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Study of Operational Strategies to Reduce Malnutrition in Nepal

MANAV BHATTARAI, CHHITIJ BASHYAL AND ABEYAH A. AL-OMAIR



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Health, Nutrition & Population



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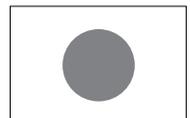
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Abbreviations

ACF	Action Contre La Faim
ADB	Asian Development Bank
AFSP	Agriculture and Food Security Project
BMI	Body Mass Index
CBS	Central Bureau of Statistics
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CEPRED	Center for Environmental and Agricultural Policy Research, Extension and Development
CHD	Child Health Division
CRC	Convention on the Rights of the Child
CSANN	Civil Society Alliance for Nutrition, Nepal
DADO	District Agriculture Development Office(r)
DAG	Disadvantaged Group
DDC	District Development Committee
DFAT	Australian Department of Foreign Affairs and Trade
DFID	Department for International Development
DFTQC	Department of Food Technology and Quality Control
DHO	District Health Office(r)
DPHO	District Public Health Office(r)
DLO	District Livestock Office(r)
FAO	Food and Agriculture Organization
FCHV	Female Community Health Volunteer
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GON	Government of Nepal
HKI	Hellen Keller International
IDI	In-Depth Interview
IFAD	International Fund for Agricultural Development
INGO	International Non-Governmental Organization
JT/JTA	Junior Technician/Junior Technical Assistant
LDO	Local Development Officer

MDG	Millennium Development Goal
MI	Micronutrient Initiative
MICS	Multiple Indicator Cluster Survey
MOAD	Ministry of Agricultural Development
MOE	Ministry of Education
MOF	Ministry of Finance
MOFALD	Ministry of Federal Affairs and Local Development
MOH	Ministry of Health
MOWCSW	Ministry of Women, Children and Social Welfare
MOWSS	Ministry of Water Supply and Sanitation
MSNP	Multisector Nutrition Plan
NAGA	Nutrition Assessment and Gap Analysis
NDHS	Nepal Demographic and Health Survey
NFS	Nutrition and Food Security
NFSSC	Nutrition and Food Security Steering Committee
NGO	Non-Governmental Organization
NPC	National Planning Commission
RRNI	Rapid Results Nutrition Initiative
SAARC	South Asian Association for Regional Cooperation
SABAL	Sustainable Action for Resilience and Food Security
SAPPROS	Support Activities for Poor Producers in Nepal
SHD	Sunaula Hazar Din (Golden Thousand Days)
SPRING	Strengthening Partnerships, Results, and Innovations in Nutrition Globally
SUN	Scaling Up Nutrition
VDC	Village Development Committee
VNFSSC	Village Nutrition and Food Security Steering Committee
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
WASH	Water, Sanitation and Hygiene
WFP	World Food Program
WHO	World Health Organization



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Executive Summary

Malnutrition is a serious problem in Nepal. Malnutrition negatively affects human and economic development and the country's overall prosperity. Malnourishment during childhood results in a lifetime of lost earning potential and consequently the perpetuation of intergenerational poverty (*Alderman, 2006*). Chronic malnutrition and micronutrient deficiency decrease gross domestic product (GDP) by an estimated 2–3 percent annually (*World Bank, 2011*).

It is impressive to note that Nepal has made a credible achievement in reducing stunting from 57 percent in 2001 to 40.5 percent in 2011. However, these rapid reductions in stunting rates have plateaued more recently. For example, the stunting rate among children under five decreased from about 49.3 percent in 2006 to 40.5 percent in 2011, which is a drop of 8.8 percentage points in five years (2006 to 2011). By 2016, however, the stunting rate declined to 35.8 percent, a five-year decrease of only 4.7 percentage points (*Ministry of Health, Nepal; New ERA; and ICF, 2017*).

Maternal malnutrition is also a major problem in Nepal. In 2016, about 17 percent of women aged 15–49 were undernourished, as defined by a body mass index (BMI) of less than 18.5 (*Ministry of Health, Nepal; New ERA; and ICF, 2017*). At the same time, a growing problem for Nepalese women is overweight; 22 percent of women were overweight or obese according to the 2016 Nepal Demographic and Health Survey (NDHS), up from 9 percent in 2006. Anemia continues to be a significant problem for women and children in Nepal. In 2016, 53 percent of children and 41 percent of women were anemic. Nutritional outcomes vary across the country's geographical regions and by wealth and educational status.

Despite the challenges, Nepal's prospects for improving the population's nutritional profile are promising. The Government of Nepal (GON) has committed to reducing malnutrition by cultivating the proper investment climate for nutrition interventions and donors have committed to financing nutrition programming. The Government has made nutrition and food security a national priority by undertaking the Nutrition Assessment and Gap Analysis (NAGA, 2011), preparing the Multisector Nutrition Plan (MSNP, 2012), and creating the National Nutrition and Food Security Secretariat under the umbrella of National Planning Commission (NPC). The Government's challenge is to best utilize the resources that are available in the country.

Reducing malnutrition is a challenge. The causes of malnutrition are many, and they interact differently in different locations. A package of interventions might work well at one place but not at another. Rigorous evaluations of the implemented interventions are lacking and the causative factors affecting overall nutrition status have not been determined. The lack of monitoring and evaluation to provide data results for nutrition programming with many interventions and sometimes the same interventions as well as crowding-in of resources, might not be an efficient and effective way of utilizing scarce resources to reduce malnutrition.

Currently, different nutrition projects and programs are aimed at reducing malnutrition in Nepal. Some are implemented by government agencies with technical and financial support from donors, and some are implemented mainly by International Non-Governmental Organizations (INGOs), but financed by donors. Lessons have emerged from the interventions, which could positively guide future nutrition interventions and help to anticipate as well as address the risks, bottlenecks, and challenges that have arisen in those projects.

The World Bank conducted this study to identify and understand the bottlenecks to effective implementation of nutrition operations in Nepal and to provide strategies and recommendations to overcome those challenges to achieve more effective and sustainable nutrition outcomes. It is a qualitative study in which in-depth interviews (IDIs) were conducted with project and program managers and implementers of government and nongovernmental partners' nutrition interventions at central and local levels. Focus group discussions (FGDs) were conducted at the communities. The preliminary evidence was further analyzed and discussed during an Evidence Synthesis Workshop (ESW) with key stakeholders from ministries, the NPC, the Child Health Division (CHD) of the Ministry of Health (MOH) and academia. The feedback and additional insights on emerging trends and findings helped to enhance the analysis, a process culminating in this report.

Research Findings

Current nutrition and food security policies in Nepal are conducive to investment in nutrition. The Government is finalizing the MSNP 2. It must start to tap the potential of the private sector, which can use its social marketing skills to promote fortified foods, produce the different therapeutic foods locally, and support water, sanitation, and hygiene interventions. Simultaneously, the country should execute the provisions it has to restrict the promotion of harmful practices like the use of infant formulas as a substitute for breastfeeding and children friendly-advertisement of processed junk-food, which are regarded as empty calories.

Malnutrition is caused by a complex interplay of issues requiring specific nutrition interventions for different areas. Every nutrition program or project must gather evidence to determine the causative factors for the prevalence of malnutrition in the particular

geographical area in order to apply an effective nutrition intervention. Although there are data for regions and nation as a whole, often data specific to particular localities where interventions are being planned are lacking. Due to the dearth of such data, prior formative research should be undertaken in the targeted area of high malnutrition to identify the cause(s) of malnutrition so cost-effective specific nutrition interventions can be implemented. The nutrition interventions implemented for the Suaahara Project, financed by USAID, were based on prior formative research.

Although multisector planning is key to reducing malnutrition, it is essential that activities are implemented sectorally. All identified nutrition interventions should be implemented by the sectors with a comparative advantage by having previously implementing the activities as well as having the capacity to do so. For example, the MOH has a comparative advantage in promoting breastfeeding and complementary feeding, whereas, the Ministry of Agriculture has expertise in promoting homestead kitchen gardens. Cash transfers to improve nutrition are best coordinated by the Ministry of Federal Affairs and Local Development (MOFALD) with the collaboration of the MOH. This study found that the Sunaula Hazar Din (SHD) Project implemented by the MOFALD included activities usually carried out by other line agencies e.g., breastfeeding, complimentary feeding, chicken rearing, iron/folic acid supplementation, etc), and the activities were not implemented effectively. Whereas the Agriculture and Food Security Project (AFSP) implemented by the Ministry of Agricultural Development (MOAD) collaborated with the MOH for delivering nutrition specific interventions. Since MOH already had the capacity to implement nutrition specific interventions, nutrition component of this project was effectively implemented.

While operating in a resource-constrained environment, due consideration should be given to the targeting mechanism to avoid the risk of omitting the poor and those who cannot afford the program conditions. Targeting not only means bringing interventions where they are needed but also entails efficiency and costs of screening. Sometimes, for the ease and cost effectiveness of implementation, it is appropriate for a project to cover the entire boundary of an administrative unit rather than a sub-set of the unit. For example, selecting further a small area within a local government boundary for project interventions would entail an additional cost of screening which might be higher than implementing the project in the entire administrative unit. Within a particular framework of beneficiary selection, e.g., interventions for “1,000 days” households or households with under-five children, or adolescents or pregnant and lactating mothers, conflicts and challenges can be avoided if targeting is universal at certain autonomous administrative units and universal at the communities’ beneficiaries, irrespective of their income status or whether they are marginalized or non-marginalized. Nutrition-specific interventions of the Suaahara Project were implemented district-wide and a targeted approach was used to reach Disadvantaged Group (DAG) households with nutrition-sensitive interventions. The SHD Project, on the other hand, covered only 25 percent of the village development committees in a district and provided amenities only to the poorer households, which created conflicts in the communities.

Approvals and funds that must pass through various administrative layers before reaching the intended targets can delay implementation and provide avenues for rent-seeking behaviors. Community-driven projects like the SHD Project seems to have suffered such issues, delaying implementation. Financial accountability should be the responsibility of the units receiving the spending authorization. For a community-driven project, it is essential that a central unit approves the proposals and releases the funds directly to the communities. Communities have very minimal capacity to follow bureaucratic processes of documenting technical and financial reports. Such processes at the community level generate exhaustion and disinterest for the project. Communities need to be made accountable for the money they receive but not at the cost of complying with complex bureaucratic processes.

To ensure effective collaboration from various sectors, a project or program should initially define shared responsibilities with clear provisions for authority and resources to execute those responsibilities. It is essential to give adequate authority and resources to different sectors if their input is required in certain nutrition interventions. Collaboration between sectors without empowering them with proper authority and required resources does not produce desired results.

Each sector should have adequate human resource and relevant technical expertise to monitor nutrition interventions. If the necessary capacity does not exist, the required services should be procured as soon as possible. Annual work plans should be detailed and implementation should be regularly monitored to reflect progress and achievements on a dashboard for everyone to see. This ensures transparency, accountability, and the early identification of issues for the management team to address in a timely manner. If implementation and monitoring functions are outsourced to nongovernment partners, whether NGOs or private firms, their accountability can be ensured by paying for verified results.

Targeted project beneficiaries in some cases received benefits late into the project because of the evaluation design. While rigorous impact evaluation is necessary to generate evidence, this should be done without compromising project implementation as was seen in some projects where beneficiaries had to wait to be included in the project in order to fulfill the requirement of evaluation design.

1. Introduction

1.1 Malnutrition in Nepal

Malnutrition is a serious problem in Nepal, which negatively affects human and economic development and the nation's overall prosperity. Malnourishment during childhood leads to lifetime losses in earning capacity and the perpetuation of intergenerational poverty (*Alderman, 2006*). Nepal loses an estimated 2–3 percent of gross domestic product (GDP) annually from high rates of malnutrition and micronutrients deficiencies (*The World Bank, 2011*).

It is impressive to note that stunting in Nepal declined from 57 percent in 2001 to 40.5 percent in 2011. As per the WHO/UNICEF/World Bank joint monitoring estimates 2015, Nepal with stunting at 37.4 percent has similar position compared to India (38.7 percent), Myanmar (35.1 percent), Bangladesh (36.1 percent) and Indonesia (36.4 percent) in the South East Asia Region. Those with better stunting rates in the region are Thailand at 10.9 percent, Sri Lanka at 14.7 percent and Maldives at 20.3 percent (*World Health Organization Regional Office for South-East Asia, 2016*).

