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TRAINING MODULE ON FOOD SECURITY AND NUTRITION IN EMERGENCY PREPAREDNESS AND RESPONSE

2025

National Institute of Disaster Management
(Ministry of Home Affairs)
Government of India



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Training Module on

FOOD SECURITY AND NUTRITION

IN

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2025

National Institute of Disaster Management
(Ministry of Home Affairs, Government of India)

Training Module on Food Security and Nutrition in Emergency Preparedness and Response

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FOREWORD

The onset, and aftermath of an emergency or disaster requires the Government of India to prioritise Food Security and Nutrition interventions to address the relief needs of the affected population. The Indian Constitution has made the Right to Food a guaranteed Fundamental Right which is enforceable by virtue of the constitutional remedy provided under Article 32 of the Constitution. Article 47 of the Indian Constitution on the other hand spells out the duty of the State to raise the level of nutrition and standard of living of its people as a primary responsibility. While India has advanced in economic and agricultural growth, the issues of food insecurity and malnutrition are persistent, and the rates of reduction are quite slow. The country is home to a segment of food insecure people with many malnourished children and females. Any disruption due to a disaster of any form – natural or manmade- further exacerbates the food security and nutritional status of these vulnerable populations.

The introduction of the Disaster Management Act, 2005 has brought a paradigm shift in the approach to addressing people's needs as part the various phases of the Disaster Management Cycle. The Act under section 12 has mandated the National Disaster Management Authority (NDMA) to recommend guidelines for minimum standards of relief to be provided to populations affected by emergencies, this includes access to food and water as relief/aid.

The National Policy on Disaster Management (2009) has commenced the paradigm shift from the erstwhile relief-centric response to a proactive prevention, mitigation, and

preparedness-driven approach for conserving developmental gains and minimising loss of life, livelihood, and property. This approach has enabled food and nutrition relief needs to be addressed in a prompt, adequate and effective manner as per approved standards. However, a nuanced approach to address food security and nutrition through a life cycle approach in emergency and disaster contexts is yet to be mainstreamed.

This training manual for government functionaries lays emphasis on building capacities to initiate mainstreaming of proactive measures for food security and nutrition led by State and Union Territory Governments for better preparedness in the context of emergencies and disasters. It is designed as a useful tool to guide trainers and government officials at the State, Union Territory and District levels to implement measures for disaster relief, response and vulnerability reduction contributing to building resilience at the last mile.

As part of this effort the National Institute of Disaster Management (NIDM) has partnered with United Nations World Food Programme in India to develop this training manual, deliver training programmes, and aid the State Governments and State training institutes in the formulation of State level action plans for capacity-building of all relevant stakeholders to address Food Security and Nutrition in Emergency Preparedness and Response.



(Rajendra Ratnool)

MESSAGE

Over the past decade, the frequency of exposure to extreme weather events such as floods, cyclones, and droughts increased in India. Such climatic shocks often endanger people's livelihoods and increase the risk of food insecurity and malnutrition. It is therefore imperative that sufficient expert capacities on food security and nutrition interventions is built and ready for immediate deployment at the onset of emergencies.



The United Nations World Food Programme (WFP) is the largest humanitarian agency worldwide, providing assistance to safeguard food and nutrition security in both emergencies and development contexts. Over the past 60 years, WFP in India has worked in close collaboration with the Government of India, contributing to the nation's efforts to strengthen food security and nutrition, ensuring no one is left behind.

The Government of India, in the last two decades, has taken huge strides in improving the disaster risk management mechanisms in the country. The Disaster Management Act, 2005 has mandated and enabled the delivery of food security and nutrition assistance during emergencies. To operationalize this new mandate, it is imperative that the Government strengthens the capacities at all levels of the administration and governance structures to bring convergence through existing resources, schemes, and stakeholder coordination to effectively deliver gender sensitive and inclusive humanitarian interventions.

This training module was developed jointly by the National Institute of Disaster Management (NIDM) and WFP, intending to be utilized as part of the various capacity building initiatives for officials, administrations, volunteers, and stakeholders involved in emergency food and nutrition interventions. Through this module, the trainees will learn how to implement relief activities during emergencies in adherence to the globally established standards. The module also introduces various good practices which successfully contextualize relief operations to the respective local needs, ensuring efficiency and accountability of resources deployed during emergencies. The module further touches on how to address the post-disaster livelihood recovery needs, which is increasingly being recognised and mainstreamed as a key priority.

I sincerely hope that this module "Food Security and Nutrition in Emergency Preparedness and Response – Training module for Government Functionaries", developed through WFP's technical support, will be utilised to its fullest extent so that timely and adequate relief would

be provided to the people affected by shocks, especially those among the vulnerable groups, and safeguard them from the risks of malnutrition. Ultimately, this would contribute to the achievement of the Sustainable Development Goal 2 - end hunger, achieve food security, improve nutrition, and promote sustainable agriculture globally by 2030 - an important priority that the Government of India has been making significant efforts towards its achievement.

I congratulate the authors from the NIDM and WFP India on delivering this valuable product, as part of the collaborative partnership of two organizations.



Elisabeth Faure

Representative & Country Director,
WFP India

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LIST OF ABBREVIATIONS

AAY	Antyodaya Anna Yojana
AI	Average Intake
ALNAP	Active Learning Network for Accountability and Performance
ANM	Auxiliary Nurse Midwife
APL	Above Poverty Line
ASHA	Accredited Social Health Activist
BMI	Body Mass Index
BMJ	British Medical Journal
BMS	Breastmilk Substitutes
BPL	Below Poverty Line
CAPI	Computer Assisted Personal Interviews
CEO	Chief Executive Officer
CFM	Complaint and Feedback Mechanism
CFSAM	Crop and Food Security Assessment Mission
CFS-FFA	Committee on World Food Security and Framework for Action for Food Security and Nutrition in Protracted Crises
CFSVA	Comprehensive Food Security & Vulnerability Analysis
CHD	Community Help Desk
CSO	Civil Society Organization
DBT	Direct Benefit Transfer
DDMA	District Disaster Management Authority
DGRO	District Grievance Redressal Officer
DRI	Dietary Recommended Intake
DRR	Disaster Risk Reduction
DRR-DRM	Disaster Risk Reduction-Disaster risk management
EAR	Estimated Average Requirement
EFSA	Emergency Food Security Assessment

FAO	Food and Agricultural Organisation
FCI	Food Corporation of India
FPS	Fair Price Shops
FS&N	Food Security and Nutrition
FSMS	Food Security Monitoring System
FSSAI	Food Safety and Standards Authority of India
GDP	Gross Domestic Product
GEAG	Gorakhpur Environmental Action Group
GO-NGO	Government-Organized Non-Governmental Organization
HIV	Human Immunodeficiency Virus
HRD	Human Resource Development
ICDS	Integrated Child Development Services
ICMR	Indian Council of Medical Research
ICT	Information Communications Technology
IDPs	Internally Displaced Persons
IMF	International Monetary Fund
INR	Indian Rupee
IPC	Integrated Food Security Phase Classification
IRFC	Integrated Rice Fish Culture
IYCFE	Infant and Young Child Feeding Standard in Emergencies
JANFSA	Joint Approach for Nutrition and Food Security Assessments
JRNA	Joint Rapid Need Assessment
LBW	Low Birth Weight
LCD	Liquid Crystal Display
MAM	Moderate Acute Malnutrition
MDM	Mid-Day Meal
MEGP	Map and Exchange of Good Practices
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MME	Management Monitoring and Evaluation
MT	Metric Tonne
MS-JDNA	Multi-Sector Joint Detailed Needs Assessment

MUAC	Mid Upper Arm Circumference
mVAM	Mobile Vulnerability Analysis and Mapping
NDMA	National Disaster Management Authority
NER	North Eastern Region
NFHS	National Family Health Survey
NFSA	National Food Security Act
NGO	Non-Governmental Organization
NIDM	National Institute of Disaster Management
NITI	National Institution for Transforming India
NRLM	National Rural Livelihood Mission
NSS	National Sample Survey
NSSO	National Sample Survey Office
OECD-DAC	Organisation for Economic Co-operation and Development- Development Assistance Committee
PAC	Public Affairs Centre
PDNA	Post-Disaster Needs Assessment
PDS	Public Distribution System
PHH	Priority Households
PM POSHAN	Pradhan Mantri Poshan Shakti Nirman
PMGKAY	Pradhan Mantri Garib Kalyan Anna Yojana
PMMVY	Pradhan Mantri Matru Vandana Yojana
PLFS	Periodic Labour Force Survey
PRA	Participatory Rural Appraisal
QUAC	Quaker Arm Circumference
Rapid EFSA	Rapid Emergency Food Security Assessment
RDA	Recommended Dietary Allowance
RDI	Recommended Dietary Intake
RIGHTS	NGO in Kerala
SAM	Severe Acute Malnutrition
SC	Scheduled Castes
SD	Standard Deviation

SDG	Sustainable Development Goals
SDMA	State Disaster Management Authority
SFP	Supplementary Feeding Programmes
SHG	Self Help Groups
SMS	Short Message Service
SNP	Supplementary Nutrition Programme
SOP	Standard Operating Procedure
SRLM	State Rural Livelihoods Mission
ST	Scheduled Tribes
TAG	Technical Advisory Group
TDPS	Targeted Public Distribution System
TFP	Therapeutic Feeding Programmes
ToR	Terms of Reference
ToT	Training of Trainers'
TPDS	Targeted Public Distribution System
UL	Tolerable upper intake level
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
WASH	Water, sanitation and hygiene
WCD	Women and Child Development
WFP	World Food Programme
WHO	World Health Organisation
WV	World Vision

INTRODUCTION

India is a multi-hazard prone country with widespread vulnerability to emergencies and hence has committed dedicated investments and resources for capacity building in the domain of disaster risk reduction and disaster risk management. Multi sector investments are being enabled to ensure effective and efficient disaster management strategies are mainstreamed at the last mile to build resilience among vulnerable populations and stakeholders. The Government of India is also committed to implementing the post 2015 agendas such as the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction.

India's geo-climatic conditions as well as its high degree of socio-economic vulnerability requires actively pursuing a paradigm shift in disaster management from the relief centric approach to a more holistic approach that encompasses all facets of disaster risk reduction. Hence addressing Food Security and Nutrition (FS&N) during emergencies forms the primary and priority sector for addressing the relief requirements of the affected populations. Throughout the relief, response and recovery phases of the emergency FS&N interventions should ensure and provide inclusive access to food and nutrition by prioritising children, women, and vulnerable groups. The changing climate, recurrent disasters and increasing hunger and malnutrition across India should underscore the need for a well thought-through approach to achieve the Sustainable Development Goal (SDG) 2, contributing to eradicating food insecurity and malnutrition.

Designing a timely and context specific food and nutrition relief and response strategy requires adequate planning and implementation based on the nature of the emergency, extent of loss and damage and contextualisation to the local conditions, considering the nutritional status, health conditions, food preferences, and vulnerability status of the populations. This hazard specific approach is key to saving lives, avoiding malnutrition, and reducing productivity losses. There is also a need to strengthen the capacities among policy makers, government officials, programme managers, practitioners, and stakeholders at various levels and across multiple sectors to understand the importance of food and nutrition interventions in disaster preparedness and response.

Food and nutrition interventions should specially focus on reducing malnutrition and help create an enabling environment for continued mainstreaming of infant and young child feeding practices. Such targeted interventions need to follow guidelines and minimum standards that improve the food security and nutrition of populations affected by, or at risk of emergencies focusing on addressing the underlying causes. Such dedicated efforts will contribute to the progressive realization of the right to adequate food and nutrition in emergency contexts. Assessments should help administrators and decision support systems to address needs based on evidence helping mobilise the use of available governmental and non- governmental resources for targeted interventions.

In the context of India, the large-scale coverage needs of food and nutrition requirements in emergencies are provided by Governmental Safety Nets and Welfare Schemes such as the Targeted Public Distribution System, Integrated Child Development Services and Mid-day Meal scheme etc., which provides direct food support to the affected populations. The disaster management financial provisions are then utilised to address the gap in relief requirements. Additionally, livelihood recovery interventions are implemented by mobilization of schemes to provide support to improved incomes and livelihoods, thereby facilitating food access E.g., MGNREGA, NRLM, SRLM and some state specific schemes. In emergency and disaster situations additional resources are required to be mobilised to ensure food assistance by activating governmental mechanisms, resources available under the Disaster Management Act, 2005 and are supplemented by resources available with non-government stakeholders.

The purpose of monitoring food security and nutrition response efforts is aimed at maintaining quality and ensuring coverage of interventions by leaving no one behind. Context specific activities are undertaken in congruence with governance policies and guidelines to demonstrate accountability and improve the quality of activities implemented to address the needs of the affected populations. The inter sectoral and multi-stakeholder coordination focused on food security and nutrition interventions when integrated into the planning of disaster relief and response activities, and preparedness and mitigation measures based on well documented SOP's and coordination mechanisms form the basis for timely action.

This manual on food security and nutrition in emergencies is designed to cater specifically to the training needs of government functionaries and stakeholders involved in disaster risk management in India. It is an effort to contribute to the national vision of building a safer and disaster resilient India to be achieved through a culture of prevention, mitigation, and preparedness to reduce the impact of disasters on people. This process focuses on vulnerability reduction and is being sustained through the collective efforts of all government agencies supported by non-government stakeholders.

GUIDANCE NOTE FOR TRAINERS AND FACILITATORS

Target Participants: This training module is developed for state and district level functionaries such as Disaster Management Professionals, Revenue Officials, trainers in Disaster Management Institutes, State Institutes, Civil Defence Volunteers, Middle level officials from various line departments including food and civil supplies, health, women and child development, municipalities, district/ state administration, elected representatives from Gram Panchayat, community based organizations, faith based organisations and non-governmental organization members. After completing the training, the participants are encouraged to facilitate trainings in their respective States and Districts.

Since this is simulation/ group exercise-based training programme, the ideal number of participations per cohort should not be more than 30. It is also encouraged to have a good number of women participants.

Training and Facilitation Team: The team should have at least two technically sound master trainers. In addition, the organising team should enrol technical experts as resource persons for technical sessions. Trainers/ facilitators/ resource persons should be provided with adequate logistics and translation support from the organising team. The training delivery should be adapted to suit local contexts and it is important that one of the core trainers and facilitators have a good understanding of the local context.

