



*Capacity needs assessment
for nutrition monitoring, evaluation
and policy research
in Ethiopia*

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Authors

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List of Acronyms

AC	Advisory Committee
AGP	Agricultural Productivity Program
BSc	Bachelor of Science
CHD	Child Health Days
CNA	Capacity Needs Assessment
CSA	Central Statistics Agency
DHIS	District Health Information System
EDHS	Ethiopia Demographic and Health Survey
EFY	Ethiopian Fiscal Year
EIAR	Ethiopian Institute of Agricultural Research
ENCU	Emergency Nutrition Coordination Unit
EPHI	Ethiopian Public Health Institute
EUD	European Union Delegation
EVIDENT	Evidence Informed Decision-making in Nutrition and Health
EWS	Early Warning System
FAO	Food and Agriculture Organization of the United Nations
FBPIDI	Food Beverage and Pharmaceutical Industry Development Institute
FDRE	Federal Democratic Republic of Ethiopia
FSNRD	Food Science and Nutrition Research Directorate
GSF	Global Support Facility
HDSS	Health and Demographic Surveillance Sites
HMIS	Health Management Information Systems
IFPRI	International Food Policy Research Institute
MER SC	Monitoring, Evaluation and Research Steering Committee
MICS	Multiple Indicator Cluster Survey
MoA	Ministry of Agriculture
MoE	Ministry of Education
MoH	Ministry of Health
MoLSA	Ministry of Labor and Social Affairs
MOOC	Massive Open Online Courses
MoTI	Ministry of Trade and Industry
MoWYC	Ministry of Women, Youth and Children
MSc	Master of Science
NDMC	National Data Management Center
NDRMC	National Disaster Risk Management Commission
NFNP	National Food and Nutrition Policy
NIPN	National Information Platform for Nutrition
NIPN CNA	National Information Platform for Nutrition Capacity Needs Assessment
NNCB	National Nutrition Coordination Body
NNP	National Nutrition Program
NNTC	National Nutrition Technical Committee
PhD	Doctor of Philosophy
PSNP	Productivity Safety Net Program
SDCU	Sequota Declaration Coordination Unit
SUNRAY	Sustainable Nutrition Research for Africa in Years to come
SURE	Sustainable Under-Nutrition Reduction in Ethiopia
UNISE	Unified Nutrition Information System of Ethiopia

Executive Summary

In 2018, the Government of Ethiopia endorsed its first National Food and Nutrition Policy (NFNP) and launched the National Information Platform for Nutrition (NIPN) to promote evidence-based decision-making under the new policy. The NFNP promotes a coordinated and comprehensive approach to food and nutrition security and highlights the importance of evidence-based decision-making.

The NIPN supports the implementation of the NFNP and the National Nutrition Program (NNP) and provides evidence to guide decision-making for nutrition. Analysis of available data can provide evidence that for nutrition stakeholders to use in developing policy, designing programs and allocating investments. To implement the NIPN, specific capacities are required from stakeholders directly involved with the platform and from organizations active in the NPP's Monitoring, Evaluation and Research Steering Committee (MER SC), a representative group of multisectoral stakeholders charged with coordinating nutrition monitoring, evaluation and research in Ethiopia.

The Ethiopian Public Health Institute (EPHI) and the International Food Policy Research Institute (IFPRI) jointly conducted a NIPN Capacity Needs Assessment (NIPN CNA) to identify needs and recommend strategies to strengthen capacities for nutrition monitoring, evaluation, policy research, data, and knowledge sharing.

IFPRI has developed a CNA framework for assessing capacity constraints that may affect the ability to devise evidence-based policies (Babu 2017). This framework has been tailored to the capacity needs of the NIPN in Ethiopia. The points of entry for the assessment were the system, organizational, and individual levels. The core areas considered were data collection, monitoring and evaluation; strategic policy research; and data and knowledge management and sharing. Each of these require specific technical and functional capacities, such as linkages with policy dialogue, human, financial and physical resources, and coordination. The assessment methodology included a detailed literature review, key informant interviews, two consultative workshops, and qualitative and quantitative data collection with government institutions involved in the nutrition MER SC.

The NIPN CNA confirmed that sufficient nutrition-relevant data are being collected in Ethiopia, but that the use of these data is not adequately exploited for further analysis. Nutrition data are collected and managed at different levels and administered by different authorities. Management of nutrition-related data is further hampered by the lack of a centralized data management system, the vertical nature of sectoral data collection and management mechanisms, lack of uniformity across different ministerial monitoring systems, and inconsistent quality of data. At the institutional level, knowledge management functions are not systematically established, and few institutions have assigned a dedicated data manager. Despite institutions' interest in data sharing, national data-sharing principles have not been systematically implemented.

Overall policy dialogue related to nutrition appears to function well, with frequent public and multistakeholder consultations. Existing governance structures and coordination mechanisms facilitate interaction between researchers and policymakers. However, frequent changes in focal persons can affect this, and challenges persist in coordination of the national monitoring and research agenda. Although there is demand for evidence, critical capacity gaps remain for synthesizing evidence and translating research findings into policies and programs.

Human resources in research institutes and ministries are lacking in both quality and quantity, and there are concerns about the capacity to manage, retain, and effectively use the existing staff. Most staff are young and have little experience. There is an inadequate gender balance, with only a small number of female experts employed, of which few are highly educated. Access to uninterrupted electricity, Internet, software, e-libraries, office space, laboratories, and vehicles are insufficient for all institutions. Funding for research is also limited, and for some institutions difficult to access.

Several recommendations emerged from this NIPN CNA. First, it was suggested that the NIPN should play a key role in identifying, screening, and centralizing nutrition data. This would first require the development of a data-mapping which will provide an overview of the availability, accessibility and quality of data of interest for nutrition policy analysis. Next, the establishment of a NIPN data and knowledge repository will be important to promote the access and utilization of existing nutrition relevant datasets. In addition, high level structures, such as the National Nutrition Technical Committee (NNTC), should mobilize members of parliament and relevant ministries for a national-level dialogue on legislation for open access for data. The nutrition MER SC could also hold sessions to sensitize the political leadership about the importance of tracking nutrition development programs, which could lead to greater allocation of funds to data collection. To promote open access and adequate management of data, the NIPN should bring together researchers from different institutions to showcase the potential uses of open data in training workshops, and universities should use existing datasets in teaching upcoming nutritionists.

To improve the policy dialogue between researchers and decision-makers, capacity needs to be strengthened on both sides. Soft skills of researchers should be further strengthened, and networking events between researchers and decision makers promoted. The NIPN could boost its engagement with policymakers early in process of formulating policy questions. Researchers also require a more solid understanding of the policymaking process. This could be facilitated by launching the second phase of this NIPN CNA, which will focus specifically on policymakers' capacity to use evidence for decision-making and on identifying best approaches to communicate research findings to decision-makers.

The NFNP highlights the importance of defining job descriptions, which also requires education geared towards appropriate data management and influencing decision making. Universities should strengthen their curricula related to data science, data analysis, policy research and evidence generation for policymaking. EPHI—as the chair of the MER SC—could act as a center of excellence for short trainings, building on initiatives such as EVIDENT, the African Leaders for Nutrition Initiative, the Ethiopia Nutrition Leaders Network Transform Nutrition, and its partnership with IFPRI under the NIPN. Furthermore, female professionals should be better included in nutrition human resource initiatives and NIPN trainings.

Research institutes and universities should prioritize investment in nutrition monitoring, evaluation and policy research as well as improving infrastructure. Creating networks and collaborations between institutions through the MER SC, the NIPN or the Ethiopia Nutrition Leaders Network could support shared access to software and e-libraries. Creative solutions are needed to make it easier and faster for research institutes to receive funds. Funding schemes to support local PhD programs and mobile MSc training in Africa south of the Sahara, especially for women, should be considered.

The NFNP underlines the importance of developing research and academic centers of excellence in food and nutrition, a recommendation supported by the findings of the NIPN CNA. Since one institution cannot provide the breadth of trainings needed for the multisectoral skill set required by nutrition researchers, collaboration among different institutions and at different levels will be essential. The NIPN could facilitate collaboration between universities and national research institutes to ensure closer engagement with the policymaking process.

The first section of this report describes the methodology used for the assessment and includes a mapping of the NIPN stakeholders, along with their roles and required capacities. The second section presents the results of a literature review related to the enabling environment that supports nutrition monitoring, evaluation and policy research in Ethiopia. The third section summarizes the findings from the stakeholder interviews. The final section offers conclusions and recommendations for strengthening capacities in Ethiopia.

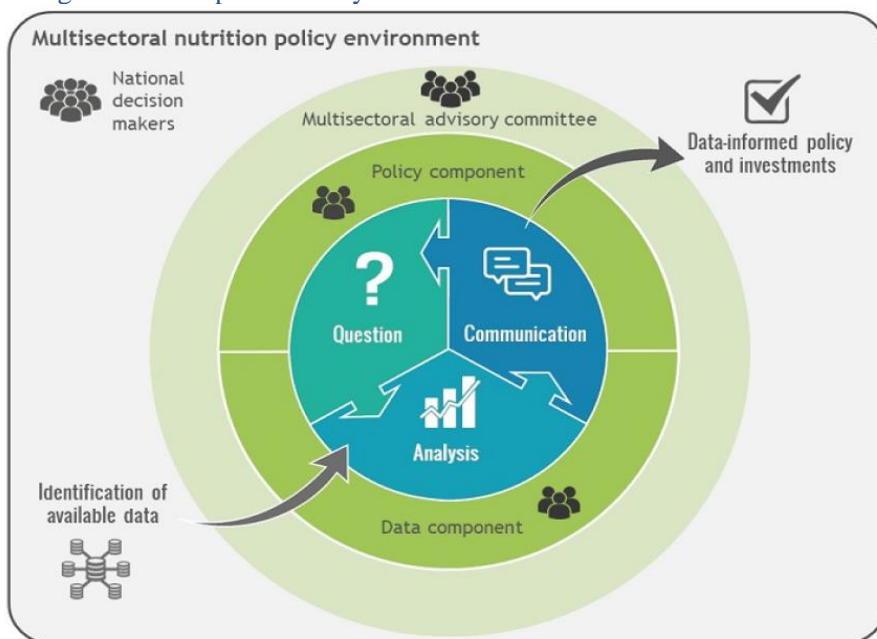
1. Introduction

This report presents the results of a capacity needs assessment (CNA) conducted in Ethiopia’s nutrition policy system and proposes a set of recommendations to strengthen national capacity for nutrition monitoring, evaluation and policy research. While the National Information Platform for Nutrition (NIPN) is the starting point for this assessment, national capacity needs and gaps related to nutrition data and policymaking have been considered more broadly.

In 2018, Ethiopia launched the NIPN to support evidence-based decision-making under the National Nutrition Program (NNP) and the National Food and Nutrition Policy (NFNP). To ensure a sustainable approach, the NIPN has been embedded in the existing multisectoral nutrition governance system; it is housed at the Ethiopian Public Health Institute (EPHI) but works with the many sectors and institutions involved in national nutrition monitoring, evaluation and policy research. During the initial years of implementation, the NIPN has been supported by the European Union, the Bill & Melinda Gates Foundation, and the United Kingdom Department for International Development and receives technical assistance from the International Food Policy Research Institute (IFPRI).

The NIPN is responsible for analyzing available and shared data to generate evidence useful for developing policies, designing programs, and allocating funds (see Figure 1). To answer nutrition-policy-relevant questions, the NIPN does not collect new data but rather maximizes the use of existing information and data, which will be assembled in a multisectoral national Nutrition Data and Knowledge Repository. With this mandate, the implementation of the NIPN requires a wide set of effective capacities, multisectoral collaboration, and a strong national coordination system for nutrition monitoring and policy research.

Figure 1: The operational cycle of the NIPN



Source: NIPN, 2018.

To implement the NIPN, specific capacities are required at different levels of the implementation chain, which involve stakeholders being directly involved with the NIPN, but also those involved in the national nutrition monitoring, evaluation and policy research agenda in general. At the outset of the NIPN, it was not clear what capacities were available or how available capacities could best be leveraged. EPHI and IFPRI joined hands to conduct a NIPN Capacity Needs Assessment (NIPN CNA) and to recommend ways to improve nutrition monitoring, evaluation and policy research in Ethiopia.

The main objective of this NIPN CNA was to identify capacity needs and develop recommendations to strengthen national capacities for nutrition monitoring, evaluation, policy research, data, knowledge sharing, and implementation of a sustainable national information platform for nutrition.

This report presents the CNA results in four sections. The first describes the assessment methodology and includes an overview of the NIPN stakeholders along with their designated roles and capacities. The second section sets out the results of a literature review related to the overall nutrition system and the enabling environment that supports nutrition monitoring, evaluation and policy research. The third section summarizes the findings from the interviews with focal persons. The final section offers recommendations for strengthening capacities.