Since 2012, Nepal has been exemplary in its nutrition policy. In 2011, the Government and its partners started joining forces to improve the country's nutritional status. They jointly produced the NAGA report. The NAGA emphasizes that a concerted and coordinated effort by the nation's various sectors is necessary to reduce malnutrition and that a central coordination body needed to be established to design a MSNP and to oversee the implementation of sectoral plans. The GON was actively involved in the global Scaling Up Nutrition (SUN) Movement and has been recognized for its efforts in nutrition policy.

It is now well understood “what” needs to be done to address malnutrition- a life cycle approach with a special focus on the “window of opportunity” from conception to two years of life (first 1000 days). Such interventions would be related to activities which support: improved nutrition of adolescents, pregnant and lactating mothers and children; multisectorality; promotion of accountability and commitments from governments, donors and civil societies; and nutrition governance with political commitment

guided by relevant sectoral policies, regulatory framework and evidence informed actions.

Even though the GON's efforts have generated increased investments in nutrition by the Government and donors, Nepal has not yet made rapid progress in reducing stunting. The stunting rate among children under five decreased from about 49.3 percent in 2006 to 40.5 percent in 2011, which is about 8.8 percentage points in five years (2006–11). By 2016, however, the stunting rate was at 35.8 percent, indicating that stunting had declined by only 4.7 percentage points from 2011 to 2016. Even though Nepal has made progress in reducing poverty from 42 percent between 2003–04 to 25 percent in 2011, malnutrition has not decreased. Nepal also missed the target of reducing the stunting rate to 28 percent by 2015 to meet the Millennium Development Goal (MDG) malnutrition target (see Annex 1, Table 1). The cost of malnutrition and micronutrients deficiency to Nepal remains unacceptably high.

Nepal's nutritional outcomes have been poor from other perspectives. In 2016, 27 percent of children were underweight and 10 percent were wasted. Moreover, about 2 percent of children under five were overweight (*Ministry of Health, Nepal; New ERA; and ICF, 2017*), which is a concern especially in urban areas. Nutritional outcomes also vary by geographical regions, development levels, class, wealth, education, and caste status. Regional variations in poverty rates, malnutrition, and food insecurity problems also roughly correlate. The poverty rates in the mid-west and far-west regions of Nepal are very high. The overall development problems are also severe in those regions, including infrastructure, access to health, sanitation, and education (*Adhikari, 2008*). Disaggregated data for 2001, 2006, 2011, and 2016 are presented in Annex 1, Table 1.

Maternal malnutrition is a major concern in Nepal. In 2016, about 17 percent of women in the 15–49 age group were undernourished—as defined by a BMI of less than 18.5 (*Ministry of Health, Nepal; New ERA; and ICF, 2017*). In 2011, 18 percent of women were undernourished (*Ministry of Health and Population (MOHP) [Nepal], New ERA, and ICF International Inc., 2012*). Overweight is also a growing problem for women; 22 percent are overweight or obese according to the 2016 Nepal Demographic and Health Survey (NDHS). The 2006 NDHS showed that only 9 percent of women were overweight, indicating an increasing trend. Anemia continues to be a significant problem for women and children in Nepal; 53 percent of children and 41 percent of women were anemic in 2016.

The Nepal Living Standard Survey (NLSS) III data shows an interesting relationship between food security and nutritional status. If food security is considered as consumption of adequate food, then food security status has been improving. For example, the percentage of households reporting less than adequate food consumption has been consistently declining at a fast rate—from 50.9 percent in 1995–96 to 31.2 percent in 2003–04 to 15.7 percent in 2010–11. Only 7.5 percent of households in 2010–11 reported food shortages at any time in the last 30 days, with many households meeting the shortages through various means (see Annex 1, Table 2). Nutritional improvement over the period is very slight in the last decade until 2011, but improvement is drastic in food consump-

tion status. This finding indicates that food consumption alone is not a good indicator of nutritional improvement. The food consumed must be nourishing, diversified, as well as protein and micronutrient rich.

The average food consumption in Nepal was adequate by 2010–11, as shown above. The national average calorie intake is more than the requirement of 2,536 Kcal per capita against the requirement of 2,220 Kcal per day, which defines the GON's poverty line. However, the problem of poor diet diversity in Nepal remains. More than 84 percent of households in rural areas have a high staple diet, that is more than 60 percent of the households' total calories are from staples, and more than half (52 percent) have a very high staple diet, that is more than 75 percent of their total calories are from staples (*Central Bureau of Statistics, National Planning Commission, World Food Program, World Bank, AusAID and UNICEF, Nepal, 2013*). This finding indicates that production patterns should change to produce good food—rather than just food. The agricultural sector also faces problems in producing diversified and nutritious foods.

Other factors linked to malnutrition need to be addressed. For example, sanitation services are still inadequate, with 38 percent of the population defecating in the open (*Ministry of Health and Population (MOHP) [Nepal], New ERA, and ICF International Inc., 2012*). The 2014 Multiple Indicator Cluster Survey (MICS) shows that household members with E. Coli risk levels in their household water are 82 percent and from the source of water are 71 percent. Even though access to drinking water (piped water) has increased to 93 percent in Nepal—96 percent in urban area and 93 percent in rural area—the quality of water is very poor. Only 48 percent children's stools (0–2 years) were disposed of safely, and 73 percent of households have a designated place for handwashing with soap. Just 60 percent of households have improved sanitation facilities. Only 82 percent of households take iodized salt. The smoking and tobacco use prevalence rate is 9 percent and the alcohol use prevalence rate is 10 percent among women (15–49 years), the use of which are known to have adverse consequences for maternal and child nutrition.

1.2 Existing Nutritional Interventions and Organizations in Nepal

In the past, nutrition interventions were regarded solely as the responsibility of the MOH, and specifically, the Nutrition Section under the Child Health Division of the Department of Health Services of the MOH. The Nutrition Section budgets for nutrition-specific interventions, including prevention and treatment services related to nutrition. Following the 2011 NAGA and the development of the MSNP, the entire GON has been active in efforts to reduce the population's malnutrition. The MSNP is implemented by the MOAD, the MOH, the Ministry of Education (MOE), the Ministry of Water Supply and Sanitation (MOWSS), the MOFALD, and the Ministry of Women, Children and Social Welfare (MOWCSW), each with their various programs and activities. A secretariat in the NPC oversees and coordinates the nutritional interventions undertaken by all the ministries. Nepal's Ministry of Finance (MOF) has been financing the implementation of the MSNP for last two years with the contributions by various donors.

The World Bank has provided financial and technical assistance for Nepal's nutrition and food security interventions for the following projects. The Nepal Agriculture and Food Security Project (AFSP) 2013–18 (*World Bank, 2013*), Sunaula Hazar Din– Community Action for Nutrition Project (SHD) (*World Bank, 2012*), and the Rural Water Supply and Sanitation Improvement Project (2014–19) (*World Bank, 2014*). The AFSP, implemented by MOAD, supports nutrition-sensitive agricultural activities to promote the production and consumption of nutritious foods in marginal regions. MOFALD implemented the SHD Project, which is a demand-driven community-led project implemented at the ward level by community teams. The Rural Water Supply Project aims to improve access to quality drinking water and sanitation, which is a major component of nutrition-sensitive interventions. The World Bank also provides technical support through the South Asia Food and Nutrition Security Initiative (SAFANSI), a program financed by the Department for International Development (DFID) and the European Commission.

Other international organizations with nutrition programs in Nepal include UNICEF, the World Health Organization (WHO), the World Food Program (WFP), the Food and Agriculture Organization (FAO), and the International Fund for Agricultural Development (IFAD). UNICEF provides a wide range of financial and technical support for the GON to develop policy and to implement nutrition activities. UNICEF's activities cover health, water and sanitation, nutrition, child friendly local governance, social policy, child protection, education and adolescent development. It aligns its activities with the Health Sector Wide Approach (SWAp) Program to support maternal, neonatal, and child health, the micronutrient program, community management of acute malnutrition, and school sanitation (*UNICEF, 2013*). UNICEF has remained one of major partners for the GON to support scaling up of implementation of MSNP in Nepal. The WFP has partnered for decades with the GON to provide food transfers to reduce vulnerability in Nepal. The WFP has embraced a safety net approach with a focus on children by promoting mother-child health nutrition (MCHN), school meals, and for adults through asset creation activities. The FAO and IFAD work through government channels to improve food production. WHO mainly supports the GON in the areas of food safety, chemical safety, and capacity building of government staff.

USAID has been financing food and nutrition and food security programs implemented by competitively hired international organizations, such as Save the Children and Helen Keller International (HKI). Among other projects, USAID finances the Suaahara Project, with a focus mainly on nutrition, Sustainable Action for Resilience and Food Security (SABAL) Project with a focus on livelihood, health, and nutrition, and Feed the Future or the KISAN Project with a focus on food security, markets, and the private sector. The Swiss Agency for Development Cooperation has programs to improve livelihood and food security through business activities. The European Commission has supported the GON's Agricultural and Nutrition Extension Program. The Asian Development Bank (ADB) has financed the project Reducing Child Malnutrition through Social Protection in districts of the Karnali Zone and supported Flour Fortification in the Chakki Mill Projects to address micronutrient deficiencies.

INGOs involved in food and nutrition in Nepal include Care Nepal, HKI, Micronutrient Initiative (MI), Oxfam, Plan Nepal, Heifer International, Save the Children, and Action Contre la Faim (ACF) (Action Against Hunger). HKI's activities include essential nutrition actions, homestead food production, local multisector governance, and improved nutrition interpersonal communication. The INGOs work with local NGOs and community-based organizations to achieve social mobilization of targeted population. Often, they are also able to reach pockets of marginalized communities.

Of the many NGOs working in Nepal, the Center for Environmental and Agricultural Policy Research, Extension and Development (CEPRED), the Support Activities for Poor Producers in Nepal (SAPPROS), and the Forum for Rural Welfare and Agriculture Reform for Development (FORWARD) are NGOs involved in nutrition and food security. They work with farmers' groups to increase income and food consumption by the commercial cultivation of vegetables and other high value crops. The three NGOs cover a wide geographical area of Nepal.

Several civil society organizations are also active in food and nutritional security. They include the Civil Society Alliance for Nutrition, Nepal (CSANN), the National Network on Right to Food Nepal (RtFN), comprising more than 50 national and international NGOs, the NGO Federation, the Federation of Community Forest Users Nepal, the Irrigation Water User Federation, Drinking Water and Sanitation Federation, human rights networks, women rights networks, peasants' federations, and youth organizations. The National Alliance for Food Security in Nepal (NAFOS) and Food-First Information and Action Network (FIAN) Nepal are involved in food rights.

1.3 Prospects and Challenges for Effective Operation of Nutrition and Food Security Strategies

Nepal has very good prospects to reduce malnutrition. The country has the proper investment climate for nutrition interventions and is receiving donor financing for the interventions. With the MSNP and National Nutrition and Food Security Secretariat under the umbrella of the NPC, the nutrition and food security agenda has gained momentum in Nepal. Besides the GON's own revenue, resources from donors are also flowing into the country to reduce malnutrition.

The GON's challenge is to make the best use of available resources to reduce malnutrition. There are many causes of malnutrition and they differ from place to place and require different solutions. A package of interventions might be effective in reducing malnutrition in one place but not in another. Rigorous analysis of the problems and solutions that are specific to each issue are lacking. Without data about outcomes, program interventions may be pouring resources into ineffective and inefficient interventions that underutilize available resources.

The Government must better harmonize the various nutrition programs underway by numerous organizations. Many different projects are operating in the same localities. For example, the SHD Project and the government-financed MSNP work in the Parsa District, and the SHD Project and the USAID financed SABAL Project work in the Makwanpur, Sindhuli, Ramechhap, Khotang, Okhaldhunga, and Udayapur Districts. Some of the districts where the Suaahara Project is being implemented overlap with the districts with the government's MSNP interventions. Some projects have focused on a district-wide approach, such as the Suaahara Project. Other projects only have programs in some of the districts' village development committees (VDCs), for example SHD project and the AFSP. The variations increase the likelihood of resource duplication in some places and a lack of funding and attention in other places that need nutrition interventions. To ensure necessary coverage where required, all government and partners' nutrition activities must be harmonized. The GON needs to assume a strong leadership role in directing where and how nutrition investments are made in the country.