Methodology: The training manual includes a combination of training approaches, with a significant focus on participatory methods. The training pedagogy includes experiential learning and collaborative learning approaches. The manual provides opportunities to the trainers and facilitators to include a range of group activities, simulation exercises, gamification tools, field immersion and project work depending on the context. Training methodology should be adapted based on the background of the participants. The training and facilitation team should provide adequate emphasis and focus on aspects of gender inclusion, needs of people with disability, child protection and coverage of vulnerable groups while delivering the training. This approach will help participants build the necessary perspectives for practice in the field to design and implement inclusive food security and nutrition interventions.

Duration: The duration of the training enabled through this manual is three days. The sessions can include field visits and simulation exercises to benefit the participants. Session based trainings can also be delivered based on specific training needs.

Modules: The training manual has 7 sessions. Each session is segregated into a few different sections. Session objectives, outline, outcomes, and facilitator notes are included in each session.

Case Studies: Contextually relevant case studies are included for discussion at the end of every session from, 'the NIDM – WFP Map and Exchange of Good Practices (MEGP) Initiative.' The initiative was launched in 2020 to identify proven solutions and good practices contributing towards food and nutrition security in disasters and climate crises. For this training manual, case stories relevant in the Indian context are included.

Pre-course preparation for facilitators: Pre-course preparation is vital to meet the training objectives. Once the nominations are received, it is recommended to analyse the profile of the participants including the relevant experience in the field of humanitarian response, food security and nutrition and their core area of expertise and current roles and responsibilities. Analysis of the geographical diversity of participants, exposure to different disasters, cultural contexts are equally relevant. Based on this analysis, facilitators should tailor the course and the learning objectives mainly based on the experience level, geographical and cultural context etc. The choice of case studies and group exercises can be tailored to fit the contextual relevance of participant profiles, to the extent possible. Application forms should be designed in a manner to gather this vital information on the applicant's profile. Once nominations are finalised, facilitators should initiate communication with the participants before the training, to map and match the expectations from the sessions.

Pre-course preparation for participants: Pre-workshop communication with the participants through online surveys or other medium can be useful in mapping the expectations from the training course and contextualising the modules as per the major expectations and background of the candidates. Analysis of the participant profiles based on the region, levels of experience, designation, roles and responsibilities in their current jobs, future work endeavours and their ability to communicate and apply the acquired knowledge at their workplaces are critical information which could be utilised in the contextualisation of course and field assignments, exercises, and case studies etc. Share selected handouts with the participants and request participants to undertake pre-workshop readings.

Logistics: An important aspect will be the selection of an appropriate training hall. Since the sessions are designed to accommodate group exercises, it would be important to arrange a spacious hall and/or breakout room. Training could be customised and adapted based on the resource availability where trainings could be imparted with minimal equipment. Efforts

should be taken to minimise the carbon footprints to the extent possible, logistics including travel, venue, food, accommodation etc., should be planned to organise it as a green event. Logistics should be planned to accommodate special needs of the participants including those with physical disability, young children accompanying mothers, etc.

Language of Instruction: Modules are designed in English, but it would be good to seek information on the language preferences from the selected candidates. Assess if there are any special needs for any candidate due to physical disability and plan to address this accordingly. The medium of instruction most suited may be the local language. However, external resource persons who are called for specific sessions may use Hindi as an alternative to the local language or English wherever suited.

Equipment and Materials Needed: Flip Charts, Markers, Pens, Sticky notes, Laptop, LCD/Projector, Chart papers, Office stationery and a Blackboard/ Whiteboard.

Feedback from participants: Feedback at the end of the training delivered will help the organising team understand the participants' perspective. Based on the feedback received, trainers/ facilitators can assess the strengths, weakness, and gaps of the sessions for future improvements. This process can be done at the end of each day by spending about 15 minutes on feedback or on the final day of the course, a dedicated slot can be marked for feedback.

Modular Approach to Training: The entire module can be rolled-out at once, with the provided timings and instructions. However, based on contextualised needs and level of participants, different sessions can be integrated in ongoing courses and training programmes. In fact, key sessions/contents should be incorporated in all trainings on emergency preparedness and response trainings, given the importance of the sector.

SECTION 1

UNDERSTANDING FOOD SECURITY AND NUTRITION IN EMERGENCIES

Introduction

Food Security and Nutrition (FS&N) forms one of the priority sectors for humanitarian interventions in the immediate aftermath of a disaster/ emergency as part of the relief, response, and early recovery interventions. It is important that the FS&N interventions provide inclusive access to food and nutrition for the disaster/ crisis affected populations by prioritising children, women, and vulnerable groups. The changing climate, recurrent disasters and increasing hunger and malnutrition across the globe underscores the need for a well thought-through approach to achieve Sustainable Development Goal (SDG) 2, contributing to eradicating food insecurity and malnutrition.

Designing a timely response that is based on the nature of disaster/ emergency, extent of loss and damage, and contextualized to the local conditions in terms of nutritional status, health conditions, food preferences, vulnerability status is key to saving lives, avoiding malnutrition, and reducing productivity losses. There is a need to strengthen the capacities among policy makers, programme managers, practitioners, and stakeholders at various levels and across multiple sectors to understand the importance of food and nutrition interventions in disaster preparedness and response.

Objective (s)

1. Analyse and understand Food Security and Nutrition in the context of vulnerability to disasters/ emergencies- Globally and in India and apply it to local contexts
2. Understand the existing mechanisms of food security and nutrition in the context of Emergency Management/ Disaster Management Cycle
3. Understand the importance of integrating food security and nutrition in disaster management

Expected Time Duration- 90 minutes

Session Outline

1. The food security and nutrition scenario- Global and Indian perspective
2. Mechanism for Food Security and Nutrition in the Indian Disaster Management System
3. Importance of food security and nutrition in emergency preparedness, response, and recovery

Expected learning outcome

1. Understand perspectives for design and implementation of Food Security and Nutrition Interventions in disaster/ crisis/ emergency contexts.

Notes for the facilitator

1. Define Food Security and Nutrition and provide an introduction regarding the importance and need for FS&N interventions in disaster/ emergency/ crisis contexts.
2. Describe the current and emerging Food Security and Nutrition scenario globally and contextualise it to the Indian situation by providing some key indicators/ statistics. Create an open discussion on the importance of accessible and inclusive food security and nutrition interventions in the emergency context and how food security and nutrition demands are increased in relief phases of any disaster.
3. Describe how climate change and disasters/ emergencies impact Food Security and Nutrition with focus on children, women, vulnerable and disaster affected populations. Also describe the status of Food Security and Nutrition in terms of malnutrition indicators. Provide reflections based on how climate aberrations and disasters impact the production cycles, access to food security and nutrition welfare schemes/safety nets and risk exposure to infrastructure.
4. Introduce the disaster management system in India and describe the enabling mechanisms that can be leveraged to design, coordinate, and implement Food Security and Nutrition interventions. Describe the policy measures and guidelines available under the Disaster Management Act, 2005, Disaster Management Policy, 2009, and Guidelines for Minimum Standards of Relief, 2016 that can be utilised to activate, aggregate, and deploy resources required for a successful Food Security and Nutrition response. Also, reflect on preparedness and mitigation measures and investments in pre-disaster scenarios that can be leveraged to ensure inclusive Food Security and Nutrition interventions.
5. Conduct a quiz containing questions pertaining to food security and nutrition in the context of disasters/ emergencies and crises.

- Contextualise the session and use latest information based on the disaster/ emergency context and needs.

The food security and nutrition scenario- global and Indian perspective

Climate change is affecting the world adversely and extreme weather events are increasing:

Food Security and Nutrition remain a priority developmental goal for India to achieve SDG 2- Zero Hunger which aims to end hunger, achieve food security, enhance nutrition, and promote sustainable agriculture. It is also necessary to address malnutrition with adequate emphasis in the context of climate change and disasters. Extreme weather events and hazards pose a challenge to food production, costs, and security. Excessive exposure to heat/ cold or shortage of water can impede crop growth, reduce yields, and influence irrigation, soil quality, and the ecosystem on which agriculture depends.

The interaction between climate change, and food security and nutrition are explained in the conceptual framework (Figure 1) clearly depicts how the drivers of climate change affect the dimensions of food and nutrition security and the overall impact on nutritional status.

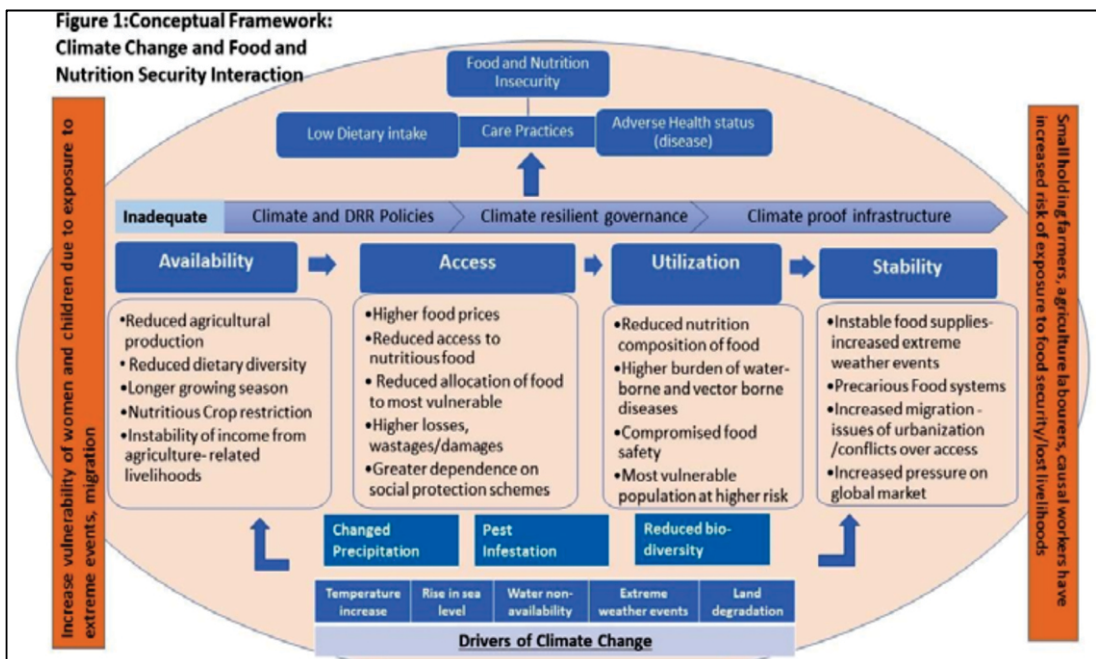


Figure 1: Conceptual Framework: Climate Change and Food and Nutrition Security Interaction

Vulnerability of India to Disasters

India is one of the most disaster-prone countries in the Asia Pacific Region whose population and landmass is exposed to recurrent natural hazards such as cyclones, earthquakes, landslides, floods, and droughts. Climate change impacts and environmental degradation are now being linked to the increase in number of disasters compounded by frequency and intensity adversely affecting vulnerable people and assets. About 40 million hectares (12%) of Indian land is prone to floods-rate of floods in India tripled in the last 10 years. Nearly 171 million people depend on coastal ecosystems vulnerable to sea level rise, cyclones, and storm surges. Rising temperatures and increased extent and incidence of droughts have caused declines in rice and wheat yields; projections suggest this could lead to a 1.8 percent loss of GDP by 2050. The majority of India's population is dependent on climate sensitive sectors such as agriculture and India is extremely vulnerable to impacts of climate change. More specifically risk of hunger and malnutrition increases up to 20 percent due to climate related extreme weather events¹.

Food security and nutrition situation of the country requires attention:

The impacts of weather aberrations and exposure to natural hazards/ disasters has resulted in a decline of wheat production by around 3 % in the year 2021-22 to 106 million tonnes attributed to the severe heat waves in March 2022. The wheat stocks held in the central pool of the Food Corporation of India plunged to a 15-year low, i.e., 26.6 million tonnes- due to a 56% drop in procurement in current Rabi season and PMGKAY scheme (free ration scheme) implemented since May 2020.² The total rice plantation area has declined 13% so far due to scanty rainfall in some parts in India including West Bengal and Uttar Pradesh, which may further complicate the fight against food inflation in India.

The impacts of inflation have resulted in a constant increase in food and beverage retail prices (elevated at 7.56% in June 2022 over the last year), thus posing a serious challenge among vulnerable populations to access nutritious food. (Consumer Price Index, MoSPI, GoI). It is estimated that 13.7%, i.e., 194.6 million men, women and children in India are still undernourished.³ The National Family Health Survey- 5, 2019-21, India records that about 35.5 % children under the age of five are chronically malnourished (stunted, short height for age) and 67.1% are anaemic (haemoglobin level less than 11.0g/dl). The Government of India is undertaking several measures to ensure food and nutrition security specially among vulnerable populations in India through large scale safety net programmes under the National Food Security Act 2013, implemented through schemes like Targeted Public

¹Lok Sabha unstated question number 1238- Ministry of Home Affairs, Government of India, March 2015

²The Financial Express, 10.8.2022

³The State of Food Security and Nutrition in the World 2024.

Distribution System, Antyodaya Anna Yojana, PM-POSHAN Scheme and Integrated Child Development Services (ICDS) Scheme, National Old Age Pension Scheme, National Maternity Benefit Scheme, National Family Benefit Scheme etc. In the above context, if the agriculture production and inputs supply are continually impacted for longer durations of time, with increased frequency and if the food inflation is not contained, it will have repercussions that negatively impact food availability, accessibility and affordability in India and will ultimately lead to the poor food security and nutrition outcomes in children, women and men in India. India also has high undernourishment (about 13.7% of the population), and low exclusive breastfeeding practice (only 54.9%).

Post the Covid-19 pandemic, it is observed that the world has moved further away from Sustainable Development Goal (SDG) 2 of ending hunger, food insecurity and malnutrition in all its forms by 2030. It is also estimated that between 713 and 757 people may have faced hunger in 202. Over 8% will still face hunger by 2030 even if the global economic recovery is taken into consideration. The gender gap in food insecurity is rising, it has continued to rise in 2023 - 26.6 per cent of women in the world were moderately or severely food insecure, compared with 25.4 per cent of men. (FAO, The State of food security and nutrition in the world, 2024). The major reason for food insecurity across at-risk groups include conflict exposure, climate extremes and resulting supply chain disruption, disasters, growing inequalities, and slow economic recovery after the pandemic. The State of Food Security and Nutrition in the World 2022 reports that 10 to 24.9 % of India's population has been facing undernourishment between 2019-2021. In absolute number terms, this is around 100 million to 249 million of India's population which is facing difficulty in accessing food and nutrition requirements and these are the most vulnerable populations in India which are also prone to the impacts of hazards.