2. Methodology

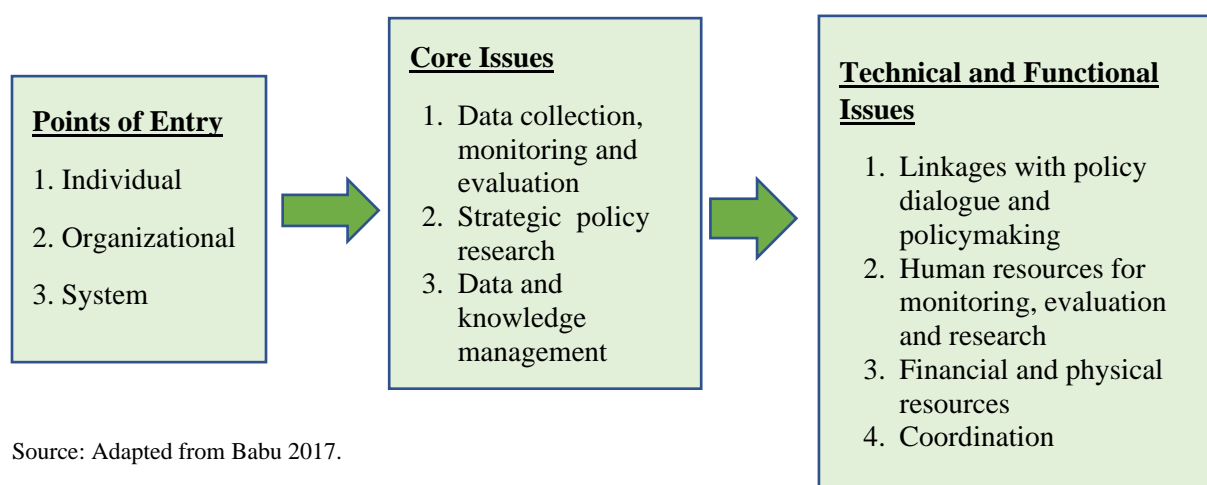
To develop Ethiopia's capacity for nutrition monitoring, evaluation and policy research, the CNA identified existing capacities and additional capacities needed to implement the NIPN. This approach drew on a global framework for conducting capacity needs assessments previously developed and applied by IFPRI (Babu, 2017). It uses the Food and Agriculture Organization's (FAO) definition for capacity assessments: "identifying and understanding the existing situation in a country or a sector [and] the associated capacity development assets and needs" (FAO 2012). This definition highlights the importance of recognizing existing capacities as well as capacity gaps and constraints. The framework also uses an adaptation of the United Nations Development Program's three-dimensional approach, which defines capacity strengthening as the "process through which individuals, organizations, and societies obtain, strengthen, and maintain capabilities to set and achieve their own development objectives over time" (UNDP 2008).

The IFPRI CNA framework has been tailored to the capacity needs of the NIPN in Ethiopia, and more broadly to nutrition monitoring, evaluation and policy research. As illustrated in Figure 2, the multidimensional approach from Babu 2017 was adapted to the Ethiopian context. The framework considers the point of entry for the assessment, the core issues, and technical and functional issues.

The points of entry for the NIPN CNA are the system, organizational, and individual levels. System-level capacity refers to the enabling environment—in this case the nutrition governance system—that is required to make use of the capacity developed at institutional and individual levels (see Section 3.1). Interviews and questionnaires were used to gather information related to the role of various decision-makers and their level of influence in the policy process. Organizations identified through the NIPN stakeholder mapping exercise were interviewed to identify and understand their capacity needs for tasks related to the thematic issues (EPHI 2018). At the individual level, the skills of staff involved in nutrition monitoring, evaluation and policy research were assessed to identify existing capacities and capacity gaps in knowledge management, analytical research skills, and policy analysis. The assessment drew on data on education, qualification, and training, disaggregated by gender and age of the staff.

Using the individual, organizational, and system levels as entry points, the Ethiopian NIPN CNA considered the core capacity issues at each level and then took a more detailed look at the technical and functional capacity gaps and needs. The core issues assessed were (i) data collection, monitoring and evaluation, (ii) strategic policy research, and (iii) data and knowledge management and sharing. These issues require certain technical and functional capacities such as linkages with policy dialogue, human, financial and physical resources, and coordination.

Figure 2: The NIPN CNA framework



Source: Adapted from Babu 2017.

Further analysis was guided by the following questions (adapted from Babu 2017):

- What are the country-specific needs for strategic policy dialogue to support evidence-based policymaking for nutrition?
- What individual and organizational capacities are needed for strategic generation of nutrition-related evidence, data management, monitoring, and policy research under the NFNP and the NIPN in the short, medium, and long term?
- How can these capacities be harnessed for effective use in the organizations involved in the monitoring, evaluation and policy research related to the national nutrition agenda?
- What institutional and capacity constraints exist in data collection, management and sharing, monitoring, evaluation, policy research, and knowledge management?
- How can capacity gaps be filled through the ongoing national and local processes under the NIPN?

Using these guiding questions, the assessment evaluated the existing capacities and constraints that affect the implementation of the NIPN in Ethiopia as well as the national monitoring, evaluation and policy research agenda for nutrition.

The assessment was implemented jointly by EPHI and IFPRI. CNA methods included quantitative and qualitative methods, a detailed literature review, interviews, structured questionnaires, and consultative workshops to gather data and information on the issues, challenges, and constraints facing selected organizations involved in national nutrition monitoring, evaluation and policy research. More than 130 people were consulted or interviewed (see Annexes 2 and 3). Throughout the process, a learning approach was applied to help build understanding of capacity assessments among the NIPN stakeholders.

The implementation steps have been the following:

The system and institutional points of entry required a mapping of the national nutrition and NIPN stakeholders and their involvement in the platform, identifying capacity gaps among key NIPN stakeholders. In Ethiopia several nutrition stakeholder mapping exercises have already been carried out, including one done in parallel with the NIPN CNA (Transform Nutrition 2015; EPHI 2019a). Existing mapping exercises were used to draft a list of NIPN stakeholders (EPHI 2018).

A first consultative workshop with 38 stakeholders of the National Nutrition Monitoring, Evaluation and Research Steering Committee (MER SC), organized in October 2018, set the boundaries of the assessment and identified some capacity gaps at the system level. During this workshop, the mapping of the NIPN stakeholders was fine-tuned (See Table 1).¹ This mapping set the stage for the actual assessment. It was agreed that only government institutions that have a role in the nutrition MER SC would be interviewed.

Table 1 : The NIPN stakeholders at system and institutional levels

NIPN stakeholders at system level:

- *The National Nutrition Coordination Body; The National Nutrition Technical Committee; The Food and Nutrition Council:* these organizations consist of high-level government multisectoral decision-makers, state ministers and relevant advisors involved in highest level of nutrition decision-making.
- *The dedicated NIPN Advisory Committee:* a small committee with senior nutrition experts and advisors with high-level convening power and leverage to influence high-level decision-makers (mainly Government, one donor).
- *Member institutions of the National Nutrition Monitoring, Evaluation and Research Steering Committee (MER SC):* a representative group of multisectoral and multi-institutional stakeholders that leads and coordinates national nutrition monitoring, evaluation and research (ministries, universities, implementers, development partners, NGOs, UN, national and international academic institutions).

NIPN stakeholders at institutional level:

- *The Food Science and Nutrition Research Directorate (FSNRD at EPHI)* is leading various nutrition research projects and houses the NIPN. It includes 69 nutrition research experts and various NIPN consultants. The directorate is also the chair the MER SC.
- *Other important NIPN stakeholders at EPHI* include the Policy Translation Directorate, the National Data Management Center for Health and various EPHI service directorates (human resources, procurement; finance and IT).
- *The Ethiopian Institute for Agriculture Research:* Food Science and Nutrition Directorate, co-chairs the MER SC.
- *Universities:* primarily the food and nutrition/public health faculties of universities (also members of the MER SC).

¹ The role of the stakeholders in the national nutrition agenda are described in the policy background of section 3. The role of these stakeholders for NIPN is described in EPHI 2018.

- *Ministries*, signatories of the NNP: technical departments of ministries most involved in nutrition agenda; M&E departments of ministries involved in the NNP (and often members of the MER SC).
- *Selected government agencies involved in data collection and analysis*: agencies directly involved in the NNP or in the MER SC, such as the Central Statistical Agency (CSA), the National Disaster Risk Management Commission (NDRMC), including the Emergency Nutrition Coordination Unit (ENCU)
- *Development partners*: NGO nutrition program implementers, development partners, donors, international research organizations.

Based on this information, a NIPN CNA approach paper was developed by IFPRI (Babu 2018) and validated by EPHI in December 2018. The NIPN team then identified the capacities required from all NIPN stakeholders for successful implementation of NIPN at each level (individual, institutional and systems) and for each element of the NIPN operational cycle, including question formulation, data management and analysis, and communication of findings (EPHI 2018). This list of required capacities for managing and maintaining the NIPN guided the adaptation of the existing IFPRI CNA questionnaires (already used in Niger, Ethiopia, Malawi and Ghana (Dittoh 2014; Tadesse and Tsegaye 2014; Phiri 2014; Babu et al 2018)), to the Ethiopian nutrition context. Different questionnaires were designed to solicit information on how organizations and their units are administered, coordinated, and led for tasks related to nutrition monitoring, evaluation, policy research, data, and knowledge sharing. The questionnaires also touched on individual capacities and constraints that organizations face to more effective functioning.

Key experts from the organizations identified during the first stakeholder workshop were interviewed to understand their roles in nutrition data collection and to identify additional relevant departments and divisions to contact. Annex 1 provides the list of divisions contacted and interviewed. Four NNP signatory ministries² which did not have nutrition-sensitive or nutrition-specific indicators or did not collect any data on nutrition were excluded from further interviews. Only two ministries (Agriculture and Health) have dedicated nutrition units. In the other ministries, nutrition is covered by focal points, housed in various divisions. Within the Ministry of Trade and Industry, the Food and Beverage Pharmaceutical Industry Development Institute was considered as the relevant division to interview. The Federal Sequota Declaration Implementation Coordination Unit (SDCU) was selected for an interview, given its mandate to bring together several sectors for nutrition and its role in monitoring the implementation of the NNP at all levels. The National Disaster Risk Management Commission (NDRMC) was also identified as a key government player, as it collects various nutrition data and houses the national Emergency Nutrition Coordination Unit. In total, 52 experts from 20 institutions were interviewed, of which 17 institutions were selected to undertake the detailed NIPN CNA questionnaire (see Table 2).

² Ministry of Trade; Ministry of Water, Irrigation and Electricity; Ministry of Women, Youth and Children, and the Ministry of Finance and Economic Cooperation

Table 2: Institutions undergoing the extended NIPN Capacity Needs Assessment interviews

Research Institutes, Statistical Agency and Universities	Ministries and Governmental Programs
1. Ethiopian Public Health Institute (EPHI)	1. Ministry of Health (MoH)
2. Ethiopian Institute of Agricultural Research (EIAR)	2. Ministry of Trade and Industry / Food and Beverage Pharmaceutical Industry Development Institute (MoTI)
3. Addis Ababa University (AAU)	3. Ministry of Agriculture (MoA)
4. Hawassa University (HU)	4. Ministry of Education (MoE)
5. Haramaya University (HaU)	5. Ministry of Labor and Social Affairs (MoLSA)
6. Jimma University (JU)	6. National Disaster Risk Management Commission (NDRMC)
7. Bahir Dar University (BDU)	7. Federal Quota Declaration Federal Implementation Coordination Unit (SDCU)
8. University of Gonder (UoG)	
9. Mekelle University (MU)	
10. Central Statistical Agency (CSA)	

For each of the institutions, the interview process involved several rounds of discussions with different departments and interviewees. Ministries and research institutes in Addis Ababa were interviewed between March and April 2019. Regional universities were interviewed during the last two weeks of April and throughout May 2019.

As part of the institutional-level questionnaires, questions were tailored so that each department could be involved in questions related to the nutrition activity and policy research in a way that represented the institution. Department-level heads or directors were questioned on areas related to constraints of human resources, financial resources and allocated budgets, access to infrastructure, data management and sharing, the link between their statistical data and policy, and internal management. For institutions that are signatories of the NNP but do not have a nutrition department or assigned nutrition focal person, a key informant interview was designed to look at how they are aligning their main activities with their role in the NNP and how they capture their data or progress. To assess individual level capacities, data was collected on staff educational background, age, ability to use or access analytical software, and research publications or reports.

In addition, 12 qualitative interviews were organized at the initial and final stages of the assessment. These enabled the team to understand the enabling environment, the nutrition political leadership, the level of influence in the policy process, the legal framework, and the ability to co-ordinate efforts for the nutrition agenda.

Ultimately, the NIPN CNA provided a comprehensive view of the capacities needed to strengthen Ethiopia's system for nutrition monitoring, evaluation, policy research, and data and knowledge

management. Key findings were presented and validated during a second consultative workshop organized in June 2019, which brought together 44 participants (see list of participants in Annex 2). Priorities for capacity strengthening were identified by the workshop participants.

3. Setting the scene: A literature review of nutrition policy research capacity in Ethiopia

This section presents the findings of the literature review. It offers insights into the system-level issues of the national nutrition monitoring, evaluation and policy research agenda and facilitates understanding of the current core issues and technical and functional issues (see Figure 2).