2. Study Purpose and Design

2.1 Rationale

Most studies in the relevant literature discuss the design of various interventions to address malnutrition (that is, how a program should work), while other studies simply examine whether interventions worked or not. For example, convergence approach where both nutrition-specific and nutrition-sensitive interventions are jointly targeted to vulnerable geographical populations worked well in Peru to reduce stunting by four percentage points per year in the districts reached (*Levinson & Balaranjan, 2013*).

According to an extensive literature review done by the Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project, there is a documented evidence that nutritional intervention during pregnancy and early childhood can increase offspring size and adult stature of women. The study also documents that improvements in girls' early nutrition have led to increased years of schooling and to delays in age at first pregnancy and delaying age at first pregnancy enhance maximal attainment of height (*Caulfield & Elliot, Program in Human Nutrition, the Johns Hopkins Bloomberg School of Public Health, for SPRING, 2015*).

Very few studies dig into what implementation-related factors aid or impede the success of interventions. Effective implementation of any intervention is a global challenge. There can be several crucial and unknown factors that interplay to hamper implementation. This study has attempted to shine light into the "black box" of implementation, based on qualitative information. Based on the overall findings, the study has narrowed down the potential factors to be considered into certain thematic areas as detailed under the Key Findings section.

This study did not delve into generating evidence of effects of any nutrition-specific or nutrition-sensitive interventions but was conducted to identify and understand the bottlenecks in nutrition operations in Nepal and to provide strategies and recommendations to overcome them to achieve more effective and sustainable nutrition outcomes. The findings of the study will help guide future operational support to reduce malnutrition in the country.

This study sought to generate rigorous evidence for decision makers for three areas of intended impact:

- (a) Matching supply and demand of nutritional responses for greater technical effectiveness.
- (b) Investment modalities for nutrition and food security programs.
- (c) Identifying effective program design and engagement strategy for future nutrition programs.

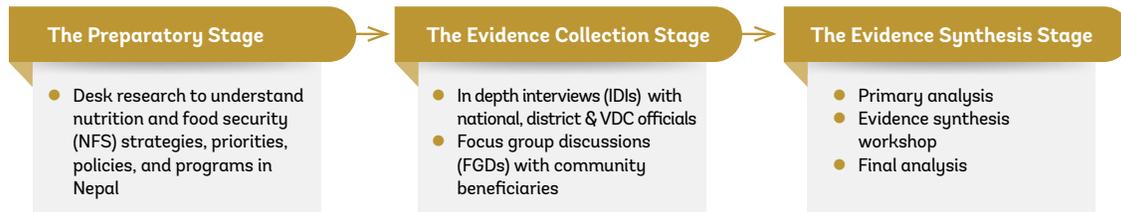
2.2 Key Questions

The following table explains in detail the abovementioned impact goals of the study, the key decision evidence sought, and the guiding research questions to gather such evidence.

Study Impact Areas	Key Research Questions and Learning Objectives
(a) Matching supply and demand of nutrition responses for greater technical effectiveness. The study particularly seeks answers in the following areas.	<ul style="list-style-type: none"> • Understanding the demand side of interventions and matching it with supply. • Gathering evidence of effectiveness of various beneficiary targeting approaches.
(b) Generating evidence for effective investment modalities for nutrition and food security programs. The study seeks to gather evidence that will help guide investments in future nutrition programs, particularly by generating the following answers.	<ul style="list-style-type: none"> • How have some investment modalities, input-based versus results--based, conditional versus unconditional cash transfers, and in-kind transfers worked for different interventions? • What sort of challenges have nutrition and food security projects/programs faced when they were financed through government systems versus outside-of-government systems?
(c) Effective program design and engagement strategy for future nutrition programs. For this purpose, the study will conduct a thorough operations research of its current programs, particularly with the following goals.	<ul style="list-style-type: none"> • Determine strengths, key bottlenecks, and positive deviances of various institutional modalities including partnership arrangements and monitoring and evaluation mechanisms of nutrition and food security programs that sought to improve nutrition outcomes. • Determine pros and cons of various institutional arrangement framework existing for some major nutrition and food security programs in the country.

2.3 Methodology

The research employs a multi-staged qualitative methodology to achieve the above-mentioned objectives, as illustrated in the diagram below.



2.3.1 The preparatory stage

The preparatory stage consisted of desk research to understand the landscape of nutrition and food security (NFS) policies, priorities, and programs in Nepal. The background developed from this stage helped to develop specific selection criteria to identify key nutrition and food security (NFS) projects to explore at the central, district, village development committee (VDC), and local levels, in the second stage.

2.3.2 The evidence collection stage

The second stage used in-depth interviews (IDI) with national, district, and VDC-level stakeholders, as well as focus group discussions (FGDs) with community-level beneficiaries. A purposive sampling of projects for IDI and FGDs were done with the following considerations:

- The samples must represent a diversity of technical approaches, such as food and agriculture-based interventions, health systems-based interventions, community-driven development approaches or a combination of these interventions.
- The samples must be large-scale across many districts and multi-year projects because the lessons will be used to help implement projects at scale. This excludes any small-scale projects or pilots done by other entities.
- The samples must also capture different investment or fund-flow mechanisms, such as through the government system and nongovernment structures.
- The samples must also capture different operational modalities, such as through government line-agencies, autonomous government bodies, health delivery units, nongovernment project structures, and private sector engagement.

The policy-level stakeholders and experts from the NPC and Child Health Division (CHD) were consulted at the central level to capture additional insights about the overall policy environment and priorities.

Data collection methods and sampling

The sampling techniques used to identify respondents from the selected projects and the four study instruments used in data collection are described below (see Annex 1, Table 3).

- **National-level IDI:** The first component was national-level stakeholder consultations with managers and experts to understand their perspectives about the technical, investment, and operational aspects of their respective NFS projects and activities. Fifteen interviews were conducted. The consultations with national-level project managers from six selected projects helped to identify samples for IDIs at the district level. The national project managers were asked to provide the names of three project districts with high-performing and low-performing VDCs based on ease of implementation and project outputs. The purpose of selecting the two different types of VDCs is to allow for a comparative assessment of challenges and opportunities faced in those contexts, and to capture any positive deviances and local innovations in projects operating in their own political economic background.
- **District-level IDI:** The district-level interviews were mostly conducted at the headquarters of the seven districts selected through the national-level IDIs. The districts included in the terai (southern plains), Nawalparasi, Siraha, Saptari, and in the hills, Surkhet, Jumla, Dadeldhura, and Okhaldhunga. Sixteen interviews were conducted involving government officials stationed at the time of the interview in district headquarters. They included the Local Development Officers (LDO),¹ the District (Public) Health Officer (DHO/DPHO),² and the District Agriculture Development Officer (DADO).
- **VDC-level IDI:** The district-level officials helped further identify and coordinate with VDC-level stakeholders from selected high-performing and low-performing VDCs. Their identities are omitted from this report to maintain the confidentiality of the respondents and projects. Twenty-four IDIs were conducted with local-level facilitators called coaches of the SHD Project, VDC secretaries, Junior Technicians or Junior Technical Assistants of the AFSP, and the Female Community Health Volunteers involved in the Suaahara, UNICEF, and MOH's activities.
- **Community FGDs:** Altogether, 17 FGDs were conducted with the beneficiaries of the selected projects. Beneficiaries included the Rapid Results Nutrition Initiative (RRNI) team of SHD Project, mothers' groups (UNICEF, Suaahara), farmers' groups of the AFSP, and KISAN. In each FGD, 8–10 members were selected from existing groups of beneficiaries from each of the respective projects for the discussion.

Study Instruments

All study instruments followed a standardized general content structure and modules. Such consistency across four different modules allowed for effective comparison of responses by stakeholders at different levels and by stakeholders from different projects. The modules are described in detail below.

- **Module 1: Respondent Information.** The purpose of this module was to understand the role, level, and nature of the respondent's engagement in project preparation, implementation, and evaluation.
- **Module 2: Review of Project Implementation.** The purpose of this module was to understand the respondents' perspective of the overall project operations and

¹ In the absence of LDOs, persons who were acting for them were interviewed.

² In the absence of DHOs/DPHOs, persons who were acting for them were interviewed.

to capture the lessons learned for eight categories, which are project acceptability, adoption, appropriateness, feasibility, fidelity, implementation cost, coverage, and sustainability. The module allowed for respondents to rate each indicator from 1–5 to sum up the discussion for each indicator.

- **Module 3: Review of Project-Specific Approaches.** The purpose of this module was to discuss specific operational, technical or investment approaches to further elucidate the process flow, and particularly to help identify key bottlenecks or constraints in three functional areas: (a) decision making, (b) execution, or (c) monitoring / accountability. The module also used a process map to probe respondents to point to constraints along the various interfaces from the national to the local-level stakeholders.

2.3.3 The evidence synthesis and analysis stage

The data collected from the previous stage was transcribed and translated into English. All transcripts were then coded in NVivo, a qualitative data analysis computer software, from which emerging themes were developed within the broad categories of a project's technical strategy, investment mechanisms, and operational modalities. The preliminary evidence was further analyzed and discussed during an Evidence Synthesis Workshop (ESW), which was held with key stakeholders from the ministries, NPC, the Child Health Division (CHD), and academia. The feedback and additional insights on emerging trends and findings helped to further enhance the perimeters of the analysis, a process culminating in this report.

2.4 Challenges and Limitations of the Study

The research was intended to gather information and to draw lessons from the major nutrition and food security (NFS) projects in Nepal to guide future World Bank support to improve nutrition in Nepal. Given the diversity of NFS projects, the study attempted a non-probability and convenience sampling to capture various technical, investment, and operational dimensions employed in Nepal's political-economic context. The first challenge was to ensure that the project diversity was captured adequately in the sampled projects and districts. This was accomplished by broad review of projects at the beginning followed by focused consultations with national level experts. The second challenge was in sampling high-performing and low-performing VDCs in the absence of more objective performance metrics. Because the study focused more on the operational or process dimensions, rather than quantitative indicators of success, the second-best method was used to identify the samples, which was relying on the experiences and challenges managers faced in project implementation across different communities. Although such a grounded-approach can identify interesting positive deviances and their determinants, the selection process can be biased.

The third challenge was to ensure the truthfulness of the responses by various actors. Although every effort was made to discourage interviewees from providing biased responses by explaining the value of a truthful assessment of the projects and other actors'

activities, it is very likely that some respondents were motivated to censor their honest assessments. Because the same assessments were collected from various actors, from national to local levels, the study did allow for some degree of triangulation of information to identify and investigate any data discrepancies. The final challenge is inherent to analyzing qualitative data, particularly in developing conceptual themes based on information from a non-probabilistic sample. To improve the reliability and validity of the findings, the specific context from which the information was derived is presented in the analysis. In sum, despite some of the inherent and practical limitations discussed above, the research team adhered to the highest standards of qualitative data design, collection, and analysis to meet the objectives of the study.

3. Key Findings and Thematic Discussions

This section highlights the key findings in relation to Nepal’s national policy and priorities to reduce malnutrition and to the project-specific operational assessment of six large-scale projects, which employ various modalities to deliver nutrition and food security interventions.

3.1 National Policy and Priorities

3.1.1 Key policies and priorities

The GON has been implementing the 2012–17 MSNP, which is expected to accelerate gains in nutritional outcomes to assist in meeting the MDGs for food and hunger, and to break the cycle of intergenerational poverty and undernutrition in the long term. The Government’s commitment to reduce malnutrition is visible in other policy documents including Agriculture Development Strategy (2015-2025), National Health Policy 2014, Food and Nutrition Security Plan of Action (2013-2023), Nepal Zero Hunger Challenge: National action Plan (2016-2025) and Nepal Health Sector Strategy (2015-2020).

The GON’s commitment to food and nutrition is also demonstrated by maintaining and reaffirming food security or the right to food as a fundamental right in the Nepalese constitution in 2006 and 2015. Food sovereignty also has provisions in the constitution. The provisions in the constitution and in various laws and regulations are also supported by Nepal’s status as a signatory to various international covenants and agreements. They include the Convention on the Rights of the Child (CRC), the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), the SUN Initiative, and the International Covenant on Economic, Social, and Cultural Rights (ICESCR). At the regional level, Nepal is party to the South Asian Association for Regional Cooperation (SAARC) Development Goals and the South Asian Regional Nutrition Strategy.

Nepal’s current three-year periodic plan 2013/14 – 2015/16 aims to reduce the rates of infant, child, and maternal mortality through proven and cost-effective interventions. The current plan, as well as the forthcoming plan 2016/17 – 2018/19, focuses on 26 dis-

districts of Karnali, which have been facing a long-term food crisis. The other key expected programs of the government include a national framework for social protection, which also aims to universalize child protection grants (cash transfers) to improve child nutrition and expand maternal services. In the health and agriculture sectors, nutrition and food security have been emphasized in strategies and plans. The National Nutritional and Food Security Policy is being prepared.