Adverse impact on progress towards achieving SDG2

The Objective of achieving SDG 2- Zero Hunger is to end hunger and malnutrition in all forms by 2030 with special focus on children and vulnerable groups. The pathways to progress towards positive outcomes include promoting sustainable agricultural, supporting small-scale farmers, and facilitating equal access to land, technology, and markets. Governmental support is required to enable international cooperation for enhancement and appropriate use of investments, infrastructure, and technology to improve agricultural productivity. This systemic focus on productivity is geared to support doubling agricultural productivity, maintaining genetic diversity of seeds, plants, and farmed animals, and strengthening capacity for climate change adaptive agriculture.

The efficient targeted public distribution system in India ensures that the large sections of vulnerable and poor populations have access to basic food and nutrition requirements under

the National Food Security Act 2013 in 2019-20. (SDG INDIA Index and Dashboard 2020-21- Partnerships in the Decade of Action [SDG 3.0 Final 04.03.2021 Web Spreads.pdf](#))

India also requires dedicated efforts for last mile coverage of health and welfare schemes to reduce anaemia among women. The NFHS-4, 2015-16 recorded that almost half the pregnant women aged between 15 and 49 years are anaemic in India. (SDG INDIA Index and Dashboard 2020-21- Partnerships in the Decade of Action [SDG 3.0 Final 04.03.2021 Web Spreads.pdf](#))

Economic and livelihood drivers that contribute to ending hunger are aiming at doubling the productivity of rice and wheat to 5322 Kg/Ha by 2030 from 2015-16 levels. As of 2018-19 the average productivity stands at 2995 kg of rice/ wheat per Hectare. Similarly, the doubling of farmer incomes from Gross Value added in Agriculture is being targeted to increase income per worker to 1.22 lakhs per worker from the base year 2015-16. As of 2018-19 this figure stands at INR 0.71 lakhs.⁴

Food Security and Nutrition systems continue to be adversely impacted post the Covid-19 pandemic. This coupled with impacts of climate change, spiralling food inflation, conflict, natural disasters, and inequality call for serious emergency preparedness of the food security and nutrition systems and safety nets. It is estimated that around 828 million people worldwide do not have enough to eat, and over 50 million people are facing severe hunger. The Hunger Hotspots Outlook (2022-23) - a report by the Food and Agriculture Organization of the United Nations (FAO) and the World Food Programme (WFP)- provides an early warning to escalating hunger and humanitarian assistance requirements, as estimates reveal over 205 million people across 45 countries will need emergency food assistance to survive. The promise to end hunger by 2030 is possible only through collective and transformational action to strengthen agri-food systems, production, nutrition, environment indicators, and life through inclusive access to safe and nutritious food.⁵

Global extreme poverty aggravated by Covid-19 disruptions rose in 2020 for the first time in 20 years. The World Bank estimates that up to 119- 124 million have been pushed into poverty caused due to these disruptions. This number was expected to rise to 163 million by the end of 2021. Such a scenario predicts that nearly half of the extreme poor will be concentrated in South Asia.

Similarly, estimates recorded by the International Monetary Fund project that India would account for 40 million of the 80-90 million people expected to be pushed into extreme poverty (or 44.4% of the total) due to the impact of the pandemic-related disruptions.

⁴SDG INDIA Index and Dashboard 2020-21- Partnerships in the Decade of Action [SDG 3.0 Final 04.03.2021 Web Spreads.pdf](#)

⁵Food day as a reminder to 'leave no one behind'- Konda Reddy Chavva, Ulac Demirag, Bishow Parajuli, The Hindu, 2022- <https://www.thehindu.com/opinion/lead/food-day-as-a-reminder-to-leave-no-one-behind/article66017453.ece>

Table 1: Global estimates of poverty induced by pandemic-related disruptions*

Organisation	New poverty worldwide	Impact on India
IMF	Between 80 – 90 million	India will account for 44% of the newly poor
World Bank	Between 119 – 124 million	Half of the new poor will be in South Asia, the bulk of them in India
Pew Research Centre	Up to 134 million	Up to 75 million newly poor
Brookings	Up to 144 million	Up to 85 million newly poor

*The number of people estimated/projected to be newly pushed into poverty by pandemic-related disruptions, calculated against pre-pandemic projections. Poverty here refers to people living on \$ 2/day or less – which the World Bank classifies as 'extreme poverty'

The increasing poverty has immediate impact on food security and nutrition due to restricted affordability of nutritious/diversified diet, food safety and access to nutrition and health services.

Slow progress or reversal on nutritional status

The fifth National Family Health Survey (NFHS-5) for India is the most comprehensive survey of its kind – which reports some alarming trends in the nutritional status of very young children in India, despite partial improvements (see Table below).

Table 2: Indicator based comparison of NFHS-4 and NFHS-5

Indicators (Children under 5)	NFHS-4 (2015-2016)	NFHS-5 (2019-2021)
Anaemic (aged 6 to 59 months)	58.6%	67.1%
Stunting (low height for age)	38.4%	35.5%
Wasting (low body weight for height))	21.0%	19.3%
Severe wasting (extremely low weight for height)	7.5%	7.7%
Underweight (low weight for age)	35.8%	32.1%

The above comparative analysis indicates a nearly 10% rise in the percentage of anaemic children, indicating both reduced nourishment and food diversity. There is also an increase in 'severe acute malnutrition' (generally regarded as the most dangerous form of malnutrition owing to the high risk of mortality) in malnutrition 'hotspots' and, an increase in severe acute

malnutrition in regions previously not known for it. These trends were highlighted in a new [analysis of district-wise data from the NFHS-5, published in the reputed BMJ Global Health.](#)

Some of the key findings from the analysis

1. There is a marginal increase in severe acute malnutrition from 7.5% in NFHS-4 to 7.7% in NFHS-5 but it is important to highlight the fact that 341 districts (out of a total 707 districts covered) recorded an increasing trend in severe acute malnutrition in children aged below five, between NFHS-4 and NFHS-5.
2. Of these 341 districts, 115 recorded a manifold increase; further, 50 districts in the 'medium' or 'low prevalence' categories in NFHS-4 have moved to 'serious' or 'very serious' or 'critical' categories in NFHS-5.
3. Another 65 districts showed a rapid increase in severe acute malnutrition but being in the 'low prevalence' category in NFHS-4, they are marked as 'medium prevalence' category in NFHS-5, masking the steep nature of the increase.
4. Out of 111 districts clustered in four malnutrition 'hotspots', 11 were 'critical', 72 were 'very serious' and 28 were 'serious': with all 111 requiring urgent policy intervention.
5. Of these 111 under-nutrition hotspot districts, 35 reported further worsening of severe acute malnutrition. These include nine districts each from Gujarat and Bihar, five from Madhya Pradesh; three each from Jharkhand and Odisha, two districts from Uttar Pradesh, and one each from Karnataka, Maharashtra, Rajasthan, and West Bengal. Bellari in Karnataka is the only district from south India to appear in this category.
6. Some districts and regions previously not known for high malnutrition – such as Kashmir and Dakshin Kannada in Karnataka – too are showing increasing prevalence of severe acute malnutrition.
7. The highest increase in severe acute malnutrition between NFHS-4 and NFHS-5 survey was recorded in Karimganj district in Assam (6.1%– 30.5%); Sheohar in Bihar (4.3%–21.4%); Saraikela Kharsawan in Jharkhand (8.9%–23%); North Tripura district in Tripura (4.3%–18.1%); and Kupwara (1%–14.7%) and Shopian (3.8%–17.4%) in Jammu and Kashmir.
8. Additionally, severe acute malnutrition spiked by more than 10% in 17 other districts in the same period in the following states: four in Uttar Pradesh, two each in Bihar, J&K, Karnataka, Maharashtra, and Telangana, and one district each from Gujarat, Madhya Pradesh, and West Bengal. In contrast, 21 districts reported more than a 10% reduction in severe acute malnutrition.
9. Both severe acute malnutrition and multidimensional nutritional failures (which considers wider factors such as household food security and access to health services)

are prevalent in the affected districts. This is especially alarming as the combination implies a high risk of mortality and morbidity for young children unless remedied in time.⁶

A National Institute of Nutrition study published in 2017 observed that among children under five years of age, those belonging to scheduled castes (Dalits) were the most malnourished. Statistics of the same as part of the study showed that among boys, 32.6% of Dalits are underweight, followed by scheduled tribes (32.4%). The same pattern can be seen among girls: 31.7% of those from Dalit homes are underweight followed by 25.8% from other backward castes. Stunting, too, is more acute among scheduled caste boys (39.4%) and girls (33.4%). Wasting, or acute low weight, is most common in children from schedule caste families: 18% of both afflicted boys and girls came from this background. Though the study was undertaken using a specified data set, it is observed that access to food security and nutrition is lower among SC/ST populations increasing their vulnerability during emergencies.⁷

Importance on food and nutrition in disasters/ crisis/ emergencies (Preparedness, Response and Recovery)

The increase in climate change induced weather-related disasters has reemphasised the importance of building preparedness mechanisms and investing in resilient infrastructure across stakeholders. For example- India's early warning systems have developed over the last few decades and the prediction accuracy has significantly improved, but translation of the information to communities and triggering action is seldom efficiently undertaken. This presents an opportunity to build resilience at the community level to positively impact the food security and nutrition indices by strengthening existing social protection schemes and utilising safety nets prior to disasters and emergencies.

"India is actively addressing the challenges of unemployment and agricultural productivity through initiatives aimed at enhancing skill development, promoting technological innovations, and supporting sustainable farming practices, fostering hope for improved per capita grain output and economic growth.") The government of India has implemented robust policies and programs to ensure food security, agricultural sustainability, and

⁶Sajai Jose, 2022- <https://countercurrents.org/2022/08/azadi-ka-amrit-between-compulsive-flag-waving-and-conditional-rations/>

⁷Caste, father's education, sanitation affect child malnutrition, says new study-2017, <https://www.hindustantimes.com/india-news/caste-father-s-education-sanitation-affect-child-malnutrition-says-new-study/story-tHWiXrb9IZsxe0CeKBuFjN.html>

⁸Climate Change, Food and Nutritional Security: Issues and Concerns in India-Harsh Gurditta and Gurmeet Singh, 2016 https://www.researchgate.net/publication/294368396_Climate_Change_Food_and_Nutritional_Security_Issues_and_Concerns_in_India

economic stability. Indian agriculture, contributing 16% of the GDP, has been a central focus of government initiatives like the National Action Plan on Climate Change (NAPCC) and the National Mission for Sustainable Agriculture (NMSA), designed to enhance resilience to climate impacts and promote sustainable farming practices. Efforts to strengthen rural economies and reduce vulnerabilities are reflected in initiatives like the Pradhan Mantri Krishi Sinchay Yojana (PMKSY) and the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which aim to boost agricultural productivity and provide stable livelihoods. These steps have contributed to a positive socio-economic impact, including a declining unemployment rate. As per the latest Annual PLFS Reports, the unemployment rate for persons aged 15 years and above decreased from 4.2% in 2020-21 to 3.2% in 2022-23, showcasing the effectiveness of ongoing development strategies.

Similarly, while a 2°C rise in temperature could potentially reduce net household income by 15-20%, the government has been proactive in mitigating these risks through financial support, technological innovation, and rural development programs. These comprehensive measures not only address immediate challenges but also lay a foundation for sustainable economic growth and resilience in the long term. The government's commitment to addressing these pressing issues demonstrates a strategic and inclusive approach to ensuring food security, economic stability, and rural prosperity in the face of global challenges like climate change.

Non-availability of work throughout the year to the marginal farmers and farm labourers (in regions with monoculture) also induce forced seasonal and permanent migration.⁸ Considering the accelerated impacts of climate change and weather induced disasters it is important to mobilise existing interdepartmental/ inter sectoral/ multi stakeholder resources to implement preparedness and mitigation measures to ensure food security and nutrition in disaster contexts.

Food and Nutritional Security in Emergencies

Inclusive food and nutrition access and delivery systems require hazard specific designs that emphasise the nutritional status of the population prior to the disaster/ crisis. The purpose of timely and sustainable access to food aid is needed to prevent food insecurity and malnutrition in the affected populations. The systems also require a plan for the treatment and management of existing cases of malnutrition and cases that may emerge in disaster/ crisis contexts.

Important elements that require consideration include

1. Estimation of the quantity of food available for distribution.
2. Calculation of the dietary needs of the affected population.

3. Determination of the food rations in accordance with the characteristics of the population and estimated duration of the effects of the disaster.
4. Ensuring the quality, safety and suitability of locally available food and supplies for distribution.

The system should be designed and operationalised as response ready in pre- disaster contexts to

1. Ensure timely coordination and collaboration with national, state, and local authorities in priority activities.
2. Enable multi- stakeholder collaborative approaches to enable mobilization and delivery of resources by enrolment and training of government, non- government, public and private actors.
3. Identify and ensure sustainability of sources of food production, aggregation, productivity, and supply.
4. Build capacity with deployment ready resources and experienced personnel to support administrative authorities.

Provision for Food and Nutrition Security in the Indian Disaster Management system

The Disaster Management Act, 2005 under section 12 has mandated the National Disaster Management Authority (NDMA) to recommend guidelines for minimum standards of relief to be implemented to provide relief to populations affected by disasters/ crisis, this includes access to food and water. Further Section 19 mandates the State Disaster Management Authority to create detailed guidelines for providing standards of relief to persons affected by disasters in the State, in adherence to the National Guidelines on Minimum Standards of Relief of 2016. These minimum standards of relief are mainly devised for relief camp settings that provision for shelter, food, drinking water, medical cover and sanitation. The minimum standards observe that a sufficient quantity of food be made available to the affected people with a minimum caloric intake of 2,400 Kcal per day for adults and 1,700 Kcal per day for infants and children along with provision of 3 litres per person per day of drinking water. The standards also include provision of milk and other dairy products to children and lactating mothers, and operationalisation of hygienic community and camp kitchens in compliance with food safety standards.

The National Policy on Disaster Management 2009 commenced the paradigm shift from the erstwhile relief-centric response to a proactive prevention, mitigation, and preparedness-driven approach for conserving developmental gains and minimising loss of life, livelihood, and property. This approach has enabled the right to relief and created an overarching system of facilitation of assistance to the victims of disasters/ crisis for accessing relief and

rehabilitation in States by leveraging the social safety nets and welfare measures, mandating relief needs to be addressed in a prompt, adequate and effective manner as per approved standards.