3.1. The national nutrition policy background

Ethiopia has seen steady progress in reducing chronic malnutrition in children under age five. Between 2005 and 2016, national stunting rates dropped from 51 percent to 38 percent (CSA and ICF international, 2016; World Bank 2019). Despite this progress, wasting levels and women's nutritional status improved only slightly. In 2016, 9 percent of children under five were considered wasted, compared with 12 percent in 2005 (CSA and ICF international 2016; World Bank 2019). In 2016, nearly 22 percent of women were considered underweight, which affects not only a woman's health but also contributes to the intergenerational cycle of undernutrition. Micronutrient deficiencies remain widespread, driving high rates of anemia in women and children (24 and 57 percent respectively) (CSA and ICF International 2016). The country has seen little improvement in diet diversity, and diets for children and women remain monotonous.

Improving nutrition outcomes has been on the national agenda for the last decade. The first national NNP was launched in 2008. Initially driven by a few ministries, its implementation became increasingly multisectoral. In 2015, the government's high-level political commitment to nutrition was reinforced by the Seqota Declaration, which aims to eliminate undernutrition by 2030 (FDRE 2016b). The second phase of the NNP (2016–2020) mobilized 13 ministries around a common national program, which was translated into nutrition-sensitive sectoral strategies (FDRE 2016a). The government also initiated innovative multisectoral programs, such as the Sustainable Under-nutrition Reduction in Ethiopia (SURE) program in 2014 and the Seqota Declaration Implementation Plan in 2015. In November 2018, a NFNP was approved by the Council of Ministries (FDRE 2018).

The NFNP promotes a coordinated approach to ensure availability, accessibility and use of diversified, safe and nutritious food. It also emphasizes the importance of sound institutional arrangements, evidence generation for decision-making, capacity strengthening, and a robust accountability framework. The NFNP acknowledges the need to strengthen institutional, national and subnational capacities to address food and nutrition challenges through training, research and community services as well as for program design, implementation, monitoring, evaluation and policy formulation. The policy highlights the importance of strengthening the capacity of universities and research institutions to meet national and regional research needs and of allocating resources for database establishment and infrastructure development as well as education and technology transfer (FDRE 2018). It also highlights the importance of evidence-based decision-making, which NIPN aims to address.

Various nutrition governance structures have been established to lead these multisectoral efforts. Under the second NNP, high-level leadership was provided through the multisectoral National Nutrition Coordination Body (NNCB) and guidance through the National Nutrition Technical Committee (NNTC). Three national committees were established to support the national nutrition coordination system, including the National Nutrition Monitoring, Evaluation and Research Steering Committee (MER SC), which is led by EPHI and mandated to guide the nutrition monitoring, evaluation and research agenda. In the future, these existing structures will be further updated to respond to the policy framework for multisectoral and multidimensional governance spelled out in the NFNP. Hence, it is expected a national food and nutrition governing body will be established to coordinate the implementation of the policy.

3.2. Core issues: Data collection, monitoring, policy research, data, and knowledge sharing for nutrition

In Ethiopia, nutrition data are collected and managed at different levels and “owned” by different authorities. There is no centralized management of these data. Nutrition data are collected through regular surveys, such as the Demographic and Health Surveys (DHS) and the Multiple Indicator Cluster Surveys (MICS), as well as through sector-related routine monitoring systems such as the Health Sector Management Information System (HMIS), through the nutrition surveillance system of the Emergency Nutrition Coordination Unit (ENCU), and through large program-specific monitoring (PSNP, AGP, CHD, SURE, SDI) as well as surveys from research institutions and universities. An assessment carried out at the request of the NIPN Global Support Facility (GSF) concluded that Ethiopia lacks an operational comprehensive nutrition data repository system with capacity to pool all nutrition and nutrition-related data available in the country, to process and manage such data with standard scientific methods and techniques, and to provide policy-relevant findings at national and subnational levels. The overall nutrition-related data system and its management are not coordinated, mainly due to the vertical nature of data management systems (GSF 2019).

Routine monitoring of nutrition interventions at the ministry level is not yet standardized. The 2019 National Nutrition Program Performance Assessment (EPHI 2019a) noted that some NNP implementation ministries have identified nutrition indicators but that the actual implementation of the monitoring processes vary. Generally, the sectors with well-defined nutrition activities have a comprehensive set of nutrition-sensitive indicators, which they review either monthly, quarterly or biannually. At the ministry level, the Ministry of Health (MoH) has developed the most extensive system through the HMIS, which was recently redesigned at district level, now called District Health Information System or DHIS2. In the agriculture sector, the lack of a comprehensive information management system makes it difficult to track and monitor the progress of nutrition mainstreaming within the various directorates or to measure impact (Synergos 2017).

Ministries without a specific nutrition plan rarely measure nutrition-relevant progress or outcome indicators. Most of the ministries have a reporting system that uses a bottom-up approach (from community to regional level), but implementation varies greatly and data collection is computerized in only a few sectors. Overall, the budget allocated to nutrition monitoring, evaluation and reporting at any level is limited, which hampers implementation of the activities (EPHI 2019a). In the absence of a designated unit or adequate planning, nutrition is not part of staff job descriptions or of the performance assessments within the ministries. In practice, monitoring of nutrition-specific initiatives depends largely on review of data provided by the HMIS and the Early Warning System (EWS) (EPHI 2019b). It is

expected that in the future, most of the monitoring data related to nutrition sensitive interventions will be collected through the Unified Nutrition Information System /District Health Information System, which is now integrated in the DHIS2 (UNISE/DHIS 2). UNISE includes nutrition-specific and nutrition-sensitive data from the community, woreda, zonal, regional and federal levels. The system is currently being piloted in nine districts.

While data have been collected over the last 30 years (SUN 2014), data quality issues related to some data collection mechanisms, particularly at lower levels of the health system (FMoH 2018), have been highlighted. These may reflect limited investment in infrastructure and human resource capacity (Mesfin et al. 2012; Ouedraogo et al. 2019). To respond to these issues, the MoH has begun conducting two national health data quality reviews, recognizing that access to basic information is essential to evidence-based leadership in the health sector (FMoH 2018).

The creation of the NIPN Data and Knowledge Repository assumes that good quality data will be made available by those who have collected it, and for those who want to carry out further research on nutrition. Operationalizing this repository will require agreements on data sharing and open access, ICT infrastructure, digitalizing data reporting system, adequate data management, development of guidelines and training of repository staff, and frequent engagement with stakeholders.

Ethiopia has little experience with setting up data repositories. At EPHI, a National Data Management Center for Health is being developed, which will work hand-in-hand with the NIPN data repository but has slightly different objectives. Data sharing and open data are new concepts in Ethiopia (EPHI 2018). This is also reflected in a recent review of the status of open access data in Ethiopia (Boyera et al. 2017). The review reported recent improvements stemming from the government's development of an open data portal where various national data sets, including data on budgeting, health, and education, were uploaded (www.data.gov.et). However, the report also highlighted that lack of legal proclamation and guidance related to data access, the absence of guidelines and directives for data use, and limited coordination of different government stakeholders have been important challenges for the implementation of the open data initiative (Boyera et al. 2017).

A systematic review of the barriers to sharing routine population health data identified technical, motivational, economic, political and legal barriers (Panhuis et al. 2014). In Ethiopia, relevant barriers to data accessibility include restrictive data formats and the limited financial and human resources. While there is a data-sharing policy in place for EPHI, CSA, and the Health and Demographic Surveillance Sites (HDSS), not many other institutions do have data-sharing policies, and there are no clear guidelines on how data sharing should work in practice. As a result, only the CSA regularly shares datasets widely (GSF 2019).

3.3. Linkages with policy dialogue and policymaking

NIPN's core mandate is to support evidence-informed decision-making for nutrition. This requires NIPN to understand the evidence needs of policymakers and to share relevant policy messages in an appropriate and timely matter. However, systematic linkages between researchers and policymakers are not yet established.

The Africa-wide research project SUNRAY³ demonstrated the importance of strengthening, formalizing, sharing, and using knowledge and evidence to inform nutrition policy priorities and of aligning the generation of scientific evidence with decision-makers' information needs (Holdsworth et al. 2016). However, even where data exist, they are not always shared with government partners and therefore rarely used for strategic planning purposes or program evaluation (Trubswasser et al. 2012). Data may not be used because they are mainly descriptive, with insufficient intervention-related evidence to support policy development, or because policymakers and researchers do not have the capacity or are doing little efforts to engage in policy dialogue (Aryeetey et al. 2018; Motani et al. 2019). Capacity and leadership are also needed to synthesize available evidence in order to allow policymakers to make informed decisions about policy options (Holdsworth et al. 2016; Motani et al. 2019).

Promoting evidence use to inform policies and programs requires both technical capacity and leadership at every stage of the policy process (Fanzo et al. 2015). Investing in knowledge partnerships is key to driving appropriate evidence use in nutrition policy in Africa (Aryeetey et al. 2018). Making research relevant and readable, understanding the policy process, building relationships with policymakers and engaging with them routinely, flexibly and humbly were among key recommendations for researchers to successfully influence policy (Oliver and Cairney 2019).

EVIDENT⁴, an international partnership to identify information needs and build local capacity to meet evidence needs in Ethiopia and other African countries, found that engaging decision-makers was the most critical step, but also recognized this is a slow and difficult process (Motani et al. 2019). A study reviewing Ethiopia's nutrition policymaking process concluded that the evidence used for decision making is either conflicting or missing (Walls et al. 2018). This could reflect the perception that that researchers were less involved in the development of the first NNP (Kennedy et al. 2015). Linkages and uptake of research and technologies have also been limited in the agriculture sector (Synergos 2017).

An Ethiopian case study conducted under EVIDENT found that although government demand for evidence is increasing, critical capacity gaps for translating research findings into policies remain. The case study also identified barriers related to the quality of the research, because it doesn't respond to national research priorities or because of inadequate research coordination and limited resources. In terms of interactions between researchers and policymakers, the study found that researchers need to advertise their findings and decision-makers should seek out findings from research institutions. The case study participants recommended establishing information exchange platforms or forums to improve communication, along with a taskforce able to synthesize and present evidence in an understandable manner for decision-makers (Hailu 2018).

3.4. Human resources for nutrition research in Ethiopia

Given the complexity of nutrition, nutrition professionals need diverse capacities as well as skills in research design, quantitative and qualitative data collection and analysis, writing, and communicating data and results (Fanzo et al. 2015; Jerling et al. 2016). Capacity building for nutrition professionals should be embedded in systemic approaches and go beyond the training of individuals, which Shrimpton et al. (2013) described as "merely palliative unless it is part of a broader initiative." Furthermore, capacity

³ Sustainable Nutrition Research for Africa in Years to come.

⁴ Evidence Informed Decision Making in Nutrition and Health.

building through academic institutions should be flexible enough to respond to current needs and address new nutrition challenges (Jerling et al. 2016; Fanzo et al. 2015; Ellahi et al. 2015).

Research capacity can be measured in terms of output, such as scientific publications (Bowsher et al. 2019). Publications from African higher-education institutions (Lachat et al. 2015) are few and often tied to research organizations in the global north (Lachat et al. 2014), suggesting that “token” local authorships or double affiliations may be skewing the number of research outputs upward (Bowsher et al. 2019). Beyond the need to produce more studies and data locally, there is an even greater need to improve capacity to deliver successful interventions, operationalize nutrition policies and strategies, and ensure leadership and systems-thinking (Fanzo et al. 2015).

There is no data on the number of professionals working in nutrition monitoring, evaluation and policy research in Ethiopia. However, a recent study estimated the overall nutrition workforce requirements necessary to implement the second NNP and reported that the existing workforce is insufficient and underqualified to implement the program. Recent efforts by the educational system aimed to increase the number of qualified graduates⁵, but little is known about where the newly graduated food and nutrition professionals are working (Jhpiego 2019).

3.5. Financial and physical resources for nutrition research

Limited financial resources and lack of access to reliable electricity, Internet, and e-journals have been identified as key constraints for researchers in Africa (Motani et al. 2019). The limited financial resources of institutions in developing countries often mean that funding for research and nutrition policy and programming agendas reflect donor-defined priorities (Manila 1997; Lachat et al. 2015 ; Holdsworth et al. 2015). For example, an evaluation of the collaborative EVIDENT initiative, which included African and European research institutions, found that African country teams felt they had limited influence and interaction with donors, who are typically based in the global North (Motani et al. 2019).

As part of the governance agenda of the NNP, a multisectoral nutrition financial tracking exercise was conducted in 2016. The exercise found that for the strategic objective 5 of NNP (“Improve multi-sectoral nutrition coordination & capacity to implement NNP”), US\$27 million was spent in the Ethiopian Fiscal Year (EFY) 2006⁶(15 percent of total annual expenditures), US\$37 million in EFY 2007 (11 percent of total annual expenditures), and US\$36 million in EFY 2008 (8 percent of total annual budget allocations). Expenditure for objective 5 have stalled relative to other investments. Expenditure for research, knowledge management, and data for decision-making on the other hand was US\$16.6 million in EFY 2006, while only US\$9.0 million was allocated in EFY 2008 (FDRE 2017).

