

## PARALLEL SESSION 4

## Data and analytics in preventing and responding to food crises and famine



Food-security related information is crucial for effective emergency response planning and context-specific programming. The last ten years have witnessed a constant growth in humanitarian assistance spending to cover the needs of food sector, proving that acute food insecurity and malnutrition analyses are critical in informing allocation of resources both at regional and country level.

The World Humanitarian Summit (WHS), in 2016 prompted a fundamental shift from crisis management to crisis prevention with a focus on addressing the underlying causes of crises as well as ensuring preventive and early action. To do this, it is essential to invest in better information and early warning systems on food and nutrition insecurity at country level as well as the better use of data in shaping decision-making processes along the humanitarian – development nexus.

### Background

Investments are needed to enhance information systems on food security and nutrition in order to improve the quality of data and frequency of analysis at national level. This is particularly critical in food crises contexts where food security and nutrition analytical processes, such as IPC /CH, rely on timely and good quality data for underpinning analysis.

Moreover, preventive actions remain the most cost-effective investment against the deterioration of food security in food crises contexts. There is a need to move from the current approaches in forecast analysis towards the inclusion of non-traditional solutions. For instance, investment in new technologies, such as Artificial Intelligence and Machine Learning, should be encouraged, testing their contribution to the food security analytical models already in place.

### Structure

The session consists of two panels.

#### Chair of the session and panels:

Arif Hussain, Chief Economist, World Food Programme, in its capacity as member agency of the Food Security Information Network.

#### Panel 7: Emerging, established tools, technologies and indicators for early warning, and forecast mechanisms.

Innovative approaches and emerging technologies and tools create opportunities and tackle the challenges in data collection and analysis, meeting the need of decision makers to trigger preventive action. Reviewing the value added of consensus-based analytical processes such as the Global Report on Food Crises and identifying related gaps, including synergies between different information systems (early warning, short- and long-term analysis), will be essential to enhancing early warning and forecast mechanisms.

### Evidence

**17** Countries covered by the Integrated Food Security Phase Classification (IPC) in 2008<sup>1</sup>

**47** Countries covered by the Integrated Food Security Phase Classification (IPC) and the Cadre Harmonisé (CH) in 2018<sup>2</sup>

**5.2 billion** humanitarian appeals funded in 2008 vs **15.2 billion** in 2018<sup>3</sup>

Over the last 10 years, food security response represents **30%** of the funded appeals<sup>4</sup>

In 2018, no quality data was available for **10 countries** at risk of food crisis<sup>5</sup>

1. IPC data  
(<http://www.ipcinfo.org/>)

2. Ibid

3. OCHA Financial Tracking Service  
(<https://fts.unocha.org/>)

4. OCHA Financial Tracking Service  
(<https://fts.unocha.org/>)

5. GRFC, 2018

Against this background, the discussion will revolve around the following issues:

- The current gaps concerning early warning, in terms of timeliness, difficulties in factoring multi-hazards dimensions, and limited time frame of forecast.
- Review the role of innovative technologies, such as Artificial Intelligence, Machine Learning, and Big Data, in improving early warning capacities
- The challenges faced in the collection of primary data and possible way forwards.
- The use of data and analyses for decision making along the HDP nexus, in terms of definition of triggers and thresholds.
- The experience of producing the Global Report on Food Crises to critically evaluate the process of consensus-building for analysis.

#### Panel 8: Current end emerging uses of data and analyses

Challenges related to institutional and governance systems are hampering the effective, sustainable and timely use of food security and nutrition analyses especially in decision-making processes at country level. In particular, it is critical to better understand and map out key actors, mechanisms and related information needs, identify knowledge and information/data gaps that hinder programming efforts along the HDP nexus and evaluate the needs for monitoring the effectiveness of food crises prevention interventions.

Against this background, the discussion will revolve around the following issues:

- The implications of institutionalizing food security analysis processes at country and regional level and examining successful experiences in institutionalization in order to draw lessons and best practices.
- The knowledge and information/data gaps that hinder programming efforts along the HDP nexus, in particular regarding frequency and quality of food security and nutrition analysis at country level.
- Technical innovation and how they can contribute to addressing data gaps at country level.
- Improved forecasting capabilities and how it can improve strategic decision making and investments at country, regional and global levels.

#### Panel 7: Emerging, established tools, technologies and indicators for early warning, and forecast mechanisms

##### Presenter:

- **Nicholas Haan**  
Faculty Chair, Singularity University

##### Panelists:

- **Laura Glaser**  
Food Security Information Advisor, Famine Early Warning Systems Network
- **Jose Lopez**  
Global Programme Manager, Integrated Food Security Phase Classification
- **Thierry Nègre**  
Head of food security group, Joint Research Centre of the European Commission
- **Nadia Piffaretti**  
Senior Economist, World Bank
- **Bessie Schwarz**  
Co-founder and Chief Executive Officer, Cloud to Street
- **Thomas Yanga**  
Special Advisor, African Risk Capacity

#### Panel 8: Current end emerging uses of data and analyses

##### Presenter:

- **Issoufou Baoua**  
Senior Analyst, Permanent Interstate Committee for Drought Control in the Sahel

##### Panelists:

- **Josephine Ippe**  
Global Coordinator, Nutrition Cluster
- **Abdi Adan Jama**  
Coordinator of Food Security and Resilience Analysis Hub, Intergovernmental Authority on Development
- **Fadel Ndiame**  
Vice President for Policy and State Capability, Alliance for a Green Revolution in Africa
- **Patricia Palma de Fulladolsa**  
Director of the Information Systems Programme for Resilience in Food and Nutrition Security, Central American Integration System