

# Information Management and Accountability for Multisectoral Nutrition Implementation in Burkina-Faso

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**Abstract:** The successful implementation of multisectoral operational plans in Burkina-Faso depends largely on the involvement and commitment of the technical departments from the key contributing sectors. The objective of this evaluation study is to analyze the capacities of the technical structures at the central level, and Regional Directorates level in the 13 regions of the country in terms of data management and accountability to identify gaps and challenges to the multisectoral process. The new Framework for Nutrition Capacity developed by the United Nations Network for Scaling Up Nutrition was used and adapted. Data collection and analysis consisted of triangulation of information: (1) literature reviews, (2) data collection and analysis from the evaluation guide and questionnaire and (3) observations. Cumulatively more than 20 technical departments, including those at the central and regional levels, did not have appropriate equipment or other means to record and monitor data. Among the thirty technical structures at the central level, only six had a nutrition focal point, and 47.3% (35 out of the 74) had one. The existence of diverse kinds of data collected by different departments at all levels was observed, and a strong demand of information and data was expressed particularly at the level of the 13 regions of Burkina Faso. The lack of a functional national system on nutrition monitoring and evaluation to ensure accountability on the multisectoral approach at country level was noted. The needs and gaps identified, at different levels, among the key structures of the ministries involved in the multisectoral process, have made it possible to formulate strategic responses to better support the operationalization of the national nutrition policy.

**Keywords:** Capacity Assessment, Accountability, Nutrition, Regional Directions, Technical Structures, Central Level, Regional Level, Data Management

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## 1. Introduction

Malnutrition is a universal problem that delays the physical and cognitive development of individuals and has unacceptable human consequences [1], although the conditions to end it seem more than ever reunited [2]. The United Nations (UN) Decade of Action for Nutrition (2016-2025) and the Sustainable Development Goals (2015-2030) call on the international community and individual countries to fight against malnutrition and accelerate progress [2]. Whether to transform global or

national ambitions into concrete realities of reducing the prevalence of malnutrition, technical know-how and political commitment for sustainable mobilization of political systems, policy processes and resources at national and sub-national levels to improve nutrition [3-5] are required. In particular, coordination of actions within and across sectors (horizontal coordination) and at all levels of governance (vertical coordination) [6, 7], as well as knowledge and evidence management are required [3]. To accelerate progress, it is

essential to set priorities and invest in the necessary data and the capacity to use it [1], because data gaps affect the ability to target resources, develop policy and monitor accountability [6, 8, 9].

Effective interventions cannot be formulated without knowing the profile of those affected by malnutrition and its determinants. In the words of former UN Secretary-General Kofi Annan, “Data gaps undermine our ability to target resources, develop policy and monitor accountability. Without quality data, we are moving forward blindly. And we cannot solve what we don’t see” [10].

Since 2014, Burkina-Faso has been engaged in a multisectoral planning process that mainly involves key ministerial departments. The national multisectoral nutrition plan (2020-2024) [11] is defined by five strategic objectives: (a) reduction of undernutrition, (b) reduction of micronutrient deficiencies, (c) strengthening the fight against overnutrition and chronic non-communicable diseases linked to nutrition, (d) strengthening food safety, (e) improving nutrition governance (see Figure 1, for the details of the last strategic objective). For the fifth one, The United Nations has called on States to strengthen “nutrition governance”; however, without going into the details of how to conduct this process, due to a lack of empirical evidence and a basis on which to issue recommendations [2, 12].

The objective of this assessment study is to analyze the capacities of public offices in terms of data management and accountability at central and regional levels and to identify the gaps and challenges for the successful operationalization of the national nutrition policy.

<p><b>Strategic objective 5: Improving nutrition institutional governance</b></p> <p><b>Specific objective 1: Improving nutrition institutional governance</b></p> <ul style="list-style-type: none"> <li>- Intervention 1: Improving the functioning of nutrition coordination frameworks at all levels;</li> <li>- Intervention 2: Strengthening the operational capacity of the different sectors;</li> </ul> <p><b>Specific objective 2: Improving the nutrition monitoring and evaluation system</b></p> <ul style="list-style-type: none"> <li>- Intervention 1: Strengthening the nutrition surveillance system</li> <li>- Intervention 2: Strengthening monitoring and evaluation of the common results framework and multisectoral nutrition action plan</li> </ul> <p><b>Specific objective 3: Strengthening research on nutrition</b></p> <ul style="list-style-type: none"> <li>- Intervention 1: Developing operational research on nutrition</li> </ul> <p><b>Specific objective 4: Strengthening communication, advocacy and social mobilization on nutrition</b></p> <ul style="list-style-type: none"> <li>- Intervention 1: Setting up an integrated communication plan</li> </ul>
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**Figure 1.** Strategic objective five of the national multisectoral nutrition plan. Source: Adapted from Ministry of Health [11].

## 2. Methods

This study is part of a broad need of assessments for nutrition capacity development, initiated in Burkina Faso, with a view to implement the nutrition strategic plan. This

document is an evaluative cross study with descriptive and analytical aims conducted at the central and regional levels in the 13 regions of Burkina Faso. Data collection and analysis consisted in triangulation of information: documents reviews, data collection and analysis from evaluation surveys, and observations.