3.6. Multisectoral coordination for nutrition monitoring, evaluation and research

A successful NIPN implementation involves many institutions and stakeholders and requires multisectoral collaboration and coordination. As such, NIPN is set within the context of the national

⁵ By 2017, 1,700 nutrition professionals had graduated from higher-education institutions. In 2018, over 1,600 nutrition students were enrolled in 11 universities countrywide.

⁶ EFY 2006 refers to the period between July 2013 and June 2014; EFY 2007 refers to July 2014 to June 2015; EFY 2008 refers to July 2015 to June 2016.

nutrition governance structure, and both contributes to national multisectoral collaboration for nutrition and depends on higher-level coordination systems.

Enhancing coordination, interaction and information sharing of nutrition research findings through collaborative partnerships between researchers and regional and international decision-makers can facilitate the uptake of research findings and promote dialogue between the research community and policymakers (Lachat et al. 2014; Motani et al. 2019). Collaboration within and between regions and institutions is essential, because no single institution can have the requisite research capacity in all fields that contribute to the solution of nutrition problems (UNU and IUNS 1997). However, collaboration and partnerships between institutions across Africa or within countries to identify, implement and publish nutrition research remain underused (Lachat et al. 2014), and communication of research findings needs to be organized systematically (Lachat et al. 2014).

The nutrition MER SC has an important role to play in coordinating monitoring, evaluation and research under the NNP. Although steering committee members meet regularly, several challenges are hampering coordination (EPHI 2019a). Networks between ministries, United Nations, implementers and academia are strong, according to the 2019 stakeholder mapping, but the influence of academia on decision-making remains relatively low (EPHI 2019b). In addition, the policy process is highly centralized around the Ministry of Health, which further complicates coordination (Transform Nutrition 2015). However, another study found a number of platforms around healthy diets in Ethiopia, including some related to national programs such as the Agriculture Growth Program, some that are topic specific, such as home gardening, and some projects driven by donor funds, such as Feed the Future. The objectives and activities of these platforms differ, but most have potential to coordinate or, at a minimum, share research efforts (Bakker, Herens and Pittore 2019).

4. Assessing the NIPN capacities in Ethiopia

This section presents the results of the NIPN CNA, including results from the qualitative key informant interviews, the stakeholder consultations (October 2018, June 2019), and analysis of the structured institutional questionnaires (see methodology section and annexes 2 and 3). The mix of quantitative and qualitative data provides a deeper understanding of institutions and prevents the erosion of confidence that can occur when CNAs rely exclusively on quantitative data (Bryman 2015; Punch 2013).

The results presented here are organized around the NIPN CNA framework to the extent possible, focusing on the core issues and technical and functional issues (Figure 2). The results are grouped around two sets of organizations—the 7 ministries⁷ and 10 research institutions—reflecting their different mandates and organizational set ups (see Table 1).

4.1. Core issues: Data collection, monitoring and evaluation, policy research, data, and knowledge sharing for nutrition

Not all NNP signatories are collecting data to monitor progress of nutrition interventions or to measure performance related to nutrition-sensitive indicators. In fact, four ministry signatories of the NNP were not included in the CNA because they do not collect any nutrition data, generally because these ministries

⁷ Two government multisectoral organizations were categorized under “ministries,” notably the SDCU (a multisectoral government program) and the NRDMC (a government institution to prevent and respond to risk management and disasters).

have no explicit nutrition-sensitive intervention and no dedicated staff member assigned to the nutrition agenda (informant interviews) (see Annex 1). The seven ministries included in the extensive interview all have nutrition-specific or nutrition-sensitive indicators as part of their plans or programs, but only five measured and reported on the progress of these indicators in the past two years and produce monitoring reports that are used to improve their programs.

Centralized or institutional-level knowledge management systems are not yet established. None of the research institutions and ministries contacted systematically track the reports and publications on nutrition produced by their respective division or institutions. However, when prompted, most of the respondents in the research institutes have an approximate idea of the number of papers produced. But two ministry departments are not aware if their ministry has published reports on the progress of the NNP. Research institutes usually focus on policy research. Only half of them produce monitoring reports, and less than one-quarter feels that these reports are useful for learning purposes or to redefine program interventions.

The majority of the research institutes and ministries highlighted that data collection has been hampered by lack of adequate funding (90 and 100 percent respectively). Despite these limitations, respondents believe that sufficient data are collected, but that the use of existing data for further analysis is a challenge. This could be due to the lack of data management capacity, limited awareness of existing data within an institution, or lack of a central repository (Workshop June 2019) (Table 3). In all organizations, survey and monitoring data are stored on individual computers. Only a few institutions data centralize data on an external hard drive or have an assigned dedicated data manager (noting that none of the universities has a data manager). Workshop participants indicated that this results in scarce data management and limited use of collected data for further research (Workshop June 2019):

“In universities we don’t even have the system or knowhow whether a university should have such a position [of a data manager]. Our data is totally disorganized – even the hard copy management is so poor that people don’t expect access.” (Workshop June 2019)

“Many RI [research institutes] do not have this position of data managers... as a result, much data is simply sitting in the computer of the researcher... is not used further or shared...” (Workshop June 2019)

While there is interest in data sharing, the data-sharing principles have not been systematically implemented. Most respondents have used data from other organizations, and most have received a request to share their data and are likely to do so. However, only four of the organizations have a data-sharing policy or guidelines, while two others are now developing draft guidelines. Interestingly, in most cases the respondents who mentioned that they have a data-sharing policy were unclear about the content of the policy or the extent to which the policy is applied. In the words of a workshop participant (June 2019), “Many institutions have a data-sharing policy, but we need to know what they mean with ‘data sharing.’ For example, [our institution] can access selected data sets, but the process is long and complicated.” Workshop participants stated that the practice of data sharing is not yet systematically established but rather depends on individuals and interpersonal relationships and “has to do with building trust” (Workshop June 2019).

Table 3: Information on data management and data sharing (number)

	Research Institutes (n=10)	Ministries (n=7)
Organizations where data is centralized on an external hard drive	6	1
Organizations that employ dedicated data managers	2	4
Organizations that have used data from other institutions	7	6
Organizations that receive direct requests for data from government / policymakers	7	5
Availability of institutional data-sharing policy or guidelines	3	1
Availability of institutional draft data-sharing policy or guidelines	1	1
Organizations that are likely to share data	7	6

Source: NIPN CNA survey (2019)

4.2. Linkages with policy dialogue and policymaking

Involvement of respondents in the policy cycle is mixed (Table 4). Most research institutes and ministries have a designated nutrition policy advisor linked with the government. All the ministries and most of the research institutes were directly involved in the design of the second NNP and the NFNP. Despite this involvement, only five out of seven ministries reported having a dedicated nutrition agenda. All surveyed organizations have either conducted or participated in various policy dialogues and multistakeholder consultations on nutrition issues. However, not one has a system in place to track staff attendance at seminars, workshops, conferences or policy dialogues.

Table 4: Involvement in the policy dialogue

Number of organizations that were involved in different policy process	Research Institutes (n=10)	Ministries (n=7)
Organizations that have a specific nutrition policy advisor linked with the government	8	6
Organizations that were directly involved in the design of the NNP	7	6
Organizations that were directly involved in the design of the NFNP	7	7
Ministries that have a dedicated nutrition agenda in sectoral planning	N.A.	5
Organizations that participated in policy dialogues or multistakeholder consultations	8	7
Organizations that have conducted policy dialogues or multistakeholder consultations in the past two years	6	6

Source: NIPN CNA survey (2019).

Note: Policy dialogue is a dialogue among key stakeholders on a policy issue that affects them. It can happen at all levels.

Multistakeholder consultations comprise consultations with various group of stakeholders on a given issue. Public consultation is consultation in the public domain to provide citizens' views.

Although explicit requests from decision-makers for policy-relevant evidence are rare, research institutions feel that their reports and publications play a major role in influencing the nutrition decision-making process (Table 5). While research organizations do not systematically track use of their publications for policy development, most consider it likely that their published research and analytical products were used in the development of nutritional programs or projects over the past five years. Half of the research institutes also believe their work influences the government nutrition budget allocation process and contributes to the monitoring of the NNP accountability framework. In the case of the ministries, most believe their work influences the budget allocation process and monitoring of nutrition policy implementation, although only three of the ministries think their reports have been used in the development of nutrition programs or projects. Moreover, when prompted, none of the research institutes or ministries could provide an example of a report actually used to inform decision-making.

Table 5: Use of reports for decision-making (number)

	Research Institutes (n=10)	Ministries (n=7)
Organizations that received specific requests to provide evidence to support decision-making in the last 2 years	5	5
Organization's research and analytical product was used in the development of nutritional policy/ strategy documents in the last 5 years	8	1
Any M&E documents, research and analytical product that has been used in the development of nutritional policy/ strategy documents in the last 5 years	8	4
Organizations that believe their outputs contribute to monitoring the accountability framework	5	3
Organizations that believe their outputs have influenced the nutrition budget allocation process	5	4

Source: NIPN CNA survey (2019).

All institutions contacted rank the government (national planning commission, parliamentary groups, and sector ministry planning directorates) as the top audience for their nutrition reports and research outputs. Other users of reports and research outputs mentioned are NGOs, donors and the private sector.

Various tools are used to communicate research findings or reports to decision-makers (Table 6). Research institutes rely largely on personal contacts and small roundtable discussions with officials and key stakeholders. Ministries, on the other hand, have better linkages with government officials and communicate findings directly to them. Ministries also work with the media to influence government policies.

Table 6: Tools used to disseminate research findings and reports (number)

	Research Institutes (n=10)	Ministries (n=7)
Personal contact with officials	7	4
Small roundtable discussions with officials and key stakeholders	7	4
Public roundtable with officials and press	5	3
Newsletters to officials	4	5
Presentation to officials	6	6
Policy brief to officials	6	2
Press-conference and panel discussion	6	3

Source: NIPN CNA survey (2019).

Research institutes feel that a shortage of staff and skill, as well as high staff turnover, hinders their involvement in the nutrition policymaking process. In addition, for researchers the focus of universities on publishing can reduce the incentives for engagement in policy dialogue (Workshop 2019). Problems of staff and skill shortages are less of an issue for ministries. However, despite the perception that demand for evidence is increasing, critical capacity gaps remain for synthesizing evidence and translating research findings into policies and program (Workshop 2018).

4.3. Human resources for nutrition related monitoring, evaluation and research

For each institution, the NIPN CNA assessed the number and the educational level of professionals involved in nutrition monitoring, evaluation, research or policy research (Table 7). Research institutes generally employ experts with higher education levels than do ministries. Of all technical staff working on nutrition research, monitoring and evaluation, 10 percent have a doctoral degree (PhD) and 49 percent a master's degree.

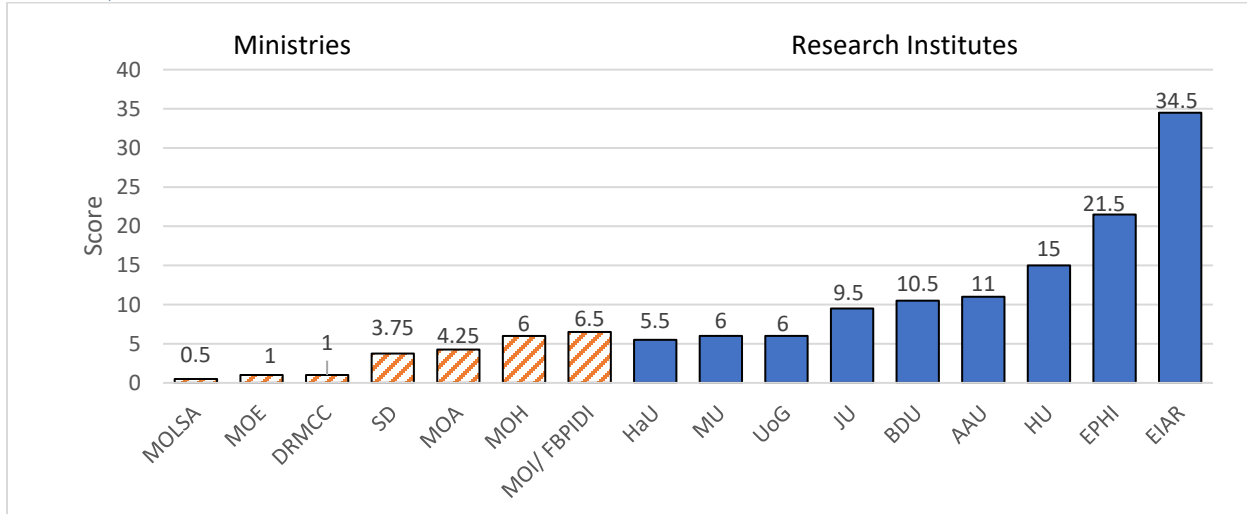
Table 7 : Education level of technical staff (%)

Proportion of technical staff with following educational level	Research Institutes	Ministries
Doctor of Philosophy (PhD)	11	5
Master of Science (MSc)	52	39
Bachelor of Science (BSc)	37	55

Source: NIPN CNA survey (2019).