The High-Level Nutrition and Food Security Steering Committee and the National Nutrition and Food Security Coordination Committee under the NPC, which were established in 2012, are intended to ensure central coordination of nutrition and food security activities. For effective coordination of activities at the grassroots level, the Nutrition and Food Security Steering Committee exist at the district and VDC levels.

3.1.2 Current constraints

Effective monitoring of the MSNP's implementation has been a challenge due to a lack of an effective reporting mechanism. It appears that the institutional home within each line agency, except for a few, needs to be recognized and established to aggregate and report sectoral indicators identified by the MSNP. The Ministry of Federal Affairs and Local Development has been working on reporting tools to strengthen monitoring and reporting.

The role of the private sector in improving malnutrition is important to highlight. It can use its social marketing skills to promote fortified foods, produce different therapeutic foods locally, and support areas such as water, sanitation, and hygiene. The country should execute the provisions it has to restrict the promotion of harmful practices like the use of infant formulas as a substitute for breastfeeding and children friendly-advertisement of processed junk-food, which are regarded as empty calories.

The private sector's involvement in food security and nutrition is limited. Although, the Breast Milk Substitute Act exists to regulate the private sector market, the consensus is that the act is not implemented effectively. The Chaudhary Group, a private company, developed a product called Instant Meal, which is the first fortified cereal-based blended food. Its production facilities are recognized and approved to produce and distribute fortified blended food in the South Asian region by UN agencies such as WFP and UNICEF.

The Nepal Government's Department of Food Technology and Quality (DFTQC) has innovated and developed various nutritious foods, but it lacks a private company to produce the products and introduce them in the market. Nonetheless, a few examples exist of private sector linkages with food processing. For example, Bel-Juice is produced through target groups co-operatives, and the Federation of Nepalese Chambers of Commerce and Industry is helping market it. More research is required to develop local produced varieties of therapeutic foods to reduce the costs of purchasing the same products internationally.

3.1.3 Future directions

Nepal's nutrition profile has been raised at the central level, which is evident by nutrition's coverage by journalists in quality news articles and its visibility in talk shows. The GON is currently drafting its second MSNP. As Nepal undergoes federalization, it is essential that advocacy for nutrition is replicated at the states and local government levels, since they will be autonomous and have authority over the resources to implement development programs. Therefore, the next phase of the MSNP should be drafted to ensure that those who will lead the provinces will also have ownership and be accountable for outcomes.

3.2 Developing Technical Approaches for Nutrition and Food Security Projects

Nepal implements a range of technical interventions to minimize key risk factors for malnutrition. Figure 1 illustrates the three-step process for developing a technical strategy, starting by identifying key risk factors for malnutrition and designing interventions, assessing demand and supply match, and finally, by developing a beneficiary targeting strategy. This study is not intended to review risk factors of malnutrition and identify nutrition specific and sensitive interventions. (Interested readers may refer to them in Annex 2). This section presents a systematic methodology for matching supply side interventions with demands in the community, the contextual best practices in identifying and engaging target groups, and a close analysis of selected interventions.

Figure 1: Steps for developing a technical strategy



Step 1- See Annex 2.

Step 2- Matching Demand and Supply Sides of the Interventions

For an intervention to be successful, the demand and the supply sides of the interventions must be developed simultaneously. Therefore, while designing interventions, the next step is to thoroughly assess the constraints and prospects, first from the perspective of the community's level of awareness and demand for a nutrition intervention (the demand-side), and second from the perspective of the health and nutrition systems, markets, and the socio-cultural and political environment (the supply-side). The following Demand-Supply Matching Matrix illustrates the keys areas of possible (mis)match in some projects in Nepal.

		D E M A N D	
		Weak	Strong
S U P P L Y	Weak	<p>Weak-weak scenario is created when the community is unaware or unconvinced of the need for intervention and when the health systems or programs lack adequate effort or capability to provide the intervention.</p> <p>Example: Low awareness about the importance of exclusive breastfeeding in communities (demand) and limited counseling capabilities in health facilities to encourage the practice (supply).</p>	<p>High-demand mismatch is created when the community has accepted the need and even demanded the intervention or a practice but are limited by inadequate supply-side efforts or resources.</p> <p>Example: Households understand the need for pregnant women to consume a high-protein diet, but there is limited support to provide actual financial or technical resources to enable poor households to raise poultry for eggs or animals for meat.</p>
	Strong	<p>Low-demand mismatch is created when emphasis is provided only on the supply side of the intervention and limited effort is exerted to convince communities or beneficiaries about the importance of intervention.</p> <p>Example: Construction of unused latrines for defecation through subsidies and grants is a most noted challenge in addressing community-level risk factors for malnutrition.</p>	<p>Ideal matching is possible when both sides of the intervention are properly addressed. The community or beneficiary should be convinced of the value of a given intervention and supply-side actors must match the community’s expectations.</p> <p>Example: To create demand, FCHVs provide proper counseling and encouragement to pregnant mothers to choose institutional deliveries over unsafe delivery at home. This is matched by proper provision of midwifery and referral services at local health facilities.</p>

Recommendations

- Any nutrition operation needs to garner evidence of the prevalent causative factors for malnutrition in the particular geographical area of intervention. This will help one understand the demand side. If there is a lack of existing evidence, a prior formative research might be helpful to identify the cause(s) of malnutrition in the area and to plan particular interventions to improve nutrition for the area.
- Always match the demand created—as identified through formative research or baseline surveys—with adequate supply-side interventions. For instance, a food insecure household should be provided with the means to secure nutritious food, in addition to advocating for better nutritional behaviors in the household.

Step 3 – Develop Beneficiary Targeting Strategy

Another critical step of developing a technical strategy is ensuring that the intended beneficiaries adequately receive the interventions. The aggregate outcome of the project is determined by the success of the interventions in producing the anticipated changes in each beneficiary.

Target Beneficiaries at Multiple Levels

The review of various nutrition and food security (NFS) projects in Nepal reveals that the process of identifying beneficiaries occurs across multiple levels, from central to local. Each level is prone to structural and implementation constraints, as described in detail below.

- 1) **First Level targeting:** It is used to identify the regions and districts with poor nutrition status using a range of data source and indicators (see Box 1). This process allows a project to quantify the need for engagement, prioritize malnutrition risk factors to address, design interventions, and estimate costs and resource requirements. Some of the key constraints at this level of targeting include the following.
 - **Reliability of data to infer true need or nutritional status:** Most of the indicators used in target selection are derived at the level of ecological regions, such as the hills, terai or mountains, or at the aggregate level of administrative units, such as by districts or clusters of VDCs. Examples of commonly used sources for target selection include the Demographic Health Survey, the Multiple Indicator Cluster Survey, and the Nepal Living Standard Survey. While the information is useful for prioritization of project regions, the data are not adequate to select the VDCs or wards with the greatest needs.
 - **Inability to customize interventions to economical, geographical or cultural differences:** Given the inadequacy of information at the local level, the aggregate information only points to the problem, as represented by corresponding malnutrition indicators. The problem might be the result of diverse root causes or risk factors depending on local-level factors arising from socio-economic, geographic or cultural differences. For instance, compared to the flat plains of the terai, the hills and mountains have scattered population across difficult terrain. Interventions and investments to address the same problem in the terai or in the hills and mountains can vary greatly. Similarly, in communities with a larger share of poor and food insecure households, interventions require greater logistic support until the communities are economically capable. In terms of cultural differences, women in the terai, especially daughters-in-laws, are often restricted from participating in community groups. In contrast, due to the high migration of men from the hills, women are often the active participants in community groups.
 - **Reducing overlap with existing projects and interventions:** Various nutrition programs in the country operate differently. Some programs operate within the government budget systems and others are outside the systems and are implemented at different times. The programs and the types of interventions may overlap geographically.

Box 1: Data Sources Commonly Used to Select and Target Project Beneficiaries

- **Periodic Household Surveys:** The Demographic and Health Survey, the Nepal Living Standard Survey, and the Multiple Indicator Cluster Survey are done periodically but generate disaggregated information at the ecological zones rather than by administrative units.
- **Routine Information Management System:** A Health Information Management System generates yearly data from facilities. The data are generally supply side and based on population projections.
- **Small Area Estimation of Food Insecurity and Undernutrition of Nepal (2014):** Developed in collaboration with the Central Bureau of Statistics (CBS), GON, World Bank, WFP, and UNICEF, this data can be used to identify locations where nutrition interventions have to be implemented at a small scale with limited capacity and resources. The data is produced at ilaka level (a few VDCs) by combining Nepal Living Standard Survey III data with auxiliary data derived from Census 2011. The Nepal Small Area Estimates of Poverty 2011 was developed by the CBS with support from the World Bank.
- **DAG Score:** The DAG score is based on the indicators comprised of (1) food sufficiency of less than three months, (2) the presence of marginalized groups, (3) lack of access to basic services, (4) the lack of representation / participation of / by women, Dalits and Janajati in decision-making bodies, (5) the prevalence of gender discrimination, and (6) the presence of vulnerable groups.

2) Local level targeting: The second level of targeting occurs at the regional (or provincial) or district (or local government) levels. The district-level authorities selected the VDCs and wards for the project. Because district-level officials would have a better understanding of the needs of the VDCs and wards in their districts, the central line agency decentralized the selection process to the district. For the AFSP and SHD Project, the central authority gave the project districts a set of criteria for project selection, which the latter used to rank prospective VDCs for projects. One of the criteria used by the districts was the DAG Score (see Box 1). For projects operated by nongovernment agencies, the selection of VDCs and wards rested with the project itself, but the implementers consulted with the government entities, e.g., KISAN Project. The decentralized targeting process faces a few constraints as described below.

- **Unreliability and utilization of data** – For projects relying on DAG scores for selection, one concern was whether the DAG scores might not truly represent the status of the VDCs. In addition, when VDCs have the same DAG scores, but only a limited number of VDCs are to be selected per project, how should the selection decision be determined?
- **External pressure in selection of VDCs** – Decision makers often faced pressure from lobbyist to include their VDCs in a project. In such cases, decision makers often successfully convinced lobbyist of the objective criteria used in the selection process by sharing the criteria. However, district officials reported that interventions should

have been district-wide instead of being only in certain VDCs as there was a push-back from those VDCs not benefitting from the project despite being in the same districts.

- **Time consumption and delays** – Even though the decentralized process helps to increase the ownership of district-level stakeholders and to leverage their expertise in the targeting process, it is nonetheless a time-consuming process. District officials are expected to consult with other district-level stakeholders, often by convening a district-level meeting to resolve any conflicts or concerns from different actors. They also face other logistical constraints, such as in communicating with central-level officials and the unavailability of VDC-level officials to provide inputs.

3) Community-level targeting: The third level of targeting is done by community groups or structures formed by the project to identify households and individuals who should receive project benefits. Some interesting approaches used for effective local-level targeting implemented by the community members themselves are described below.

- **Household data collection by community teams:** For the SHD project community-based teams implementing the project went door-to-door to identify households that fall within the selection criteria, and thus created a roster of beneficiaries for sub-projects. This approach provided teams with data to not only select beneficiaries more objectively but also to resolve any concerns from groups or individuals excluded from the project.
- **Using health facility data to identify beneficiaries:** In Suaahara, the project implementers obtained data from health facilities to select their beneficiaries and to identify Female Community Health Volunteers (FCHVs) for mobilization. While this process may exclude individuals not using the facilities or those who might not have access to FCHVs, the approach nonetheless provided extra tools to estimate the size of target groups and to assist in identifying individuals.

Critical Considerations in Beneficiary Selection

However, projects did face common challenges to ensure that only needy people were selected as beneficiaries. Some of the most prominent issues that should be considered during the selection process are as follows.

- **Possibility for elite capture:** In introducing or starting projects that require strong community participation or formation of community groups, the projects must go beyond finding the “local champions.” It is important to conduct a more thorough assessment, instead of simply relying on such individuals, and to ensure a more inclusive channel of communication, such as the Ward Citizen Forum or existing groups such as mothers’ groups.

