding and day schools—is housed under the MoE’s School Health and Nutrition Division and accounted for 16 percent of all nutrition-related spending. About 60 percent of this spending represents procurement of nine nonperishable items—rice, pulses, chickpeas, oil, milk powder, soya chunks, salt, tea, and sugar—which is centralized and implemented by the MoE through the Food Corporation of Bhutan Limited (FCBL). The remaining 40 percent was released to schools for procurement and supply of perishable foods. The school feeding program, initially implemented with support from the World Food Programme (WFP) several decades ago, is now largely financed domestically. In FY2016-17, the WFP provided in-kind support, which was off-budget, mostly for day students; however, half the transport cost (~Nu

financing for nutrition; the average share of nutrition-specific allocation to the total nutrition allocation of developing countries where data are available is about 10 percent. However, this varies significantly: countries such as Mali allocated more than 95 percent of their total nutrition budget to nutrition-specific interventions while 100 percent of nutrition-related allocations were for nutrition-sensitive interventions in countries such as South Sudan and Zimbabwe. See SUN country investment snapshots, 2019; <https://scalingupnutrition.org/share-learn/planning-and-implementation/tracking-nutrition-investments/>.

50. Policy and Planning Division—Ministry of Education, 2017.

51. These are activity-level expenditures and do not include expenditures on “direction services” and “general administration”; the latter are only included proportionally when calculating totals.

52. The SEN program caters to education of children with special needs (physical and intellectual) through an inclusive approach within the general schools and special institutes dedicated to the visually impaired and hearing-impaired groups of children; as of 2017, there were two general schools, two specialized institutes, and two vocational institutes enrolling 647 children.

1 million)—for transportation of food supplies to schools—was borne by the government and is on-budget. As of 2019, the school feeding program is financed in its entirety by the government. Subnational WASH-related rural infrastructure spending was the largest nutrition-sensitive intervention. Subdistrict-level expenditures for Rural Water Supply and Sanitation (RWSS) construction and maintenance accounted for 13 percent of total nutrition spending. Other nutrition-sensitive expenditures included those undertaken as part of the urban infrastructure project of the central government—which accounted for about 6 percent of total nutrition expenditure—that were used for the construction of waste water treatment plants, procurement of water tankers, and rehabilitation of water supply in two urban districts: Thimphu and Samdrup Jongkhar. Annexes C and D provide the full list of activities and subactivities for both nutrition-specific and nutrition-sensitive interventions across all government levels. As seen in Figure 10, school health/nutrition and WASH interventions have remained high in terms of financing shares throughout the 11th FYP.

Table 8: Top 10 Nutrition-related Activities, 2016–2017

Level	Ministry/Department	Activity	Subactivities	Type	Expenditure (Nu, millions)	Share of Total (%)
Central	MoE/School Education	School Health & Nutrition Division	Selected ⁵³	Specific	247.6	16
Block	Health	Construction/Maintenance of RWSS	All ⁵⁴	Sensitive	201.8	13
District	Urban Development	Development of new urban infrastructure	Selected ⁵⁵	Sensitive	123.4	8
Central	MoWHS/Engineering Services	Urban Infrastructure Project-BHU	Selected ⁵⁶	Sensitive	89.6	6
Central	MoE/School Education	ECCD & SEN Division	All	Specific	63.9	4
District	Urban Development	Township development	All	Sensitive	31.2	2
District	Urban Development	Construction/Maintenance of infrastructure	Selected ⁵⁷	Sensitive	28.6	2
Central	MoAF/Agriculture	National Seed Centre	All	Sensitive	27.2	2
Central	MoH/Public Health	Vaccine-preventable Disease Program ⁵⁸	All	Specific	22.6	1
Central	MoE/Education	Infrastructure development	Selected ⁵⁹	Sensitive	20.1	1

Source: Estimated from MOF expenditure data (FY2016-17)

Note: MoE = Ministry of Education; MoWHS = Ministry of Works and Human Settlement; MoAF = Ministry of Agriculture and Forests; MoH = Ministry of Health; BHU = Basic health unit; ECCD = Early childhood care and development; SEN = Special education needs

53. Key words: feed, adolescent, parent.

54. Construction of rural water supply and sanitation (RWSS) was combined with other activities related to RWSS, such as maintenance, rehabilitation, and renovation.

55. Key words: water, sanitation, hygiene, toilet, wash, sewerage, stormwater excluded.

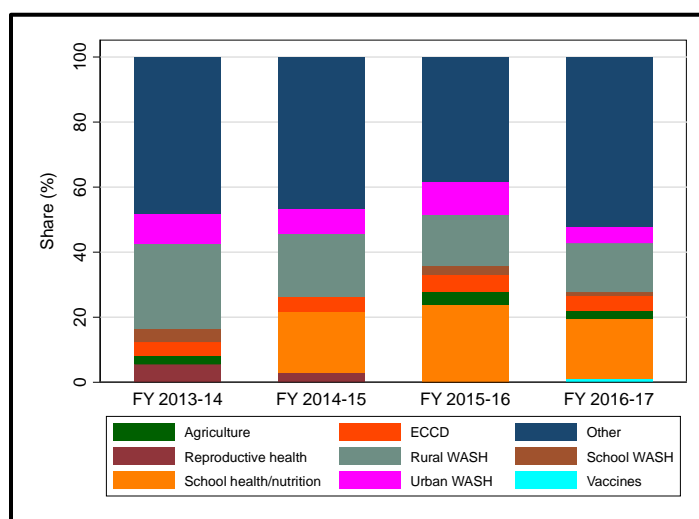
56. Key words: water, sanitation, hygiene, toilet, wash, sewerage.

57. Key words: water, sanitation, hygiene, toilet, wash, sewerage; stormwater excluded.

58. The procurement of pentavalent vaccine has been shouldered by the government since 2016 with procurement support from UNICEF.

59. Key words: water, sanitation, hygiene, toilet, wash, sewerage, life, mhm (menstrual hygiene management).

Figure 10: Trends in Public Financing for Top 10 Nutrition-related Interventions



Source: Estimated from MOF expenditure data (FY2013-14, 14-15, 15-16, 16-17)
 Note: ECCD = Early Childhood Care and Development, School health/Nutrition

In terms of ministries/departments, the MoE and the subnational departments of Urban Development & Engineering and Health account for the largest shares of nutrition-related expenditures. Each accounted for about one-fifth of all nutrition-related expenditures in the country (Table 9). Interventions that received financing through the central MoH accounted for roughly 7 percent of all nutrition-related outlays. The MoAF accounted for 5 percent of all nutrition-related spending. These shares have remained fairly stable over the course of the 11th FYP (see Annex A). Annex D provides the full list of activities and subactivities on nutrition-sensitive interventions across all government levels in the country.