A multisectoral and multidisciplinary Technical Evaluation Committee (TEC), was put in place by the leadership of the Ministry of Health (MoH), and it has supported the REACH Initiative (Renewed Efforts Against Child Hunger & Undernutrition). This TEC was placed under the supervision of a group of “peer reviewers” composed of the four UN Nutrition Focal Points. The TEC implementation aimed to support and encourage the future use and appropriation of results [13-16], in a dynamic and complex environment [17] based on a collaboration [18, 19]. The methods and tools proposed were useful to propose innovative strategies by facilitating thinking and decision-making [17, 20, 21]. One of the key actions of this study was real-time feedback to the sectors, and it was run through three phases (preparation, implementation, and synthesis of results and formulation of the capacity development plan) [18].

### 2.1. Conceptual Framework of the Present Assessment

The assessment process was guided by the Framework for Nutrition Capacity (Figure 2) [22], developed by the Secretariat of the United Nations Network/REACH. This framework provides two guides: (a) an orientation guide, and (b) a tool and resource kit. The framework highlights elements of capacity such as: (a) multisectoral capacities where the efforts of all sectors engaged in nutrition converge and align towards a common goal, (b) and sectoral capacities that are specific to the mission of each sector. Three dimensions of capacity (enabling environment, organizational and individual) cover multisectoral and sectoral capacities, and within each dimension, four areas of capacity (policies, programmes and frameworks, resources and infrastructure, coordination and partnerships, and evidence-based decision-making) can be developed. The framework, providing complementary tools and resources, is flexible and is adapted to different needs and specific contexts, taking into account the objectives of the assessments at country level.

The guides focus on government bodies that are instrumental in supporting nutrition scale-up at national and sub-national levels [22]. The package can also be used to assess the capacities of other stakeholders, as it recognizes the crucial roles played by them in nutrition governance. Some tools and methods were used to assess capacities: (a) stakeholder mapping [23], (b) a stakeholder analysis [23, 24], (c) the checklist for capacity areas tool [23], and (d) assessment guides.

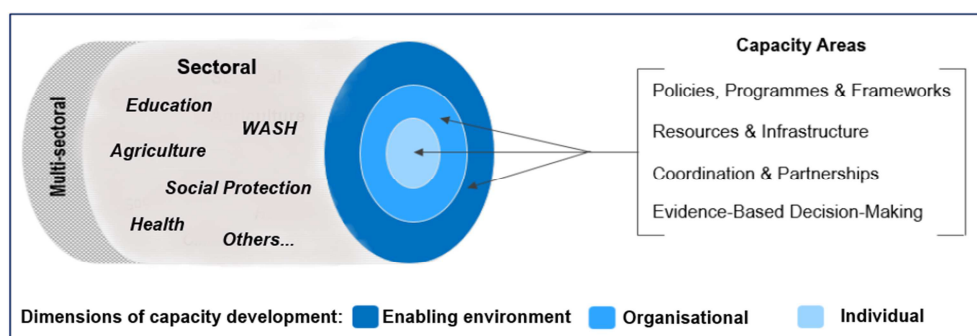


Figure 2. Framework for nutrition capacity. Source: Adapted from United Nations Network [22].

## 2.2. Public Offices Identification and Selection

The Technical Evaluation Committee members were trained to use the tool and resource kit for the various components of the analytical framework [22-24]. They contributed to the targeting and selection of participants that were included in this study. To identify and select institutions and structures, a series of tools and information collection methods were used successively: a Stakeholders Mapping and a Stakeholders Analysis.

The mapping made it possible to draw up a list of all key stakeholders (who does what, where and how?).

At the central level, technical structures involved in the common nutrition results were included. This list was complemented by the technical structures, organization charts and assignment use. At the regional level, the technical Regional Directorates (RD) of the key ministries were established. The stakeholder analysis examined the list of key

institutions that derived from the mapping, according to their involvement in the implementation of the multisector nutrition plan, as well as their capacity to influence results [23, 24]. Institutions having both low resources/capacities to influence the results, and neutral interests in the multisectoral nutrition action plan, were finally not selected to be interviewed.

## 2.3. Key Indicators Selected and Capacity Type Formulation

The Checklist for Capacity Areas tool was used to establish the analytical framework [23], and from the capacity dimensions, a list of capacity areas and related assessment indicators (Table 1) was selected. To facilitate the objective and understanding of our study, the list of key indicators selected to assess needs in the table 1, are reorganized under five capacity types in table 2 only capacity types 5 is studied by this present paper; another paper will be related to the capacity number 1, 2, 3, and 4.

Table 1. Pre-analytical framework for nutrition capacity assessment.