Based on the number of staff and their educational level, all institutes were given a human resource score, defined specifically for this NIPN CNA (Figure 3). This score allocates 1 point for each staff member with a PhD, 0.50 points for each staff member with a master's degree, and 0.25 for each staff member with a bachelor's degree. In line with their mandate, academic and research institutions have higher human resource scores than ministries. The Ethiopian Institute of Agricultural Research (EIAR) and the Ministry of Industry/ Food Beverage and Pharmaceutical Industry Development Institute (FBPIDI) have the highest scores within their groups.

Figure 3: Human resource score (number of technical staff as expressed by educational level working on nutrition)



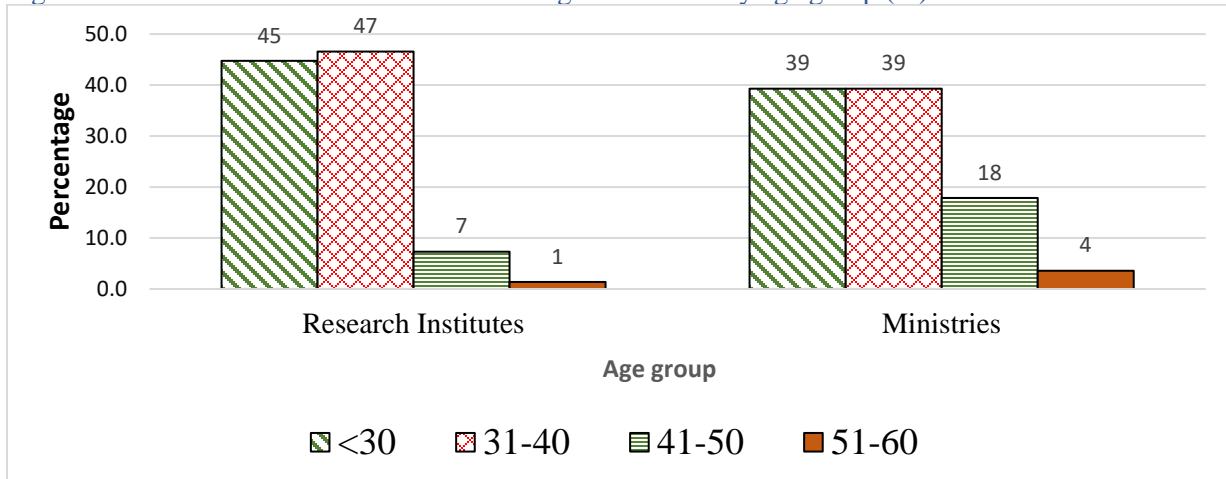
Source: NIPN CNA survey (2019).

Note: Educational level is expressed in terms of PhD degree (1PhD= 0.5 MSc= 0.25= BSc).

It was beyond the scope of this CNA to review the quality of the education or to assess the educational match with job profiles. However, this issue was highlighted by a workshop participant, who stated, “there are already enough PhD graduates in the nutrition field, but the quality of their education varies and does not always match the skills required for their work” (Workshop June 2019).

Many of the staff working in nutrition are male and younger than 40. In research institutes, staff with PhDs are generally younger than ministry staff (respectively 65 percent of those with PhDs in research institutes are between 30 and 40 years old; in ministries, all staff with PhDs are between 40 and 50 years old).

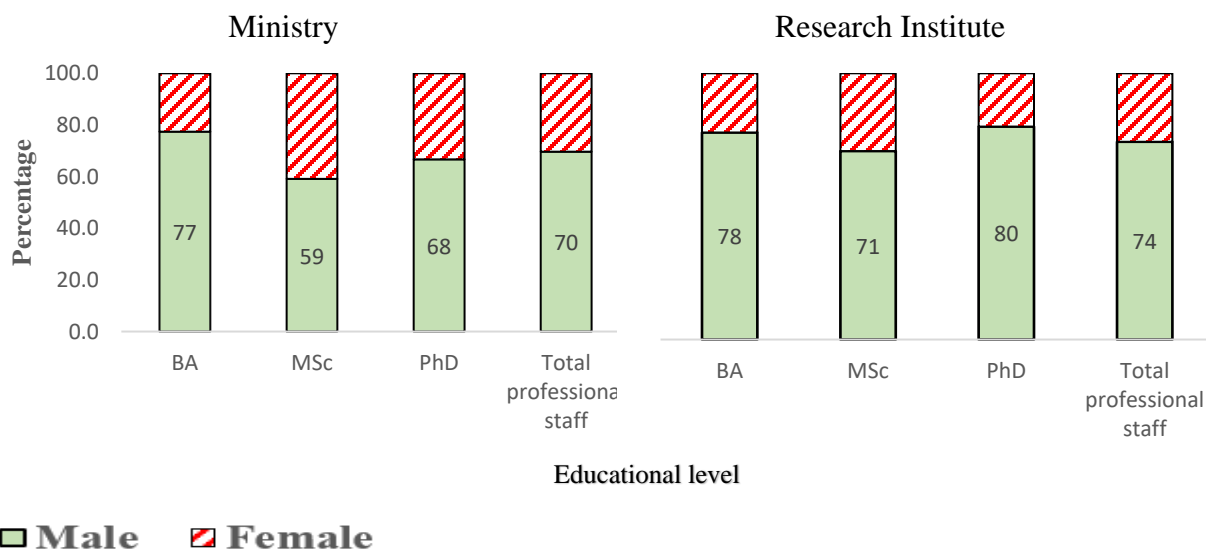
Figure 4: Distribution of technical staff working on nutrition by age group (%)



Source: NIPN CNA survey (2019).

Women make up less than one-third of technical staff and, generally speaking, the women employed in these organizations have less education than the men.

Figure 5: Proportion of male vs. female technical staff by educational level



4.4 Physical resources

Access to and use of information technology (IT) is mixed. While most experts have access to at least one computer (desktop or laptop), accompanying analytical software is only provided in 70 percent of the cases (Table 8).

Table 8: Ratio of desktops and laptops per total technical staff

	Research Institutes	Ministries
Adequacy ratio (desktop or laptop)	1.1	1.1
Adequacy ratio of desktop or laptop with analytical software	0.7	0.2

Source: NIPN CNA survey (2019).

Note: Adequacy ratio = No. of total desktop and laptop/ total no. of technical staff

Among those who have access to analytical software, the use rate and knowledge level is low (Table 9). Excel is the most frequently used analytical software, followed by SPSS. Knowledge of STATA and SPSS in ministries is low, and even in research institutes only a minority knows how to use STATA. The WHO Anthro software, an important software to calculate and analyze nutritional status data, is used in five institutions and very few reported advanced knowledge of this software.

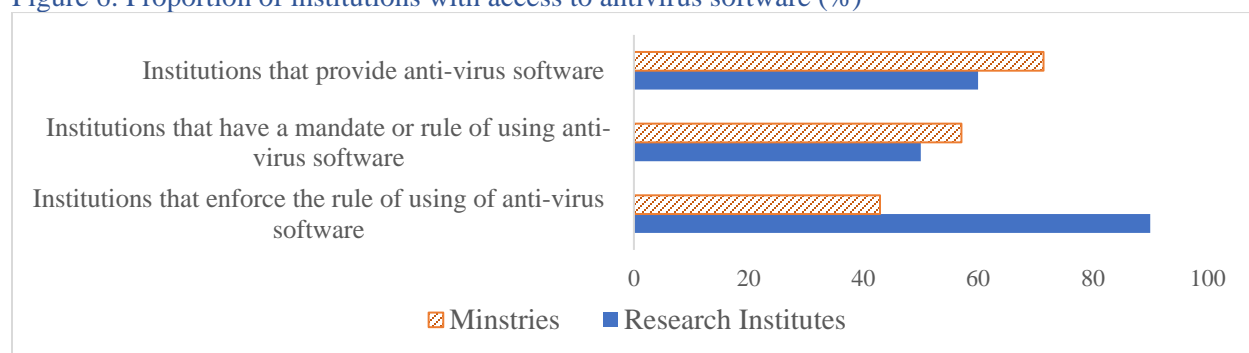
Table 9: Reported analytical software knowledge level of technical staff (%)

Software	Research Institutes		Ministries	
	Advanced level	Moderate level	Advanced level	Moderate level
STATA	0	24	2	0
Minitab	0	4	0	0
SPSS	33	24	3	17
EPI INFO	13	22	2	4
WHO INTRO	28	5	0	0
R	0	1	0	0
PROPAN	0	6	0	0
SAS	0	4	0	0
EXCEL	73	27	2	32
NIVIVO	0	1	0	0

Source: NIPN CNA survey (2019).

Most researchers use bibliographic management programs such as Reference Manager, Mendeley or Zotero, but staff in ministries are not familiar with this type of software. Limited access to antivirus software has been mentioned as a major constraint among research institutions. Only a few institutions provide antivirus programs to their staff. Among the ministries providing antivirus programs, less than half make their use mandatory..

Figure 6: Proportion of institutions with access to antivirus software (%)

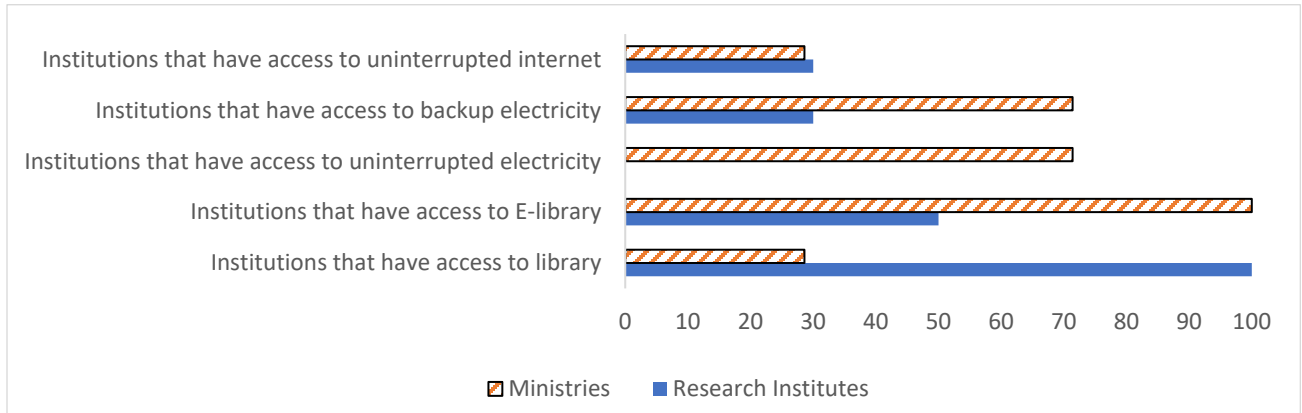


Source: NIPN CNA survey (2019).

Limited access to infrastructure and services hampers nutrition-related monitoring, evaluation and policy research. Very few of the respondents reported that they have adequate working space or access to uninterrupted electricity, back-up electricity, or uninterrupted Internet. Only half of research institutes and none of the ministries have access to e-libraries, which is especially missed by researchers. According to

one researcher, “Access to e-journals would allow us [researchers] to access a wide range of information which we could explore.”

Figure 7: Proportion of institutions with access to supportive services and infrastructure (%)



Source: NIPN CNA survey (2019)

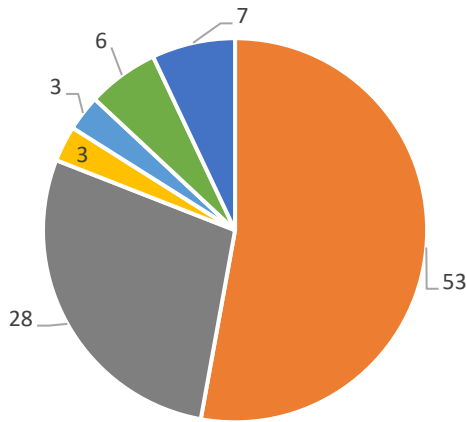
Of the 10 research institutes surveyed, only 3 have a dedicated vehicle for their department and some rely on shared vehicles. More than half of the ministries do not have their own vehicle and must share with other departments.

4.5 Internal management

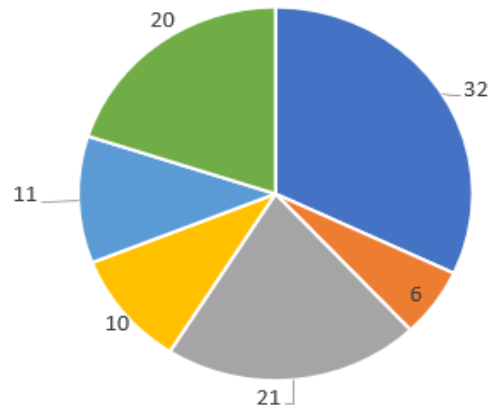
Time allocation varies greatly among the institutions. Research and teaching are the most common occupation of staff in research institutes, in line with their institutional mandate. Technical staff in ministries divide their time more equally around project coordination, training and teaching, and advocacy. Interestingly, they spend only 11 percent of their time on policy dialogue (Figure 8).