“However, in my personal experience, in many of these programs, generally one contact person from the village is picked up. He is solely contacted and consulted for community group formation. In those community groups, favoritism and nepotism are highly practiced.” – VDC Stakeholder, AFSP

- **Well-intended selection criteria often prevent effective inclusion:** In some cases, interventions are designed with conflicting criteria that unintentionally exclude certain groups. For instance, when a certain intervention modality requires group members to have a certain level of literacy, but certain historically excluded groups, such as Dalits or women, do not meet the criteria, then such provisions defy the very goal of ensuring inclusion in interventions.

“In my opinion, I haven’t seen any Dalits getting the opportunity of working as volunteer because there is no education among the backward groups... Volunteers are only from the educated family.” – VDC Stakeholder, AFSP

- **Marginalized groups may not participate or speak up due to socio-economic factors:** During the process of beneficiary selection, marginalized groups may not actively participate or voice their opinions given their low-level of empowerment and economic opportunity costs. Therefore, extra effort must be taken to ensure marginalized groups’ constraints are thoroughly considered in planning information sessions or beneficiary selection in villages.

“... the poor people and marginalized are suppressed and silenced. They do not want to speak up. They don’t have enough to eat. They have bigger things to worry about; why would they want to go and listen to speeches?” – Coach from a terai district, SHD Project

- **Rollout of interventions in multiple phases can help increase coverage in areas with large or dense population.** Such rollouts can be based on settlements, priority groups, or operational considerations and can help resolve possible conflicts or objections from community members who are concerned about being excluded from the project.

Targeting- Blanket Approach versus Selective Targeting

One of the most contentious issues in beneficiary selection is the choice between a blanket approach (covering everyone in a project location) and selective targeting (covering only those people in-need in a project location). Malnutrition with multi factor causes and requiring interventions at various stages of human life cycle possesses a challenge while selecting beneficiaries. This issue arises especially when the project intends to provide certain amenities (cash, in-kinds, etc) to people to change their behavioral practices for better nutrition.

Selection of beneficiaries could depend on the nature of interventions. Blanket approach is appropriate to addresses risk factors that are community-wide, e.g., open defecation practices, or society-held misguided belief systems. Selective targeting is usually practiced when a risk factor is concentrated in certain economic groups e.g. poor households which are food insecure. However, whether to adopt a blanket approach or selective targeting also depends on geographical spread of the risk factor for which an intervention is designed and marginal cost of operations. Selective targeting would involve the cost of identification of the beneficiaries and if the risk factor in consideration is spread over multiple locations, then the marginal cost of interventions might increase.

In community-driven projects, like the SHD Project which provided amenities to people, there was a strong resistance from people such as those who were not poor or are from “higher” castes or who were not selected for the benefits. This sort of attitudes in the community hampers smooth implementation of activities. Sometimes it might be more convenient to include all the beneficiaries (like pregnant and lactating women, children under two years, etc) irrespective of their income status or castes considering the high opportunity cost of resistance from hostile community participants.

Recommendations

- Given the resource constraints, targeting should be strategically planned. One should make use of all the information available to narrow down the geographical location of intervention, and further identify spatial orientation of risk factors and risk groups within that location. In the dearth of relevant information at the intervention area, a prior survey or formative research will be helpful in designing an effective methodology for beneficiary targeting.
- One can select beneficiaries within a framework, for example, intervention for the first 1,000 days, or for households with under-five children, adolescents, or pregnant and lactating mothers. Conflicts and challenges can be avoided if interventions cover an entire autonomous administrative unit. For example, one should use a district-wide (or Local Government-wide) or province-wide approach and select beneficiaries irrespective of their income status or whether they are marginalized or not. If resources are limited, interventions should be implemented in phases in different autonomous administrative units.

3.3 Investment Mechanism

3.3.1 Financing Sources

Nepal uses a range of financing mechanisms to implement nutrition interventions. The mechanism depends on various factors, such as the objective and type of nutrition interventions, the number and nature of target beneficiaries, and the scale of coverage across geographic areas and districts. The four primary categories of financing mechanisms used in Nepal are described below.

- **Development partners financed large-scale interventions using the government’s financial system:** The European Union through UNICEF finances nutrition-specific interventions by partnering with the MOH and other all relevant ministries including MOFALD, MOE, MOWSS and MOWCSW and their line agencies. The World Bank had financed a separate nutrition project, the SHD Project, through the MOFALD. Other donors that have financed nutrition-related programs in Nepal are DFID, DFAT, WFP, FAO, and ADB.
- **Development partners financed large-scale interventions using their own financial system.** USAID has financed Suaahara, SABAL, Pahal, and KISAN (Feed the Future) Projects. Those projects are implemented through international NGOs, including Save the Children, HKI and FHI 360, which are selected through competitive bidding.

- **Government financed large-scale interventions using its revenue resources:** The GON has directly invested its own revenue in nutrition-specific and nutrition-sensitive activities through various line ministries and agencies. For instance, the Nutrition Section of Child Health Division of Department of Health Services supports micronutrient supplementation, therapeutic feeding, supplementary feeding, optimum breastfeeding, complementary feeding, and responsive feeding practices. Since 2015, the MOF has been contributing funds to implement the government's MSNP through the MOH and MOFALD.
- **Other organizations financed small-scale interventions:** Some small-scale, stand-alone interventions are financed by NGOs. ACF with the help of UNICEF has supported Saptari District in managing acute malnutrition.

Some projects directly contribute to the government's budget and use government financing systems, as described above. Whereas some projects use partially separate or completely separate financing systems. Nutrition interventions implemented solely through government's traditional line-item annual budgeting include the MOH's own nutrition-specific activities, the World Bank financed Sunaula Hazar Din–Community Action for Nutrition Project, AFSP, Rural Water Supply and Sanitation Project, and the Government's MSNP. UNICEF also primarily finances through on-budget programs which also includes direct payment method. Other donor-funded programs like Suaahara have also contributed through an on-budget direct funding modality to districts through relevant line agencies. Suaahara has funds for its project via off-treasury mechanism too. Suaahara has channeled some of its funds through competitively selected NGOs and partner organizations. USAID projects, such as KISAN, adhere to USAID's financial and procurement policies, and fund-flow occurs to competitively selected firms.

Activities financed through government systems depend solely on the timing of the spending authorization received by the implementing units from the center to the local levels. If the implementing unit is a community, as happens in a community-driven project, it appears that the community receives funds only towards the latter half of the fiscal year. The delay in receiving funding can happen anywhere at various levels of government. Even if the budget is announced on time, the program approval takes time before the central implementing agency obtains the funds to spend. If donors have committed the funds, then the central government might not release the funds to the project if reimbursement by the donors has not been made to the treasury for the previous fiscal year's expenditures. Donors reimburse the expenditures only on the premise that financial transactions have been accounted for. At the local levels, frequent transfers of officials and inadequate attention could lead to delays in funding allocations. At the level of communities, if the financial transactions and reporting do not comply with the set standard, then a further delay of fund flows could occur. The more layers of approval within the government, the more delays in the funding flow. Projects like SHD suffered such setbacks due to funding delays.

Nutrition projects that do not use the government financial system did not suffer funding delays.

Recommendations

- It is essential to minimize the layers of funding flow for a project or any activity within the system. Financial accountability should be the responsibility of the units that receive the spending authorization.
- It is essential that timely financial compliance is maintained by the implementing agencies to get reimbursement of expenditures committed by donors.
- For a community-driven project, it is essential that a central unit approves the proposals and releases funds directly to the communities. Communities have very minimal capacity to follow bureaucratic processes of documenting technical and financial reports. Such processes at the community level generate exhaustion and disinterest for the project. Communities need to be made accountable for the money they receive but not at the cost of complying with complex bureaucratic processes.

3.3.2 Financing Modalities

The nutrition and food security projects in Nepal employ a range of financing modalities to carry out activities and achieve the stated objectives. The modalities can be categorized in three broad domains, namely input-based financing, safety-net financing, and results-based financing. The chart below illustrates each modality, with descriptions, assessments, and learning based on experiences in Nepal.

<p><i>Input-based financing</i></p> <p>Under this modality, the assumption is that the desired outcomes will automatically follow from providing better inputs and processes. How results are achieved depends on the correct sequence of activities elaborated in the logical framework from inputs to outcomes, and provided no external unfortunate events occur that would negatively affect the results. Implementers are accountable for inputs but not results. For reporting, implementers use indicators such as coverage of inputs, e.g., households reached, mothers counseled on exclusive breastfeeding, number of children suffering from severe acute malnutrition receiving treatment.</p>	
<p>Examples: The funds have mainly financed specific inputs to implement nutrition-specific and nutrition-sensitive interventions, including communications strategy, and monitoring and evaluation. Some examples include:</p> <ul style="list-style-type: none"> • Purchase micronutrients, complementary food, supplementary and therapeutic food • Support homestead gardens to grow vitamin-rich food • Invest in health infrastructure to increase access to quality health services • Support initiatives in Water, Sanitation and Hygiene (WASH), reproductive health, and women's empowerment 	<p>Learnings:</p> <ul style="list-style-type: none"> • This modality is more suitable to finance interventions with reliable assumptions of theory of change, i.e., specified activities will result in certain outcomes. • Since the fund is not contingent on the outcomes, the modality is less suitable for more complex implementation interventions or a change process.

Results-based financing

In this modality, the financing decision is made based on the anticipated results or outcomes of the activities in a logical framework. Several types of this financing modality are implemented in Nepal. They can be categorized as (a) conditional grants (b) semi-conditional grants, and (c) performance-based incentives. Some of the common conditions with results-based financing elements in Nepal are cited below.

Conditional grants

<ul style="list-style-type: none"> • Food / Cash for Work: The Additional Financing of Social Safety Nets Project (SSNP) implemented by the MOFALD sought (as one of its objectives) to improve the population's access to nutritious food in food insecure districts. The main activity conducted to meet this objective was engaging the community in infrastructure works such as construction of rural roads, irrigation systems, flood control, soil conservation, and by providing livelihoods and agriculture-focused activities. Given the difficulty of delivering food to remote areas, and the recognition that in some food insecure districts, food was available in the market, the modality switched from in-kind to a cash grants modality (World Bank, 2010). 	<p>Learnings:</p> <ul style="list-style-type: none"> • There were recurring delays in the MOFALD's funds release for the Social Safety Nets Project (SSNP). However, in food/cash for work, such delays were not seen due to direct transfers to a WFP subsidiary to deliver foods, thereby increasing efficiency. Similarly, in remote areas, switching from food delivery to providing cash grants for labor work was easier to manage and reduced logistics (World Bank, 2015). • Globally, Conditional Cash transfers given to households for adopting certain health care practices and nutrition behaviour have generally shown good results but are usually contingent upon the nature of "conditioning" and the quality of services (Marie M. Gaarder, 2010) (Jef L. Leroy, 2009). • Conditional grants provide a "check" on the quality and results of activities, which can have a positive effect when they incentivize a community to perform. • Strong monitoring and accountability mechanisms must be established to assess whether the conditions have been adequately met to approve grants.
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Semi-conditional grants for beneficiaries (demand-side)

<ul style="list-style-type: none"> • Grants for awareness event attendance: The World Bank's pilot project Community Challenge Fund provides cash transfers to mothers for attending nutrition awareness programs. The cash transfers are intended for the mothers to put into practice their new knowledge about nutrition. The only condition for receiving the transfer is for the mother to attend the information session and not based on the actual result of change in nutrition practices or behaviors. • Small grants for agriculture: The AFSP provided small grants to farmer groups with the goal of the farmers increasing their production of nutritious foods, such as by constructing better irrigation systems. 	<p>Learnings:</p> <ul style="list-style-type: none"> • A randomized evaluation found that providing cash grants to mothers who participated in nutrition information sessions had substantially improved knowledge about practices to improve maternal and nutritional health and resulted in small gains in children's cognitive development (Levere, 2016).
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<i>Performance-based incentives for health service providers (supply side)</i>	
<ul style="list-style-type: none"> • Health facility incentives: Maternity incentive Aama Program has provided performance-based incentives to health workers. Such incentives have been gaining popularity to improve access to health services, particularly by providing payments to health facility workers for conducting institutional deliveries. • Community worker incentives: Instead of receiving a direct salary, FCHVs are often incentivized to carry out their activities based on the number of referrals or by participating in community health campaigns or learning events. 	<p>Learnings:</p> <ul style="list-style-type: none"> • The lessons from the Aama Program can be used for nutrition-focused programs, with possible application in malnutrition surveillance, treatment, raising awareness, and incentivizing agriculture and veterinary service providers at the local level.
<i>Welfare Financing</i>	
The modality seeks to provide welfare support to those most vulnerable to malnutrition.	
<ul style="list-style-type: none"> • Cash transfer: Since fiscal year 2010, MO-FALD has been providing cash transfers to children under five in the districts of Karnali zone and to poor Dalits all over the country. Children under five—up to a maximum of two per household—receive NPR 200 per child per month. Although the cash grant is unconditional, the objective of this program was specifically related to improving nutrition. • Unconditional in-kind transfer: Some communities vulnerable to food insecurity and malnutrition are provided with in-kind goods, such as agricultural tools, seeds, and fertilizers, to help grow vegetables to improve their dietary intake. 	<p>Learnings:</p> <ul style="list-style-type: none"> • An increase in the cash grant benefit would lead to decline in the prevalence of underweight and severe wasting. • There are constraints and challenges to this modality, such as the low level of benefit, low coverage among under-two children, and delay in cash delivery (UNICEF, 2016).

