



Food security and nutrition information systems to enhance resilience of rural households in Yemen

Strengthening food security and acute malnutrition analysis for improved decision making

Context

After more than five years of protracted conflict, Yemen continues to face an unprecedented humanitarian, social and economic crisis. Conflict, displacement and economic decline are placing immense pressure on essential basic services and the institutions that provide them. Humanitarian needs have sharply increased across all sectors since the escalation of the conflict in 2015, which has exacerbated pre-existing vulnerabilities, degraded community resilience and accelerated the collapse of public institutions. Due to the need for reliable and timely food security and nutrition information to inform decision-making at the national and governorate levels, Food and Agriculture Organization of the United Nations (FAO) and the Yemeni Government, with support from the European Union, implemented a comprehensive information system approach with two initial phases between 2013 and 2020.

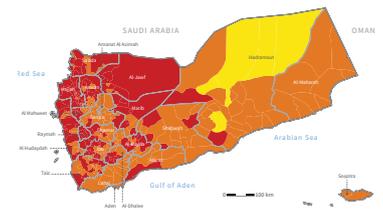
This promising practice brief focuses on the third phase of this programme called “**Strengthening food security and nutrition information and early warning system**” (2019-2021). It is a two-year EUR 5.9 million programme aimed at scaling up the geographic coverage of the food security and nutrition information systems (FSNIS) in Yemen. The programme addresses the main challenges associated with food security and nutrition information collection, analysis, and management systems in the country by supporting the setting up of a sustainable Food Security Technical Secretariat (FSTS) and food security and nutrition Governorate Focal Units (GFUs). The third phase focuses on expanding the program coverage from 12 governorates to all 22 governorates of Yemen.

Key facts



Geographic coverage

The programme covers all 22 governorates in Yemen



Source: IPC. 2020. *Yemen: Integrated food insecurity phase classification snapshot, October 2020–June 2021*. [online]. Rome, Italy. [Cited 17 February 2021]. <https://bit.ly/3hwI9zV>



Target group

A total of 58 190 households (about 378 235 people) and 525 government staff were reached by the programme.



Food system components

Food supply chains: production, handling and storage; food environments: trade and marketing; consumer behaviour and diets.



Gender

Gender criteria were considered in the selection of the personnel to be included in capacity development activities at all levels. These activities included gender-related topics such as gender mainstreaming in programming, assessments as well as food security and nutrition updates.

Key lessons learned from the two previous phases highlighted the importance of collaborating with decentralized governorate focal units because:

- they were able to collect, collate and analyse governorate-level data more effectively than one centralized centre;
- they had well-articulated needs, supported by rigorous evidence-based analysis; and
- the leadership at governorate levels was more involved in decision-making compared with the governorates with no governorate focal units.

The new phase complements the existing efforts and initiatives by other stakeholders at the national and governorate-level, including international actors working outside of Yemen. Ultimately, the nutrition information produced by the programme can inform the design of nutrition interventions in the country.



N.B. All photos in this fact sheet were taken before the COVID-19 pandemic.

What is the Integrated Food security Phase Classification (IPC) and IPC Acute Malnutrition (IPCAM)?

The Integrated Food security Phase Classification (IPC) is a set of tools and procedures to classify the severity and characteristics of acute food insecurity (AFI) and acute malnutrition (AMN) crises as well as chronic food insecurity based on international standards. It consists of four mutually reinforcing functions, each with a set of specific protocols (tools and procedures).

The core IPC parameters include consensus building, convergence of evidence, accountability, transparency and comparability. The IPC analysis aims at informing emergency response as well as medium and long-term food security policy and programming.

The IPC Acute Malnutrition Classification provides information on the severity of acute malnutrition, highlights the major contributing factors to acute malnutrition, and provides actionable knowledge by consolidating wide-ranging evidence on acute malnutrition and contributing factors.

Increasingly, acute malnutrition and acute food insecurity analyses happen simultaneously in numerous countries that adopt IPC. This, to identify, and inform on the causal-effect of food insecurity and malnutrition for adequate response and programming. To do so, IPC promotes joint acute malnutrition and acute food insecurity reports to communicate clearly the analytical cross-sectional linkages for guiding well-informed decision-making.

In what ways is the “Strengthening food security and nutrition information and early warning system” programme nutrition-sensitive?