Capacity dimensions	Capacity Area	Key indicators selected to assess needs
Individual	Human Resources and infrastructures	Availability of certain profiles; Skills in advocacy, training, facilitation, mobilization of financial and material resources, communication, and monitoring and evaluation; Technical expertise in monitoring and evaluation
	Resources and Infrastructures	Availability of work equipment, tools and internet connection; Suitable equipment to record data and monitoring
Organisational	Coordination and partnership	Motivation of staff; Existence of a resource mobilization plan or strategy; Adequate skills to support the expansion of nutrition services; Organizational difficulties: limiting internal factors; Existence of training plan related to nutrition area; Adequate funding for data collection.
	Evidence-based decision making	Existence of an internal dialogue on nutrition; Organizational difficulties: limiting external factors
	Policies, Programs and Framework	Monitoring & Evaluation Unit; Nutrition focal point; Diversity and type of data collected; Data and information need; Functional mechanisms for knowledge-sharing
Enabling environment	Resources and Infrastructures	Awareness and implementation of actions of the common results framework
	Coordination and partnership	Financial difficulties
	Evidence-based decision making	Leadership and coordination of information; Collaboration with nutrition-related coordination bodies
		Communication to stakeholders

Table 2. Adapted analytical framework for the study objective.

Type of capacity	Key indicators selected to assess needs
1) Human resource capacity and infrastructure	Motivation of staff; Availability of certain profiles; Availability of certain profiles; Adequate skills to support nutrition services expansion; Availability of work equipment, tools and internet connection
2) Functional capacity	Skills in advocacy, training, facilitation, mobilization of financial and material resources, communication, monitoring/evaluation
3) Organizational capacity,	Existence of an internal framework for dialogue on nutrition; Collaboration with nutrition-related coordination bodies;

Type of capacity	Key indicators selected to assess needs
coordination and partnership	Awareness and implementation of actions of the common results framework; Existence of an operational work plan; Organizational difficulties: limiting internal and external factors
4) Financial capacity and resource mobilization	Financial difficulties; Existence of a resource mobilization plan or strategy
5) Data management capacity and accountability	Monitoring-evaluation package ( <i>technical expertise in monitoring and evaluation, suitable equipment to record data and monitoring, monitoring and Evaluation unit</i> ); Information dissemination ( <i>functional mechanisms for knowledge-sharing, communication to stakeholders</i> ); Nutrition focal point; Diversity and type of data collected; Data and information need; Adequate funding for data collection; Leadership and coordination of information

## 2.4. Data Collection

An evaluation guide, designed on the basis of key indicators selected to assess needs, reorganized and presented under five capacity types in table 2, was used for data collection at the central level. For the regional level a semi-structured questionnaire, designed and based on the semi-structured interviews' results, conducted previously at the central level, was used. The evaluation guides and the questionnaire were focused on five points: (a) general information about the organization, (b) human resources and infrastructure, (c) organizational analysis and functional capacity (d) information management and accountability system, and (e) financial resources.

Data collection at the central level took place between October 2017 and June 2018, and at the regional level it took place between November 2017 and July 2018 through interviews. Four focal points were mobilized for the central level, and three teams of two people were deployed in the 13 regions, with a distribution of approximately four regions per team. The questionnaires and the guide were pre-tested among the committee members (12 people) and the group of "peer reviewers" (5 people). Interviews were carried out with people organized in teams of 2 to 4 persons.

During our interview, note-taking was applied, and when information was missing or clarification needed the institution was contacted again. This option was preferred to audio recording, as the public employees that participated wanted the interviews to take place without a tape recorder. The veracity of the testimonies was tested by triangulation with other informants and documentation.

## 2.5. Data Processing and Analysis

For the qualitative data, both at the central and regional levels, a manual tabulation and content analysis were carried out. While for the regional level Excel software 2016 was used for data entry, quantifying, processing and testcrossing by SPSS Version 20. At all levels, an analysis matrix composed of the evaluation criteria, the existing situation and the desired situation made it possible to identify the gaps for nutrition capacity development.

Data results and information from the capacity type 5 proposed by the adapted analytical framework for the study objective, are presented as follow: (a) monitoring-evaluation package, (b) information dissemination, (c) existence of nutrition focal point, (d) diversity and type of data collected, (e) data and information need, (f) leadership and coordination of information.

## 2.6. Ethical Considerations

The study obtained approval from the institutional Ethics Committee of Centre Muraz. All the institutions were informed of the purpose of the study and provided verbal consent prior to starting interviews.

# 3. Results

## 3.1. Presentation of the Participants

At the central level, it involved the technical structures of nine key ministries engaged in the multisectoral approach to nutrition (primary education, health, agriculture, animal and fisheries, trade and industry, solidarity and the family, water and sanitation, research, and environment). Thus, a list of 30 key technical structures from the mapping (Tables 3 and 5) were examined and selected. At the regional level, the mapping involved the RD of the same nine ministries. Furthermore, from the stakeholder's analysis, the evaluation team produced a list of all the RD of the six key ministerial selected for the study: health, agriculture, animal and fisheries, primary education, water and sanitation, and solidarity and the family (Table 3).

## 3.2. Monitoring-evaluation Package

Both at the central and regional levels, almost all public offices reported having staff with experience in planning and coordination for data collection and monitoring. However, many of them mentioned that there are weaknesses in terms of capacity for data analysis.

### 3.2.1. At the Central Level

Almost all technical structures 86.2% (25/29) have a monitoring and evaluation unit or person. For the technical structures with a monitoring-evaluation (M&E) service, the number of staff varies from 1 to 6 persons. The positions occupied by the persons directly in charge of M&E are distributed as follows: director (0/25), head of department 8% (2/25), head of service 72% (18/25), simple agent 20% (5/25). They were mainly rural development engineers (water, agronomy, animal husbandry), educators and social service administrators, health officers and advisers, veterinarians, biologists, primary education advisers and inspectors.