Figure 8: Time allocation of technical staff for selected activities (% of total working time)

Research Institutes



Ministries

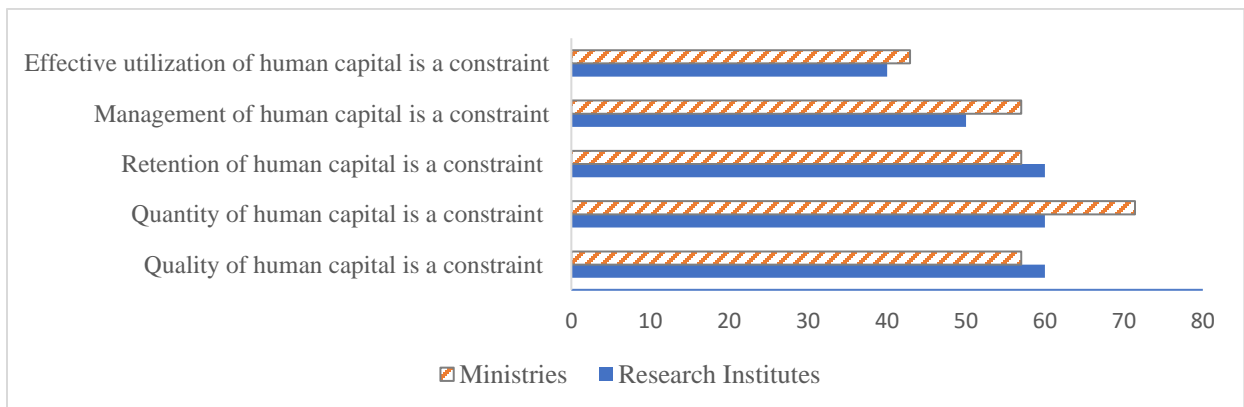


- Project coordination
- Training/teaching
- Involvement in nutrition policy
- Research /data analysis
- Monitoring
- Advocacy

Source: NIPN CNA survey (2019).

Inadequate management and limited skilled staff hamper nutrition-related monitoring, evaluation and research. The majority of the respondents in research institutes and ministries believe that a shortage of skilled staff affects their respective departments, and that high turnover and management problems add to operational challenges (Figure 9).

Figure 9: Proportion of survey respondents which consider the following human resource elements as constraints (%)



Source: NIPN CNA survey (2019).

The NIPN CNA did not explore on-the-job training. However, the need to strengthen capacities of current staff was mentioned frequently during individual interviews, and on-the-job training was considered as a solution to address individual capacity gaps (Workshop 2018). A key informant also suggested that the linkages between monitoring experts, researchers and decision-makers could be improved by strengthening relevant leadership, research and policy communication components of a national nutrition network—in line with the approach applied by the African Leaders for Nutrition Initiative (individual interview 2019). Another participant suggested that trainings with regional participants could be conducted more strategically by creating a network of regional trainers and providing them with seed funding to carry out trainings in their own regions. These trainings would create a pool of trainers who could provide expertise in the future. Participants also suggested that EPHI could become more of a learning institute, offering courses and trainings for other researchers (individual interview 2019).

Financial planning and implementation face considerable challenges. Respondents had difficulty providing information on financial resources such as allocated annual budgets and expenditures for nutrition monitoring, evaluation and policy research. Even for departments or divisions highly involved in nutrition, most of the department and division heads could not report on the exact amount of the budget allocated to their department, or specifically for nutrition. Fifty-seven percent of respondents in ministries and 30 percent of respondents in research institutes generally consider that their own department is adequately funded for any nutrition-related work.

In eight universities, the budget allocated by the government is based on the research plan and varies from year to year. Bilateral and multilateral donors have provided most of the funding for EPHI, SDCU and NDRMC. All the other organizations relied mainly on core government funds to finance nutrition monitoring, research or data collecting during the past three years. In some cases, additional funds were provided by bilateral and multilateral donors, although the overall amount remained low. Participants expressed the need for training on budgeting and resource mobilization (Workshop 2018). Participants also suggested that institutions should be more creative in finding funds and should consider partnering with NGOs to carry out research (individual interview 2019).

4.4. Institutional constraints

The NIPN CNA explored the major constraints that hamper the performance of specific activities in the institutions (Table 10).

Table 10: Major constraints faced by the departments primarily involved in nutrition

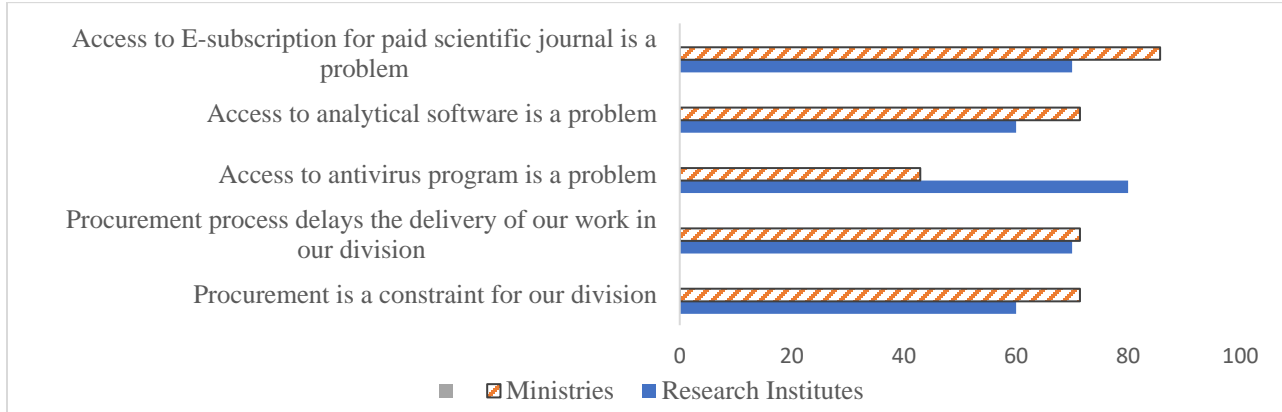
Activities	Constraints	
	Research institutes	Ministries
Research, strategic policy research and investment planning	<ul style="list-style-type: none"> • Lack of finance • Lack of senior and skilled staff • Lack of modern anthropometric kits and modern laboratory • Lack of analytical software 	<ul style="list-style-type: none"> • Lack of finance • Lack of skilled staff • Lack of focal person for multisectoral coordination • Lack of policy department
Program management, monitoring and evaluation	<ul style="list-style-type: none"> • Lack of finance and transport • Lack of trained staff • Limited requests from government for M&E • Lack of M& E tool • Low incentives for employee 	<ul style="list-style-type: none"> • Problem of logistics • Lack of operation management staff • Inactive participation of NNP implementing sector and multisectoral coordination linkage • Lack of M&E tools and capacity to collect lower-level data
Knowledge management, data system development and information sharing	<ul style="list-style-type: none"> • Low utilization of resources and organized information sharing mechanism • Fear of competition • Lack of trained staff/ knowledge gap 	<ul style="list-style-type: none"> • Lack of skilled staff and information sharing • Lack of data-sharing policy
Leadership and management	<ul style="list-style-type: none"> • Frequent change in working procedures and high turnover of higher officials • Too many lines in the directories and long processes for services such as procurement • Lack of training on leadership and management • Lack of coordination and commitment 	<ul style="list-style-type: none"> • Lack of supportive management and dedication from different sectors • Turnover of NNP focal person and NNCB members • Shortage of trained human resources and low level of awareness for nutrition issues
Governance, organizational and institutional development	<ul style="list-style-type: none"> • High turnover • Lack of trained staff 	<ul style="list-style-type: none"> • Lack of finance • Lack of clear organizational structure (including regions) in implementing sectors
Infrastructure	<ul style="list-style-type: none"> • Shortage of laboratory and office space • Lack of nutrition research materials • Challenge in accessing different datasets 	<ul style="list-style-type: none"> • Shortage of office space • Lack of Internet access

Source: NIPN CNA survey (2019).

When specifically asked about the most important service constraints, most research institutes reported that the lack of access to antivirus programs and slow procurement processes hamper performance (Figure

10). Limited access to -journals was also considered a key problem for both the research institutions and ministries.

Figure 10: Perceived services constraints to implement monitoring, evaluation or research (proportion of respondents)

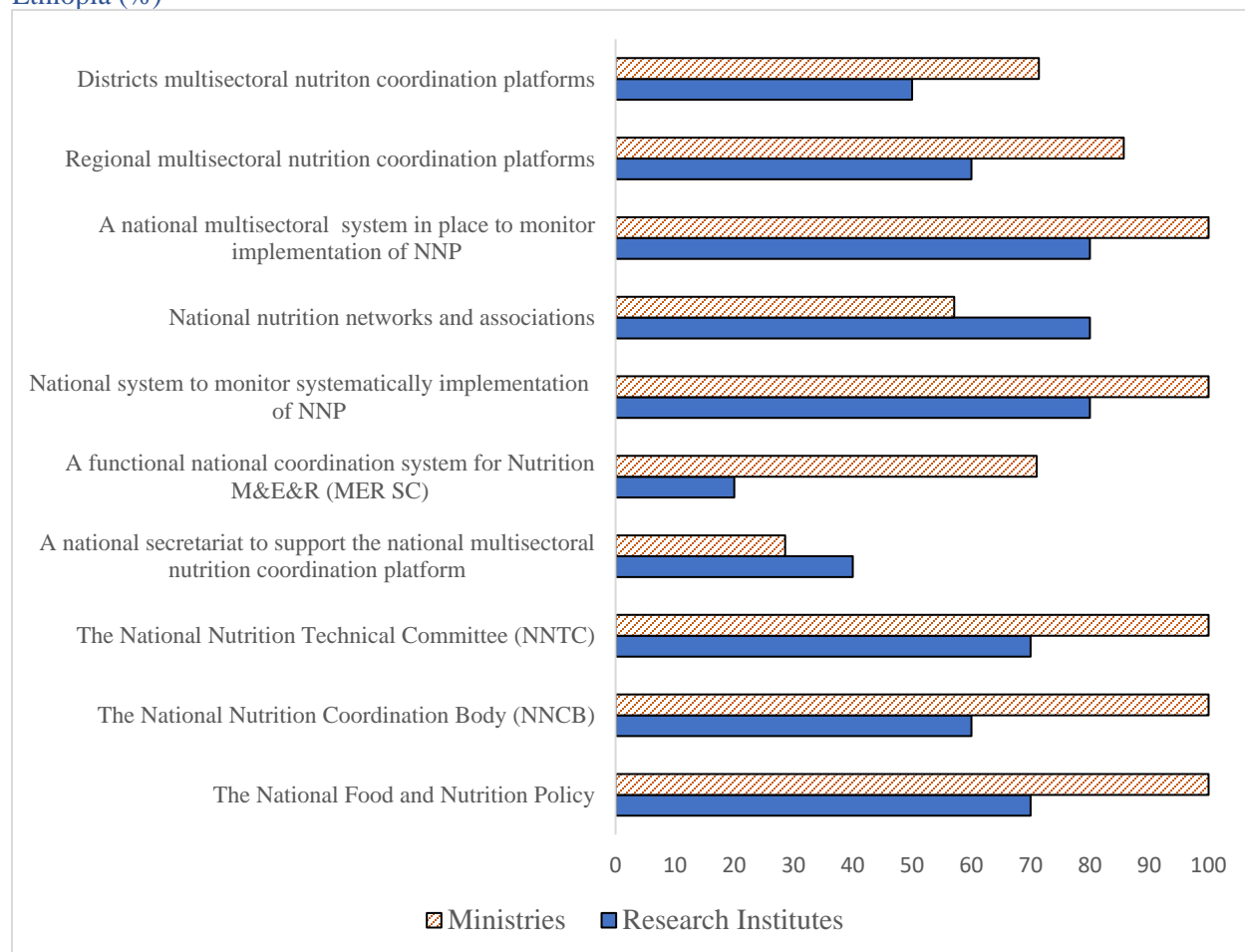


Source: NIPN CNA survey (2019).

4.5. Multisectoral coordination for nutrition monitoring, evaluation and research

There is no uniform understanding of the nutrition coordination system for monitoring, evaluation and research. Ministries are overall better informed about the existing system than respondents in research institutes, and most research institutes are not aware of the nutrition MER SC (Figure 11).

Figure 11: Proportion of respondents who acknowledge the existence of nutrition coordination systems in Ethiopia (%)



Source: NIPN CNA survey (2019).