The “Strengthening food security and nutrition information and early warning system” programme was nutrition-sensitive because it promoted:

- Capacity development of food security and nutrition-related government institutions at all levels in the collection, analysis and reporting of evidence-based information on food security, nutrition and agricultural production. Key nutrition information included prevalence of acute malnutrition, access to nutrition services, food consumption and food access data and information.
- Provision of reliable and timely food security and nutrition information and related data to the national and sub-national government institutions as well as humanitarian actors for improved planning and responses to address acute malnutrition, including analysis of acute malnutrition using the Integrated Food security Phase Classification Acute Malnutrition (IPC AMN) scale.
- Support to the review, planning, budget and monitoring of food security and nutrition (FSN) related policies, plans and strategies.

Methodological approach

The programme contributes to increasing systemic resilience to food crisis and climate change by improving food security and nutrition governance for decision-making at the national- and governorate-levels. For that, it provides support to governance structures in the implementation of food security and nutrition information and early warning for policy and strategy development. The knowledge generated by the programme assists to focus interventions in the food insecure and nutritionally vulnerable parts of the country. This information is also a key source of baseline data for ongoing projects and assists in setting project targets.

One of the main products that the programme develops on a regular basis is the Integrated Food security Phase Classification (IPC) analysis that feeds into the Humanitarian Needs Overview (HNO) for the year and subsequently into the Humanitarian Response Plan (HRP) for the following year. This programme has consistently provided analysis of acute food insecurity to both government and humanitarian actors in Yemen – this has been ongoing since 2017. Additionally, the IPC Acute Malnutrition (IPC AMN) analysis provided the basis for the HNO and HRP in 2020.

The programme support unit, under FAO’s Yemen country office in Sana’a, manages the programme. At the national-level, the Food Security Technical Secretariat (FSTS) under the Ministry of planning and international cooperation is the chief implementing partner responsible for joint planning, implementation, monitoring, and coordination with other agriculture and food security and nutrition related ministries, Humanitarian agencies and the UN. The FSTS is the main body charged with coordinating food security and nutrition information collection, analysis, reporting and dissemination – and providing evidence-based decision support on policy, programme and strategy to the higher council for food security and humanitarian country team led by the United Nations.



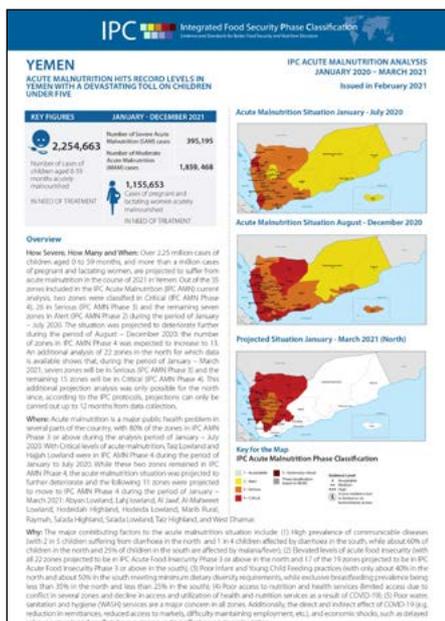


Key programme components include:

- **Awareness campaigns** at the inception phase, targeting the most relevant institutions that are part of the institutional arrangements of the programme and/or engaged in food security, nutrition and early warning information systems in Yemen.
- **Capacity development on food security and nutrition.** This includes government institutions at all levels through the collection, analysis and communication of evidence-based information on food security, nutrition and agricultural production. Key nutrition information that was collected include: prevalence of acute malnutrition, access to nutrition services and review of community nutrition needs. The programme also reviews food production, food utilization and food access data and information.

Programme management was decentralized to four field offices coordinating activities within the governorates under their respective hubs. The field coordination offices provide capacity development and technical support to the Governorate Focal Units (GFU), including monitoring, and following up the implementation of programme activities by GFUs. The different capacity development activities undertaken by the programme included trainings on:

- food security, market and data management;
- Integrated Food Security Phase Classification- Acute Food insecurity (IPC AFI);
- Integrated Food Security Phase Classification- Acute Malnutrition (IPC AMN);
- early warning; and
- food security, livelihoods, nutrition and market.



Screenshot of the Yemen: IPC Acute Malnutrition Analysis (January 2020 – March 2021), issued in February 2021.

- **Provision of reliable and timely food security and nutrition information and related data to the national and lower-level government institutions.** This information facilitates identification of vulnerable groups and locations, improved response planning, monitoring mechanisms and periodic feedbacks for improved programming. The programme also monitors food commodity markets, which provide regular market price information, food supply chains particularly imports, consumer behaviours and food production estimates. The information is collected frequently as primary data through various channels. Some of the information is collected semi-annually or on annual basis, particularly food production data as well as data on consumer behaviour e.g. food consumption score, coping strategy index, prevalence of malnutrition, etc.