Table 9: Nutrition-related Expenditures by Ministry/Department, FY2016- 17

Category	Nutrition-specific (Nu, millions)	Nutrition-sensitive (Nu, millions)	Total (Nu, millions)	Share of total (%)
Total nutrition	439	1,122	1,561	100
Central	417	265	682	44
MoE	325	7	332	21
MoWHS	0	137	137	9
MoH	93	24	117	7
MoAF	0	75	75	5
MoHCA	0	4	4	<1
CRA	0	17	17	1
GNHC	0	1	1	<1
Subnational	22	857	879	56
Urban Development & Engineering	0	321	321	21
Health	11	308	319	20
Education	10	93	103	7
Civil	1	60	62	4
Religion & Culture	0	27	27	2
Agriculture	0	31	31	2
Forestry	0	12	12	1
Livestock	0	3	3	<1

Source: Estimated from MOF expenditure data (FY2016-17)

Note: MoE = Ministry of Education; MoWHS = Ministry of Works and Human Settlement; MoH = Ministry of Health; MoAF = Ministry of Agriculture and Forests; MoHCA = Ministry of Home and Cultural Affairs; CRA = Council for Religious Affairs; GNHC = Gross National Happiness Commission.

Subnational nutrition expenditures were larger in the higher-burden eastern region. Per capita nutrition-related expenditures in the eastern region (which has an almost 30 percent stunting rate) are almost double the per capita subnational expenditures in the western region (where stunting is rate is closer to 15 percent) (Table 10). However, there is one important caveat:

as mentioned earlier, these data do not include subnational allocations of central-level nutrition expenditures as this level of granularity was not available; thus, this does not represent the full scope of subnational spending for addressing malnutrition.

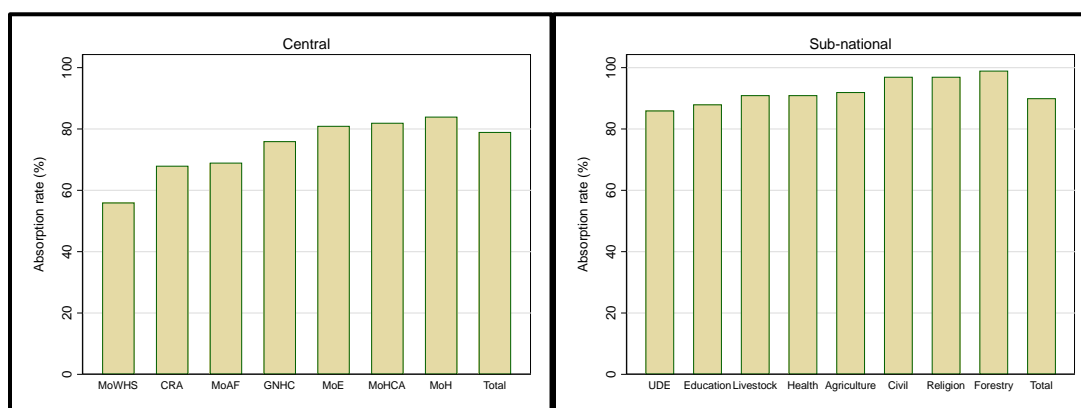
Table 10: Subnational Nutrition-related Expenditures, 2016–2017

Region	Nutrition-specific (Nu, millions)			Nutrition-sensitive (Nu, millions)			Total (Nu, millions)	Per capita (Nu)
	District	Block	District + Block	District	Block	District + Block		
Central	6.2	0.4	6.6	257.5	134.1	391.7	398.1	1,793
Eastern	9.1	0.3	9.4	136.3	89.1	225.4	234.8	2,118
Western	4.3	1.5	5.8	136.0	104.2	240.1	245.9	1,124

Source: Estimated from MOF expenditure data (FY2016-17)

At approximately 85 percent, the absorption rate—that is, the share of nutrition-related allocations that were expended—was relatively high. As noted in the methodology above, both budget and expenditure data were collected. So far, expenditure data have been reported. A comparison between budget and expenditures indicates absorptive capacity. Absorption rates for nutrition-related line items were slightly lower than the absorptions rates for the entire government budget (90 percent) in FY2016-17. Absorption capacity was lower (~80 percent) at the central level compared to subnational levels (~90 percent) (Figure 11). There was also a large variation across ministries. The MoWHS, for example, absorbed just over 50 percent of its allocated budget for nutrition-related activities, whereas the MoH absorbed more than 80 percent. Nutrition-related activities of the MoWHS, which included big-ticket infrastructure projects, registered low absorption due to procurement-related delays. The MoE’s School Health and Nutrition Division—the largest nutrition-related program in the country—absorbed 70 percent of its budget. At the subnational level, all relevant departments had more than 80 percent utilization rates. In terms of specific activities, the MoAF’s Promotion of Nutrition Gardens and the MoWHS’s Urban Infrastructure Project have some of the lowest absorption rates in FY2016-17, although it was not completely clear why this was the case.

Figure 11: Absorption Rates for Nutrition-related Interventions by Ministry/Department⁶⁰



Source: Estimated from MOF expenditure data (FY2016-17)

Note: UDE = Urban Development & Engineering; MoWHS = Ministry of Works and Human Settlement; CRA = Council for Religious Affairs; MoAF = Ministry of Agriculture and Forests; GNHC = Gross National Happiness Commission; MoE = Ministry of Education; MoHCA = Ministry of Home and Cultural Affairs ; MoH = Ministry of Health.

The data include on-budget government nutrition-related financing from both domestic and external sources. As noted above, external financing accounts for 5 percent of the total health spending. For nutrition-related spending more generally, data from the Organisation for Economic Co-operation and Development-Common Reporting Standard (OECD-CRS) database

60. These are averages across the previous three fiscal years.

that look at financing that is labeled “nutrition” averaged over the past three years is reported; this amounted to approximately US\$3 per capita, with roughly half going on-budget, which also amounted to ~5 percent of all public financing for nutrition; off-budget resources were channeled through nongovernmental organizations. Among development partners that are tracked by the OECD-CRS, the Asian Development Bank (ADB), World Bank, and Japan were the biggest contributors toward nutrition in Bhutan.⁶¹

Previous estimates of public financing for nutrition captured only a subset of health-related expenditures. These estimates were derived using the NHA methodology which, unlike the SUN methodology, does not base estimates on the NNTF and does not include any spending outside of the health sector for nutrition. Nutrition-specific expenditures were assumed to include financing for programs related to disease prevention and control, maternal care, and NCD prevention, among others. Family planning was the only program included as nutrition-sensitive. Unsurprisingly, the NHA estimates of nutrition-related expenditures were underestimated using the NHA methodology and were far lower than those estimated using the SUN methodology (Table 11. NHA estimates of per capita spending in FY2015-16 were Nu 298 versus Nu 2,038 estimated through the SUN methodology for the same year, almost a tenfold difference (Annex A). For FY2015-16, the SUN estimates of only per capita nutrition-specific expenditures (Nu 510) were almost double the NHA-based estimates (Nu 306).