Only 68% (17/25) M&E cells or departments or persons had appropriate equipment or other means of recording and monitoring data. A researcher said:

*"In our department, which has almost 50 people, there is no cell or person in charge of monitoring and evaluation. There*

*is only one monitoring-evaluation unit serving all four departments under the Institute's management, with impacts on the department's activities on monitoring".*

### 3.2.2. At the Regional Level

The results revealed that all the Regional Directorates have a department or person responsible for M&E. The positions held by those directly responsible for M&E were diverse (director 2.7% (2/73), head of department 1.4% (1/73), head of service 76.7% (56/73), head of section/head of office/ M&E manager or officer 6.8% (5/73), or a simple agent 12.3% (9/73)). In addition, their training profiles were diverse and varied from one region to another and from one regional management entity to another. The number of people dedicated to the M&E service varied from 1 to 10 people, and nearly 85% of the services were composed of 1 to 4 people, more than 50% of whom had 2 or less staff. The directions that had appropriate equipment to record and monitor data 77% (57/74) were more numerous than those that did not have one 17.6% (13/74).

### 3.3. Information Dissemination

#### 3.3.1. At the Central Level

We were able to note from the structures, that the most used functional mechanisms for knowledge sharing were the website 44.8% (13/29), newsletter 37.9% (11/29), reports 83% (24/29), and sharing workshops 76% (22/29).

A sizeable proportion of structures (13/20 versus 7/20) report providing communication and feedback to stakeholders from both "bottom up" and "top down". One agent commented on communication and feedback to stakeholders:

*"This is mainly done through the review of sectoral dialogue frameworks, the involvement of stakeholders in national or communal workshops and through monitoring/drafting committees".*

#### 3.3.2. At the Regional Level

67.6% of the Regional Directorates state that they communicate the reports to the stakeholders, and regarding the knowledge sharing mechanisms used by the Directorates, the dissemination of reports (90.54%) and the holding of sharing workshops (83.78%) come first, figure 3. At the country level, information is shared on the websites of both the departments and respective partners, and also on the National Statistical Council website. However, most of the databases are not accessible online, except in rare cases such

as the Integrated Management of Health Data «ENDOS» of the Ministry of Health, the Country Stat of the Ministry of Agriculture and Hydraulic Infrastructures.

Most of the data and information are centralized at the website of the National Institute of Statistics and Demography, where online platforms such as National data archives, Burkina Open data and BurkinInfo and the Afristat editorial platform are housed.

### 3.4. Existence of Nutrition Focal Point

#### 3.4.1. At the Central Level

The results revealed that only 20.7 per cent (6/29) of the technical departments have a nutrition focal point (DAMSSE, ABNORM, DGA, DN, DGESS of the Ministry of social action and DGESS of the Ministry of Education) against 79.3 per cent (23/29). These focal points, although designated by their home structure as part of the multisectoral process initiated since 2014 by the Ministry of Health, have not received an official letter of recognition. These 6 focal points occupy various positions within their institution, ranging from simple agent (3), head of service (2) to head of department (1).

#### 3.4.2. At Regional Level

The analysis showed that only 47.3% (35/74) of the RD had a nutrition focal point versus 52.7% (39/74), and among the 35 RD, the focal point was officially recognized in 80% of them, versus 20%. The focal points (head of service (36.4%), head of section/head of office (18.2%), single agent (45.5)) were of diverse profiles. It should be noted that there is a statistically significant relationship between the sector's Regional Directorates and having a nutrition-related focal point (Table 4). However, the focal points from the different sectors (education, agriculture and animal husbandry, social protection) are not linked to the Secretariat in charge of multisectoral nutrition coordination or to the Nutrition Directorate. Those in the health sector are also not under the responsibility of the Secretariat in charge of nutrition coordination, but are closely related to the Secretariat through the regional health directorates. In addition, it should be noted that the different type of focal points, are called differently from one sector to another: health, nutrition hygiene focal point for the RD of primary education, nutrition focal point for the RD of health.

**Table 3.** Distribution of key central technical structures and Regional Directorates involved in the interviews.

Ministerial Departments	Central level technical structures		Regional Directorates	
	Number of key technical structures selected after the stakeholder mapping	Total number of interviewed technical structures	Number of identified RD and selected after stakeholder analysis	Number of RD interviewed
Ministry of National Education and Literacy	3	3	13	12
Ministry of Health	6	5	13	13
Ministry of Agriculture and Hydraulic arrangement	6	6	13	12
Ministry of Animal and Fisheries Resources	3	3	13	13
Ministry of Women, National Solidarity and the Family	3	3	13	13
Ministry of water and sanitation	4	4	13	11
Ministry of Trade, Industry and Handicrafts	1	1	0	0
Ministry of Higher Education, Scientific Research and	3	3	0	0



Ministerial Departments	Central level technical structures		Regional Directorates	
	Number of key technical structures selected after the stakeholder mapping	Total number of interviewed technical structures	Number of identified RD and selected after stakeholder analysis	Number of RD interviewed
Innovation				
Ministry of Environment, Green Economy and Climate Change	1	1	0	0
Total (%)	30 (100%)	29 (96, 66%)	78 (100%)	74 (94, 87%)

### 3.5. Diversity and Type of Data Collected

In order to find out more about who collects what type of data, the departments were asked whether their data collection system takes into account data on nutrition, food security, health, social protection, education and water, hygiene and sanitation (WASH) among others.