In 2020, through this programme, Yemen carried out its first IPC Acute Malnutrition analysis (IPC AMN) which is based on the prevalence of acute malnutrition as well as analysis of contributing factors to acute malnutrition. Food security and nutrition information systems provided data on the prevalence of acute malnutrition based on the Global Acute Malnutrition - GAM- (that is a measurement of the nutritional status of a population often used in protracted refugee situations and is measured

through the mid upper arm circumference – MUAC). They also provided information on several food consumption indicators (household dietary diversity score, food consumption score, household hunger scale, reduced food coping strategies) and livelihood coping strategies. Additionally, FSNIS also provided data on process indicators such as household income and expenditures and demographics information.

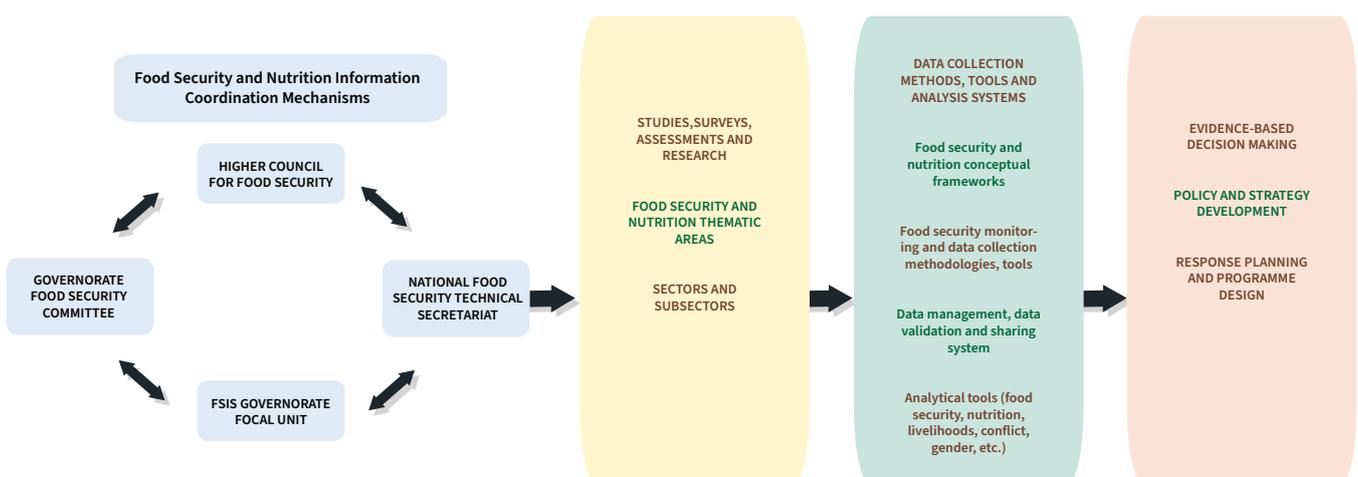
The IPC AMN analysis provides information on the estimation of the number of children acutely malnourished and the classification of areas in terms of severity of acute malnutrition and identification of key drivers of acute malnutrition. IPC Acute Malnutrition classification is conducted according to the four functions of the IPC, including:

- consensus building,
- classifying severity and identify drivers,
- strategic communication for action, and
- quality assurance.

In Yemen, AMN analyses are conducted at zonal levels (i.e. clusters of districts) while AFI is typically conducted at district level; in the future, both analyses should be harmonized at the same unit. Discussions in country have taken place in this respect.

- **Support to the review, plan, budget and monitor food security and nutrition related policies, plans and strategies.** This is done through ad hoc food security and nutrition policy dialogue forums that the programme organizes, in collaboration with government ministries and other stakeholders.

Diagram 1. Food security and nutrition information system institutional framework chart



The food security and nutrition information derived from this programme will be followed by community implementation, including nutrition education, in order to influence the beneficiary choices of diets and food consumption patterns.

Nutrition-sensitive food system elements



This section highlights the different kinds of data that were used in the programme in order to inform the food security and nutrition information systems, which relate to different food systems elements.

Food supply chains: production, handling and storage

- post-harvest assessment report;
- animal disease surveillance data;
- annual agricultural statistics report;
- selected crop production data;
- livestock production data;
- fish production data;
- livelihood assets; and
- assessment and famine risk assessments, agriculture production assessments, value chain analysis.

Food environments: trade and marketing

- over 100 food and non-food commodities prices with periodic secondary data reviews;
- importation data imported key food commodities;
- fuel commodity prices;
- labour market wages;
- farm gate prices of locally produced food items;
- agricultural input price data; and
- wholesale prices of selected commodities.