Recommendations

- While there is no one best modality, due consideration should be given to the capacity of the implementing agency and the existing accountability mechanism for the modalities to ensure that money is used for the purpose intended.

3.4 Institutional Modality

3.4.1 Institutional Arrangements in Government-Implemented Projects

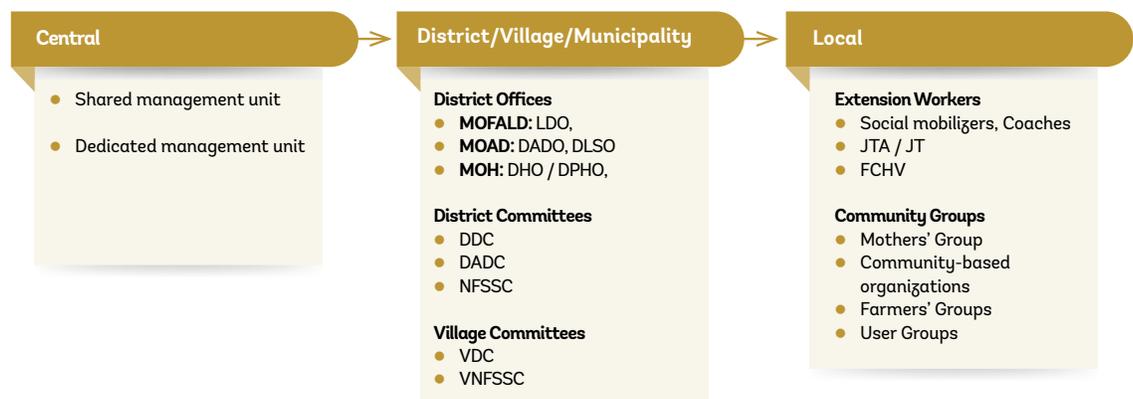
Even among Government-run projects, the institutional arrangements vary. The institutional modality to deliver nutrition programs is contingent on the prior institutional structure and the additional infrastructure and human resources needed to implement certain activities.

Some sectoral ministries may have the correct institutional structure from the central to the community levels to deliver nutrition-related interventions. For example, in Nepal, the MOH implements nutrition-specific interventions through its Department of Health Services and its divisions (CHD and FHD). The nutrition-specific services are delivered through the MOH's health facilities, including hospitals, primary health care centers, and health posts. Female Community Health Volunteers (FCHVs) are also actively involved in the delivery process in the communities. Although the MOH's health system is fairly equipped to deliver such services, donors like UNICEF, USAID, UNFPA, and WFP with their technical and financial support enhance its capacity.

The MOAD operates agricultural programs through its various agencies, including the Department of Agriculture, the Department of Food Technology and Quality Control, the Nepal Agriculture and Research Council, and local structures, including the District Agricultural Development Office. There are also community extension workers called Junior Technical Assistants (JTAs). Other agencies, external to the Government's structure, like FAO, have also been involved in providing technical backstopping to implement agriculture projects like the AFSP.

The Ministry of Federal Affairs and Local Development implements its programs through District Development Committees (DDCs) and Village Development Committees (VDCs). Under its Local Governance and Community Development Program, the ministry also has social mobilizers working in the communities to create awareness of civic rights and duties, to inform people about government services and facilities, and to help communities with economic development opportunities.

In the following section, different institutional modalities are examined which are used across central, district, and local levels by three World Bank funded projects that use the Government's structure. The chart below provides the general types of modalities in the Government system.



Central-Level Management Arrangement

The institutional arrangements for a project management unit (PMU) at the central level can be classified into two categories: (1) shared implementation unit, in which PMU staff are engaged in multiple projects; and (2) dedicated implementation unit, in which PMU staff are engaged full-time in the project. The chart below compares the two categories in more detail:

<p>Shared management unit e.g., SHD Project, MSNP</p>	<p>The project is led by a PMU consisting of ministry staff, who share their time with other tasks. The SHD Project was implemented by staff from the Local Body Support Section of the MOFALD, which was also involved in implementing the MSNP. The Local Body Support Section has other responsibilities besides implementing nutrition projects.</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • PMU staff are often overburdened by their other shared responsibilities and may not provide the time required for the concerned project. • Such an arrangement in the PMU calls for hiring dedicated staff to oversee the project early during project implementation. To support MSNP implementation, the MOFALD has recently been hiring technical expertise for the central government as well as in the districts, with UNICEF’s support.
<p>Dedicated management unit or section, e.g., AFSP, Nutrition Section of Child Health Division</p>	<p>The project is led by a PMU or a section consisting of ministry staff who either are hired full-time or are present full-time to oversee projects. In AFSP, the Joint Secretary led the project with officers supporting various project functions, such as administration, M&E, finance, and so on. Another example is the dedicated staff of the Nutrition Section of the Child Health Division in the Ministry of Health, which has the sole responsibility of executing the nutrition-specific interventions per their mandate.</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • This allows the team to function with fewer interruptions, and they can therefore dedicate their time fully to the assigned project or activities.

District and Local Implementation Arrangement

It is essential that the central ministries have adequate infrastructure and human resources to implement their respective activities at the district and local levels, including among villages and the communities. In this section, different management arrangements are reviewed at the district and local levels for key government ministries involved in nutrition and food security interventions.

The following chart assesses necessary capabilities for project implementation or Triple-As, that is Ability, Authority, and Acceptance at various levels.

	Ability
District level	<p>For new projects, the project implementers must receive proper orientation and institute a mechanism to transfer knowledge for new staff because district officials share responsibilities across multiple tasks.</p> <p>If districts have platforms working on similar issues, it is essential to use that platform for program implementation. AFSP used the collaborative platform of the District Agriculture Development Committee. The SHD Project utilized a newly created structure for implementation, the District Nutrition and Food Security Committee, which was mandated by the NPC. The new structure created confusion primarily because of a lack of orientation, and secondly, due to the sheer number of members on the committee, it was difficult to convene.</p> <p><i>"...if there is a gap in the veterinary, then there is lack in one part. And if there is a gap in agriculture, then we will not have the expected outcome in nutrition; or if the health lags behind, then the outcome will not be as expected." District Official, SHD project</i></p> <p>Dedicating time for project monitoring is a major challenge. Some of the reasons given include having limited time for field visits due to multiple meetings at headquarters, the remoteness and difficulty of reaching villages, and logistical and accommodation challenges in villages.</p> <p>Providing dedicated human resources helps to relieve the workload from existing district officials and allows for focused and efficient project implementation. In the AFSP project, such provisions were built into the project early by outsourcing to FAO. Whereas for the SHD Project, district coordinators and assistants were hired very late after the project was implemented.</p>
Village level	<p>Thoroughly assess the capacity and time availability of VDC staff to take on the project activities. Given the human resource constraints, members of one VDC are responsible for overseeing the work of multiple nearby VDCs. VDC secretaries are often absent from the village, thereby hampering the project implementation. In such cases, outsourcing the supervisory and monitoring functions would be essential from the start.</p> <p><i>Points to consider while outsourcing:</i> The government should ensure outsourced firms/NGOs are accountable to contractual obligations and paid for verified results.</p>

<p><i>Community level</i></p>	<p>Community workers, social mobilizers, and community groups act as a bridge between the communities and the service providers. Their strong development capabilities are critical for the smooth operation of projects. The following points should be emphasized: (a) the initial training should be in a language familiar to the community groups, that is Nepali or local dialects should be used for instructions or discussions. And the training should engage participants in practical situations, for example demonstrations, group work, and expert observations; (b) inception field training should involve close observation and support by supervisors to ensure acceptable performance as the community groups begin to work in the field; (c) routine quality monitoring and refreshers should review the quality of proposals, reports, and process-level outputs of the individual workers; and (d) peer-to-peer learning between high-performing and low-performing workers can also help to boost practical skills and the confidence of the workers to improve their performance.</p> <p>If communities must follow strict government rules to spend their grant money, the community members' capacity should be built so they clearly understand the regulations. Communities were frustrated when they were unable to receive subsequent installments because they failed to follow government financial transaction rules. In SHD Project, accounting and record-keeping were insufficient, resulting in inefficient processing of proposals.</p> <p>Using existing community structures like farmers' groups, mothers' groups, FCHVs, and JTAs simplifies implementation. Although additional human resources may be necessary at times to supplement their activities. SHD project and AFSP hired coaches and JTAs respectively at some cost. There was some turnover of coaches in SHD project. In AFSP, a high turnover of JT / JTAs resulted in the project losing trained labor and therefore, additional time was devoted to re-recruitment of staff. A major reason for the high turnover of staff is the low salary paid to coaches or JTAs by the firms that selected them. The firms are selected by a competitive bidding process, which usually awards the contract to the firm with the lowest bid. With a low working budget, the firms pay low salaries to JT / JTAs to fulfill the terms of the contract. To resolve this problem, the contracting process should specify, and if possible enforce, a competitive salary for field staff.</p>
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	<i>Authority</i>
<i>District Level / Central level</i>	<p>If the district officials are responsible for oversight and accountability, the project or program needs to dedicate more authority to the districts for decision-making and problem-solving. In AFSP, such provisions helped to resolve implementation issues and challenges more effectively. Even though such mechanisms were ensured in the SHD project, the ability of the authorities to make decisions were lacking.</p> <p>There are allegations at times of abuse of authority which might be difficult to prove but project should have some mechanism to address those risks.</p> <p><i>“When we went to collect money, officials at the DDC deducted 20 percent of the allocated fund and....”</i> – RRNI Team Member, SHD</p> <p>If cross-sectoral collaboration is necessary, then a clear plan for cross-sectorial collaboration by the different line agencies needs to be established to increase ownership of the activities and shared objectives. The SHD Project had clearly missed it as at the level of communities, a comprehensive plan for collaboration was not there. In AFSP, the MOAD had to collaborate with the MOH to deliver nutrition-specific programs. The MOH was clearly given authority and resources to provide such support throughout the project.</p>
<i>Village level</i>	<p>At the village level, issues of oversight and accountability are the same, but depends on what functions can be delegated to the village level based on the existing capacity.</p> <p>If the village level acts only as a “post-office” to channel funds to the communities, then there might be rent-seeking behavior as observed in the study. For instance, in some cases, government agencies allegedly sought a commission for approving proposals, advised against certain types of projects, or suggested adjusting the beneficiary selection.</p> <p><i>“Officials coming to the VDC said that they would not put any stamps on the paper if that 2 percent is not given to them.”</i> – RRNI Team member, SHD</p>
<i>Community level</i>	<p>For community-driven activities, it is essential that communities receive adequate resources through direct channels and are given the authority to make course corrections in their work plan and to counteract unforeseen circumstances. People appreciate when the majority of resources goes directly the community’s bank accounts. They are given full authority to mobilize their funds based on project agreements.</p> <p>Local political parties sometimes interfere with communities’ authority to implement projects, but the interference can often be countered through broad-based community discussions and transparency in the decision-making process.</p> <p><i>“Local political parties demanded [money] from us, saying they want a share of the project fund.”</i> – Community member, AFSP</p>

	<i>Acceptance</i>
<i>District level</i>	<p>Acceptance is increased if district implementers are involved in project preparation, planning, and implementation. It seems that officials are comfortable working with existing structures, rather than creating a new one.</p> <p>The collaborative platform of the District Agriculture Development Committee (DADC) was valued by district stakeholders in the AFSP. DADC had representation from agriculture, forestry, irrigation, and livestock agencies, which collaborated to improve the planning and decision-making process.</p> <p>Acceptance is also enhanced if local level cross-sectoral agencies are engaged early in the project for effective collaboration and cooperation. The SHD Project suffered initial setbacks because sectoral agencies at the local levels were not accepting of the project.</p>
<i>Village level / Community level</i>	<p>Proper orientation and explanations are required to counter initial skepticism and reluctance by communities to participate. The sensitization session must clearly explain the benefits of the program and emphasize that the project is for the people from the GON.</p> <p>Incentives for participation must be balanced with objectives of participation. In agricultural training programs, implementers indicated that farmers are often motivated by allowances and food, rather than the information that the project provides. They also emphasized the importance of considering the contextual differences to determine the amount of incentives, such as cost of food in remote versus urban areas.</p> <p>Most FCHVs expect to receive incentives for their support to health programs and for attending trainings and seminars. However, they also seem to value the learning opportunity and chance to help people in villages.</p> <p><i>“It would be great if they could provide one or two thousand rupees a month. It would be very helpful. We cannot ask for a 20,000 salary. It’s not easy for us. If the government could assist us a bit. We must roam around on an empty stomach. It would be really helpful if the government could provide us with lunch, at least.” – FCHV, Jumla</i></p> <p><i>“Even though there was no money in it, it was an opportunity to travel around my village, to serve the people and children, and learn new things. I thought this was more important than money. I learned so many things, new skills.” – FCHV, Dadeldhura</i></p>

3.4.2 Nongovernment Partnerships

Partnerships with nongovernment entities, such as INGOs, NGOs or private firms, are crucial for procuring services and support in implementing nutrition interventions. This study shows that nongovernment partnerships can be procured through the government system, from outside the government system, or with external resources.

