



COORDINATION AND EARLY WARNING SYSTEMS FOR FOOD AND NUTRITION INSECURITY AT THE MUNICIPAL LEVEL IN GUATEMALA

LEARNING REVIEW 2018

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A proposal for governance in food security and nutrition, and the improvement of agro-climatic information for decision-makers

OVERVIEW OF THE SYSTEM

In Guatemala, Action Against Hunger has helped to establish a coordination and early warning system at the municipal level so that relevant stakeholders can coordinate on nutrition and food insecurity issues.

At the municipal level this system is contributing to the preparation and management of timely and comprehensive information on food and nutrition insecurity. The use of this system supports disaster risk reduction and preparedness. Its main objective is to protect people and their livelihoods, which are exposed to climatic threats and other factors of social vulnerability (such as unemployment, price

increases and migration), by helping to improve emergency management and empowerment of municipal representatives, decision-makers and policy holders, mainly at the municipal level.

The implementation phase of this system has involved the management of information on food security and nutrition as well as the strengthening of effective coordination processes between national and local authorities, organised civil societies, and the humanitarian actors in the area. Working on these processes is helping to improve a better governance among involved stakeholders at the same time as offering clear and pertinent mechanisms to face the problems as they arise and develop adequate solutions, actions and approaches.

The design process of this system has taken approximately three years by

a consortium of different actors that have contributed to studies, validation processes and trailing of technical information management tools. These partners include:

- A.** Research institutes belonging to the Consultative Group on International Agricultural Research (CGIAR), Bioversity International, and the International Centre for Tropical Agriculture (CIAT)
- B.** Academic partners: Tropical Agricultural Research and Education Centre (CATIE) and Centro Universitario de Oriente (CUNORI).

HOW THE SYSTEM WORKS

Currently, this system of early warning for food and nutrition insecurity is based on the following steps:

- A.** Generation of community information.

- B.** Articulation of official information by key institutions for food security and nutrition.
- C.** Grouping of information through a system of variables and creation of an algorithm to weight the importance of each variable.
- D.** Generation of information products for decision-makers through a web-based platform linked to the National System of Food and Nutrition Insecurity.

First, Action Against Hunger defined a series of indicators and variables that have allowed community actors to monitor their food security and nutrition situation using a “traffic light” approach to keep track of the level of severity of food insecurity. The communities then contribute data to the municipal information system by providing their inputs on a monthly basis. The government actors (ministries of agriculture, health, education, labour and development, among others) then collate this data and

discuss it during a monthly “situation room” meeting, where they identify key problems, possible emergencies, vulnerable communities, and cases of malnutrition. They then identify key roles and actions within the framework of governmental and municipal institutions.

Action Against Hunger, in coordination with the technical team at the Secretariat of Food and Nutrition Security, has also developed the decision-making methodology “Analytic Hierarchy Process” (AHP), which is based on mathematical weightings that involve a panel of experts grouping information to agree on priority indicators and variables in line with the three pillars of food and nutrition security: i) food availability, ii) food access and iii) consumption and biological use. For example: one variable is a “day without rain”. The panel decides what weighting it should be given for each pillar of food availability. After carrying out this prioritisation for all identified variables,

an algorithm based on mathematical formulas is generated, allowing the different weightings to be brought together by variable and by pillar. The end result is a system that can provide an overview of food security and nutrition in an area and generate early warnings based on the status of changing variables. This information is used to generate information products that key stakeholders can access through a web platform and use to inform decision-making.

CHALLENGES AND ADAPTATIONS

The main challenges for Action Against Hunger in Guatemala related to this methodology include:

- **Scaling up:** the Secretariat of Food and Nutrition Security has taken this methodology to be implemented throughout the country: 250 municipalities have started to generate information and have been incorporated into the technological platform. As a result, we faced an increased number of

platform users than was initially expected and consequently had to adapt the technology of the system.

- Analysis: Platform users and decision-makers wish to see more analysis and data visualisations based on the collected data, which has led us and our partners to reflect on what additional analysis products can be made available.
- Sustainability and handover: For a smooth and complete handover of the platform to the Secretariat of Food and Nutrition Security, also at decentralised levels, many trainings and coaching sessions will have to be carried out, challenging our capacities in terms of time availability and geographical coverage throughout the country.

KEY LEARNING

Some of the main learning that has come out of the establishment of this early warning and coordination system has included:

- That it is better to start with specific pilots in some regions of the country, to minimise the problems of large-scale methodological and technological adjustment.

- That involving actors at different levels has been key for the development of the methodology and the adoption of the system.
- That coordination among actors is key to the functioning of an early warning system and rapid response to assist vulnerable communities.

NEXT STEPS

Next steps for this project in the coming months will include:

- Generating a series of recommendations, actions and protocols that facilitate decision-making according to the scenarios generated in the analysis of short-term data.
- Adapting the technological platform to be able to absorb the increase of all the users, facilitate the consolidation of data from municipalities for an historic reading of the data for longer periods, and make available quarterly, semi-annual or annual comparisons.
- Consolidate data from territories so that the information can be used at a national level, such as the Food Security forecast.

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