#### 3.5.1. At the Central Level

The analysis of table 5 indicates that the nature of the data collected by the departments is as follows: nutrition 34.5% (10/29), food security 65.5% (19/29), health 41.4% (12/29), social protection 34.5% (10/29), education 31% (9/29), WASH 48.3% (14/29) and gender 3.5% (1/29). Focusing on the data collected, diversity or plurality of the typologies, the Ministry of Education and those of National Solidarity and the Family and Research collect from 4 to 6 typologies.

#### 3.5.2. At the Regional Level

Table 6 shows the predominance of the data most frequently collected by the Directorates. Data on food security, health and water, hygiene and sanitation are the most collected by the different sectors. The analyses indicated that there were statistical relationships between the sectors and the collection of data on nutrition, food security, health, social protection, education and WASH ( $p=0,000$ ). The RD of health, agriculture, education, national solidarity collect most of the data on nutrition. In addition, it should be noted that the health data collected by the RD of animal and fisheries resources are related to animal health.

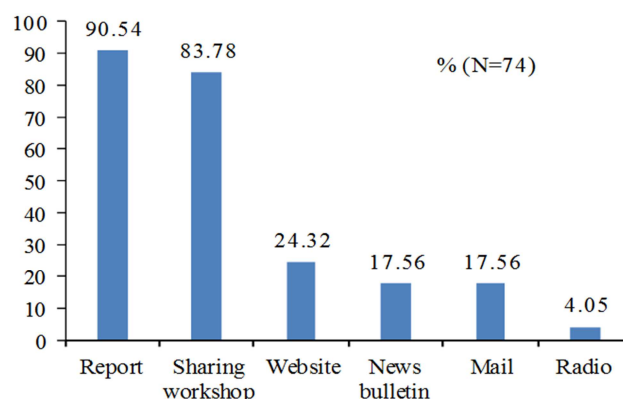


Figure 3. Functional knowledge-sharing mechanisms.

### 3.6. Data and Information Need

Beyond the data collected by the different departments, we wanted to capture more information about health, food security, nutrition, information and data that they need for decision-making processes and orientation of their activities.

At the central and regional levels, the most expressed needs in information were as follows: (i) the local food component and their nutritional value; (ii) the cereal balance sheet by district and cereal fluctuations; (iii) the mapping of food insecurity areas; (iv) the geological map (field geology); (v) the water quality report, availability and access to potable water by population; (vi) the evolution of malnutrition prevalence and its disaggregation; (vii) and the situation of water diseases.

Table 4. Relationship between the existence of focal points and key sectors.

Is there a focal point in a nutrition area within the Regional Directorates ? ( $p=0,000$ )			
		Yes	No
Sector	Regional Directorates of Health	13	0
	Regional Directorates of Agriculture and Hydraulic Arrangement	3	9
	Regional Directorates of Water and Sanitation	0	11
	Regional Directorates of National Education and Literacy	11	1
	Regional Directorates of Animal and Fisheries Resources	4	9
	Regional Directorates of Women, National Solidarity and the Family	4	9
Total		35	39

Table 5. Diversities and typologies of collected data at central level.

Ministries	Structures	Typologies of collected data						
		Nutrition	Food security	Health	Social protection	Education	WASH	Gender
Ministry of Agriculture and Hydraulic Arrangement	SONAGESS		✓					
	DPVC		✓					
	DDA/DGPER		✓					
	SP/CPSA		✓					✓
	DGESS	✓	✓		✓	✓	✓	
	DTAN	✓	✓			✓		

Ministries	Structures	Typologies of collected data						
		Nutrition	Food security	Health	Social protection	Education	WASH	Gender
Ministry of Animal and Fisheries Resources	DGPA		√		√			
	DGSV/DSPV		√	√				
	DGESS		√	√		√		
Ministry of Trade, Industry and Handicrafts	ABNORM						√	
Ministry of Environment, Green Economy and Climate Change	DPVL/PNFL		√			√		
	DPES	√		√			√	
	DN	√	√	√				
Ministry of Health	DSF	√		√				
	DPCM			√	√	√		
	DPSP			√	√		√	
Ministry of Women, National Solidarity and the Family	DPESS	√	√	√	√			
	DPG				√			√
	DGESS				√		√	
Ministry of National Education and Literacy	DAMSSE	√	√	√	√	√	√	
	DPEIFG		√		√	√	√	
	DGESS	√	√	√	√	√	√	
Ministry of Higher Education, Scientific Research and Innovation	DPV/INERA		√					
	UNMM/IRSS	√	√	√	√	√	√	
	DTA/IRSAT	√	√					
Ministry of water and sanitation	DGA			√			√	
	DGEP						√	
	ONEA						√	
	DGESS						√	