Table 11: Previous Nutrition-related Expenditures Estimates using National Health Accounts Methodology (FY2014-15 and FY2015-16)

Interventions	2014-15		2015-16	
	(Nu, millions)	Per Capita (Nu)	(Nu, millions)	Per Capita (Nu)
Total nutrition	262	346	243	316
Nutrition-specific	241	320	235	306
Maternal care program	12	17	11	14
Nutrition program	7	9	4	5
Communicable disease prevention/control	34	45	26	35
Immunization	37	49	65	84
TB control	18	23	29	37
Sexually transmitted infections	27	36	32	41
Vector-borne diseases	38	50	26	35
Maternal & child health preventive	17	22	15	19
NCD prevention	39	51	20	26
Surveillance of diseases	13	18	7	10
Nutrition-sensitive	21	28	7	10
Family planning program	21	28	7	10

Source: Ministry of Health, 2018.

Notes: TB = Tuberculosis; NCD = Noncommunicable disease.

V. CONCLUSIONS

This study summarizes estimates and lessons learned from the application of the SUN methodology to assess public financing for addressing malnutrition in Bhutan. Despite progress on population health outcomes in recent decades, malnutrition remains a concern with relatively high rates of stunting and anemia and growing challenges related to overnutrition and NCDs. Addressing malnutrition is high on the government agenda, with clear targets, strategies, and action plans, which are designed to address some specific malnutrition-related challenges. Bhutan defines nutrition-specific and nutrition-sensitive interventions differently than is done in

61. OECD-CRS excludes the contributions from non-OECD countries such as India. In 2016, the World Bank supported the Food Security and Agriculture Project. The project supported cross-country knowledge sharing and capacity building of the MoAF to learn from community-based market-driven approaches in other countries. The World Bank also supported capacity building and communication strategies to improve dietary diversity and care practices among pregnant and nursing women in remote rural areas to address malnutrition in the first 1,000-day window of opportunity.

the global literature: in the main text of the study, we reported estimates using country-specific classifications; estimates based on global definitions of nutrition interventions were similar in magnitude (Annex B). Based on a country-specific classification of nutrition interventions, per capita public financing for nutrition in FY2016-17 stands at Nu 2,003 (approximately US\$29, 1 percent of GDP, and 3 percent of the total government expenditures), similar to estimates from other developing countries, especially as a share of GDP and total government expenditures and in the share of nutrition-specific versus nutrition-sensitive programs. The largest expenditures were those related to the national school feeding program and WASH-related interventions. The amount of nutrition financing has increased over time—up from Nu 1,744 in FY2013-14, but there is almost no change as share of GDP or of total government expenditures; this indicates no change in overall priority, at least in terms of financing of nutrition over the 11th FYP. The share of nutrition-specific expenditures has increased, from 10 percent in FY2013-14 to 30 percent in FY2016-17, largely as a result of the school feeding program, which does not address childhood stunting among children under five. Subnational nutrition expenditures were larger in the higher-burden eastern region: for example, per capita nutrition-related expenditures in the eastern region (which has an almost 30 percent stunting rate) are almost double the per capita subnational expenditures in the western region (where the stunting rate is closer to 15 percent), but this does not account for central spending, which is allocated subnationally.

Several challenges in estimating public financing for malnutrition in Bhutan have been identified. Lack of budgetary tagging in the NNTF action plan, insufficient budgetary granularity for some relevant activities and subactivities, bundling of nutrition interventions with other interventions, unclear subnational allocations of national expenditures, and agglomeration of salaries and operating costs in reported budgetary data were some of the significant challenges faced while estimating public financing for nutrition. In moving forward, some key issues, lessons, and recommendations based on the experience of estimating public financing for nutrition are summarized below. How much and how public financing flows for malnutrition is an important piece of information in the design and implementation of evidence-based policies. Hence, it is recommended that this activity be institutionalized and made routine as part of the NNTF. Including such an estimation as part of regular updates of the NHA may also be considered, but using the SUN methodology accounts for the multisectoral nature of nutrition activities, especially as the results indicate that the locus of nutrition financing lies outside the MoH.⁶² Another option could be to institutionalize this as part of user-friendly public expenditure analysis toolkits and as complementary to other household and facility-level data collection exercises.⁶³

Additional areas for follow-up work could be considered. The focus of the study was on public financing for addressing malnutrition. However, there may be expenditures that are important outside the public sector that could be considered for inclusion, including those by large nongovernmental organizations and “off-budget” external financing. Although these expenditures are not likely to be large in Bhutan, they may be relevant in informing last-mile coverage or for implementing smaller-scale innovative pilot interventions. In addition, some additional areas such as outlays related to the recent policy that extends paid maternity leave for women in government jobs, expenditures on which could be indirectly measured as salaries paid to women for the period of their maternity leave. Subsidies provided by the government for transport of food products, even if not explicitly noted as part of the NNTF action plan, could qualify as nutrition-relevant

62. In addition, we focus attention only on public financing for nutrition; unlike for the health sector more generally, private financing for nutrition is difficult to capture and estimate unless one has detailed household expenditure data.

63. One example is the World Bank's BOOST initiative that facilitates access to budget data by providing it through user-friendly platforms where all expenditure data can be easily accessed; See Igor Kheyfets, Massimo Mastruzzi, Dino Merotto, and Lars Sondergaard. 2011. “A New Data Tool to BOOST Public Spending Efficiency.” *Europe and Central Asia Knowledge Brief 43*. World Bank, Washington, DC; <https://openknowledge.worldbank.org/handle/10986/10079>. License: CC BY 3.0 IGO.

spending. Some countries have also included spending on interventions aimed at improving agriculture and livestock production and included public subsidies to promote production and import of “healthy” food products. In addition, one key next step that could be considered would be to assess whether reallocations of the budget within the overall public financing envelope could yield better outcomes. This could entail the use of mathematical models that could provide guidance on whether current allocations are optimal, and also where additional financing could be allocated to maximize impact.

More generally, from a global perspective, there needs to be greater standardization on which interventions are classified as nutrition-specific and nutrition-sensitive. Even if countries classify such interventions differently, some semblance of comparability across countries could be achieved if global standardization were conducted. Review of the literature across a sample of countries that have recently implemented the SUN methodology (for example, in Tanzania, Indonesia, and Bangladesh) shows how difficult it is to even standardize what countries themselves have defined as nutrition-specific and nutrition-sensitive interventions—in each case these are different—making it problematic to compare estimates globally. Given these challenges, it may be better to use estimates for Bhutan to make comparisons over time and not across countries to assess how allocations are changing and if money is flowing to where it is needed the most. Furthermore, private expenditures for nutrition are not included and may have a complementary impact that needs to be assessed separately.