Consumer behaviour, diets and nutrition

- consumer price index (CPI);
- food consumption score (FCS);
- household dietary diversity score (HDDS);
- coping strategy index;
- nutritional status measured through mid-upper arm circumference (MUAC);
- numbers of hospital admissions data due to malnutrition; and
- access to health and nutrition services.



Apart from annual IPC analyses, the programme carries out regular and ad-hoc analysis on food security and nutrition using weekly and monthly data generated by the programme.

Impacts

Food security and nutrition information systems were strengthened through:

- Food Security and Nutrition data collection, analysis, and uptake:** In 2020, with the support from the programme, Yemen carried out its first IPC AMN. This analysis contributed to an increasing response to the nutrition needs channelled through the Nutrition Cluster. Furthermore, it supported evidence-based calculation of nutrition needs for the different populations for the year 2021, along with identification of gaps and challenges in addressing both acute and chronic malnutrition in the country. Household level nutrition surveys that typically provide data for IPC AMN analysis could not be carried out in 2020 as a result of COVID-19. The data collected through the FSNIS was therefore vital to conduct an IPC AMN analysis, which was used as the basis for HNO/HRP 2021.

On an annual basis, the programme coordinates IPC analysis workshops utilizing data already collected throughout the year. Data sources are not limited to what the programme generates, but it also incorporates any other relevant data from relevant government ministries, humanitarian cluster actors and international organizations. Apart from annual IPC analyses, the programme carries out regular and ad-hoc analysis on food security and nutrition using weekly and monthly data generated by the programme. This analysis includes: cost of minimum food baskets, performance of the Yemeni currency YER against major foreign currencies- specifically USD, trends of acute malnutrition, performance of nutrition intervention programmes, levels of food and non-food importations and performance of rainfall for early warning purposes. These elements should guide a periodical review on the assumptions of IPC analyses (AFI and AMN) and objectively provide information on the opportunity to conduct IPC updates within the validity periods, or new IPC analyses in hotspots or countrywide.

- Capacity development on food security and nutrition analysis:** Trainings were carried out for 90 government staff on food security and nutrition (FSN) and for 39 staff on IPC. One hundred and seventy-three government members were also trained on acute food insecurity and acute malnutrition in 2019. As for the newly established food security and nutrition Governorate Focal Unit, 311 government staff were trained on food security and nutrition and 32 staff were trained on IPC. Twelve institutions were trained on early warning systems and are committed to participate in the related working group activities. Additionally, 43 weather stations (automatic and manual ones) were rehabilitated through the programme.
- Knowledge products developed and disseminated:** Monthly market monitoring bulletins were produced in year one. Several ad-hoc food security briefs were also produced to update stakeholders on emerging issues. Additionally, the following information products were developed and distributed: two bi-annual food security situation updates; an early warning system report; an agricultural statistical book, in collaboration with the Ministry of Agriculture; an animal disease surveillance report, similarly developed in collaboration with the Ministry of Agriculture; and FSN early warning reports. Four policy dialogue fora and thematic working groups meetings were also organized.



Screenshot of the May 2020 Monthly Market Monitoring Bulletin produced by FAO, FSIS, Ministry of Planning and international cooperation

Sustainability

The sustainability of this programme was promoted through training and capacity development of government staff. In particular:

- Technical and institutional capacity of Food Security Technical Secretariat (FSTS), key government institutions, and 12 Governorate Focal Units was enhanced to collect, analyze and communicate key food security data and nutrition information.
- Food security committees and Governorate Focal Units were established and operationalized in 9 Governorates to collect analyses and communicate key food security data and nutrition information.

In order for the programme to further ensure its success, it is important to:

- Continue strengthening, assessing needs and providing technical, financial and institutional support to the FSTS in Aden and Sana'a, all the GFUs in the governorates, and the other stakeholders;
- Continue disseminating the food security and nutrition products for decision-making;
- Support FSTS in Sana'a and Aden along with the all established GFUs to continue collecting, analysing and reporting market and FSN data;
- Fast track the establishment of a body responsible for early warning system in the country; and
- Linking FSNIS to periodical IPC technical working group discussions in order to decide on new IPC analyses and updates against objective criteria and in light of fresh information.