√= Collected data

Abbreviation: ABNORM, Burkina Faso Agency for Standardization, Metrology and Quality; DAMSSE, Directorate for the Allocation of Specific Means to Schools; DDEA, Directorate of Agricultural Entrepreneurship Development; DGA, General Directorate of Sanitation; DGEP, General Directorate for Potable water; DGESS, General Directorate for Sectoral Studies and Statistics; DGPA, General Directorate of Animal Production; DN, Nutrition Directorate; DPCM, Directorate of Non-Communicable Diseases Prevention and Control; DPES, Directorate of Health Promotion and Education; DPESSS, Directorate of Promotion for Social Education and Social Services; DPG, Directorate for Gender Promotion; DPEIFG, Directorate of Promotion for Inclusive Education, Girls and Gender; DPSP, Directorate for Health and Population Protection; DPV-PNFL, Directorate of Promotion and Valorization for Non-Timber Forest Products; DPV/INERA, Plant Production Department/Environmental and Agricultural Research Institute; DPVC, Directorate for Plant and Consumer Protection; DSF, Directorate for Health and Family; DSPVL, Directorate of Veterinary Public Health and Legislation; DTA/IRSAT, Department of Food Technology / Applied Science and Technology Research Institute; DTAN, Directorate of Processing, Food, Nutrition, and the Promotion of Standards and Agricultural Products Quality; ONEA, Water and Sanitation National Office; SONAGESS, National Society for Food Security Stock Management; SP-CPSA, Permanent Secretariat for Sectoral Agricultural Policies Coordination; UNMM/IRSS, Nutrition and Metabolic Diseases Unit/Department of Biomedicine and Public Health / Health Science Research Institute.

Table 6. Diversities and typologies of data collected at the regional level.

Regional Directorates of Key Ministries	RD number/ Regions number	Typologies of collected data						
			Nutrition	Food security	Health	Social protection	Education	WASH
RD of Health	13/13	Collected	13/13	1/13	12/13	0/13	0/13	4/13
		Uncollected	0/13	12/13	0/13	13/13	13/13	9/13
RD of Agriculture and Hydraulic Arrangement	12/13	Collected	3/11	11/11	2/11	3/11	0/11	0/11
		Uncollected	8/11	0/11	9/11	8/11	11/11	11/11
RD of Water and Sanitation	11/13	Collected	0/11	0/11	1/11	1/11	0/11	11/11
		Uncollected	11/11	11/11	10/11	10/11	11/11	0/11
RD of National Education and Literacy	12/13	Collected	8/11	10/12	7/11	7/12	12/12	12/12
		Uncollected	3/11	2/12	4/11	5/12	0/12	0/12
RD of Animal and Fisheries Resources	13/13	Collected	0/13	13/13	11/13	4/12	2/13	1/13
		Uncollected	13/13	0/13	2/13	8/12	11/13	12/13
RD of Women, National Solidarity and the Family	13/13	Collected	3/13	7/12	4/12	13/13	7/12	4/12
		Uncollected	10/13	5/12	8/12	0/13	5/12	8/12

Table 7 lists and summarizes the thirty-four (34) main requests or needs for information collected during our survey (the vast majority being expressed by the 74 RD). A reaction from a Regional Directorate of Education on this subject:

“The indicators that we collect at the level of our region are among others on: the school canteens, number of schoolchildren, the existence of school gardens, the presence

of water supply points and functional latrines. However, we lack data or information on the nutritional status and also the health of schoolchildren for example dental health.”

### 3.7. Leadership and Coordination of Information

The level of commitment that a government has in producing

representative, comprehensive and accessible data contributes to the development and implementation of effective nutrition policies, strategies, plans and programmes. A wide range of information systems or collection frameworks is available from key ministerial departments (economy and finance, health, agriculture, animal and fisheries, water and sanitation, research, environment, education). Each of these departments has its own coordination bodies for data collection, processing, and dissemination of information. Thus, there is a lack of coordination and the non-existence of a national statistical system on nutrition, which sometimes results with data sources redundant, fragmented, or even discordant from a methodological point of view. Of course, collaborations or links exist and allow the participation of resource persons from the technical service of other ministerial departments, Non-governmental organizations (NGO) and United Nations Agencies. This is the case for processes of certain collection frameworks for instance the National Nutrition Survey (ENN) of the Ministry of Health and the harmonized framework for food security and nutrition of the Ministry of Agriculture.

Discussions with certain stakeholders (UN and NGO) revealed that the government does not adequately take into account the recommendations resulting from the ENN surveys. Moreover, for example, during the developing process of a single national register of vulnerable people in which we participated, a certain leadership and consensus on the criteria and methods for choosing targets had been noted between social protection and food security actors. It was difficult to find a consensus on the notion of who is vulnerable; who is indigent person identified like vulnerable, unable to work and create wealth, compared to a farmer or herder who is vulnerable but able to be productive. Which category should be part of a scaling up of interventions to improve the food

security of the population as a whole and fight poverty?

### 3.8. Needs and Opportunities Identified

About the findings from our study, a number of needs or actions have been identified to improve the information management and accountability for multisectoral nutrition planning (Table 8).