Finally, some policy-relevant key takeaway messages from conducting this exercise are summarized below.

Assessing public financing for nutrition should be institutionalized. Having action plans and strategies is not very meaningful if financing for them is not monitored and assessed. Hence, it is recommended that this activity be institutionalized and conducted regularly in conjunction with the work on costing of interventions to ensure that lack of financing is not a bottleneck for improving nutrition outcomes in Bhutan. Bhutan’s NNTF action plan is clear in terms of which interventions are prioritized, as well as which ministries and departments have the primary responsibility for the range of nutrition-specific and nutrition-sensitive interventions that are being implemented. It would be useful if, in future iterations, the NNTF action plan also tags and tracks annually relevant budgetary line items that represent allocations and expenditures for these interventions—both at the national and subnational levels. This would make it easier to monitor financing flows and make corrective allocations as needed, assess where there may be absorption problems, and identify areas where greater and more effective financing may be needed. It is better to institutionalize such a budgetary line-item identification and tagging process rather than have this done as a separate one-off activity.

Prioritize financing for nutrition-specific interventions in the early years. This includes prioritizing financing for interventions including promotion of appropriate IYCF and maternal nutrition practices and increasing the coverage and quality of ANC. Given low coverage rates of early initiation and exclusive breastfeeding and inadequate appropriate complementary feeding practices, greater priority toward financing for addressing these problems should be considered, both nationally and subnationally. Although the data on micronutrient deficiencies are limited in the county, there are anecdotes that indicate that micronutrient deficiencies could be an issue. A national-level micronutrient survey should be conducted, and adequate financing should be made available to resolve these micronutrient deficiencies. This could include geographic convergence across multiple ministries in regions where problems are more severe. Investments would be required to build the capacity of health and other workers on behavior-change communication interventions and monitoring and on the incidence of expenditures by geographic region and

target population. Currently, the largest financing for nutrition is for school feeding programs and for WASH-related interventions, neither of which are effective or cost-effective for addressing stunting among those under five. While feeding children in school is important to increase attendance and provide basic nutrition, among other reasons, it does little (if anything) to prevent or reverse stunting. It also misses the critical years when anemia sets in at about six months of age, affecting cognitive development.

Prioritize overnutrition in addition to undernutrition. Although problems related to undernutrition rightfully receive prominent policy attention in Bhutan, it would be prudent to also address the growing burden of disease attributable to overnutrition. The “mal” in malnutrition refers to both “over” and “under” nutrition, and the importance of diet and exercise for addressing overnutrition will increasingly need to be prioritized in coming years. For example, many countries, such as Sri Lanka, are beginning to implement fiscal and other modalities to reduce intake of sugar-sweetened beverages and of other forms of unhealthy consumption of food items as part of a broader program of activities aimed at addressing malnutrition-related health challenges.⁶⁴

Raise awareness about malnutrition across ministries. Finally, given the multisectoral nature of malnutrition, both in terms of interventions designed to address it and in terms of malnutrition’s impact on outputs of other sectors such as education and labor, it is key that awareness of this be raised to give nutrition a more prominent profile as a cross-cutting development challenge facing the country and that this be made explicit in the strategies and action plans of the different ministries and local governments so that accountability can be shared.

64. WHO. 2017. *Taxation for Sugar-sweetened Beverages in Sri Lanka*. Colombo: WHO.

ANNEX A. TIME-SERIES ESTIMATES OF PUBLIC FINANCING FOR NUTRITION

Category	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Total nutrition				
In Nu, millions (current prices)	1,091	1,266	1,478	1,561
Per capita Nu (2016 prices)	1,744	1,867	2,038	2,003
As share of government expenditure (%)	3	3	3	3
As share of GDP (%)	1	1	1	1
Nutrition-specific				
In Nu, millions (current prices)	122	357	370	439
Per capita Nu (2016 prices)	195	527	510	563
As share of government expenditure (%)	0.3	0.9	0.8	0.8
As share of GDP (%)	0.1	0.3	0.3	0.3
Nutrition-sensitive				
In Nu, millions (current prices)	969	909	1,108	1,122
Per capita Nu (2016 prices)	1,549	1,340	1,527	1,439
As share of government expenditure (%)	2.6	2.3	2.3	2.1
As share of GDP (%)	0.9	0.7	0.8	0.7

Source: Estimated from MOF expenditure data (FY2013-14, 14-15, 15-16, 16-17)

Category	FY 2013-14		FY 2014-15		FY 2015-16		FY 2016-17	
	Nu, millions	Share of total (%)	Nu, millions	Share of total (%)	Nu, millions	Share of total (%)	Nu, millions	Share of total (%)
Total nutrition	1,067	100	1,266	100	1,478	100	1,561	100
Central	285	27	545	43	636	43	682	44
MoE	8	1	240	19	287	19	332	21
MoWHS	86	8	45	4	62	4	137	9
MoH	113	11	196	15	151	10	117	7
MoAF	47	4	30	2	75	5	75	5
MoHCA	22	2	17	1	44	3	4	<1
CRA	9	1	12	1	16	1	17	1
GNHC	0	0	5	0	1	0	1	<1
Subnational	782	73	721	57	842	57	879	56
UDE	209	20	319	25	425	29	321	21
Health	184	17	143	11	223	15	319	20
Education	174	16	98	8	74	5	103	7
Civil	141	13	87	7	52	4	62	4
Religion & Culture (RC)	21	2	16	1	20	1	27	2
Agriculture	14	1	8	1	17	1	31	2
Forestry	33	3	21	2	27	2	12	1
Livestock	4	0	29	2	3	0	3	<1

Source: Estimated from MOF expenditure data (FY2013-14, 14-15, 15-16, 16-17)

Note: MoE = Ministry of Education; MoWHS = Ministry of Works and Human Settlement; MoH = Ministry of Health; MoAF = Ministry of Agriculture and Forests; MoHCA = Ministry of Home and Cultural Affairs; CRA = Council for Religious Affairs; GNHC = Gross National Happiness Commission; UDE = Urban Development & Engineering.