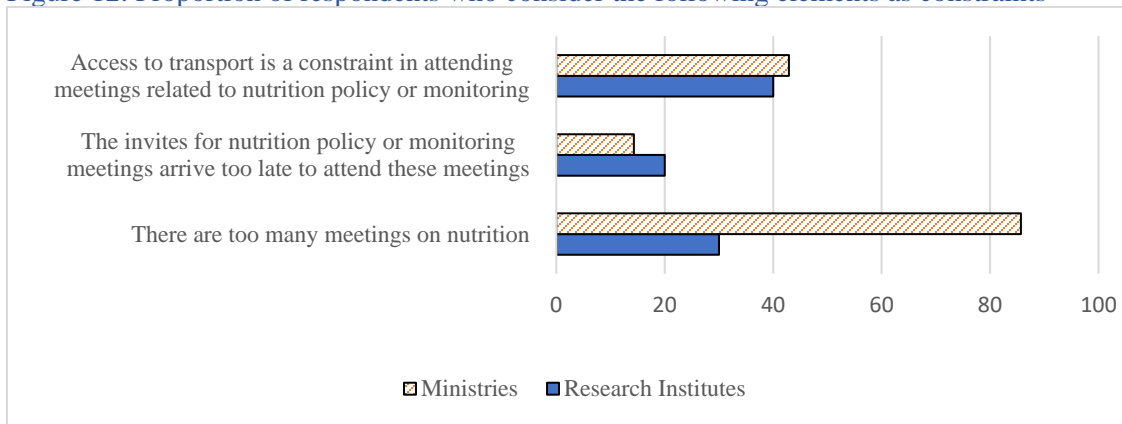
Although the existing governance structure facilitates interaction between researchers and policymakers, this does not necessarily lead to better coordination of nutrition monitoring, evaluation and research. Over the past two years, all ministries have received requests to join meetings of the NNCB and NNTC, but only half received an invitation to attend meetings of the MER SC.

Overall, participants in both the individual interviews and the workshop expressed that there is little communication and coordination of research efforts. However, respondents who are aware of the national nutrition coordination system perceive that these structures facilitate linkages between researchers and

policymakers. The potential role EPHI could play in this process was highlighted: *“building formal collaborations among different universities but also with EPHI is essential to improve coordination and communication in nutrition research”* (individual interview 2019). Development and implementing partners who conduct their own research would also benefit from better coordination to avoid duplication of research efforts (individual interview 2019). Workshop participants expressed how initiatives such as NIPN, UNISE, NDMC, international partnerships, and multisectoral policies and platforms create an enabling environment for coordination (Workshop 2018).

Most of the research institutes and ministries consider the shortage of transport to attend policy or monitoring meetings as a barrier to their involvement in policymaking processes (Figure 12).

Figure 12: Proportion of respondents who consider the following elements as constraints



Source: NIPN CNA survey (2019).

5. Conclusion and recommendations

5.1. Conclusions

Core issues: Monitoring, policy research, data, and knowledge sharing for nutrition

In Ethiopia, nutrition data are collected and managed at different levels and “owned” by different authorities. Overall, nutrition-related data management is hampered by various challenges, including the lack of a centralized data management system, the vertical nature of data management systems, and nonuniform routine monitoring systems at the ministry level. In addition, ministries without a specific nutrition plan or dedicated nutrition unit seldom measure nutrition-relevant progress or outcome indicators.

Institutional-level data and knowledge management systems are rare. None of the institutions contacted reported having a mechanism to systematically track the nutrition reports and publications produced. In most cases, data are stored on personal computers and are not available on a centralized or external hard drive. Only a few institutions have assigned a dedicated data manager.

Data collection is hampered by inadequate funding. Nevertheless, the NIPN CNA confirms that a wide range of data are collected, but that the use of existing data for further analysis is a challenge, even within the respective institutions. This may reflect the lack of data management capacity, limited awareness of existing data within an institution, or lack of a central repository. Issues related to data quality for some of the data collection mechanisms were also highlighted.

While institutions are clearly interested in data sharing, national data-sharing principles are not in place. This may reflect the lack of appropriate data-sharing policies, the lack of staff responsible for data management, or inadequate information technology (IT) solutions for data storage. In addition, time-consuming approval processes for data sharing hamper data use. As a result, only a few research institutes are sharing their data.

Linkages with policy dialogue and policymaking

The policy dialogue described by respondents appears to function well with frequent public and multistakeholder consultations. Most research institutions have a designated policy adviser linked to the government. Existing governance structures and coordination mechanisms facilitate interaction between researchers and policymakers. However, frequent changes in focal persons can affect the policy dialogue. While demand for evidence appears to be increasing, institutions do not track which reports have influenced decision-making. Moreover, critical capacity gaps remain for synthesizing evidence and translating research findings into policies and programs.

Human resources for nutrition monitoring, evaluation and research

Human resources are lacking in terms of quality and quantity in both research institutes and ministries. Most staff are young and male. More efforts are needed to strengthen capacities and to provide work experience for female nutritionists. Most institutions struggle to retain staff, perhaps because of low salaries and limited career opportunities. Inadequate management, lack of skilled staff, and high staff turnover hamper nutrition monitoring, evaluation and research.

Physical resources

Nutrition monitoring and research staff lack consistent access to the IT needed to carry out their assignments. Access to and knowledge of advanced analytical software remains limited. Access to uninterrupted electricity, Internet, analytical software, antivirus software, e-libraries, sufficient office space, laboratories, and vehicles were also identified as major needs. Funding for research is also limited and for some institutions difficult to access.

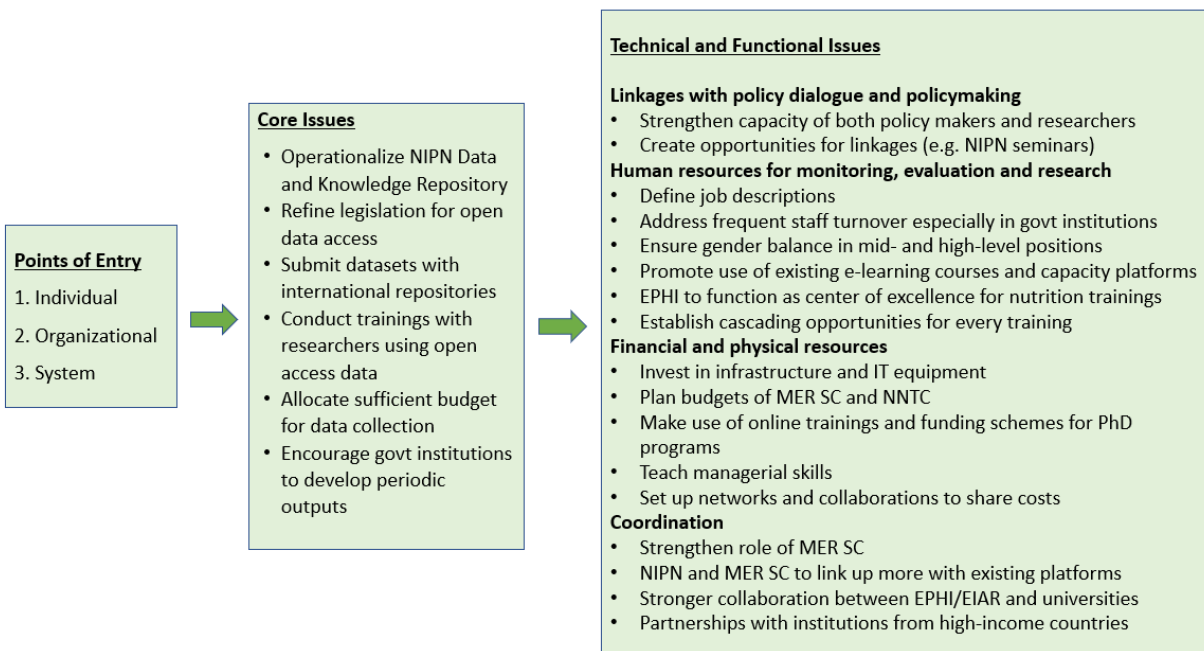
Multisectoral coordination for nutrition monitoring, evaluation and research

The nutrition MER SC has an important role in coordinating monitoring, evaluation and research under the NNP. However, among those interviewed, there is no uniform understanding of the nutrition coordination system for of the role of the MER SC. According to the MER SC terms of reference, all NIPN CNA participants are member of the committee; however, only half acknowledged this. There is a general perception that the communication and coordination of research efforts are not well established and that frequent staff changes exacerbate the coordination issues. However, respondents who are aware of the national nutrition coordination system perceive that these structures facilitate linkages between researchers and policymakers, and the potential role of EPHI in this process was highlighted. Existing multisectoral platforms and programs, such as the NIPN, UNISE, ENCU, international partnerships, and multisectoral policies and platforms help create an enabling environment for coordination.

5.2. Recommendations

The recommendations for capacity strengthening are organized in line with the CNA framework (See figure 1), and can be resumed as follows:

Figure 13:Key recommendations for core, technical and functional issues (NIPN CNA framework)



Core issues: Monitoring, policy research, data, and knowledge sharing for nutrition

The NIPN should lead national efforts to centralize, screen, and index data and findings from available nutrition research (Lachat 2014):

- The NIPN should launch a nutrition data mapping, which should provide an overview of the availability, accessibility and quality of data of interest to the NIPN and the members of the nutrition MER SC.
- The NIPN should operationalize its Data and Knowledge Repository. The NIPN should clearly communicate the benefits of enacting the data-sharing policy, NIPN's ability to manage a data repository that allows for transparent and responsible sharing of quality data, and the benefits of developing partnerships for data sharing.
- Refining legislation for open access laws would increase data generators' accountability to share data widely and to improve the quality of the data collected and disseminated. Some institutions, such as EPHI, have a data-sharing policy, but there is no national agreement or regulation. The nutrition MER SC should participate in the national-level dialogue on data generation and sharing and help speed up the data release process. The NIPN could provide support by identifying the causes of delays in data sharing, reviewing existing data-sharing policies, and defining core principles for sharing polices.
- Through the NNCB or the national nutrition council, the nutrition community can sensitize members of parliament and relevant ministries, as an important first step for leading a consultation on data-sharing legislation.
- The NIPN can collaborate with international organizations that submit their datasets to international repositories (such as IFPRI) by organizing regular webinars with NIPN stakeholders on the content of these datasets and how to gain access. This will increase visibility for available open access data repositories and raise the discussion from a national to a global context.
- To address the lack of trust related to the data sharing, the NIPN can continue to bring together researchers in training workshops to analyze open access data and showcase the potential of this data to answer policy questions and deliver policy briefs. As part of the NIPN, workshops on analyzing HICES and DHS data have already been conducted as a response to this suggestion. The effective demonstration of data use for decision-making could help to better connect data collection with analysis of policies and programs (Babu 2018).
- To ensure that future nutrition professionals are aware of the strengths of some of the available open access datasets, universities should use these datasets for teaching students or could link analysis of existing data with graduate or postgraduate student projects. This can reinforce data use and management knowledge (Babu 2018).
- The nutrition MER SC can hold a series of sessions to sensitize the political leadership about the importance of tracking nutrition development programs. This would help decision-makers see the benefits of the data generated and allocate relevant budget to data collection (Babu 2018). Regular engagement at the sector level between technical nutrition units and sector planning or monitoring departments should be strengthen to promote alignment of priorities and identification of relevant nutrition indicators for which data can be collected.
- Ministries that collect data should be encouraged to develop periodic outputs such as annual statistical reports, monitoring and evaluation reports, and reviews such as the Ministry of Agriculture's crop assessment. In turn, this could be motivating for staff working on data collection and management and could showcase the use of data.

- A data manager position should be institutionalized in every organization involved in the nutrition MER SC and the NIPN. EPHI, which has already such a position as part of the NIPN, can post relevant terms of references on its website.

Linkages with policy dialogue and policymaking

To improve policy dialogue between researchers and monitoring experts with decision-makers, capacity needs to be strengthened on both sides (Holdsworth et al. 2016). Recommendations from the assessment are:

- The NIPN can boost its linkages with policymakers early in the research process, most easily by actively involving policy- and decision-makers in the formulation of policy questions.
- Researchers require a more solid understanding of the policymaking process. This could be addressed by launching the second phase of this NIPN CNA, focusing specifically on the capacity of policymakers to use evidence for decision-making, assessing the consistency among various policy documents in using this evidence, and—based on the findings—identifying best approaches to communicating research findings to decision-makers. In addition, nutrition researchers should be trained in soft skills, particularly on how to effectively communicate research findings.
- To further build nutrition knowledge and strengthen the linkages between researchers and decision-makers, the NIPN should continue implementing regular Nutrition Policy and Research seminars, promoting participation of researchers, decision-makers and implementers. The seminars should bring new and high-level evidence relevant and timely topics in the nutrition policy and decision cycle.