The World Bank funded projects, such as SHD and AFSP utilize the government procurement process to select NGOs and firms for delivering specific services during implementation. SHD, for instance, partnered with three National Service Providers (NSPs) or NGOs, which were responsible for hiring coaches and district-level supervisors to support the project. AFSP also partnered with FAO to implement food security and nutrition interventions. The USAID funded Suaahara Project and SABAL Project supported many nutrition interventions. Funding agencies' systems were used to procure such services. The NGO selection process faced hurdles from political pressures, and the resulting delay in selection was more prominent when the government selected the services. The performance of some of the selected NGOs hired through the government system and partners' systems was not acceptable since they were not paying their staff salaries and performing their required duties. It appeared that the NGOs had bid quite low to win the contracts and later they could not perform very well.

USAID-financed nutrition projects, which are aligned to the government's MSNP, are mainly delivered through various partner organizations that were competitively hired through a bidding process by consortiums of competitively selected international organizations. A mix of local and national NGOs engaged for different purposes and expertise enhanced Suaahara's implementation of activities.

Although the MOH has an institutional structure to deliver nutrition-specific interventions, technical agencies like UNICEF and UNFPA support the MOH with budgetary and extra-budgetary allocations for human resources and with technical inputs for quality implementation. Partners like HKI and Save the Children receive funding from USAID for nutrition-related programs to support the MOH by strengthening the institutional capacity of the ministry to execute nutrition programs with technical support. Suaahara II nutrition and health related activities are also reflected in the red book (on-budget) of the MOF.

3.4.3 Cooperation, coordination, collaboration, and partnerships

Successfully achieving multisectoral nutrition results depends on the effectiveness of cooperation, coordination, and collaboration of different line agencies working together towards a common goal. Ensuring mutual accountability for a multisector outcome depends on how responsibilities are shared and whether individual agencies have the authority and resources to execute their assigned tasks. The following research findings well illustrate this concept.

The MOFALD implemented the SHD Project with the expectation that other line agencies would be coordinating and cooperating during the implementation of community

projects. While cooperation and coordination was deemed necessary for the success of the project, the communities could not garner the necessary support in the manner envisaged. Firstly, the different implementing line agencies did not have the authority and resources to oversee the project. Secondly, many communities chose sub-projects related to small household constructions like latrines, chicken coops, bio-sand filters, improved cooking stoves, and handwashing and sanitation stations, which communities felt they could construct without consultations.

Soliciting coordination for activities was left to the community level. At some places, the communities did consult local line agencies, such as the livestock office for vaccination-related matters, and the FCHVs and local health workers for health-related matters. However, activities requiring innovative mechanisms from relevant line agencies concerning behavior changes related to breastfeeding and complementary feeding practices, adolescent and sexual reproductive health, early marriage, and delayed pregnancy were not effectively implemented.

The SHD project incorporated a user group mechanism similar to the one used by the Rural Water Supply and Sanitation (RWSS) Project funded by World Bank and implemented by the Water Fund Board. The RWSS project community (users' committees) participated in selecting and managing projects, and the Fund Board financed suitable projects. The SHD Project formed a new kind of user group known as the RRNI team, which dissolved after each subproject implementation. Intra-community coordination depended on social structure and social cohesiveness. In the terai, the level of trust among the communities was much lower than in the hills. As a result, more conflicts occurred in terai communities during project implementation. RRNI teams were new to the communities. The inhabitants viewed them with suspicion and feared they would steal the money that was allocated to the communities. The conflicts revolved around the targeting mechanisms and were also due to interference by the political parties.

“There was some conflict, like why is it only focused on the poor people and not on the rich people. They are also pregnant, they are also the lactating mothers, but we tried and convinced them. The people from the party also created the conflict. They complained of selecting only some people; then we held a meeting calling the party representatives and ward citizen forum and convinced them that the program is for the targeted people, and the targeted people are not only the poor people.” – Coach, SHD

“Objections do arise as there are several political parties involved. The parties complain that their people are not selected. The selection process is satisfactory; however, the political parties create problems if their people are not selected, which leads to shortcomings.” – VDC Official, SHD

“It was difficult to convince the target group. This problem was much created by local political leaders. They have such a mentality that it [selection process] should be in their hands rather than in women's. They were against this program because women were involved in it. Time and again they used to pressure the VDC.” – RRNI Team member, SHD

In contrast, the MOAD, which implemented the AFSP, received cooperation and coordination from the MOH, and the relevant nutrition section of the MOH had the authority and resources to implement their share of activities. The MOH used its health facilities and human resources, including the FCHV, to implement nutrition-specific activities. The AFSP uses mothers groups' forums and farmers groups' forums to implement such activities at the community level. Those forums have existed for some time. The coordination among the members of the groups was highly effective.

Recommendations

- To ensure effective collaboration with various sectors, a project or program should define upfront the shared responsibilities with clear provisions for authority and resources to execute those responsibilities. It is essential to give adequate authority and resources to different sectors if their input is required in certain nutrition interventions. Collaboration between sectors without empowering them with proper authority and the required resources does not produce the desired results. Results are better if sectors are tasked with responsibilities related to their own sectors and not otherwise, meaning nutrition interventions should be planned multisectorally but implemented sectorally.

3.4.4 Monitoring and Evaluation

Monitoring nutrition interventions can be difficult without adequate human resource with optimal capacity. This study shows that various nutrition programs in Nepal have addressed human resources differently, indicating that monitoring in some programs was better than in others.

Donor-financed and managed INGOs hired local NGOs to implement nutrition interventions for their programs. The Suaahara Project partnered with four INGOs and worked with 45 local NGOs. The project had a detailed annual implementation plan with fund flows and work plans that facilitated effective self-monitoring and reporting of the activities. Regular implementation support visits, including joint visits with government's relevant persons and feedback, also helped to solve problems. The project has a database of reporting mechanisms from the periphery to the center. The Suaahara Project manager hired International Food Policy Research Institute (IFPRI) to conduct baseline and end-line evaluations of the program.

The MOAD implemented the AFSP and had active District Supporting Units as well as technical specialists. The ministry also contracted JTAs hired by NGOs, which were contracted by FAO, to monitor their project activities. Other supporting government agencies involved in AFSP, like the DFTQC and Nepal Agriculture Research Council, monitored their own activities and reported to the MOAD's central project implementation unit. Approximately 450 additional staff were contracted for project implementation. In addition, Government staff were also involved in implementation. Joint supervision visits to the sites by the ministry were done together with the World Bank at least twice a year. AFSP staff worked on digitizing monitoring tools, but they are not yet quite operational. The contracted NGOs paid lower level project staff inadequate salaries, leading to high staff turnover, which affected project implementation and monitoring.

The World Bank is conducting a rigorous impact evaluation of the AFSP with a phased-in approach. Late starter VDCs waited two and a half years to participate in the project, which only lasted five years. The late starting VDCs acted as counterfactuals for the impact evaluation. There were field-level concerns as to why some VDCs were not included in the project. A midline survey had to be done before the late starter VDCs could be included in the project. Nonetheless, a delay in the MOH's implementation of its nutrition component further delayed the project implementation with the late starting VDCs. The Government complained that the phased-in evaluation modality hampered disbursements and raised conflicts in the field since the beneficiaries were unaware of the evaluation design.

Monitoring of The SHD Project appeared weak until the last year of the project. The project management team was composed of 4–5 government staff and three contracted staff at the central level, one of which one was a procurement specialist. The government staff was also involved in managing other projects. A civil servant in each district was designated as a focal person to help implement and monitor the project. However, the district focal person had many other responsibilities beside the SHD Project. Three NGOs hired to implement and monitor the project did not perform their duties as expected. The project tried to digitize monitoring software, but it was not functional due to the lack of human resources. During the last year of the project, the ministry had an additional 35 contractual project staff, which strengthened the field-level monitoring and reporting.

“...the structure in the district needs to look after a lot of projects simultaneously, monitoring cannot be done, which you know. It is also weak from the monitoring aspect. We expected the NSP to see all these [weaknesses] but the performance of the NSP wasn't good.”

The SHD Project also received a rigorous impact evaluation designed by the World Bank. It also had a phased-in approach with half of the project VDCs receiving benefits earlier (“early starters”) than the other half (“late starters”). The “late starters” VDCs were acting as counterfactuals for two and half years without the project. The concerns were similar to those of the AFSP as explained above.

This research study shows that unless everyone involved in implementing the project is accountable for their areas of responsibilities and systematically monitoring outcomes, the project may not achieve its intended objectives. The Suaahara Project has established a dashboard to monitor every activity based on the annual work plan, and supervisors are actively engaged in monitoring. This monitoring system seems to work very well for timely implementation and response to issues.

While rigorous impact evaluation is necessary to generate data, this should be done without compromising project implementation and making beneficiaries wait for extended periods to be included during a five-year project while data is gathered. Project implementers and beneficiaries complained about the implementation delays for the SHD Project and the AFSP.

Recommendations

- Each sector should have adequate human resources and relevant technical expertise to design and implement effective monitoring and evaluation systems. If the necessary capacity does not exist, adequate services should be procured as soon as possible. Annual work plans should be detailed and implementation should be regularly monitored to reflect progress and achievements on a dashboard for everyone to see. This ensures transparency, accountability, and early identification of issues for the management team to act on in a timely manner.
- If implementation and monitoring functions are outsourced to nongovernment partners, whether NGOs or private firms, their accountability can be ensured by paying for verified results.
- While rigorous impact evaluation is necessary to generate evidence, this should be done without compromising project implementation and making beneficiaries wait to be included in the project while data is gathered.

3.4.5 Institutional Arrangement Framework

The table below provides an assessment of four different types of possible institutional arrangements, combining the operational aspects of implementing and financing nutrition interventions.