## 4. Discussion

Our study has attempted to address the state of monitoring and evaluation, data management, and the challenges of collection frameworks coordination, as well as the types of surveys and surveillance systems that are used to provide a comprehensive picture of the nutrition situation. While the collecting reliable data is crucial, so is its management, analysis and dissemination [25]. The analysis revealed that a sizeable proportion of departments reported providing communication and feedback to stakeholders. A study conducted by Patrick Webb in Nepal, showed that the sharing of nutrition information between different sectors would remain too limited [26]. Also, it was highlighted that data dissemination is most often done through the publication of survey reports, statistical yearbooks, dashboards and statistical bulletins. However, the level of maintenance of these web portals does not follow the evolving content. The data collected on indicators, their monitoring or analysis is most often done officially with the generating ministerial departments. Moreover, the persons directly in charge of M&E matters were mostly heads of department or simple agents, with diverse training profiles.

**Table 7.** Data needs expressed by the public offices.

Report type	Who must produce this report?	Report type	Who must produce this report?
Types of traditional food, their composition and nutritional value	Ministries of Agriculture, Trade, Environment, and Research	Intensity of pesticide use	Ministry of Agriculture
Non-Timber Forest Products and their nutritional Values	Ministries of Agriculture, Environment, and Research	Fertilizer tonnage	Ministry of Agriculture
Typology of food and their nutritional values	Ministries of Agriculture, Research, and Health	Food, food security report	Ministries of Agriculture, Animal and Fisheries, and Trade
Children's milk consumption	Ministry of Ministry of Animal and Fisheries, and Health	Family Planning	Ministry of Health
Information on the food quality and agricultural products	Ministries of Agriculture, Trade, Health; CILSS, FAO	Status of iodine and anaemia in Burkina Faso report	Ministry of Health
Health Statistical Yearbook	Ministry of Health	Minors in conflict with law report	Ministries of Labour and Justice
Education Statistical Yearbook	Ministry of Education	Water quality, availability and access to potable water by population report	Ministry of Water and Sanitation
Livestock Statistics Yearbook	Ministry of Animal and Fisheries	Epidemiological and vaccination (animal) situation	Ministry of Animal and Fisheries
Water, Hygiene and Sanitation statistical yearbook	Ministry of Water and Sanitation	Information on children's food and nutrition	Ministry of Education
Agriculture Statistical Yearbook	Ministry of Agriculture	Schoolchild 's health status	Ministry of Education
National Statistical Yearbook (social action)	Ministry of National Solidarity	Education association and NGO repertoire	Ministry of Education
Cereal balance sheet by locality, by municipalities and cereal fluctuations	Ministry of Agriculture	Schooling rate	Ministry of Education



Report type	Who must produce this report?	Report type	Who must produce this report?
Region Monograph	Ministry of Economy, and Governorate	Information on agricultural forecasts	Ministry of Agriculture; FAO
Data on price policy (animals)	Ministry of Ministry of Animal and Fisheries	Social security (vulnerable group)	Ministry of National Solidarity
Local economy	Ministry of Economy and Finance, Agriculture, Animal and Fisheries, Environment, Research	Information on future development zone (drawing)	Ministry of Economy and Finance
Social Surveys Report	Ministry of National Solidarity	Potential development area (farming coverage, irrigated areas situation)	Ministry of Agriculture
Mapping of food insecurity areas	WFP; Ministry of Agriculture	Prevalence of diarrheal diseases (hydraulic and waterworks impacts)	Ministry of Health

Abbreviation: WFP, Word Food Programme; FAO, Food and Agriculture Organization; CILSS, Permanent Interstate Committee for Drought Control in the Sahel; NGO: Non-Governmental Organization.

**Table 8.** Identification of needs and actions to be undertaken.

Summary of findings	Actions to be undertaken	Opportunities
Weak institutionalization of nutrition at the level of sectoral ministries	1) Designate an existing directorate in each contributing sector whose head (or a representative) will be a nutrition focal point (to address the frequent instability of nutrition focal points in the sectors) 2) Strengthen the position or leadership of the Nutrition Focal Point in key sectors; 3) Establish a coordination mechanism for nutrition-sensitive interventions in each key sector.	1) Existence of a multisectoral national policy and a plan; 2) Support of technical and financial partners; 3) Well-articulated nutrition policy and plan
High demand and need for information and data	1) Initiate thematic studies to inform decision-makers and stakeholders in the field of nutrition; 2) Formulate new nutrition research questions.	Existence of data collection and analysis frameworks
Lack of a single framework for coordination and decision-making on the collection, analysis and dissemination of information	1) Set up a mechanism for M&E and capitalization of interventions; 2) Strengthen the data management system.	The National Information on Nutrition Platforms, in development

Despite all the efforts made by donors and international institutions to support capacity building, there is an insufficient number of experts in M&E in the field of food security and nutrition [25].

There are cumulatively more than twenty technical departments, including those at the central and regional levels, which do not have appropriate equipment or other means of recording and monitoring data. Inadequate field collection infrastructure and modalities have been shown to be major constraints in Bangladesh, Brazil, Ethiopia, India, Peru and Zambia [7], and in the detailed development of response systems in sub-Saharan Africa [27].