India also enacted several legislations that have guaranteed legal rights to its people, particularly the vulnerable populations ensuring inclusive access to basic facilities for living with dignity. The first being the National Food Security Act 2013 that was designed to 'provide food and nutritional security, by ensuring access to adequate quantity of quality food at affordable prices to people to live with dignity'. The Act guarantees the rights of the vulnerable households to receive food grains at subsidised prices under the Targeted Public Distribution System and further guarantees rights of the children and pregnant and lactating mothers to receive nutritional dietary supplements. The second is the National Rural Employment Guarantee Act, 2005 that provides for livelihood security of the households in rural areas by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work. The rules framed under the Act further provided for additional employment up to 150 days in notified drought affected districts in various states of the country to assist the people affected by drought to cope with the crisis. Due to the interlinkages between inclusive access to livelihoods and income security this scheme directly contributes to and enables access to/ procurement of quality food at the household level, thus protecting the rights of various vulnerable sections of the community and empowering them to build resilience in disaster/ crisis/ emergency situations.

Group Work and Discussion

Are the provisions for Food and Nutrition Security in the Indian Disaster Management system sufficient? Are the caloric recommendations sufficient to address the nutritional needs of populations in emergencies? Are existing structures/mechanisms sufficient to deliver food security and nutrition in disasters to the affected population?

(In a group of 4-5 persons)

1. Analyse the food and nutrition situation in your own state/district and identify the critical issues
2. Analyse the vulnerability to disasters- what kind of disasters are more frequent
3. List down the existing mechanisms and what is done, how? How is the inclusiveness of vulnerable population taken care of?
4. Discuss and prioritize key challenges in terms of food security and nutrition- the immediate (during disasters), medium term and long term in your area (geographic or sector specific as relevant for the participants)- Phases- Relief, Response and Recovery.

5. Present in plenary

Quiz Questions

1. Describe the importance and need for Food Security and Nutrition interventions during disasters?
2. Name the provisions of the Disaster Management Act 2005 that enable the mobilisation and implementation of food security and nutrition interventions during disasters/ crisis/ emergency?
3. Describe how poverty and malnutrition indicators are relevant to Food Security and Nutrition?
4. Name a few governmental schemes and provisions that can be utilised to address food security and nutrition requirements in pre- and post- disaster phases?
5. List the essential components to be listed while designing a food security and nutrition intervention?

Brief Recap

1. Disasters and climate extreme events impact vulnerable populations and their food security and nutrition.
2. FSN interventions should provide inclusive food and nutrition access to the disaster/ crisis affected populations by prioritising children, women, and vulnerable groups.
3. The GOAL is to prevent morbidity and mortality rates amongst people affected by crisis by ensuring access to adequate food and nutritional requirements to meet daily minimum needs a fundamental right.
4. FSN agencies/ departments should work together with relevant stakeholders and the disaster affected communities to ensure that both short term and long-term needs and impacts are addressed including prevention of malnutrition in the population.

Case Study Discussion

Harvesting all precipitation and utilising it for reducing hunger & malnourishment among low-income households

Development Research Communication and Services Centre- Ardhendu Sekhar Chatterjee- Purulia and Bankura, West Bengal, India

In Purulia and Bankura districts of West Bengal, diversity of farm systems was explored by introducing heat and drought tolerant crops by groups of 25-30 farmer households who were trained to manage seed banks, animal banks, community ponds and preparing of resource maps.

The two development blocks of Purulia and Bankura districts in the semi-arid region of West Bengal are part of the red lateritic soil zone. They witness lot of erratic rainfall and topsoil erosion contributing to hunger and malnutrition in 50% or more households. About 90,000 farmers were reached through campaigns, farmers' fairs, and exhibitions with technological and social interventions. The beneficiaries were mostly from economically weaker sections selected on the basis of a socio-economic survey, often ratified by the local authorities.

Solution

Small and marginal farmers having sub-acre holdings were engaged and employed under MGNREGS for soil and water conservation work, widening field bunds, planting, and digging small farm ponds on their own lands. Different life cycle crops were planted to extend the growing season and small animals were integrated to improve soil organic matter and seasonal distribution of income and farm work. Their home gardens and small and farm holdings were improved, and growing season increased by 90% or more, sources of income increased, and food intake become more nutritionally balanced.

Additionally, small revolving funds were created. Farm ponds were dug during the rainy season in paddy- fields (about 6m X 6m, 3-4 m farm pond). A bamboo platform was constructed which was about 180-200 cm above the pond where a perennial vine crop like ivy gourd was grown. In the pond some mudfishes and small snails were raised. In the case of paddy fields, the dyke around was also strengthened and small shrubs such as pigeon pea and roselle planted.

In the dry fields, 5-8 rows of tall millets, 3-4 rows of pigeon peas, 3-4 rows of niger or sesame and 4-5 rows of cowpea and black gram were grown together, in alternate strips. All the sowing was done at once, but harvesting was staggered over two growing seasons. Also, as no synthetic chemicals were used, animals and birds were able to consume straws/husks and in turn produce manure, which often was converted to ordinary or worm-compost.

The project interventions aim to promote resilient crops, animals and multipurpose trees and shrubs were possible due to several reasons. The presence of community and group level initiatives and their close cooperation with farmers/fishermen/herders was a major contributing factor. Also, cooperation of local authority and district administration staff, through formal and informal meets, service visits and participation in fairs/exhibitions added to these efforts. There was co-learning with other civil society actors such as Jadavpur University and GEAG (NGO) Lucknow plus expertise from professionals most of whom volunteered their time and services. A large number of village youth helped disseminate local climate predictions through community blackboards and SMS messages.

Replicability

The idea of constructing on farm pond and wells, strengthening bunds/dykes, and planting trees/shrubs which can adapt on them inspired many farmers to diversify crops and integrate small animals. Junior and senior staff of agricultural and animal husbandry departments held periodic meetings with beneficiaries, trained some women to inoculate domestic animals, issued farmer credit cards to fishers and small animal raisers and recognised the potential of several underutilised field and garden crops and multi utility trees and shrubs.

In the project villages many small farmers replicated multi- cropping and integrated farming. The idea of impounding rainwater and micro irrigation, living fences and hedgerows, utilisation of uncultivated food and medicinal plants have gradually become popular and several government schemes, mainly MGNREGA, were used to replicate some of the interventions.

A popular practice was both the localised collection, and dissemination of weather data, at 3-day intervals, through blackboards and SMS message over phones operated by young volunteers. The success of this initiative was evident, when despite the completion of the project period, the farmers raised and contributed money to cover the cost of continuing the service.

Source: Ensuring Food and Nutrition Security in Climate Fragilities and Disasters: The 31 Inspiring Practices, 2022, Pg. 59

Exercise:

1. Name the four dimensions of food and nutrition security impacted by climate change?
2. Name the elements for consideration for implementing the above initiative in the context of emergencies?
3. Name the scheme best suitable for livelihood sustainability in the context of food security and climate change?

SECTION 2

BASIC CONCEPTS OF FOOD SECURITY AND NUTRITION

Introduction

Food Security and Nutrition interventions require adequate planning and implementation strategies as part of Emergency Preparedness and Response mechanisms. A hazard specific program design is required to meet the food and nutrition requirements of the disaster/ crisis affected populations as well as populations vulnerable to disruptions in food and nutrition availability due to climate change impacts and/or any other disruptions.

Planning for such interventions in emergency/ disaster contexts requires a complete understanding of food and nutrition security and its criticality, especially to the vulnerable populations such as pregnant and lactating women, children, elderly and people with disabilities. Emergencies/ disasters often break the food supply chains, disrupt markets and hence the focus on nutritional interventions gets compromised.

Food and nutrition interventions should be designed to provide immediate relief assistance and mitigate the impact of the disaster/ crisis while contributing to the rehabilitation of the affected populations without creating dependency. The aim is to resume regular sustainable food value chains with support from sector experts in food security and nutrition, agriculture, and other related sectors. This will help support and secure local food production systems in alignment with cultural practices, food preferences, environmental indicators ensuring acceptance by the community and contributing to risk and vulnerability reduction. The interventions should specially focus on reducing malnutrition and creating an enabling environment for continued mainstreaming of infant and young child feeding practices.

Objective (s)

- a) Understand the concepts, definitions and components of Food Security and Nutrition
- b) Understand food security and nutrition frameworks and types in the context of emergencies/ crises/ disasters

Expected Time Duration- 90 minutes

Session Outline

1. Critical Concepts in Food Security and Nutrition- the definitions
2. Frameworks for food security and nutrition

Expected learning outcome:

1. Participants will understand the definitions, the determining factors of food security and nutrition including immediate, intermediate, and underlying factors and its linkages with emergencies and crisis situations.
2. Understand the conceptual frameworks for food security and nutrition in the context of emergencies to design and implement relief and response measures.

Notes for the facilitator

1. Describe the need for understanding the key definitions and concepts required for planning of food security and nutrition responses during emergencies/crises/disasters. Carefully read the definition by quoting the source and explaining its evolution. Then link the definitions to relevant concepts used as part of Food Security and Nutrition responses. Also introduce the types of food security and nutrition responses.
2. Introduce and describe the frameworks required as part of planning food security and nutrition responses based on context specific disaster relief and response requirements. Provide a scenario-based example and relate it to the key pillar of an inclusive Food Security and Nutrition response. Also consider explaining the components to be considered as part of the implementation process.
3. Based on food insecurity explain the applicable frameworks. Link this with the definitions of hunger, poverty, and malnutrition. Relate this with the existing governmental provisions/ schemes and safety nets available that can be leveraged into the design and implementation of food security and nutrition responses.
4. Explain the frameworks to understand malnutrition and nutritional status at the household level and link it to requirements arising during disaster/ crisis/ emergencies.
5. Conduct a quiz containing questions pertaining to definitions and concepts of food security and nutrition and their application to address needs in the context of disasters/ emergencies and crisis.

Critical Concepts in Food Security and Nutrition- the definitions

Food Security

The definition of food security as adopted during the World Food Summit 1996 details that

'Food Security' is achieved when it is ensured that **“all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life”**. Food is any substance that people eat and drink to maintain life and growth, this includes safe and clean water. Nutrition is defined as the availability of adequate nutritional status/ requirements in terms of protein, energy, vitamins, and minerals for all household members at all times (Quisumbing, 1995 p. 12). Nutrition management/ maintenance focuses on access to caring practices, health care/ medical services and healthy environmental indicators.

Food Security and Nutrition are achieved if adequate food (quantity, quality, safety, socio-cultural acceptability) is available and accessible and satisfactorily always used and utilized by all individuals to live a healthy and active life. This understanding combines food security and nutrition and emphasizes several aspects, i.e., 'Availability,' 'Accessibility,' and 'Use and Utilization' (also called Absorption) of food. The inclusion of the use and utilization aspect underscores the fact that 'Nutrition' is more than 'Food Security'. Together with all the three dimensions of availability, accessibility and utilization, the dimension of food stability is equally important. It ensures the stable and sustainable food availability, accessibility, and utilization in all situations.

The conceptual components of food security are defined as follows

Food availability: Availability of sufficient quantities of food of appropriate quality, supplied through domestic production, stocks or imports (including food aid).

Food access: Access by individuals to adequate resources for acquiring appropriate foods for a nutritious diet. An adequate supply of food at the national level does not in itself guarantee household and individual level food security. Insufficient food access can be a function of insufficient incomes (affordability), expenditure, markets, and prices in achieving food security objectives. Compromised physical access (due to inaccessibility due to emergencies or other reasons) and social barriers could also impact food access to vulnerable communities.

Utilization: Utilization is commonly understood as the way the body makes the most of various nutrients in the food that is consumed by the individual. Sufficient energy and nutrient intake by individuals are the result of good care and feeding practices, food preparation, diversity of the diet and intra-household distribution of food. Combined with good biological absorption of food consumed, this determines the nutritional status of individuals. Non-food inputs such as clean water, sanitation, and health care to reach a state of nutritional well-being also form critical elements of food utilization and play an important role.

Stability: Food security today does not essentially reduce individual/ household level risks of losing access to food as a consequence of sudden shocks, or cyclical events (e.g., seasonal

food insecurity). Even if food intake is adequate today, maintaining sustainability of all the three dimensions discussed above over a period is required to achieve food and nutrition security. Adverse weather conditions, extreme events (climatic, or other crisis) political instability, or economic factors (unemployment, rising food prices) may have an impact on individual/ household level food security status.

Coping Strategies

Coping Strategies are activities that people choose as ways of living through difficult times brought on by some sort of shock to their normal means of livelihood and way of living. There are different stages of coping and early stages are reversible without causing long-lasting damage - these may include collecting wild foods, selling non-essential assets etc. However, more drastic strategies include sale of land, distress migration of whole families, deforestation, prostitution/ sex work etc.

Food security risk can be measured by tracking different coping strategies of communities and households as they often have an increased vulnerability. Some examples of coping strategies include:

- Reduction in the amount or quality of food eaten leading to declining health and nutritional status
- Enforcing discriminatory practices of prioritization of male child over female, irrespective of nutritional needs
- Separation of families and mothers from children leading to poor standards of childcare and malnutrition
- Reduction in expenditure on education and health care undermining human capital
- Sale of household assets, failure to pay loans restricting future access to credits and productive capacity of households
- Overuse of natural resources such as excessive fishing, collection of firewood reduces availability of natural capital

Malnutrition

The term malnutrition encompasses a wide range of conditions. When an individual's requirements of nutrition to maintain growth and immunity is not met, it leads to malnutrition. Both undernutrition and overnutrition contributes to malnutrition.

Undernutrition

Undernutrition refers to the inadequate consumption of macronutrients such as energy, protein, and fat and/or micronutrients such as vitamins and minerals to maintain body

functions; or poor assimilation or sudden drop/ increase in nutrition due to ailments. Undernutrition contributes to poor health, mortality, and long-term negative impacts on body and mind. Children who experience undernourishment are more susceptible to infections that may also affect their mental health. The consequences of undernutrition among children can be long-term and make them inactive leading to lower learning outcomes as students as well as professionals affecting the economy of the country. However, the “Window of Opportunity” i.e., ensuring adequate nutrition during the first 1000 days of a child (from inception to 2 years of age) may help in avoiding this adversity.

Since each nutrient type plays a different and unique role for the normal functioning of the body, insufficient intake of the same may lead to specific health conditions due to deficiency. For example, weight loss, increased susceptibility to various illness or deficiency of Vitamin A leads to poor eyesight.