	<i>Technical Interventions</i>	<i>Financing Management</i>	<i>Implementation Arrangement</i>		
1	One Project, Multiple Interventions	Single Agency, centrally financed project	Single Agency (with local coordination)	Pros	Cons
	Example: <ul style="list-style-type: none"> • MOFALD implemented SHD Project with 15 different interventions. • MOFALD received budget from MOF and was responsible for project's technical and financial management. • MOFALD implemented the project through its own local bodies, DDCs and VDCs, with the help of its grassroots' platforms like ward citizen's forums and citizen awareness centers. New community groups were created to do projects around 15 areas. Funds were made available to the community groups. • Technical coordination anticipated with other line-agencies. Locally, other agencies are consulted or sought as per need, e.g., coach and community groups seek support from agriculture and livestock JTA or FCHV, DHO, DADO, DLO. 			Financial management and reporting is less dependent on efficiency of other actors since accountability rests with one single implementing agency. However, the local bodies of the implementing agency have to cooperate in the entire process.	Coordination difficulty with different local-line agencies at the community level due to low incentives including lack of authority for resource management Technical quality of interventions is compromised due to lack of cooperation from local line agencies

2	One Project, Multiple Interventions	Multiple, centrally financed project	Multiple Agencies (through local-level units)	Pros Individual line agencies should supposedly be well equipped to implement activities related to their own sector. Technical quality may be better as individual ministries and agencies are doing what they are supposed to do	Cons Financial management can be challenging when transfers happen to different local agencies. Harmonization of activities might be difficult at the community level if one agency's activity is dependent on the other
<p>Example:</p> <ul style="list-style-type: none"> • MOFALD and MOH implements Multi Sector Nutrition Plan, which has different sectoral interventions. • MOFALD and MOH receive budget from MOF and are responsible for project's technical and financial management. • MOFALD transfers funds to its local bodies (DDCs) to use for their own local plans and through its local bodies to other local line agencies, except health sector, and helps to implement the district nutrition plans. • MOH implements district plans through its local health facilities. 					
3	One Project, Multiple Interventions	Single Central agency, centrally financed, but does MOU with other central agencies for fund transfers	Multiple Agencies (through local-level units)	Pros <ul style="list-style-type: none"> • Project management accountability rests on one single agency • Individual line agencies should supposedly be well equipped to implement activities related to their own sector • Technical quality may be better as individual ministries and agencies are doing what they are supposed to do 	Cons One agency which is responsible for overall management is always at risk if the other agencies do not cooperate and coordinate properly
<p>Example:</p> <ul style="list-style-type: none"> • MOAD implements AFSP, which has both nutrition specific and nutrition sensitive interventions. • MOAD receives budget from MOF and is responsible for entire project's financial and technical management. • MOAD does MOU with MOH for certain nutrition-specific interventions and correspondingly transfers funds. • MOAD and MOH through their local units implement their activities as laid down in the project. 					

4	<i>Multiple Projects, Multiple Interventions</i>	<i>Multiple Agencies, centrally financed</i>	<i>Multiple Agencies (through local- level units)</i>	<i>Pros</i>	<i>Cons</i>
	<ul style="list-style-type: none"> • MOH runs community management of Acute Malnutrition; MOAD runs village model farm and homestead garden for diet diversity, or livelihood program. • MOWSS runs a rural water supply program. • MOWCSW runs women’s empowerment and child protection program. • MOE runs parental education and the school’s nutrition curriculum program, and the mid-day meal. • MOFALD runs cash or food transfer. 			<p>Easier to manage individual activities</p> <p>Technical quality is better as individual ministries and agencies are doing what they are supposed to do</p>	<p>Advantages of complementarity brought in by package of interventions during the same time frame in a locality is lost as different interventions might come at different times of the year</p>

4. Conclusion

Malnutrition has multiple causes and requires multisectoral efforts to reduce it. To achieve the Sustainable Development Goal (SDG) of ending all forms of malnutrition by 2030—and in the context of scarce resources—due consideration should be given to the following:

- **Designing contextual interventions with matched supply-side and demand-side activities:** It is important to thoroughly assess the demand-side considering communities' level of awareness of food and nutrition situation and the cultural context. This might entail formative research in the geographical area of intervention. Second, the constraints and prospects also need to be assessed from the perspective of systems, markets and political environment to understand the supply-side readiness. Then one should design the best possible intervention which adequately matches the nutrition response to the demand of the communities.
- **Targeting methods:** For geographical targeting, one should use all the available information to select appropriate locations. For the ease of administration and avoiding conflicts, one needs to consider adopting a district-wide (or local government-wide) approach rather than only selecting some villages/areas within those administrative units. In the communities, to avoid resistance from rich and high caste people, especially if there are in-kind or cash transfers, one might consider providing benefits to all beneficiaries irrespective of their economic or caste status.
- **Ensuring adequate financial compliance:** One should consider minimizing the layers of approval mechanisms and fund flow to avoid rent seeking behavior. For community-driven projects, maintaining accounts with receipts and vouchers by the communities as per government norms might not be feasible given their limited capacity. However, communities can be made accountable by paying for verified results.
- **Financing modalities:** One should consider various options—input versus results-based, conditional versus unconditional transfers and in-kind transfers—depending on the type of interventions and the target groups. Due consideration

should be given to the capacity of the implementing agency and the existing accountability mechanism when selecting a financial modality to ensure that money is used for the purpose intended.

- **Capacity and resource needs of the implementing agencies:** It is important to provide adequate authority and resources to the sectoral agencies to implement activities. If adequate resources are given to all the sectoral agencies as well as the authority, they are likely to cooperate and collaborate for producing a convergence effect (i.e. concentrating different kinds of support in a particular area). Nongovernment partners play an invaluable role by supporting the Government in program implementation, supervision, and monitoring, and by bringing in the technical knowledge to reduce malnutrition in the country. Accountability for the proper use of funds can be ensured by having a system to design and track work plans with a mix of input-based and performance-based (results-based) financing.
- **Sectoral implementation:** One should ensure that the sectors implement activities only for which they have a comparative advantage. By being engaged in such activities in the past, respective sectors would have the required capacity to implement the interventions. For instance, the Ministry of Health is best at promoting breastfeeding and complementary feeding, and the Ministry of Agriculture has an advantage in promoting homestead kitchen gardens. Whereas the Ministry of Federal Affairs and Local Development could best implement cash and in-kind transfers for food security and nutrition improvement.

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6. Annexes

Annex 1- Tables

Table 1: Nutritional Status and Poverty in Different Regions of Nepal 2001, 2006, and 2011 and 2016

Group/Region	Stunting (percent) of under 5 children				Underweight (percent) of under 5 children				Wasting (percent) of under 5 children				Poverty rate 2011
	2001	2006	2011	2016	2001	2006	2011	2016	2001	2006	2011	2016	
Nepal	57	49.3	40.5	35.8	43	38.6	31.1	27	11	12.6	13.7	10	25.16
Urban	36.8	36.1	28	32	33.5	23.1	18.9	23	7.8	7.5	11.0	9	15.46
Rural	52.2	51.1	44	40	46.7	40.7	33.1	31	9.8	13.3	14.2	10	27.43
Ecological Regions													
Mountain	61.4	62.3	56	47	45.1	42.4	37.3	28	5.3	9.4	9.0	6	42.27
Hill	52.4	50.3	42	32	41.4	33.2	25.2	18	5.9	8.4	6.9	6	24.32
Terai	47.3	46.3	39	37	48.4	42.3	35.2	32	13.3	16.6	20.4	12	23.44
Development Regions													
Eastern	47.6	40.3	40	33	43.4	32.9	26.9	26	9.1	10.1	13.1	13	21.44
Central	50.0	50.0	38	35	44.7	38.2	33.3	28	10.8	13.8	16.8	10	21.69
Western	50.1	50.4	40	37	43.4	38.5	27.2	23	8.9	10.9	10.9	6	22.25
Mid-western	53.9	57.9	51	42	49.0	43.3	36.3	29	8.8	11.6	12.0	9	31.68
Far-western	54.0	52.5	41	36	48.9	43.7	30.5	28	8.8	16.7	12.2	9	45.61

Source: CBS, WFP, WB. 2006. *Small Area Estimates of Poverty, Calorie Intake and Malnutrition in Nepal*. Kathmandu: CBS/WFP/WB. USAID, New Era, MoHP, 2007. *Nepal. Demographic and Health Survey, 2006*. Kathmandu. CBS, 2012. *NLSS III Survey Report*. Kathmandu. CBS, 2012 *Poverty in Nepal*.

Table 2: Food Shortages Reported by Households in Nepal Living Standard Survey 2010

	1995-96	2003-04	2010-11
percent households reporting less than adequate consumption of food	50.9	31.2	15.7
percent households reporting food shortages at any time during the last 30 days	NA	NA	7.5
met the food shortages by (percent household reporting)			
Borrowing food or money			68.4
Purchase food on credit			57.1
Eating less expensive food			50.9
Eating less for each meal			41.5
Skipping meals			33.4

Source: CBS. 2012. *NLSS III*. Kathmandu 100.

Table 3: Sampled Projects and Sample Size by Study Instruments Used for Data Collection

Project	Associated Agency	Sample size by Study Instruments			
		National IDI	District IDI	VDC IDI	Comm FGD
Sunaula Hazar Din or Golden Thousand Days Project	World Bank; Ministry of Federal Affairs and Local Development	3	3	6	6
Nepal Agriculture and Food Security Project (NAFSP)	World Bank; Ministry of Agriculture Development	3	3	4	6
UNICEF support (MSNP – nutrition interventions)	UNICEF	1	1	4	2
Feed the Future KISAN	USAID, Winrock International	1	1	2	1
Suaahara Project	USAID, HKI	2	3	4	2
SABAL Project	USAID	1	-	-	-
Nutrition-focused secretariat	National Planning Commission (NPC)	1	-	-	-
Nutrition policy and programs of Ministry of Health	Child Health Division	2	-	-	-
Total		14	11	20	17

Annex 2- Technical Approaches

Step 1: Identify key risk factors and interventions

Identify Key Risk Factors of Malnutrition to be Addressed

To address key risk factors associated with malnutrition, Nepal has implemented a range of technical interventions in its nutrition and food security (NFS) programs. While there is limited evidence to rank risk factors based on their causal links to malnutrition, a comprehensive strategy against malnutrition must consider all risk factors and employ interventions to reduce some of the fundamental issues affecting malnutrition in Nepal.

Fundamental Issues and Risk Factors	Menu of Standard Interventions
<p>Inadequate diet of women and children during the “golden 1,000 days.” The first set of challenges in reducing malnutrition is ensuring an adequate diet for pregnant women, and children under two and their mothers, which requires that the standard interventions are incorporated in the activities.</p>	<ul style="list-style-type: none"> • Improve dietary intake, 4–5 meals per day with protein for pregnant and lactating mothers. • Encourage exclusive and proper breastfeeding • Maintain adequate weight of pregnant women and mothers • Reduce excessive energy expenditure and workload of pregnant women • Homestead food production of vegetables and fruits in kitchen gardens
<p>Early pregnancy and low empowerment of women. Some traditional beliefs and practices in Nepal promote early marriage and pregnancy, which can increase the risks for mother and child. To discourage household or societal-level risk factors, some technical interventions targeted towards empowerment of women are listed.</p>	<ul style="list-style-type: none"> • Delay marriage and pregnancy of adolescent girls • Increase years of schooling for girls • Raise awareness about number and spacing of children • Empower women economically and in intra-household decision-making
<p>Lack of clean, sanitary and hygienic environment. The third set of issues consist of community-level risk factors, which can only be addressed through community-wide interventions, such as those listed.</p>	<ul style="list-style-type: none"> • Use of safe and clean water • End open defecation • Handwashing practices and habits • Sanitation in schools and other public spaces • Reducing indoor smoke and air pollution
<p>Limited availability and utilization of preventive and curative health services. The fourth set of issues must be addressed in collaboration with existing health infrastructure and services, particularly to ensure health services that promote the following.</p>	<ul style="list-style-type: none"> • Vaccination of children • Use of contraception • Intake of micronutrients, including iron-folic acid (IFA) and deworming medicines • Timely seeking of health services • Service provision for and timely treatment of acute malnutrition

Identify Interventions

Nutrition-Specific and Nutrition-Sensitive Interventions

To address the above-mentioned risk factors for malnutrition, various projects have applied a range of interventions, which are either nutrition specific or nutrition sensitive as presented in the table below.

<i>Nutrition Specific</i>	<i>Nutrition Sensitive</i>
<ul style="list-style-type: none"> • Micronutrient supplementation, i.e., vitamins, iron-folic acid tablets for mothers • Therapeutic / supplementary feeding, i.e., ready-to-use therapeutic food • Optimum breastfeeding and responsive feeding practices and simulation • School meals, i.e., nutrition-enriched school lunch • Food fortification, e.g., addition of calcium and vitamin in generally consumed food, such as biscuits; home fortification of food with multiple micronutrient powder • Provision of food and nutrition during emergency, e.g., in-kind distribution of food during periods of food insecurity 	<ul style="list-style-type: none"> • Boost agriculture production by using improved seeds and other technology • Bio-fortification of staple food such as wheat and rice • Market-side interventions to lower prices • Support livelihoods to increase income and purchasing power • Cash or food transfers to support adequate dietary intake—conditional or unconditional • Support diet diversity • Proper schooling, nutrition curriculum, early childhood development • Timely treatment seeking and provision of services for adolescent and reproductive health • Women’s empowerment • WASH—provision of safe water, sanitation, and hygiene of households and communities



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