ANNEX B. ESTIMATES BASED ON GLOBAL DEFINITIONS⁶⁵

Category	Global Definition				Bhutan NNTF Action Plan			
	2013-14	2014-15	2015-16	2016-17	2013-14	2014-15	2015-16	2016-17
Total nutrition								
In Nu, millions (current prices)	1,168	1,405	1,626	1,741	1,091	1,266	1,478	1,561
Per capita Nu (2016 prices)	1,867	2,072	2,242	2,234	1,744	1,867	2,038	2,003
As share of government expenditure (%)	3	4	3	3	3	3	3	3
As share of GDP (%)	1	1	1	1	1.	1	1	1
Nutrition-specific								
In Nu, millions (current prices)	177	279	274	310	122	357	370	439
Per capita Nu (2016 prices)	282	411	378	398	195	527	510	563
As share of government expenditure (%)	0.5	0.7	0.6	0.6	0.3	0.9	0.8	0.8
As share of GDP (%)	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.3
Nutrition-sensitive								
In Nu, millions (current prices)	992	1,126	1,352	1,432	969	909	1,108	1,122
Per capita Nu (2016 prices)	1,585	1,661	1,864	1,836	1,549	1,340	1,527	1,439
As share of government expenditure (%)	2.6	2.9	2.8	2.7	2.6	2.3	2.3	2.1
As share of GDP (%)	0.9	0.9	0.9	0.8	0.9	0.7	0.8	0.7

Source: Estimated from MOF expenditure data (FY2013-14, 14-15, 15-16, 16-17)

65. United Nations Children's Fund. UNICEF's approach to scaling up nutrition for mothers and their children. Discussion paper. Programme Division, UNICEF, New York, June 2015. Bhutta, Z.A., et al. (2013). Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? *The Lancet Maternal and Child Health Series* 382 (9890), 452-477.

ANNEX C. ALL NUTRITION-SPECIFIC ACTIVITIES AND SUBACTIVITIES

Central

Ministry	Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
MoE	School Education	School Health & Nutrition Division (1)	Selected [1]	247.60	59
MoE	School Education	ECCD & School Education Division (SED) (3)	All	63.90	15
MoH	Public Health	Vaccine-preventable Disease Program (5)	All	22.60	5
MoH	Public Health	Health Promotion Division (1)	All	15.50	4
MoH	Public Health	Reproductive Health Program (1)	All	8.90	2
MoH	Public Health	IMCI-ARIs and CDD Program (3)	All ⁶⁶	6.50	2
MoH	Public Health	Food & Nutrition Program (2)	All	4.20	1
MoH	Public Health	Village Health Work Program (5 and 6)	All	3.00	1
MoH	Public Health	Adolescent Health Program (6, 7, and 8) ⁶⁷	All	2.20	1
MoE	Youth & Sports	Career Education & Counseling Services (1)	Selected [1]	0.50	<1
MoH	Secretariat	Policy & Planning Division (1)	Selected [2]	0.30	<1
MoE	Youth & Sports	Youth Center (2)	Selected [1]	0.10	<1
<i>Direction Services</i>				42.26	10
<i>Total (including proportionally allocated Direction Services)</i>				417.47	100

Source: Estimated from MOF expenditure data (FY2016-17)

Note: MoE = Ministry of Education; MoH = Ministry of Health; ECCD = Early childhood care and development; IMCI-ARI = Integrated management of childhood illnesses-acute respiratory infection.

Keywords:

[1] MoE: feed, adolescent, ECCD, early childhood care.

[2] MoH: MCH, adolescent, parent, safe mother, maternal and child, VHW, village health worker.

District

Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
Health	Training Services (2, 3, and 4)	Selected [1]	2.9	15
Education	Training Services (4)	Selected [2]	1.5	8
Education	Enabling Work & Learning Environment (2)	Selected [2]	1.3	7
Health	Capacity Development (2 and 4)	Selected [1]	1.2	6
Education	Construction/Maintenance of Infrastructure (3)	Selected [2]	0.9	4
Education	Primary Education Infrastructure (2)	Selected [2]	0.7	4
Education	ECCD Program (2 and 3)	All	0.5	2
Education	Monitoring School Performance, ECCD (3)	Selected [2]	0.4	2
Health	Awareness & Advocacy Program (2)	Selected [1]	0.3	1
Education	Infrastructure Development (1)	Selected [2]	0.2	1
Education	Operation & Management Services (1)	Selected [2]	0.1	1
<i>Direction Services</i>			9.3	48
<i>Total (including proportionally allocated Direction Services)</i>			19.4	100

Source: Estimated from MOF expenditure data (FY2016-17)

Note: ECCD = Early childhood care and development.

Keywords:

[1] Health: MCH, adolescent, parent, safe mother, maternal and child care, VHW, village health worker.

[2] Education: feed, adolescent, ECCD, early childhood care.

Block

Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
Education	Infrastructure Development (1, 2, and 3)	Selected [1]	0.86	39
Civil	Infrastructure Development (1 and 3)	Selected [2]	0.36	16
Health	Health and Training Services (91)	Selected [3]	0.06	3
Civil	Construction/Maintenance (1, 2, and 3)	Selected [2]	0.05	2
Civil	Civil Infrastructure (1)	Selected [2]	0.05	2
<i>Direction Services</i>			0.82	37
<i>Total (including proportionally allocated Direction Services)</i>			2.21	100

Source: Estimated from MOF expenditure data (FY2016-17)

Keywords:

[1] Education: feed, adolescent, ECCD, early childhood care.

[2] ECCD, early childhood care.

[3] Health: MCH, adolescent, parent, safe mother, maternal and child care, VHW, village health worker.

66. All subactivities under ECCD-SE Division are assumed to be nutrition-specific.

67. The activity name "adolescent health program" has three activity codes.

ANNEX D. ALL NUTRITION-SENSITIVE ACTIVITIES AND SUBACTIVITIES

Central

Ministry	Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
MoWHS	Engineering Services	Urban Infrastructure Project (2, 3, 4, 6, and 7)	Selected [1]	89.6	34
MoAF	Agriculture	National Seed Centre (60)	All	27.2	10
MoWHS	Engineering Services	Water & Sanitation Division (5)	All	18.9	7
MoWHS	Engineering Services	Bhutan Urban Development Project (2, 3, and 4)	All	15.7	6
CRA	Secretariat	Construction/Renovation/Maintenance Services (4)	Selected [2]	8.6	3
MoH	Public Health	Rural Sanitation & Hygiene (2)	All	8.4	3
CRA	Secretariat	Religion & Health Project Services (5)	All	8.1	3
MoE	School Education	School Health & Nutrition Division (1)	Selected [3]	4.7	2
MoAF	Marketing & Cooperative	Marketing Program (2)	All	4.1	2
MoAF	Youth & Sports	Vegetable Go to School Program (208)	All	3.3	1
MoAF	Agriculture	School Agriculture Program (108)	All	3.3	1
MoAF	Agriculture	Adequate Supply of Quality Seeds and Seedlings (203)	All	3.1	1
MoH	Public Health	School WASH Program (3)	All	3.0	1
MoH	Public Health	Rural Water Supply (1)	All	2.7	1
MoAF	Livestock	Livestock Commodity Development Program (5)	Selected [4]	2.2	1
MoE	Adult & Higher Education	Support to NFCED (1)	Selected [3]	1.7	1
MoH	Public Health	Public Health Laboratory Services (1)	Selected [5]	1.7	1
CRA	Secretariat	Infrastructure Development (2, 3, 4, and 8)	Selected [2]	1.6	1
GNHC	Secretariat	Rural Economy Advancement Program (17 and 32)	Selected [6]	1.0	<1
MoAF	Agriculture	Seedlings Made Available for Maps (501)	All	0.5	<1
MoH	Medical Services	Emergency Medical Services Program (15)	Selected [5]	0.4	<1
MoE	Youth & Sports	Youth Center (YC) (2)	Selected [3]	0.2	<1
MoAF	Secretariat	Training on School Agriculture Program (6)	Selected [4]	0.2	<1
MoHCA	Secretariat	Bureau of Law and Order Services (3)	Selected [7]	0.2	<1
MoHCA	Immigration	Strengthening of Immigration Offices (6)	Selected [7]	0.1	<1
Direction Services				54.6	21
Total (including proportionally allocated Direction Services)				265.0	100