Undernutrition can be further classified into:

- Acute malnutrition
- Chronic malnutrition
- Micronutrient deficiencies

Acute malnutrition (Wasting) is observed when an individual experiences a sudden weight loss or is unable to gain weight. An individual with acute malnutrition may be exposed to various diseases and the condition may prove fatal in certain situations. Acute malnutrition is further classified into Moderate Acute Malnutrition (MAM) and Severe Acute Malnutrition (SAM).

Chronic malnutrition (Stunting) is observed when an individual consumes insufficient nutrition or undergoes severe infections or encounters both together. Children, during their first 1000 days are prone to chronic malnutrition. Stunting is one of the indicators of chronic malnutrition, hence can be prevented if treated/ managed at an early stage.

Micronutrient deficiencies are observed when there is insufficient intake of essential vitamins and minerals. Individuals with such deficiencies may not show any evident signs or symptoms and hence called “hidden hunger”. Micronutrient deficiencies can occur in different forms depending upon the type of micronutrient deficient in the diet. Iron, Vitamin A, and Iodine are the most common micronutrient deficiencies.

Overnutrition occurs due to excessive consumption of nutrients and energy in relation to the body's absorption capacity. Overnutrition can lead to weight gain and obesity, as well as related non-communicable diseases. If the Body Mass Index (BMI) of a person is above 25 he/she may be considered as overweight and if it is above 30 he/ she will be considered as obese.

Overweight and obesity occurs when individuals experiencing weight gain or obesity are exposed to long-term health conditions in the form of noncommunicable diseases. Cholesterol, triglycerides, and glucose as well as high blood pressure, and diabetes are some of the immediate risks associated with obesity. Overweight or obese children are susceptible to long-term risks like heart diseases, strokes, and gastrointestinal cancer as long-term risks. Excessive consumption of sodium or trans-fatty acids may eventually contribute to overnutrition and increase the chance of cardiovascular diseases. Persistent changes in the environment as well as absence of enabling policies and compliance with respect to domains related to health, environment, nutrition, urban planning, food processing, etc. stimulate the changes in dietary and physical activities leading to increased overweight or obesity among individuals.

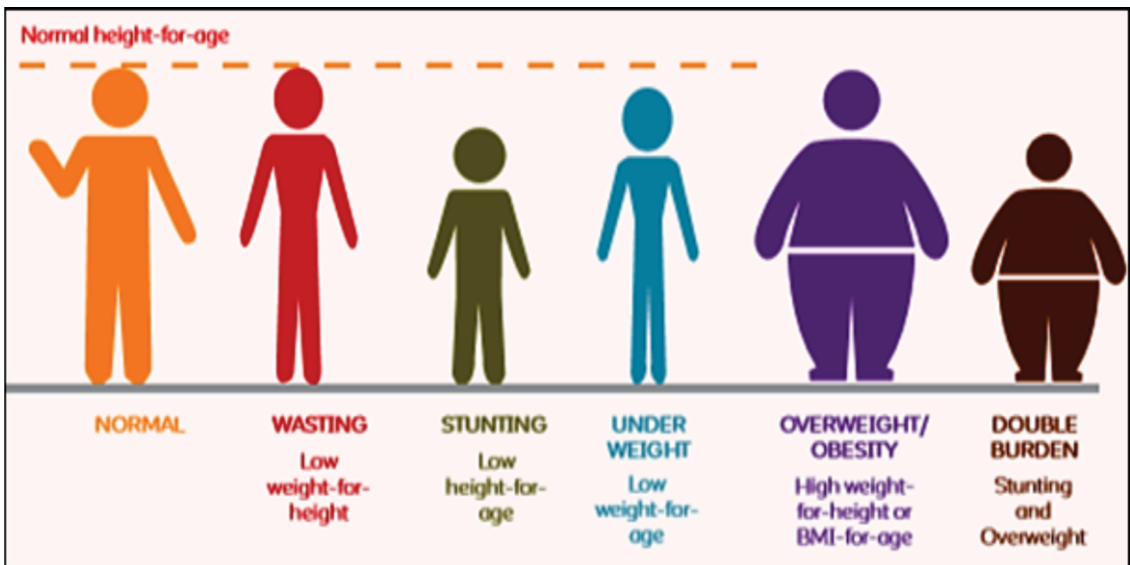


Figure 2: Types of malnutrition

Double burden of Malnutrition

In some crisis affected communities, multiple kinds of malnutrition may occur simultaneously i.e., both undernutrition and overnutrition known as the “Double Burden of Malnutrition.” Wasting, stunting, micronutrient deficiencies and, increasingly, overweight/obesity coincide affect vulnerable households/ individuals. For example, an overweight or obese person can be deficient in zinc or vitamin A and simultaneously experience iron deficiency and have anemia.

Imbalance in essential nutrients caused by consumption of unhealthy diets, accompanied by consumption of high energy food, but inadequate intake of vitamins and minerals leads to incidence of double burden of malnutrition in an individual. All emergencies increase the risk of food insecurity and increase the risk of malnutrition, especially among vulnerable populations if appropriate and timely interventions as part of preparedness, relief and recovery strategies are not in place.

Dietary Recommended Intake (DRI) is a quantitative estimate of nutrient intake that is used as a reference value for planning and assessing diets for apparently healthy people. Examples include Average intake (AI), Estimated Average Requirement (EAR), Recommended Dietary Allowances (RDAs) and Tolerable upper intake level (UL).

Average Intake (AI): is a recommended intake value based on observed or experimentally determined approximations or estimates of nutrient intake by a group or groups of apparently healthy people that are assumed to be adequate.

Estimated Average Requirement (EAR): is the average (median) daily nutrient intake level estimated to meet the needs of half the healthy individuals in a particular age and gender group. The EAR is used to derive the Recommended Dietary Allowance.

Recommended Dietary Allowances (RDAs): are defined by the United States Food and Nutrition Board and are conceptually the same as the Recommended Nutrient Intake (RNI) but may have different values for some micronutrients. In India, these RDAs are periodically published by ICMR for different categories of the population.

Tolerable upper intake level (UL): The maximum level of total chronic daily intake of a nutrient (from all sources) which is not expected to pose a risk of adverse health effects to humans.

Safety Nets

Safety Nets are measures to enhance direct access to food through social security schemes and welfare measures usually undertaken by the government. They also include financial and livelihood support through in kind transfer of food entitlements or Direct Benefit Transfers mainly benefiting vulnerable groups (women, children, persons with disability and elderly) and populations affected by natural disasters or economic recession/ disruptions.

Some of the safety nets/ welfare schemes in India include

1. Targeted direct feeding programmes (school meals; feeding of expectant and nursing mothers as well as children under five) through governmental schemes. The Targeted Public Distribution System provides rice/wheat/cereals to entitled vulnerable populations, the Integrated Child Development Services scheme provides supplementary nutrition to pregnant and lactating mothers and children under three

years of age as take-home ration. Children aged 3-6 years and 6-14 years are provided meals at the Anganwadi centers and schools, respectively.

2. Cash-for-work programmes such as The Mahatma Gandhi National Rural Employment Guarantee Scheme contributes to livelihood/ employment of rural poor while engaging in building community infrastructure, the National Rural Livelihood Mission as well supports rural livelihoods and skill development.
3. Income-transfer mechanisms such as direct beneficiary transfer as relief is also provided to populations affected by disasters.

It is important to analyze whether these schemes are resilient to disasters/ crisis/ emergency events.

Frameworks for food security and nutrition

Food and nutrition insecurity can lead to individual impacts such as malnutrition and can cause lasting damage to future generations and impact productivity of a nation. The food and nutrition security framework adapted by WFP (2009) explains various factors and their inter-relationships.

The framework shows exposure to risk as determined by the frequency and severity of natural and man-made hazards, their socio-economic and geographic scope, and the intensity of chronic food insecurity. The determinants of the means of livelihood of a household includes household level natural, physical, economic, human, social, and political assets; levels of household production; levels of income and consumption, and, most importantly, the ability of the household to diversify their income and consumption sources to mitigate the effects of any risks they face at any time, especially during disasters. All the above factors also influence the capacity to cope with a shock, be it transitory or chronic in nature. Further feeding practices, absence of health centres, reduced availability of clean water, sanitation facilities, medicines also influence diets and health affecting the overall nutritional status of individuals and households.

The impact on morbidity and mortality is also determined by the access to adequate and timely health care services and exposure to environmental conditions, such as water, sanitation, shelter, and environmental safety. At the macro level socio- economic and political conditions also influence food security and nutrition due to its impact on poverty, livelihoods and economic/ income generating activities.

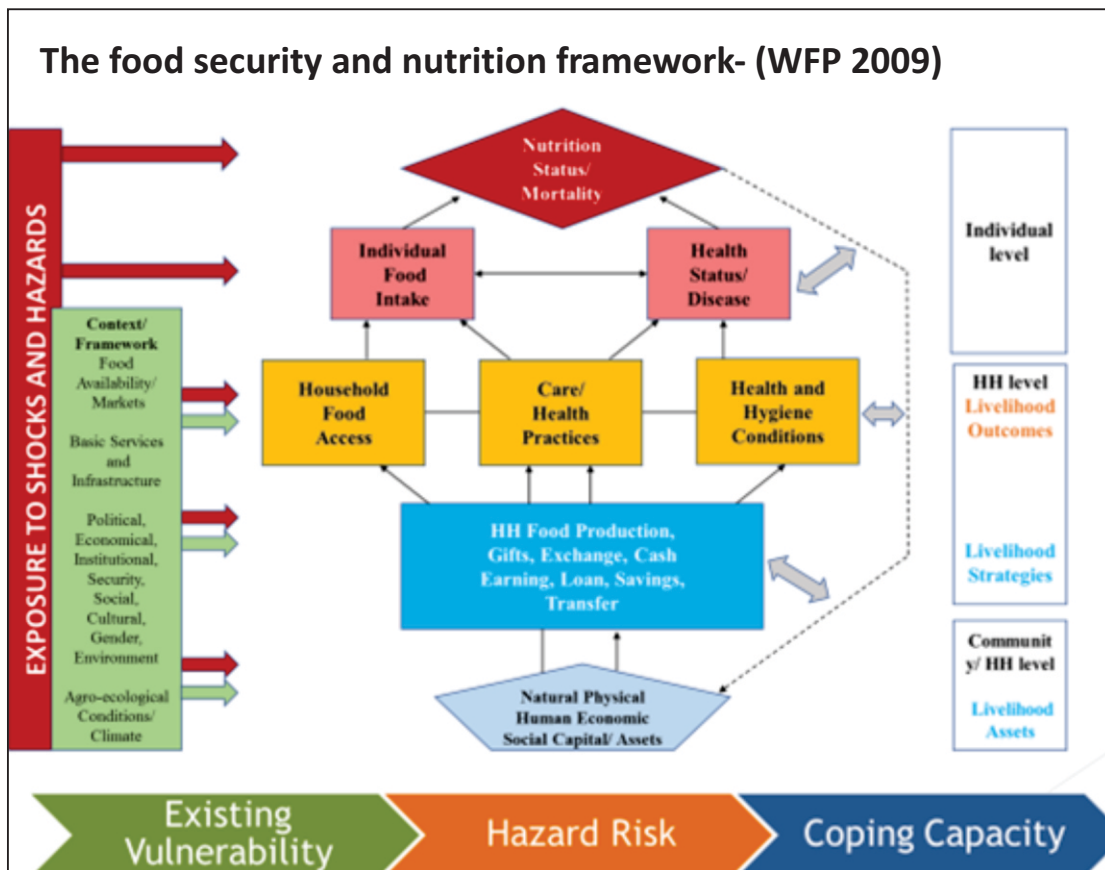


Figure 3: Food security and Nutrition Framework – World Food Programme, 2009

The Integrated Food Security Phase Classification- Integrated Food Security and Nutrition Conceptual Framework

The framework considers the basic causal factors of food insecurity and malnutrition along with the structural causes required for integration into response efforts. Suboptimal caring and feeding practices, together with low food availability, access, utilization, and stability, directly impact the food consumption of households and individuals. Food consumption and health status is interrelated and linked to adequacy of quantity or quality of food for consumption at the household and individual level. Furthermore, individual and households contracting diseases are more likely to eat less as diseases impact access and utilization of food either because of the weakened immune system or because of their weakened ability to engage in productive activities. Food insecurity and malnutrition outcomes thus contribute to overall vulnerability and result in a cyclical nature of food insecurity and malnutrition.

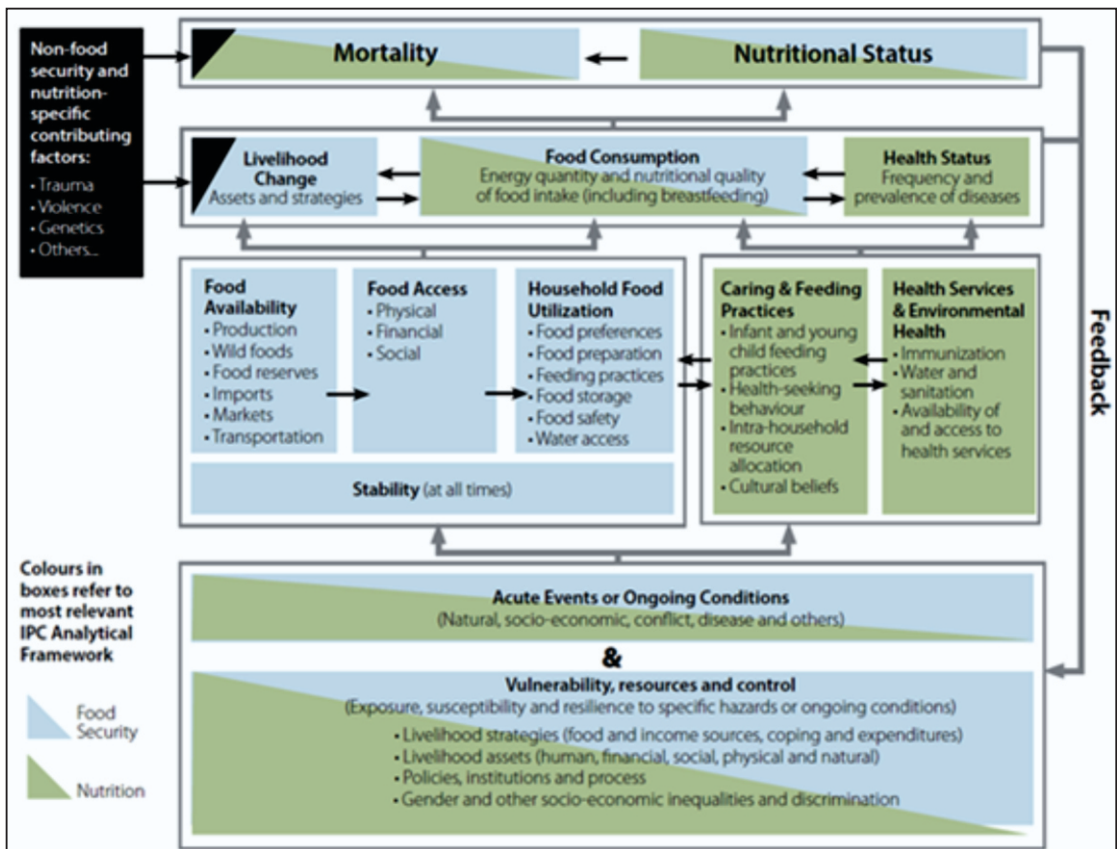


Figure 4: Integrated Food Security and Nutrition Conceptual Framework

Food, Health, and Nutrition

The concept of food security emphasizes the economic approach to access food, whereas the nutrition or malnutrition framework adopts the biological approach to ensuring the maintenance of adequate nutrition and food intake at the individual and household levels. However, it is essential to adopt a multi-disciplinary approach to food security and nutrition as nutrition is a function of food intake and health status. The Food and Agricultural Organisation (FAO) adopts a multi-pronged approach to fighting hunger. This approach combines sustainable agriculture and rural development to ensure productivity and access to food to people in need.