The implications of COVID-19

A January 2021 monitoring report by FAO on agricultural livelihoods and food security showed that COVID-19 has generally affected data collection through limited accessibility to focal persons from whom data would be collected. Moreover, the restriction measures have also negatively affected the agricultural value chains from producers to consumers; there is also limited access to pastureland, water and logistics of foods and non-food items to the markets. The assessment report also indicates that there has been more than 50 percent reduction in income in households. Food insecurity as measured through the food insecurity experience scale (FIES) module concluded that about 53.6 percent of the surveyed households find themselves in a state of moderate food insecurity or worse. In turn, 19 percent of households surveyed attributed their food insecurity experiences mainly to COVID-19 and its impacts on their livelihoods.

Replicability and upscaling

The main challenges to be considered for replicability and upscaling of the programme are the following:

- The current government structures entail the provision of technical and institutional support for FSTs, policy dialogue forums, and early warning systems in both Aden and Sana'a.
- The FSIS-II programme planned to use the previous FSIS programme steering committee. However, the escalation of the conflict and further polarization of government structures in Sana'a and Aden made it challenging to work with only the previous steering committee.
- Due to the protracted crisis, much of the equipment is not available in country while importation and clearance processes are lengthy and time consuming.
- The protracted crisis, volatile security situation and access to the governorates by our staff is a continued challenge that undermines the programme's performance.
- Required lengthy procedures resulted in disruptions or cancellations of planned activities and deployment of national and international staff providing technical and institutional capacity development to the partners.



Key learning

- **Technical and institutional capacity**

It is important for food security and nutrition information systems programmes to develop capacity of government institutions and government officers in collection, analysis and communication of FSN information. This includes support to the set-up of food security and nutrition information systems.
- **Strengthening collaboration**

Working with various sectors contributing to food security and nutrition, both in data analysis and community interventions, can be an important success factor. This includes joint targeting and vulnerability mapping among all relevant clusters or working groups, where applicable.
- **Monitoring and communication of FSN information**

Periodic reviews of programme capacity to communicate information and other knowledge products in a manner that is understood by non-technical persons and other stakeholders, is a crucial step in decision-making processes.
- **Linkages with community interventions**

It is important for information system programmes to go beyond the provision of situation reports and link their findings and recommendations with community-level interventions, such as therapeutic nutrition programs and nutrition-sensitive programs including social protection, among others. This would contribute to improved nutrition outcomes of vulnerable populations initially identified from data analysis.



The evidence and testimonies showcased in this promising practice have been collected through individual interviews of stakeholders in Yemen. The interviews were conducted by a nutrition expert, in collaboration with the FAO Knowledge Sharing Platform on Resilience (KORE) and the Food and Nutrition Division (ESN).



Karima Al Hada'a, Scaling up Nutrition Initiative (SUN) Movement - Ministry of planning and international cooperation, Yemen.

Ms Karima has been participating to the IPC Technical Working Group since 2018. She has been taking part in both the IPC Food Security Analysis workshops and the IPC Nutrition Analysis workshops.

She highlights that, *“The IPC Food Security report and the Nutrition report are very crucial and have helped us in the development of the country’s nutrition action plan. For example, we have used this information in the prioritization of geographic areas that are nutritionally vulnerable. We plan how to target these regions with nutrition interventions. Furthermore, the reports are trusted source of information among donors and partners. The data is of high quality and very reliable. Even when we are preparing presentations on food security and nutrition, we use the content from the IPC reports. We are able to show the governorates that are food insecure and with a high burden of malnutrition.”*



Barack Kinanga, Food security and livelihood technical advisor, CARE

Barack is a member of the IPC Technical Working Group in Yemen. According to him, *“The knowledge products are the core of our work. For example, the market monitoring is conducted by the World Food Programme (WFP) and FAO together with food security partners’ contributions. This information helps all the partners in Yemen involved in emergency food assistance, especially in cash and voucher assistance-related programmes to adjust the minimum food baskets, in monitoring the currency exchange rates as these have impact on cash programmes and food prices. The products also help us to know how the markets are functioning in terms of food availability and accessibility. We use the nutrition information to inform in the design of nutrition programmes [...] FAO is a one stop shop for food security and nutrition information for partners in Yemen.”*

Partners

Resource partners

- European Union

Technical partners

- Agriculture research and extension authority
- Central statistical organization
- Civil aviation and meteorological authority
- Food Security Technical Secretariat Ministry of agriculture and irrigation
- Ministry of planning and international cooperation
- Ministry of public health and population
- Ministry of water and environment
- National water resources authority
- Non-governmental organizations (NGOs) working in food security and nutrition
- United Nations Children's Fund (UNICEF)
- World Food Programme (WFP)

The role of the government is to facilitate implementation of the programme activities and availing staff for capacity building.

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