Source: Estimated from MOF expenditure data (FY2016-17)

Note: MoWHS = Ministry of Works and Human Settlement; MoAF = Ministry of Agriculture and Forests; CRA = Council for Religious Affairs; MoH = Ministry of Health; MoE = Ministry of Education; GNHC = Gross National Happiness Commission; MoHCA = Ministry of Home and Cultural Affairs.

Keywords:

[1] MoWHS: water, hygiene, sanitation, toilet, sewerage, RWSS (Rural Water Supply Scheme), waste, wash, excluding stormwater, irrigation water, bypass road + water, water + hostel.

[2] CRA: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash.

[3] MoE: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, life, mhm (Menstrual Hygiene Management).

[4] MoAF: livestock + school, vegetable + school.

[5] MoH: water, hygiene, sanitation, toilet, sewerage, waste, wash.

[6] GNHC: food + nutrition, home+ garden, + vegetable + farming.

[7] MoHCA: water, hygiene, sanitation, toilet, sewerage, RWSS, waste.

District

Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
Urban Development & Engineering	Development New Urban Infrastructure (1, 2, 3, and 31)	Selected [1]	123.4	23
Urban Development & Engineering	Township Development (1, 11, 2, and 3)	Selected [1]	31.2	6
Urban Development & Engineering	Construction/Maintenance (105, 2, 3, 31, and 4)	Selected [1]	28.6	5
Education	Infrastructure Development (1, 2, 20, 3, and 4)	Selected [2]	20.1	4
Urban Development & Engineering	Road, Drainage, Water Supply Line and Parking (1)	Selected [1]	18.8	4
Health	Construction/Maintenance of Infrastructure (3, 4, and 5)	Selected [3]	10.4	2
Urban Development & Engineering	Improvement/Fencing of Town Water Source Areas (2)	Selected [1]	8.4	2
Health	Construction/Maintenance of RWSS (1, 2, 3, and 4)	Selected [3]	7.5	1
Civil	Infrastructure Development (1, 3, and 4)	Selected [4]	6.1	1
Urban Development & Engineering	Infrastructure Development (1 and 4)	Selected [1]	4.1	1
Education	Mongar Lower Secondary School (LSS) (9)	Selected [2]	4.0	1
Religion	Construction and Development Services (3)	Selected [5]	3.5	1
Education	Tashidingkha Middle Secondary School (MSS) (4)	Selected [2]	3.4	1
Religion	Infrastructure Development (1 and 3)	Selected [5]	3.2	1
Education	Udzorong Central School (8)	Selected [2]	3.1	1
Agriculture	Agriculture Production (4)	Selected [6]	3.0	1
Religion	Construction of Lhakhang (1 and 3)	Selected [6]	2.8	1
Urban Development & Engineering	Tashichholing (Sipsu) Satellite Town (5)	Selected [1]	2.7	1
Education	Renovation/Expansion of Schools and ECRs (2, 3, and 6)	Selected [2]	2.7	1
Education	School Infrastructure and Ancillary Facilities (4)	Selected [2]	2.5	<1

Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
Education	Damphu Central School (1)	Selected [2]	2.4	<1
Civil	Tshachu Development (4)	Selected [4]	2.3	<1
Religion	Preservation of Monuments & Infrastructures (3)	Selected [6]	2.0	<1
Civil	Construction/Maintenance of Infra (3)	Selected [4]	2.0	<1
Civil	Development of Enabling Working Environment (4)	Selected [4]	1.8	<1
Education	Renovation/Expansion of Schools (2)	Selected [2]	1.6	<1
Urban Development & Engineering	Electricity Provision for Water Pumping (2)	Selected [1]	1.5	<1
Civil	Environmental Program (3)	Selected [4]	1.4	<1
Education	Chongaykha LSS (14)	Selected [2]	1.3	<1
Education	Mendrelgang Central School (1)	Selected [2]	1.3	<1
Education	Infrastructure at LSSs (7)	Selected [2]	1.3	<1
Education	Orong Central School (2)	Selected [2]	1.2	<1
Livestock	Construction of RNR (3)	Selected [6]	1.2	<1
Education	Phunthothang MSS Services (3)	Selected [2]	1.1	<1
Education	Tsebar LSS (4)	Selected [2]	1.0	<1
Education	Gonpasingma LSS (6)	Selected [2]	1.0	<1
Agriculture	Project Steering and Knowledge Management (3)	Selected [6]	1.0	<1
Education	Yadi Higher Central School (4)	Selected [2]	1.0	<1
Urban Development & Engineering	Procurement and Supplies (2)	Selected [1]	1.0	<1
Education	Bartsham Central School (3)	Selected [2]	1.0	<1
Education	Jampeling Higher Secondary School (5)	Selected [2]	1.0	<1
Education	Construction of Infrastructure (10, 12, 2, 22, and 3)	Selected [2]	1.0	<1
Education	Sherubgatshel LSS (8)	Selected [2]	0.9	<1
Education	Tshangkha Central School (5)	Selected [2]	0.9	<1
Health	Construction of Health Facilities (1 and 3)	Selected [3]	0.8	<1
Education	Mongar Higher Secondary School (Autonomous) (3)	Selected [2]	0.8	<1
Education	Shengana LSS (4)	Selected [2]	0.8	<1
Education	Tendu Central School (2)	Selected [2]	0.7	<1
Urban Development & Engineering	Development of Sewerage and Drainage System (2)	Selected [1]	0.7	<1
Education	Gongthung MSS (7)	Selected [2]	0.7	<1
Agriculture	Climate Adaptive Practices in Farmers' Plot (5)	Selected [6]	0.7	<1
Education	Samcholing MSS (2)	Selected [2]	0.6	<1
Agriculture	Training Services (2)	Selected [6]	0.6	<1
Health	Infrastructure Development (3)	Selected [3]	0.6	<1
Education	Khangku MSS (2)	Selected [2]	0.6	<1
Health	Capacity Development (2)	Selected [3]	0.5	<1
Health	Awareness and Advocacy Program (2)	Selected [3]	0.5	<1
Forestry	Construction of RNR (3 and 4)	Selected [8]	0.5	<1
Agriculture	Promotion of Horticulture Production Facilities (3)	Selected [6]	0.5	<1
Agriculture	Cereal & Cash Crop Development Program (8)	Selected [6]	0.5	<1
Health	Spring Water Supply/Water Source Protection (5)	Selected [3]	0.5	<1
Civil	Tourism Development (2)	Selected [4]	0.5	<1
Livestock	Construction/Maintenance of Infra (1 and 2)	Selected [7]	0.5	<1
Agriculture	Seeds and Seedling Distribution (7)	Selected [6]	0.4	<1
Education	Ura Central School (2)	Selected [2]	0.4	<1
Agriculture	Agriculture Intensification (4)	Selected [6]	0.4	<1
Education	Laya LSS (1)	Selected [2]	0.4	<1
Civil	Environment Conservation (4 and 5)	Selected [4]	0.3	<1
Education	Gaupel LSS (7)	Selected [2]	0.3	<1
Agriculture	Farmers Skills Development on New Technology (2)	Selected [6]	0.3	<1
Forestry	Watershed Management Program (7)	Selected [6]	0.3	<1
Education	Dashidingkha MSS (2)	Selected [2]	0.3	<1
Education	Dungna LSS (3)	Selected [2]	0.2	<1
Urban Development & Engineering	Maintenance of Town Infrastructures (2)	Selected [1]	0.2	<1
Education	Chumithang Middle Secondary (Autonomous) (11)	Selected [2]	0.2	<1
Agriculture	Developing Vegetable Value Chain (4)	Selected [6]	0.2	<1
Forestry	Non-Wood Forest Product Development (5)	Selected [8]	0.1	<1
Livestock	Enabling Environment for Livestock Extensions (3)	Selected [7]	0.1	<1
Health	Swiss+Health care+Support Wangdicholing Hospital (3)	Selected [3]	0.1	<1
Urban Development & Engineering	Capacity Development (2 and 3)	Selected [1]	0.1	<1
Education	Gaselo Central School (3)	Selected [2]	0.1	<1
Urban Development & Engineering	Training Services (2 and 3)	Selected [1]	0.1	<1
<i>Direction Services</i>			191.6	36
<i>Total (including proportionally allocated Direction Services)</i>			529.8	100

Source: Estimated from MOF expenditure data (FY2016-17)

Note: ECRs = Extended Class Rooms ; LSS = Lower secondary school; RNR = Renewable Natural Resources; MSS = Middle secondary school.

Keywords:

[1] UDE: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water, bypass road + water, water + hostel.

[2] Education: water, hygiene, sanitation, toilet, sewerage, waste, wash, life, mhm, excluding stormwater, irrigation water.

[3] Health: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

[4] Civil: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water, bypass road + water, water + hostel.

[5] Religion: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, excluding stormwater, irrigation water.

[6] Agriculture: seed, vegetable + school.

[7] Livestock: livestock + school; water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

[8] Forestry: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

Block

Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
Health	Construction/Maintenance/Rehabilitation of RWSS (1, 2, 3, 4, and 5)	Selected [1]	201.8	62
Health	Construction/Maintenance of Health Facilities (1, 2, 3, and 5)	Selected [1]	11.4	3
Health	Health Development Program (1, 3, and 4)	Selected [1]	11.2	3
Health	Construction/Maintenance of Infra (1, 2, 3, and 4)	Selected [1]	10.6	3
Religion	Construction/Maintenance of Lhakhang (1, 2, 3, and 4)	Selected [2]	8.4	3
Civil	Infrastructure Development (1, 2, and 3)	Selected [3]	6.6	2
Agriculture	Agriculture Development Services (1, 16, 2, 3, and 4)	Selected [4]	4.2	1
Health	Construction of Water Supply (1, 2, and 3)	Selected [1]	3.4	1
Agriculture	Crop Development (1, 2, and 3)	Selected [4]	2.9	1
Agriculture	Agri Extension Services (1 and 2)	Selected [4]	2.7	1
Health	Water Source Protection (1, 2, 3, 4, and 5)	Selected [1]	2.7	1
Health	Development Sanitation Facilities (1 and 3)	Selected [1]	2.7	1
Health	Infrastructure Development (1, 2, and 3)	Selected [1]	2.6	1
Religion	Infrastructure Development (1, 2, and 3)	Selected [2]	2.6	1
Religion	Procurement of Kutens & Sungtens (1)	Selected [2]	2.0	1
Religion	Construction of Toilet (2 and 3)	Selected [2]	1.8	1
Agriculture	Supply of Seed (1, 2, 3, and 6)	Selected [4]	1.7	1
Health	Spring Water Protection (1, 2, and 3)	Selected [1]	1.6	<1
Forestry	Forest Development Program (1, 2, and 3)	Selected [5]	1.6	<1
Forestry	Nature Conservation & Environment Protection (1 and 3)	Selected [5]	1.4	<1
Forestry	Water Source Protection (1, 2, and 4)	Selected [5]	1.3	<1
Agriculture	Input Supply-Cereal, Legumes and Oil Seeds (1)	Selected [4]	1.2	<1
Agriculture	Construction of Farm Road (1)	Selected [4]	1.2	<1
Health	Health Services (1)	Selected [1]	1.1	<1
Health	Construction of Toilet (1, 2, 4, and 6)	Selected [1]	1.1	<1
Agriculture	Agriculture Support and Services (1 and 2)	Selected [4]	1.0	<1
Health	Gewog Rural Water Supply Scheme Development Program (3)	Selected [1]	0.9	<1
Health	Public Health Engineering Services (1, 2, and 3)	Selected [1]	0.9	<1
Agriculture	Rural Livelihood Project (2, 3, 4, 5, and 9)	Selected [4]	0.8	<1
Civil	Construction/Maintenance of Infra (1, 2, and 3)	Selected [3]	0.8	<1
Health	Construction/Maintenance of ORC (1, 2, 3, and 4)	Selected [1]	0.8	<1
Agriculture	Sustainable Land Management Project (3)	Selected [4]	0.7	<1
Forestry	Forest Conservation Initiative (1 and 2)	Selected [5]	0.7	<1
Health	BHU Services (1)	Selected [1]	0.7	<1
Agriculture	Vegetable Production and Income Generation (3)	Selected [4]	0.7	<1
Education	Infrastructure Development (1, 2, and 3)	Selected [6]	0.6	<1
Agriculture	Input Supply-Cash Crop (2)	Selected [4]	0.6	<1
Health	Training Services (1, 2, 3, 4, and 5)	Selected [1]	0.5	<1
Religion	Religious Services (1)	Selected [2]	0.5	<1
Agriculture	Enhance Food Grain Production (3)	Selected [4]	0.5	<1
Agriculture	Supply of Vegetable Seed (2 and 6)	Selected [4]	0.5	<1
Health	Maintenance of Water Supply (1)	Selected [1]	0.4	<1
Forestry	Forestry Extension (1)	Selected [5]	0.3	<1
Agriculture	Extension and Support Services (1 and 2)	Selected [4]	0.3	<1
Agriculture	Increased of Horticulture Production (4)	Selected [4]	0.3	<1
Religion	Construction/Maintenance of Infra (1 and 2)	Selected [2]	0.3	<1
Agriculture	Environmental Program (4)	Selected [4]	0.3	<1
Civil	Waste Management Program (3)	Selected [3]	0.3	<1
Forestry	Maintenance of Plantation (2)	Selected [5]	0.3	<1
Forestry	NWFP Development (2)	Selected [5]	0.3	<1
Forestry	Input Supply and Extension Services (1 and 3)	Selected [5]	0.3	<1
Forestry	Environment Conservation (2, 3, and 4)	Selected [5]	0.2	<1
Health	Basic Health and Dispensary Services (BHU) (1)	Selected [1]	0.2	<1
Agriculture	Training Services (1 and 2)	Selected [4]	0.2	<1
Forestry	Management & Supplementary Services (1)	Selected [5]	0.2	<1
Forestry	Training Services (2)	Selected [1]	0.2	<1
Health	Primary Health Infrastructure (1)	Selected [1]	0.2	<1
Health	Awareness Program Services (1)	Selected [1]	0.2	<1
Agriculture	Crop Promotion & Production (2)	Selected [4]	0.2	<1
Forestry	Capacity Development (3)	Selected [5]	0.2	<1
Agriculture	Agriculture Production (1, 2, and 3)	Selected [4]	0.2	<1
Agriculture	Input Supply - Vegetables (2)	Selected [4]	0.2	<1
Religion	Religion Infrastructure Development Program (1, 102, and 3)	Selected [2]	0.1	<1
Health	Maintenance of Water Source (4)	Selected [1]	0.1	<1
Health	Construction of Waste Disposal (1, 2, 3, and 6)	Selected [1]	0.1	<1