As outlined below the first track addresses recovery measures for establishing resilient food systems. Factors that affect the resilience of food systems include the structure of the food economy, as well as its components such as agricultural production, technology, the diversification of food processing, markets, and consumption. The second track assesses the

options for providing support to vulnerable groups. Vulnerability analysis offers a forward looking way of understanding food security dynamics, calling for explicit attention to risk and the options for managing it.

Both tracks are intended to be mutually reinforcing, and the positive interaction between them should reinforce the path to recovery. For example, managing risks goes beyond assisting those affected by a particular shock in addressing their immediate food needs. A range of options are available for addressing longer term food security through sustainable agricultural and rural development aimed at preventing or mitigating risk.

Table 3: Twin track Approach to Food, Health, and Nutrition

Twin Track Approach	Availability	Access and Utilization	Stability
Rural Development/ productivity enhancement	Enhancing food supply to the most vulnerable	Re-establishing rural institutions	Diversifying agriculture and employment
	Improving rural food production especially by small-scale farmers	Enhancing access to assets	
	Investing in rural infrastructure	Ensuring access to land	Monitoring food security and vulnerability
		Reviving rural financial systems	Dealing with the structural causes of food insecurity
	Investing in rural markets	Strengthening the labor market	
		Mechanisms to ensure safe food	Reintegrating disaster affected and displaced people
	Revitalization of livestock sector	Social rehabilitation programmes	Developing risk analysis and management
			Reviving access to credit system and savings mechanisms

Twin Track Approach	Availability	Access and Utilization	Stability
Direct and Immediate Access to Food	Resource rehabilitation and conservation Enhancing income and other entitlements to food		
	Food Aid Seed/input relief	Transfers: Food/Cash based Asset Redistribution	Re-establishing social safety nets Monitoring immediate vulnerability and intervention impact
	Restocking livestock capital	Social rehabilitation programmes	Peace-building efforts
	Enabling Market Revival	Nutrition intervention programmes	

Reference: P. Pingali, L. Alinovi and Jacky Sutton (2005): Food Security in Complex Emergencies:

Conceptual framework for maternal and child nutrition

The framework approaches maternal and child nutrition with the purpose of protecting and promoting diets, services and practices that support optimal nutrition, growth and development for all children, adolescents, and women by providing inclusive access to good diets, good services, and good practices. The objectives of this forward-looking nutrition strategy are:

1. To prevent undernutrition, micronutrient deficiencies and overweight in early childhood (i.e., the first five years of life).
2. To prevent undernutrition, micronutrient deficiencies and overweight in middle childhood and adolescence (i.e., 5–19 years of age).

3. To prevent undernutrition, micronutrient deficiencies and overweight in women - particularly during pregnancy and breastfeeding - and to prevent low birthweight in new-borns.
4. To ensure the early detection and treatment of wasting and other forms of life-threatening acute malnutrition in early childhood.

The result areas for this framework can be measured based on measurable progress made implementing interventions in the domain of early childhood nutrition, nutrition in middle childhood and adolescence, maternal nutrition, nutrition, and care for children with wasting, maternal and child nutrition in humanitarian action, partnerships, and governance for nutrition.⁹

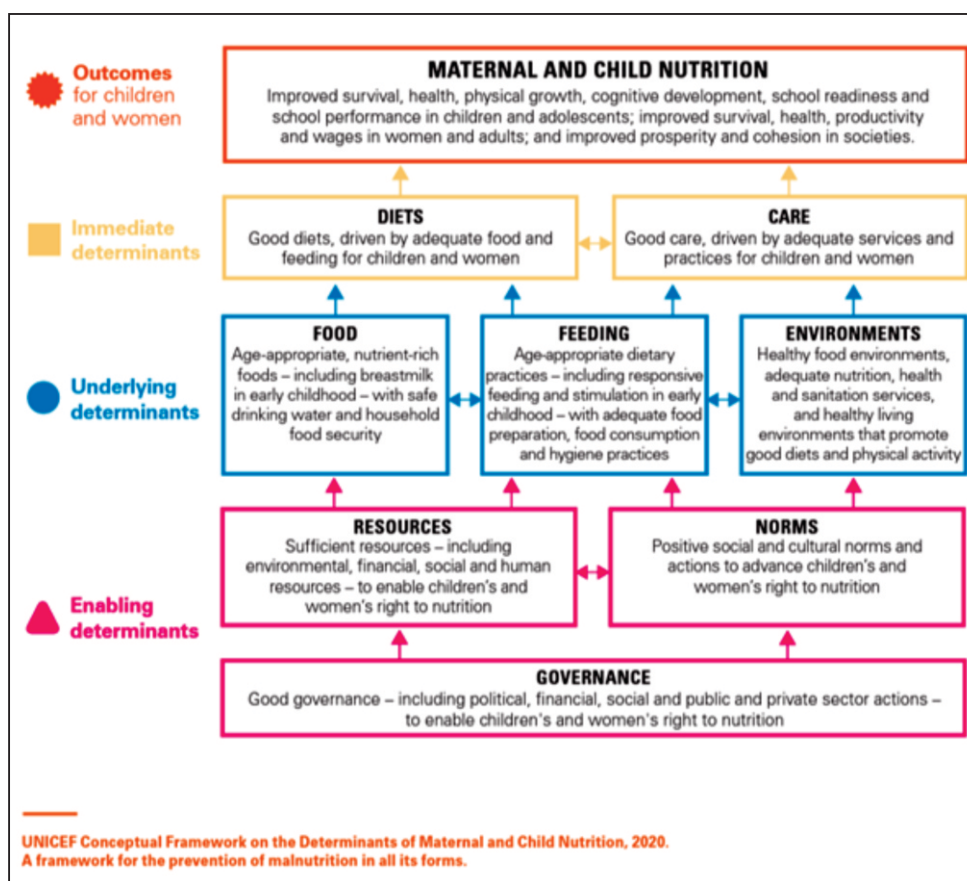


Figure 5: Conceptual framework for maternal and child nutrition

⁹Conceptual framework for maternal and child nutrition <https://www.iitbnutritiongroup.in/nutritionindia-info/>

Categories of Nutrition Interventions

Nutritional Interventions are categorised into general feeding programmes and selective feeding programmes (WHO, 2000). General feeding programmes address the needs of the overall population in adherence to the minimum standards of relief and or Sphere Standards as per average daily energy requirement of 2400 kcals. Beneficiaries should be consulted prior to programmatic interventions as cultural acceptability of the food ration and the choice of suitable foods, must be considered. There are many challenges in ensuring fair distribution of food aid. Food aid targeting should help identify the most vulnerable areas and households. This requires the use of various indicators, such as health status and food security, in addition to nutritional status (Young, Borrel, Holland, & Salama, 2004). Selective feeding programmes are designed to benefit/ enable individuals within specific vulnerable groups to receive adequate nourishment. Selective feeding programmes are further implemented as supplementary feeding programmes (SFP) and therapeutic feeding programmes (TFP). The former addresses the needs of pregnant and lactating mothers, and moderately malnourished infants and children. They are designed as a "safety net" to prevent further deterioration of nutritional status and reduce mortality. As far as infants are concerned the aim is to encourage breast feeding as far as possible. For older children and adults, in addition to the general food ration, the SFP supplies an extra 1000-1200 kcal/ person/day (dry rations), or 500-700 kcal/person/day (cooked meal) as required. Therapeutic feeding programmes target the severely malnourished, particularly infants and young children. These patients are critically ill on admission with high rates of possible mortality in the first few days and require specific medical care (WHO, 2000).

Testing of knowledge

1. Define the concept and need for Food Security and Nutrition in Disasters/ Crisis/ Emergencies?
2. In the context of disasters/ crisis name the safety nets that can be utilised to ensure food security and nutrition?
3. Explain various types of malnutrition? Which one is more prevalent in your area?
4. Name the various frameworks and approaches that can be used for targeted food security and nutrition interventions during emergencies?

Brief Recap

1. Food Security and Nutrition Security is achieved if adequate food (quantity, quality, safety, socio- cultural acceptability) is available and accessible for and satisfactorily always used and utilized by all individuals to live a healthy and active life.
2. Safety Nets are measures to enhance direct access to food through social security schemes and welfare measures usually undertaken by the government.

3. Food security and malnutrition are multi-dimensional and need multi-sectoral, multi-disciplinary approaches and interventions.
4. Nutritional Interventions are categorised into general feeding programmes and selective feeding programmes. The practitioners in disaster management and other programme implementers should work towards creating an enabling environment to support food security and nutrition of vulnerable populations.

SECTION 3

GUIDING PRINCIPLES AND MINIMUM STANDARDS IN FOOD SECURITY AND NUTRITION

Introduction

Disaster/ emergency situations impact livelihoods and food systems; lead to increasing rates in morbidity and mortality; and increased displacements. In children, food insecurity, malnutrition, and undernutrition manifests as stunting, wasting, underweight, and micronutrient deficiencies. Guidelines and minimum standards are devised to improve the food security and nutrition of populations affected by, or at risk of, disasters/ crises/ emergencies focusing on addressing underlying causes, thus contributing to the progressive realization of the right to adequate food in the context of national food security. This can be achieved by coordinated multi-stakeholder processes, including the review of progress, and sharing of lessons learned, to inform policies and actions aimed at preventing, mitigating, responding to, and promoting early recovery from food insecurity and malnutrition in protracted crises situations.

Objective (s)

1. Understand the guiding principles for design and implementation of Food Security and Nutrition interventions during crises/ disasters/ emergencies.
2. Understand the minimum standards for food security and nutrition as mandated by the National Disaster Management Authority in the context of emergencies/ crisis's/ disasters
3. Understand the criteria for assessment and standards of food security, nutrition, malnutrition, undernutrition, micronutrient deficiencies, IYCF- E (Infant and Young Child Feeding in Emergency) practices and livelihoods for design and implementation of relief, response, and recovery measures.

Expected Time Duration- 90 minutes

Session Outline

1. Guiding Principles for Food Security and Nutrition
2. Food Security and Nutrition assessment standards
3. Management of malnutrition standards
4. Micronutrient deficiency assessment standards, infant and young child feeding in emergencies standards, food security standards, assessment standard and
5. Livelihood impact assessment standards in the context of relief and recovery measures

Expected learning outcome

1. Application of the guidelines and minimum standards of response to Food Security and Nutrition in relief and response interventions.
2. Application of assessment standards for context specific design and delivery of food security and nutrition interventions.
3. Foundational understanding to initiate/ activate livelihood support initiatives to support income generation, contributing to food security for disaster affected populations.

Notes for the facilitator:

1. Introduce the guidelines and minimum standard of relief for food security and nutrition in the context of disasters/ crisis's/ emergencies in India. Explain the need to design and implement context specific relief interventions based on the guidelines and minimum standards.
2. Introduce Food Security and Nutrition standards in the context of globally accepted Sphere Standards- Minimum Standards for Humanitarian response. Contextualise the need to initiate steps to adopt the Sphere Standards in India.
3. Briefly explain the requirement for assessment of food security, nutrition, malnutrition, micro- nutrient deficiency, infant and young child feeding- in Emergencies requirements for the people in need in the context of planning and implementation of humanitarian relief and response mechanisms, explain this in the context of implementing the minimum standards of relief.
4. Describe the need for livelihood assessments as part of supplementing relief and recovery measures to aid food security and nutrition at the household level. Describe how available welfares schemes are being used to support livelihood needs in the aftermath of disasters. E.g., MGNREGA.

5. Undertake an assessment in the form of a quiz to assess the understanding of the minimum standards of humanitarian response and need for an assessment to design and implement food security and nutrition interventions.

Guiding Principles for Food Security and Nutrition

In emergency contexts it is important to promote and implement coherent and well-coordinated humanitarian and development interventions using available governmental and non- governmental resources to address food insecurity and undernutrition, to save lives and build resilience. Humanitarian assistance/ aid helps meet acute needs, saves lives, alleviates suffering, and maintains and protects human dignity. Resilience boosts the capacity to absorb, prepare for, and prevent humanitarian disasters, crises, and long-term stresses. Disaster resilient recovery strategies support the adaptation and transformation of livelihoods and food systems through programmatic interventions that emphasize women's empowerment, address the needs of the most vulnerable sections including landless labour, focus on smallholder agriculture productivity and market linkages for wider economic integration. Such a multi-pronged approach helps address malnutrition, undernutrition, and nutritional needs of the affected, at risk, vulnerable populations, and marginalised groups in need of humanitarian assistance based on the following guiding principles.