Out of around thirty key technical structures at the central level, only 6 of them had a nutrition focal point, and at the level of the 74 Regional Directorates, 47.3% (i.e. 35 directorates) stated that they had a focal point. Given the training profiles of the focal points, there is therefore a need to train agents on nutrition-related topics (governance, leadership, institutional development, etc.). In addition, 48.4% of the focal points are simple agents, not occupying a particular position, which does not lend weight for consideration, internal exchange on nutrition and collaboration. In Zambia, it was found that nutritionists at the decentralized level do not have enough influence [25], playing the role of nutrition liaison officer. In addition, there is only one focal point to represent the food security sector (which is made up of several ministries (agriculture, animal and fisheries, environment, research)); there is a need to identify a focal point in each of these key ministries.

Our study revealed the existence of a diversity in the type of

focal points all contributing to the improvement of coordination of activities according to the given sector; this opportunity should be seized to improve horizontal coordination in nutrition. In addition, our research indicated a plurality of typologies of data collected by the organizations at all levels. The departments in the Ministries of Education, National Solidarity and Research appeared to be the ones collecting the most types of data; this would probably be related to the cross-cutting and multifaceted nature of their activities towards their targets. However, it is not enough to just collect and analyze data: all stakeholders need to be able to use them in order to make sound decisions. Lessons from Zambia and Namibia have shown that reducing the number of variables, and therefore the number of data to be collected, improves the use of information [28].

The challenge, beyond the typologies of data collected, is to understand (or integrate) the nature of the linkages or gaps between sectors and nutrition. Stakeholders in Uganda, Kenya and Ethiopia [9] have highlighted the inadequacy of the linkages between agriculture and nutrition. In addition, the lack of technical capacity to translate the data collected into policy decisions and to plan actions poses a challenge in all sub-Saharan countries [29].

Moreover, the survey has shown a strong demand for information and data, expressed by the departments at the central level, but mainly by the 74 Regional Directorates. This strong need for information indicates the lack of data or the lack of access to data at the deconcentrated level. Gillespie and his collaborators highlighted the lack of data at the

administrative and district level in Zambia and Odisha [25]. They identified a dependency of the departments at the regional level on the monitoring systems developed by the national or central level, which did not allow including the indicators needed at the regional or municipal level [25].

Finally, our research identified several sources or frameworks for data collection, produced and led by different ministries. This multiplicity of coordination mechanisms reflects a certain lack of complementarity in terms of planning, implementation and monitoring and evaluation. In Ethiopia, one of the highlighted findings is that the agriculture and health sectors collect their data separately, each with its own framework, and do not collaborate [7, 9], resulting in less information sharing [7]. In each country, different stakeholders and actors have different and competing agendas, especially in decentralized governance systems [5]. Different sectors need to be able to see the comparative advantages and reciprocity of their involvement [30].

The lack of functionality of a national nutrition M&E system to ensure monitoring, evaluation and accountability of the multisectoral approach to nutrition at country level was noted, the same observation was made in Uganda [9]. Operational linkages between the M&E system and user institutions need to be developed for the system (multisectorality and accountability) to be successful and serve as a precursor for policy decision making [31, 32].

Our study has contributed, using the Framework for Nutrition Capacity developed by the United Nations Network for the SUN movement, to a pre-assessment of the capacities of key sectors engaged in multisectorality. This is a premiere, particularly in the implementation of nutrition operational plans in the sub-region. Using this methodology and specific evaluation criteria, we were able to provide a reflection of the situation regarding the accountability capacities of the technical service at both central and regional levels. As a result, challenges or needs were identified and key recommendations were made in order to be used in the formulation of a capacity development plan for multisectoral nutrition coordination over the next 3-5 years.

This study has some notable limitations. First and foremost, it was not intended to analyze each of the data sources or collection frameworks in detail, and to focus on the quality of the data and the indicators developed or provided. Nor did it consist in a deep analysis of the strengths and weaknesses of each information system, the modes of production, dissemination and valorization of nutrition information. Moreover, given the multiplicity of information systems, it does not claim to be exhaustive. In addition, during the course of the study, it was not possible to collect from the sectors the degrees of credibility, reliability and use of the various reports or bulletins they produce or consult; the number of respondents to this question was too small to draw conclusions on this issue. Finally, the confusion mainly between nutrition and food security data on the one hand, and social protection and food security data on the other, did not facilitate the classification of the types of data collected. At times, we reclassified the types of data collected by analyzing the indicators corresponding to the typology of data collected as reported by the respondents.

## 5. Conclusion

Our research showed a gap in the institutionalization of nutrition at the level of sectoral ministries through key structures at the central and regional level. In addition, a strong need for information and data was identified, and a lack of a single coordination and decision-making framework for the collection, analysis and dissemination of nutrition information. The needs assessed by the technical departments should serve as a precursor for the formulation of research questions in order to produce useful information and data for the sectors. Mainly, the implementation of this study among the departments enabled the staff interviewed to understand the dimensions of nutrition, and the role they have to play in the implementation of sector policy or strategy in this area. The National Information on Nutrition Platforms initiative, officially launched in January 2019, should help the country to strengthen its nutrition information system and the capacities on data analysis from key technical bodies of ministerial departments involved in the multisectoral process. These efforts will contribute to better inform decision-makers for strategic decisions to prevent malnutrition and its consequences. To this end, close collaboration and synergy of actions should be developed between the sectoral coordination bodies for nutrition, social protection and food security.

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