Department	Activity (Code)	Subactivity	Expenditure (Nu, millions)	Share of Total (%)
Forestry	Forestry Services (1)	Selected [5]	0.1	<1
Agriculture	Cereal & Nutrition Development Services (1)	Selected [4]	0.1	<1
Agriculture	Extension Support and Services (1)	Selected [4]	0.1	<1
Agriculture	Management and Supplementary Services (1)	Selected [4]	0.1	<1
Forestry	Rural Water Supply (3)	Selected [5]	0.1	<1
Forestry	Community Forest Development/Management (2 and 3)	Selected [5]	0.1	<1
Forestry	Forest Extension and Support Services (1)	Selected [5]	0.1	<1
Health	Health Awareness Program (2)	Selected [1]	0.1	<1
Livestock	Livestock Extension Services (1)	Selected [7]	0.1	<1
Forestry	Community Establishment (1)	Selected [5]	0.1	<1
Forestry	Climate Change Adaptation (1)	Selected [5]	0.1	<1
Civil	Development of Enabling Work Environment (1)	Selected [3]	0.1	<1
Health	Health and Training Services (91)	Selected [1]	0.1	<1
Agriculture	Ensure Adequate Post Harvest Facilities (3)	Selected [4]	0.1	<1
Agriculture	Cash Crop Income Generation (3)	Selected [4]	0.1	<1
Forestry	Plantation (1)	Selected [5]	0.1	<1
Health	Water and Sanitation Program (1)	Selected [1]	0.1	<1
Health	Awareness Program on Sanitation (1)	Selected [1]	0.1	<1
Forestry	Forest Protection and Extension Services (2)	Selected [5]	0.1	<1
Health	Extension & Support Services (1)	Selected [1]	0.1	<1
<i>Direction Services</i>			18.6	6
<i>Total (including proportionally allocated Direction Services)</i>			327.1	100

Source: Estimated from MOF expenditure data (FY2016-17)

Note: BHU = Basic health unit; NWFP = Non-wood forest product.

Keywords:

[1] Health: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

[2] Religion: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

[3] Civil: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water, bypass road + water, water + hostel.

[4] Agriculture: seed, vegetable + school.

[5] Forestry: water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

[6] Education: water, hygiene, sanitation, toilet, sewerage, waste, wash, life, mhm, excluding stormwater, irrigation water.

[7] Livestock: livestock + school; water, hygiene, sanitation, toilet, sewerage, RWSS, waste, wash, excluding stormwater, irrigation water.

This study summarizes estimates and lessons learned from application of the Scaling Up Nutrition (SUN) methodology to assess public financing for nutrition in Bhutan. Using Bhutan's classification of nutrition interventions, per capita public financing for addressing malnutrition is estimated to be Nu 2,003 (approximately US\$29, 1 percent of gross domestic product [GDP], and 3 percent of total government expenditures), 30 percent of which was for nutrition-specific activities, and about one-third the level of public spending on health. The level of public spending for nutrition is similar in magnitude—and in the shares across nutrition-specific and nutrition-sensitive interventions—when compared with other developing countries; recent estimates from Asia indicated an average of 2 percent of aggregate government expenditures went toward addressing nutrition, with a 20 percent share for nutrition-specific interventions. Despite the level of spending increasing from Nu 1,744 in financial year (FY) 2013-14, there does not appear to be any increase in priority to nutrition over the course of the 11th five-year plan (FYP): increases in the levels of expenditure for nutrition have resulted from growth of the economy and not because of higher budget allocation to addressing nutrition. The largest nutrition-specific expenditures were those related to the national school feeding program and the largest nutrition-sensitive expenditures were those related to water, sanitation, and hygiene (WASH) programs. Notably, the financing locus for nutrition-related expenditures lies within the Ministry of Education (MoE) and the Ministry of Works and Human Settlement (MoWHS). Although Bhutan defines nutrition-specific and nutrition-sensitive interventions somewhat differently from how they are defined globally, the magnitude of resources allocated toward improving nutrition appears similar to those in other developing countries even when adjusted to enhance global comparability.

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