1. Address immediate humanitarian needs and build resilient livelihoods
2. Focus on nutritional needs based on minimum standards
3. Ensure inclusive coverage and reach the affected populations
4. Protect those affected by or at risk from cascading and multiple disasters/ crisis/ emergencies
5. Empower women and girls, promote gender equality, and encourage gender sensitivity
6. Ensure and support comprehensive evidence-based analysis of Food Security and Nutrition interventions
7. Strengthen multi- stakeholder ownership, participation, coordination, and stakeholder buy-in, and accountability
8. Promote effective financing as part of disaster/ crisis recovery
9. Contribute to inclusive social cohesion/ peacebuilding through food security and nutrition
10. Manage natural resources sustainably and reduce disaster risks
11. Promote effective national, state, and local governance to enable effective resource mobilisation and delivery using governmental mechanisms

The purpose of adopting these guidelines is to protect the most vulnerable populations from malnutrition, ensuring and improving the access to quality food and nutrition assistance and implementing mechanisms that make the food systems resilient to disasters/ crisis to address humanitarian needs.

Minimum standards for Food Security and Nutrition in humanitarian response

The Section 12 of the Disaster Management Act, 2005 mandated the National Disaster Management Authority (NDMA) to recommend Guidelines for minimum standards of relief (shelter, food, drinking water, medical cover, health, sanitation) to be provided to persons affected by disasters located in relief camps or disaster affected areas or other temporary locations. Special provisions for access to relief have been provided to children, women, widows, orphans, persons with disability and elderly. Ex- gratia relief is also provided to account for damage and losses and support with livelihood restoration.

According to Section 19 of the Disaster Management Act, the State Authorities shall lay down detailed guidelines for providing standards of relief to persons affected by disasters in the state and such standards shall in no case be less than the minimum standards and the guidelines laid down by National Disaster Management Authority. It is recommended that state governments and districts prepare and activate emergency relief and response delivery measures prior to the disaster onset or in the immediate aftermath of the disaster, till the hazard risk is considerably reduced, and recovery and rehabilitation initiatives are underway. Relief measures should be devised to ensure needs of the affected populations are met in adherence to the guidelines and minimum standards of response. Food, Shelter, and Clothing are the primary needs of every human and right to food is enshrined in Article 47 of the Constitution of India.

Disasters/ crisis/ emergencies often lead to situations where the availability of food to the affected populations gets highly compromised. Hence the minimum standards for relief in India mandate for the provision of adequate quantity, quality of milk and dairy products for children and lactating mothers. Adherence to food safety standards and hygiene needs to be ensured at community and camp kitchens where food is being cooked and stored. It shall be ensured that men and women are supplied food with minimum calorific value of 2,400 Kcal per day and 1700 Kcal for children / infants. A minimum supply of 3 litres per person per day of drinking water needs to be made available at relief camps and areas where disaster affected populations are located (If other means for providing safe drinking water is not possible at-least double chlorination of water needs to be ensured). As part of relief and response interventions the officials from the department of revenue disaster management in coordination with relevant line departments should ensure the procurement of food grains and availability of food stock at the warehouses and PDS/ Ration shops. Vegetables and raw

foods required for relief camps/ centres/ community kitchens should be procured through state run horticulture outlets and local markets.

The women and child development department with support from the department of health and family welfare at the state level should mobilise its ASHA workers, Anganwadi workers and field staff to screen children and infants from (0-5 years) for malnutrition. The identified vulnerable and affected children diagnosed with malnutrition should be provided supplementary nutrition support through the Integrated Child Development Services (ICDS) scheme.

Sub- committees with designate nodal officers should be created for management and delivery of food and water at relief camps, community kitchens and transition housing locations for effective relief delivery to the affected populations. Ration kits should be distributed to the affected population that are housed in their own or temporary shelters. Cooked food and rations kits should be provided based on local food habits. Special consideration/ arrangements should be made to deliver the dietary requirements of the people with co-morbidities, chronic illnesses, persons with disability, the elderly and destitute populations. Marginalised groups such as transgenders, migrants, sex workers should also be considered during delivery of food relief.

The minimum energy requirement proposed by National Institute of Nutrition for consideration while designing the food menu at relief camp/ or in relief and recovery settings

Table 4: Recommended dietary allowances (RDA) for Indians (Macronutrients & Minerals)

Group	Particulars	Body Weight (Kg)	Net Energy K Cal/d	Protein g/d	Visible Fat g/day	Calcium Mg/d
Man	Sedentary Work	60	2320	60	25	600
	Moderate Work		2730		30	
	Heavy Work		3490		40	
Woman	Sedentary Work	55	1900	55	20	600
	Moderate Work		2230		25	
	Heavy Work		2850		30	
	Pregnant Woman	55	350	23	30	1200

Group	Particulars	Body Weight (Kg)	Net Energy K Cal/d	Protein g/d	Visible Fat g/day	Calcium Mg/d
	Lactating (0-6 months)		600	19	30	1200
	6-12 months		520	13	30	
	0-6 months	8.4	92 K cal/kg/d	1.16 g/kg/d	-	500
	6-12 months		80 K cal/kg/d	1.69 g/kg/d	19	
Children	1-3 years	12.9	1060	16.7	27	600
	4-6 years	18	1350	20.1	25	
	7-9 years	25.1	1690	29.5	30	
Boys	10-12 years	34.3	2190	39.9	35	800
Girls	10-12 years	35	2010	40.4	35	800
Boys	13-15 years	47.6	2750	54.3	45	800
Girls	13-15 years	46.6	2330	51.9	40	800
Boys	16-17 years	55.4	3020	61.5	50	800
Girls	16-17 years	52.1	2440	55.5	35	800

Reference: Kerala State Disaster Management Authority

Food security and nutrition assessment standards

Food security and nutrition assessments should enable the qualitative and quantitative estimation of context specific needs, identification of number of people in need, identification of at risk and vulnerable groups in need of specific humanitarian assistance and provide a baseline to monitor the impact of a humanitarian response. In the immediate aftermath of a disaster an initial needs assessment is undertaken within the first 2 to 3 days after the event necessary to begin/initiate the distribution of food aid/ relief. Subsequently a rapid assessment is undertaken within two to three weeks based on primary and secondary data collected based on ground truth verification to design and implement early recovery

interventions, and a detailed needs assessment is undertaken within 3 to 12 months in the case of a prolonged/ cascading/ coupled disaster to ensure the appropriate planning for long term recovery interventions.

Food security assessments need to consider food security situations, livelihood strategies, assets, and coping strategies in pre disaster and post disaster scenarios at the household and individual level. Humanitarian interventions should consider intervention areas to protect and promote livelihoods and income sources to achieve food security. Nutrition assessments pertain to the collection and interpretation of pre and post disaster data sets to establish prevalence rates of acute malnutrition, infant and young child feeding, and other care practices necessary for planning, implementing, and monitoring of nutrition programmes. It is also important to assess the impacts of disasters on markets as they play a crucial role in food security and nutrition in both urban and rural environments/ contexts.

Food security assessments are carried out with the objective to assess the risk, degree, and extent of food insecurity, identify the people in need and plan for appropriate relief and response measures. This process includes data collection and analysis during the various phases of the disaster cycle such as determination of the impact on nutritional status, identification of responses required to save lives, protect, and promote livelihoods, assessment of cooking resources, food storage resources, assessment of cooking fuel and utensils. It is important to additionally focus on the protection needs of women and girls who are most often responsible for fuel wood collection and food preparation. The food security assessments usually include pre-crisis data, environmental degradation indicators, impact of food sources, status of at-risk groups, post disaster coping strategies adopted by the affected population, proxy measures to determine dietary diversity and nutrient intake, market analysis on post disaster commodity pricing, economic disruptions and livelihood impacts, and cost of diet in pre- disaster and post disaster settings.

Table 5: Food security assessment as per Sphere Standards 2018

Key Actions	Indicators
• Collect and analyse information on food security at the initial stage and during the crisis.	• Standardised protocols are used to analyse food security, livelihoods, and coping Strategies
• Analyse the impact of food security on the nutritional status of the affected population.	• Percentage of analytical reports that synthesise findings, including assessment methodology and constraints encountered
• Identify possible responses that can help to save lives and protect and promote livelihoods.	
• Analyse available cooking resources and methods, including the type of stove and fuel and availability of pots and utensils	

Nutrition assessment standards

Nutrition assessment standards are used to identify the type, degree, and extent of undernutrition, those most at risk and the appropriate responses. The components of the assessment require the following

1. The compilation of pre-crisis information and conducting an initial assessment to establish the nature and severity of the nutrition situation.
2. Determining the national, state level and local administrative capacity to lead or support a response and provide an enabling environment to foster nutrition interventions and actors.
3. Undertake among the affected populations a rapid mid upper arm circumference (MUAC) screening and infant and young child feeding in emergencies (IYCF-E) assessments to assess the nutritional situation at the onset of the crisis.
4. Identify groups that have the greatest need for nutritional support. Through primary and secondary sources gather information on the causes of undernutrition, including the community's perceptions and opinions.
5. Engage with communities to identify at-risk groups, paying attention to age, sex, disability, chronic illness, or other factors.
6. Determine an appropriate response based on an understanding of the context and the emergency. Determine whether the situation is stable or declining, reviewing trends in the nutritional status over time rather than the prevalence of malnutrition at a specific time. Consider both prevention and treatment options.

Data sources to identify the underlying causes of undernutrition can be gathered from primary and secondary sources, including health and nutrition profiles, research reports, early warning information, health facility records, food security reports and other sources.

Table 6: Nutrition assessment as per Sphere Standards 2018

Key Actions	Indicators
• Compile pre-crisis information and conduct initial assessments to establish the nature and severity of the nutrition situation.	• Standardised protocols are used to assess malnutrition and identify causes
• Conduct rapid mid upper arm circumference (MUAC) screening and infant and young child feeding in emergencies (IYCF-E) assessments to assess the nutritional situation at the onset of the crisis.	• Percentage of assessment reports that include the assessment methodology and constraints encountered
• Identify groups that have the greatest need for nutritional support.	
• Determine an appropriate response based on an understanding of the context and the emergency.	

Management of malnutrition standards

Moderate acute malnutrition can be prevented and managed through targeted and supplementary feeding programs designed with specific targets and timelines. During such interventions community engagement practices help identify vulnerable individuals and households and ensure inclusive programmatic coverage. The admission and discharge criteria are determined based on nutrition levels and performance of individuals to the nutrition intervention. Programmatic feedback is recorded based on documented reporting criteria i.e., positive, or negative feedback and improvements as a response to the intervention and/or an increase in death rates in severe scenarios. Existing health services and governmental resources are enrolled and linked to address the management of moderate acute and severe acute malnutrition (MAM and SAM).

Table 7: Requirements to address moderate acute malnutrition
as per Sphere Standards, 2018

Key Actions	Indicators
• Establish clearly defined and agreed strategies, objectives and criteria for set-up and closure of interventions from the outset of the programme	<ul style="list-style-type: none"> Percentage of target population that can access dry ration supplementary feeding sites within one day's return walk (including time for treatment) >90 per cent
• Maximise access to coverage of moderate acute malnutrition interventions through community engagement and involvement from the beginning.	<ul style="list-style-type: none"> Percentage of target population that can access on-site programmes within one hour >90 per cent
• Establish admission and discharge protocols, based on nationally and internationally accepted anthropometric criteria.	<ul style="list-style-type: none"> Percentage of moderate acute malnutrition (MAM) cases with access to treatment services (coverage) >50 per cent in rural areas >70 per cent in urban areas >90 per cent in formal camps
• Link the management of moderate acute malnutrition to the management of severe acute malnutrition and to existing health services.	<ul style="list-style-type: none"> The proportion of discharges from targeted supplementary feeding programmes who have died, recovered, or defaulted Died: <3 per cent Recovered: >75 per cent Defaulted: <15 per cent
• Provide take -home dry or suitable ready-to-use supplementary food rations unless there is a clear rationale for on-site feeding.	
• Emphasise protecting, supporting, and promoting breastfeeding, complementary feeding and hygiene.	

Supplementary feeding programs should provide take home dry rations or ready to use nutrition supplements; while on site feeding should be adopted only in required cases based on specific rationale for inclusive coverage and greater effectiveness. Ration kits should be provided once or twice a week based on household composition, size, food security status, and livelihood. Recipients of supplementary nutrition should be provided with adequate information and instructions on how to hygienically prepare, store and consume the food in the context of food safety standards and practices. All interventions for addressing nutrition needs in children/ infants from 6 to 24 months should emphasise protecting, supporting, and promoting breast feeding, complementary feeding, and hygiene. Mothers and households should be sensitised regarding the importance of exclusive breast feeding up to 6 months and continued breast feeding for children from 6 to 24 months as a requirement to aid both physical and psychological health of mother and child. It is necessary to enrol/ admit mothers of acutely malnourished infants under six months to supplementary feeding programs, independent of the mother's nutrition status.

During disasters/ crises/ emergencies malnutrition requires a blanket approach for prevention and treatment. Intervention plans and decisions should be based on levels of acute malnutrition and numbers of affected people; risk of increased morbidity; risk of decreased food security; population displacement and density; capacity to screen and monitor the affected population using anthropometric criteria; and available resources and access to the affected people.

Targeted supplementary feeding generally requires more time and effort to screen and monitor individuals with acute malnutrition, but it also requires fewer specialised food resources. A blanket approach generally requires less staff expertise but more specialised food resources.

Severe acute malnutrition requires specific treatment with clearly defined and agreed strategies, objectives and criteria for set-up and closure of interventions from the start of the programme. Treatment intervention plans should account for adequate staff with capacity, skills, and expertise. In terms of infrastructure, inpatient care, outpatient care, referral and community mobilisation components require consideration for utilization. The nationally and internationally recognised guidelines for management of severe acute malnutrition requires practice.

Table 8: Severe Acute Malnutrition (SAM) management standards as per Sphere Standards 2018

Key Actions	Indicators
• Establish clearly defined and agreed strategies, objectives and criteria for set-up and closure of interventions from the outset of the programme	• Percentage of the target population less than a one day's return walk (including time for treatment) to the programme site >90 per cent of the target population
• Include inpatient care, outpatient care, referral, and community mobilisation components in the management of severe acute malnutrition	• Percentage of severe acute malnutrition (SAM) cases with access to treatment services (coverage) >50 per cent in rural areas >70 per cent in urban areas >90 per cent in a camp
• Provide nutrition and healthcare according to nationally and internationally recognised guidelines for the management of severe acute malnutrition	• Proportion of discharges from therapeutic care who have died, recovered, or defaulted Died: <10 per cent Recovered: >75 per cent Defaulted: <15 per cent
• Establish discharge criteria that include anthropometric and other indices	
• Investigate and act on causes of default and non-response, or an increase in deaths	
• Protect, support, and promote breastfeeding, complementary feeding, hygiene promotion, and good mother and child interaction	

Micronutrient deficiency assessment standards, infant and young child feeding in emergencies standards, food security standards, assessment standards

Micronutrient deficiencies

Micronutrient deficiencies can be corrected based on an assessment of pre-crisis conditions to determine the most common micronutrient deficiency. Interventions require adequate capacity building of front-line health care professionals/ staff to identify and treat micronutrient deficiencies based on established procedures. Interventions need to be linked to ongoing public health responses to reduce diseases commonly associated with crises/ disasters, e.g., zinc to manage diarrhoea. The diagnosis involves clinical, sub clinical and preventive stages based on which appropriate responses are determined.