Human resources for nutrition monitoring, evaluation and research

To address the shortage and quality of human resources, the following strategies are proposed:

- The NFNP highlighted the importance of defining job descriptions for professionals working on food and nutrition and developing curricula for food and nutrition from lower to higher institutions (NFNP 2019). Universities should strengthen their curricula related to data science, data analysis, policy research and evidence generation for policymaking. The career path and job description for nutrition professionals have been drafted as part of the Nutrition Human Resource Needs report (Jhpiego 2019). This should be customized for each sector and specifically for nutrition monitoring or research positions. Certificates, continuing education, and accreditation from training programs could be part of job descriptions (Shrimpton et al. 2013; Jerling et al. 2016).
- To address frequent staff turnover, especially in ministries, salaries and working conditions for statistical staff and policy staff in the government and the sectoral ministries should be improved. In addition, regular capacity development activities to improve skills can help retain qualified staff (Babu 2018).
- To ensure that more women enter the mid- and high-level ranks of research and nutrition monitoring, nutrition human resource initiatives should emphasize inclusion of female professionals. The NIPN can support this by promoting active participation of women in NIPN activities and trainings.
- The MER SC, the NIPN and universities should actively promote the use of existing e-learning mechanisms such as Massive Open Online Courses (MOOC), the e-Nutrition Academy learning platform or the GODAN Action Open Data Management in Agriculture and Nutrition online course to strengthen capacities of working nutrition professionals.
- EPHI—as the chair of the MER SC—has an important role to play as a coordinating body and as a center of excellence for nutrition trainings. The institute should be offering regular courses related to monitoring and evaluation, data analysis and interpretation, and translation of research into policy briefs.
- Capacity strengthening efforts of the NIPN should initially focus on building analytical skills of young researchers, improving knowledge of analytical software, and strengthening capacities to synthesize evidence. Universities should ensure that graduates of Food and Nutrition programs are well versed in key nutrition and statistical software.
- Experts at EPHI who have been trained through EVIDENT could further build on these training modules and offer the training to junior experts involved with the NIPN (Motani 2019; Jerling et al. 2016). Other existing capacity building platforms for individuals and institutions should also be used more effectively. Platforms such as the African Leaders for Nutrition Initiative (Jerling et al. 2016) and the Transform Nutrition program (IDS 2016) could be considered for more NIPN tailored training activities.
- To maintain competencies, all NIPN trainings should be designed to lead to on-the-job implementation. Once training material is developed and a first round of training is provided, yearly refresher courses should be provided.
- To ensure that the investments in capacity strengthening are efficient, all the NIPN capacity development efforts should be monitored by measuring skills before and after formal trainings and administering evaluations. Feedback and lessons learned need to be captured to inform the capacity strengthening approach for the following years.

- For each training provided by the NIPN, relevant cascading opportunities should be considered. For example, the strongest training participants could be identified to become future trainers, and the EPHI training center and university lecturers could be invited as training participants, with the request that they tailor the training to other researchers and students during the six months following the training. Follow up and support to these cascading opportunities by the NIPN team at EPHI will be essential.
- To ensure that knowledge and skills are passed on within the context of the NIPN,—EPHI and partner organizations should engage young professionals to the extent possible in the implementation cycle of NIPN and ensure that senior NIPN staff are willing to guide, mentor and support the junior research staff. This can be an important learning opportunity with long-term benefits.

Physical resources and management

A number of actions should be considered to facilitate fund raising and ensure better use of resources:

- Research institutes and universities should make it a priority to invest in improving infrastructure such as access to computers and other Internet-connected equipment. Creating networks and collaborations between institutions through the MER SC or the NIPN could help with shared access to software, antivirus programs, and e-libraries.
- Allocation of a budget for nutrition monitoring, evaluation and policy research is key. During the government’s annual planning period, the MER SC and NNTC should reach out to sectoral decision-makers to ensure that their activities are appropriately planned and budgeted. A smoother flow of funding for nutrition research requires creative solutions, such as channeling funds through or collaboration with NGOs or other organizations, to make it easier and faster for research institutes to receive funds. The nutrition MER SC could promote such interactions.
- The Ethiopian Nutrition Leadership Network, the nutrition MER SC and the NNTC can advocate with donors to include research components in their programs. Their advocacy can showcase the practical benefits of research and make it more attractive to donors.
- To address financial constraints related to trainings, the use of online trainings could be promoted. The NIPN or other members of the MER SC could explore the development of a monitoring and evaluation /data analysis course with the eNutrition Academy. This academy was created in 2014 as a consortium of international nutrition organizations offering free learning modules.
- Funding schemes to support local PhD programs could be established by scaling up programs and regional mobility for MSc training in Africa south of the Sahara (Lachat 2014) and should actively promote participation of women. The NIPN has received funding from the European Union Delegation for six such PhD students.
- Managerial skills should be taught in conjunction with statistical and data analysis skills to help motivate staff and provide an incentive for high-quality work. If managers are aware of ongoing research and existing work of their staff, it will not only facilitate better use of data, but also motivate researchers.

Multisectoral coordination for nutrition monitoring, evaluation and research

Existing coordination mechanisms should be strengthened and new partnerships could be established, considering the following recommendations:

- The nutrition MER SC could bring together the different ministerial departments responsible for managing data and statistics to develop a common framework to manage the data sets and publish them periodically (Babu 2018). The NIPN can support this coordination by involving these ministries in its policy question formulation process and in data analysis and interpretation.
- The coordination role of the nutrition MER SC could be further strengthened by establishing a clear accountability process among its members. Key members such as EPHI and EIAR—which are the lead and co-lead of the committee—should be actively involved in the development of the National Food and Nutrition Strategy to ensure that reporting and monitoring are incorporated. To promote the involvement of EIAR, responsibility for organizing the meetings could alternate between EPHI and EIAR.
- The MER SC and the NIPN should make a greater effort to link up with the existing platforms. There are numerous platforms in Ethiopia that are organization-, program- or topic-specific (Nutrition Development Partner Forum, PSNP nutrition task force, NNCB/MER SC, Agriprofocus, the Ethiopian Nutrition Leadership Network). Involvement of the NIPN core team in these platforms will be beneficial and will create linkages among institutions and with decision-makers.
- Using these platforms more effectively by bringing together departments of planning and policymaking, the national research institutions, universities and implementers and creating a space for researchers to present their data and its potential use for policymaking could promote open policy discourse on data quality (Babu 2018).
- Given the multisectoral nature of management, analysis and reporting of food and nutrition data, different disciplines will need to be involved. Integrating nutrition and/or data analysis skills in respective disciplines that currently lack those skills could facilitate interaction between disciplines as well as researchers and ministry staff. Short or online courses could interest individuals from a variety of disciplines in nutrition and promote multisectoral collaboration (Pepping 2010). Some of these courses could be offered through the NIPN.
- The NFNP suggested supporting the development of research and academic centers of excellence in food and nutrition (NFNP 2019), as did the NIPN CNA participants. Since one institute could not provide the breadth of trainings needed for the multisectoral skill set required by nutrition researchers, collaboration among different institutions and at different levels will be essential. Closer collaboration under the NIPN between universities and research institutes such as EPHI or EIAR could promote closer engagement of researchers in the policymaking process. Involvement of regional institutions like the regional health research institutes in NIPN trainings can be promoted. CNA participants also suggested making trainings more sustainable by committing regional and university participants to become trainers themselves and providing them with seed money to conduct trainings in their respective regions.
- The NFNP emphasized the need to promote partnerships with food and nutrition higher-learning and research institutions from high-income countries (NFNP 2019), which could assist in building and sustaining domestic capacities (Fanzo et al 2015, Motani 2019). To promote the exchange among countries, the NIPN should take advantage of the global NIPN network, coordinated by the NIPN Global Support Facility, and of IFPRI's Compact2025 networks. While North-South collaborations have been shown to be effective and beneficial and can maximize expertise (Motani 2019), they must be equitable and should provide clarity on expectations, management of funds, identification of research priorities, and how benefits are distributed (Bowsher et al. 2019).

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Annex 1. List of institutions and divisions interviewed

The following institutions were interviewed using the NIPN CNA questionnaire (quantitative and qualitative).

Table 11: List of institutions and divisions interviewed

Organization	Number of people interviewed	Departments/divisions interviewed
Ministry of Agriculture	4	1. Food and Nutrition coordination office 2. Planning, Monitoring and Evaluation Directorate
Ministry of Health	4	3. Nutrition case team 4. Policy & Planning Directorate 5. Finance and Procurement Directorate
Ministry of Labor and Social Affairs	3	6. Finance Directorate 7. Social Welfare Development Promotion Directorate 8. Planning Project Monitoring and Evaluation Directorate
Ministry of Education	1	9. School Feeding Program
Ministry of Industry - Food Beverage and Pharmaceutical Industry Development Institute **	2	10. Food and Beverage Secretariat Office 11. Finance Department
Ministry of Trade (** and *)	1	12. Inspection Directorate
Ministry of Water, Irrigation and Electricity *	2	13. One WASH National Program
Ministry of Women, Youth and Children *	2	14. Women case team 15. Child case team
Ministry of Finance and Economic Cooperation *	1	16. Budget Preparation and Administration Directorate
Seqota Declaration Program Coordination Unit	2	17. Seqota Program unit 18. Finance Department
National Disaster Risk Management Commission	1	19. Early warning and Emergency Response Directorate
Addis Ababa University	1	20. Food Science and Nutrition Department
Mekelle University	2	21. Food Science and Nutrition dietetics Department
Bahir Dar University	4	22. Department of Applied Human Nutrition
University of Gondar	2	23. Department of Public Health Nutrition
Hawassa University	1	24. Nutrition Department
Haramaya University	2	25. Food Science Department 26. Public Health Nutrition Department
Jimma University	2	27. Nutrition and Dietetics Department 28. Finance Department

Ethiopian Institute of Agricultural Research	4	29. Food Science and Nutrition Research Directorate 30. Human Resource Management Directorate, 31. Procurement, Finance and Property Management Directorate
Ethiopian Public Health Institute	3	32. Food science and Nutrition Research Directorate, 33. Human Resource Management Directorate, 34. Procurement and Finance Directorate
Central Statistical Agency	6	35. Population Statistics Directorate 36. Human Resource Directorate 37. Finance Directorate 38. Property and administration Directorate 39. General service Directorate

* These ministries do not collect data on nutrition and were not considered for the extensive interview process. They have undergone limited number of interviews

** The Ministry of Trade and Ministry of Industry are now combined as Ministry of Trade and Industry

Annex 2. Participants in NIPN CNA stakeholder meetings

Table 12: Designation and organization of participants of the 1st stakeholders' consultation workshop, October 2018

	Designation	Organization
1	Senior Program Manager	Seqota Declaration
2	Researcher (Total No=7)	EPHI
3	Researcher	GACO
4	Communication officer	EPHI
5	Nutrition Advisor	EPHI
6	Senior Researcher	EPHI
7	Wash Coordinator	MOWIE
8	Data Manager	EPHI
9	Senior Policy Advisor	Save the Children
10	Public Health Analyst	EPHI
11	Head of Capacity Strengthening	IFPRI
12	Director of NSTC	MOA / National Soil Testing Centre
13	MEAL Officer	EPHI
14	Statistician	CSA
15	Advisor	EPHI
16	Expert	MOI
17	Nutritionist	Concern
18	Researcher	EIAR
19	Data Manager	EPHI
20	Senior M & E specialist	FHI 360, Alive & Thrive
21	Nutrition Specialist	ENCU/ UNICEF
22	Technical Advisor	EPHI
23	Nutrition Expert	FMOH
24	Nutritionist	FAO
25	Advisor	MOI
26	Senior Technical and Policy Advisor	IFPRI
27	Research Officer	IFPRI

Table 13: Designation and organization of participants of the 2nd stakeholders' consultation workshop, June 2019

	Designation	Organization
1	Advisor	EPHI
2	Senior M and E Advisor	Alive & Thrive
3	Lecturer	University of Gonder
4	Researcher (Total No=4)	EPHI
5	Associate Researcher	EPHI
6	Lecturer	Mekelle University
7	Food Technologist	EFDA
8	Nutritionist	Bahir Dar University
9	Nutritionist	Haramaya University
10	Data analyst	EPHI
11	Data Manager (Total No=2)	EPHI
12	Nutrition Coordinator	FMOH
13	Senior Program Officer	Nutrition International
14	Statistician	EPHI
15	Senior Technical and Policy Advisor	IFPRI
16	Senior statistician	CSA
17	Consultant	IFPRI
18	Research Officer	IFPRI
19	Senior M&E expert	MOWCY
20	M&E team leader	MOA
21	Expert	MOLSA
22	Research Manager	Tufts University
23	M& E specialist	UNICEF
24	Team leader	MOTI
25	Policy Officer	FAO
26	Expert	MOTI
27	WASH expert	MOWIE
28	MEL officer	EPHI
29	Nutrition Specialist	UNICEF
30	Database assistant	UNICEF
31	R& D Director	Ethiopian Standards Agency
32	Head of Capacity Strengthening	IFPRI
33	Director	National Soil Testing Centre (NSTC)
34	Communication officer	EPHI
35	Executive secretary	EPHI
36	Senior Advisor	MOE
37	Senior Expert	MWCY
38	Assistant Professor	Haramaya University

Table 14: List of key informants

Title	Organization
1. Director of Nutrition Research division	National research organization
2. Nutrition Expert	National research organization
3. University Department head	University
4. Senior Advisor	National research organization
5. Senior Advisor	SUN network
6. SUN Focal Point	SUN network
7. NIPN global advisor	NIPN global network
8. Nutrition Program Manager	Donor
9. Senior nutrition advisor	International organization
10. Nutrition M&E Officer	UN organization
11. Nutrition Manager	UN organization
12. Nutrition Policy Officer	UN organization