Table 9: Micronutrient deficiencies standards as per Sphere Standards, 2018

Key Actions	Indicators
• Collect information on the pre -crisis situation to determine the most common micronutrient deficiencies	• There are no cases of scurvy, pellagra, beriberi, or riboflavin deficiency
• Train health staff in identifying and treating micronutrient deficiencies	• Rates of xerophthalmia, anaemia and iodine deficiency are not of public health significance
• Establish procedures to respond to micronutrient deficiency risks	

Infant and Young Child Feeding Standard in Emergencies (IYCF-E)

Policy guidance and coordination measures are undertaken to ensure safe, timely and appropriate infant and young child feeding. During crises/ emergencies, the government is by default the nodal agency and a separate coordination committee for IYCF-E is required to ensure collaboration across sectors and actors considering the standard operating guidelines across actors. If no policy and guidelines exist, it is required for the government to develop and implement the same with appropriate measures for well-coordinated and timely communication across all levels of the administration. The awareness building strategy should include sharing of information to humanitarian organisations, donors, and media for wider dissemination about the IYCF-E policies and practices that are in place. An effective communication strategy should include sharing information with the affected population about available services, good practices, feedback, and grievance redressal mechanisms. Interventions should avoid accepting or soliciting donations of breastmilk substitutes, other liquid/dry milk products, feeding bottles and teats. In case donations arrive, they should be managed by the designated authority (Department of Health and Family Welfare), in accordance with the Operational Guidance and SOPs. The designated nodal authority for health should ensure strict targeting for use, procurement, management, and distribution of breastmilk substitutes. This must be based on needs and risk assessment, data analysis and technical guidance only.

Table 10: Infant and young child feeding standard in Emergencies (IYCF-E) standards as per Sphere Standards 2018

Key Actions	Indicators
• Establish an IYCF-E coordination authority within the crisis coordination mechanism and ensure collaboration across sectors	Percentage of adopted IYCF policies in Emergencies that reflect the Specifications of the Operational Guidance No Code violations reported

Key Actions	Indicators
• Include the specifications of the Operational Guidance in relevant national and humanitarian organisation policy guidance on preparedness	Percentage of Code violations donations of breastmilk substitutes (BMS), liquid milk products, bottles and teats dealt with in a timely manner
• Support strong, harmonised, timely communication on IYCF-E at all response levels	
• Avoid accepting or soliciting donations of breastmilk substitutes, other liquid milk products feeding bottles and teats	

Multi-sectoral support to infant and young child feeding in emergencies should provide mothers and caregivers of infants and young children access to timely and appropriate feeding support that minimises risks, is culturally sensitive and optimises nutrition, health, and survival outcomes. Prioritise pregnant and breastfeeding women for access to food, cash or voucher transfers and other supportive interventions. Interventions should include skilled breastfeeding counselling for pregnant and breast-feeding mothers. The target is to ensure all mothers of new-born children practice exclusive breast feeding for children aged 0–6 months, and continued breastfeeding in children aged six months to two years. If exclusive breast feeding is not practiced, then it should be actively encouraged, and support services should be provided to encourage mothers to transition into exclusive breastfeeding.

Provide appropriate breastmilk substitutes, feeding equipment and associated support to mothers and caregivers whose infants require artificial feeding. Based on safety standards, explore breast milk substitutes in exceptional cases. To address the micronutrient requirements of mothers, provide daily supplements to pregnant and breastfeeding women, including daily requirements of multiple micronutrients to protect maternal stores and breastmilk content, whether the women receive fortified rations or not, continue iron and folic acid supplements.

Table 11: Multi-sectoral support to infant and young child feeding in emergencies standards as per sphere standards, 2018

Key Actions	Indicators
• Prioritise pregnant and breastfeeding women for access to food, cash or voucher transfers and other supportive interventions	• Percentage of breastfeeding mothers who have access to skilled counselling

Key Actions	Indicators
• Provide access to skilled breastfeeding counselling for pregnant and breastfeeding mothers.	• Percentage of caregivers who have access to Code-compliant supplies of appropriate breastmilk substitutes (BMS) and associated support for infants who require artificial feeding
• Target mothers of all new-borns with support for early initiation of exclusive breastfeeding	• Percentage of caregivers who have access to timely, appropriate, nutritionally adequate, and safe complementary foods for children aged 6 to 23 months
• Provide appropriate breastmilk substitutes, feeding equipment and associated support to mothers and caregivers whose infants require artificial feeding	
• Support timely, safe, adequate and appropriate complementary food support	
• Provide feeding support to particularly vulnerable infants and young children	
• Provide micronutrient supplements as Necessary	

General food security- Standards

General food security interventions should be designed to ensure survival, uphold dignity and respect, protect assets, and build resilience. Based on data and ground truth verification interventions should be designed to meet immediate needs and support households to protect, promote and restore food security. This can be designed as direct beneficiary transfers/ cash-based options or ration kits to support individual and collective food baskets. All interventions should develop transition and exit strategies linked with livelihoods-based recovery as early as possible. For successful interventions consider adopting a consultative process with the community, adapt interventions to local palates and deploy a grievance redressal protocol/ help desk for inclusive coverage.

Table 12: General food security standards as per Sphere Standards, 2018

Key Actions	Indicators
Based on food security assessment data, design the response to meet immediate needs, and consider measures to support, protect, promote, and restore food security	• Percentage of targeted households with acceptable Food Consumption Score >35 per cent; if oil and sugar are provided, >42 per cent

Key Actions	Indicators
• Develop transition and exit strategies for all food security programmes as early as possible	• Percentage of targeted households with acceptable Dietary Diversity Score >5 main food groups regularly consumed
• Ensure that people receiving assistance have access to the necessary knowledge, skills, and services to cope and support their livelihoods	• Percentage of targeted households with acceptable Coping Strategy Index
• Protect, preserve, and restore the natural environment from further degradation	• Percentage of people receiving assistance that reports complaints or negative feedback related to their treatment with dignity
• Monitor the level of acceptance of and access to humanitarian food security interventions by different groups and individuals	
• Ensure that people receiving food assistance are consulted on the design of the response and are treated with respect and dignity	

Food assistance standard- General nutrition requirements

Relief interventions pertaining to food assistance should be designed to provide an additional focus on the nutritional requirements of vulnerable groups by ensuring adequate quantity and quality by considering the access to relief and access to market during the rehabilitation and recovery phases. Food and cash-based assistance should meet the standard initial planning requirements for energy, protein, fat, and micronutrients. For example, children aged 6-24 months should have access to complementary foods while pregnant and breastfeeding women should have access to additional nutritional support. Households with chronically ill members, people living with HIV and tuberculosis, older people, sex workers, transgenders and people with disabilities should have access to appropriate nutritious food and adequate nutritional support.

Table 13: General nutrition requirements as per Sphere Standards 2018

Key Actions	Indicators
• Measure the levels of access to adequate quantity and the quality of food	• Prevalence of malnutrition among children <5 years disaggregated by sex, and disaggregated by disability from 24 months

Key Actions	Indicators
• Design food and cash-based assistance to meet the standard initial planning requirements for energy, protein, fat, and micronutrients	• Percentage of targeted households with acceptable Food Consumption Score >35 per cent; if oil and sugar are provided, >42 per cent
• Protect, promote and support affected people's access to nutritious foods and nutritional support	• Percentage of targeted households with acceptable Dietary Diversity Score >5 main food groups regularly consumed
	• Percentage of targeted households that receive the minimum food energy requirements (2,100kCal per person per day) and recommended daily micronutrient intake

Food quality, appropriateness, and acceptability

The interventions should consider foods that conform to the national standards, cultural acceptability of the host government and other internationally/ nationally accepted quality, safety, and packaging standards. Based on the impact of the disaster and the stage of recovery determine the access to water, fuel, stoves, and food storage facilities to ensure the appropriate utilization of ration kits. An assessment of access to milling services for whole grain and transport facilities will also determine the effectiveness of the interventions.

Table 14: Food quality, appropriateness, and acceptability requirements as per Sphere Standards 2018

Key Actions	Indicators
Select foods that conform to the national standards of the host government and other internationally accepted quality standards	Percentage of affected population that report that food provided is of appropriate quality and meets local preferences
Choose appropriate food packaging	Percentage of affected population that report the mechanism to receive food was appropriate
Assess access to water, fuel, stoves, and food storage facilities	Percentage of households that report that received food items were easy to prepare and store
Provide access to adequate milling and processing facilities when whole grain cereal is provided	Percentage of people receiving assistance that report complaints or negative feedback related to food quality
Transport and store food in appropriate conditions	Percentage of food losses reported by the programme

Targeting, distribution and delivery

Food assistance targeting and distribution should be responsive, timely, transparent, inclusive and safe. Identify and target food assistance recipients based on need and consultative processes with all appropriate stakeholders. Further disseminate information regarding criteria for beneficiary selection and identify/ demarcate the recipient and non- recipient populations. This will ensure prior registration of households in need of assistance/relief/ aid, creating mechanisms that are efficient, equitable, secure, safe, accessible, and effective. A participatory approach involving women and men, adolescents and youth will ensure accessibility and acceptability of the intervention within the local community. This approach will have the community support with the distribution, identification of delivery points ensuring safety and security. Planning should ensure that distributions are scheduled considering people's travelling and working time by prioritising at-risk groups. Establishment of an open feedback mechanism with the community before distribution is required to ensure access and inclusion, so that no person in need is left behind.

Table 15: Targeting, distribution and delivery requirements as per Sphere Standards 2018

Key Actions	Indicators
Identify and target food assistance recipients based on need and consultations with appropriate stakeholders	<ul style="list-style-type: none"> •Percentage of inclusion and exclusion targeting errors minimised Target <10 per cent
Design food distribution methods or direct cash/voucher delivery mechanisms that are efficient, equitable, secure, safe, accessible, and effective	<ul style="list-style-type: none"> • Distance from dwellings to final distribution points or markets (in case of vouchers or cash) Target <5 kilometres
Locate distribution and delivery points where they are accessible, safe, and most convenient for the recipients	<ul style="list-style-type: none"> • Percentage of assisted people (disaggregated by sex, age, and disability) who report experiencing safety problems travelling (to and from) and at programme sites
Provide recipients with advance details of the distribution plan and schedule, the quality and quantity of the food ration or the cash or voucher value, and what it is intended to cover	<ul style="list-style-type: none"> • Number of cases reported of sexual exploitation or abuse of power related to distribution or delivery practices

Key Actions	Indicators
	<ul style="list-style-type: none"> • Percentage of cases of sexual exploitation or abuse of power related to distribution or delivery practices that are followed up 100 per cent • Percentage of targeted households that correctly cite their food assistance entitlement <p>Target: >50 per cent of targeted households</p>

Standards on food use

Deals with storage, preparation, and consumption of food at both household and community levels ensuring safety. During crisis/ disasters inappropriate food handling or un- hygienic food handling can lead to health-related issues/ sickness/ illness. Hence it is important to promote and build capacity of good hygiene practices among humanitarian workers and staff to ensure the safety and quality standards are maintained during preparation, storage, transport, handling of food aid/ relief. Monitoring of how food resources are being used at the household level will also ensure that individuals who cannot prepare food or feed themselves have access to caregivers/ volunteers who can support them where possible and appropriate.

Table 16: Standards on food use as per Sphere Standards 2018

Key Actions	Indicators
• Protect people receiving assistance from inappropriate food handling or preparation	• Number of cases reported of health hazards from food distributed
• Consult with and advise people receiving assistance on storage, preparation, cooking and consumption of food	• Percentage of households able to store and prepare food safely
• Ensure that households have safe access to appropriate cooking utensils, fuel, fuel-efficient stoves, clean water, and hygiene materials	• Percentage of targeted households able to describe three or more hygiene awareness messages
• Ensure that individuals who cannot prepare food or feed themselves have access to caregivers who can support them where possible and appropriate	• Percentage of targeted households that report having access to appropriate cooking utensils, fuel, drinking water and hygiene materials
• Monitor how food resources are used within the household	

Livelihood impact assessment standards in the context of relief and recovery measures

Livelihood's standards- Primary production

Livelihoods in disaster/ crisis contexts are dependent on primary production mechanisms which should receive protection and support. This can be done by designing interventions that support agriculturists/ farmers with inputs such as seed, livestock, and fertilizer along with access to water and land restoration in post disaster scenarios. Direct Beneficiary Transfers for cash-based assistance can be initiated to allow the framers/ agriculturists to assess and avail resources that are required to meet specific needs based on seasonality and cropping patterns. Always promote locally available crop varieties, livestock varieties and inputs. Interventions should aim to reduce vulnerability and build adaptability to hazard risks without creating conflict within the affected population and recipients.

Intervention for livelihood recovery should involve affected men and women equitably in planning, decision-making, implementing and monitoring of primary production & recovery interventions. Agriculturists/ farmers/ producers should be further trained in fishery, aquaculture, forestry, and livestock sectors by introducing them to sustainable production and management practices that are climate resilient. Livelihood recovery interventions should access local markets, stimulate demand, and provide market linkages for sale of locally produced crops, vegetables, other agricultural products, and agriculture-based value-added products.

Table 17: Livelihood's standards- primary production requirements as per Sphere Standards 2018

Key Actions	Indicators
Provide access to production inputs and/or assets for farmers	Percentage change in the targeted population's production (food or income source) compared with a normal year
Deliver inputs that are locally acceptable, conform to appropriate quality norms and are on time for best seasonal use	Percentage of households reporting that they have access to adequate storage facilities for their produce
Ensure inputs and services do not increase vulnerability for recipients or create conflict within the community	Percentage of targeted households with improved physical access to functioning markets due to programme interventions
Involve affected men and women equitably in planning, decision -making, implementing and monitoring of primary production responses	

Key Actions	Indicators
Train producers engaged in crop, fishery, aquaculture, forestry and livestock sectors in sustainable production and management practices	
Assess the market and stimulate demand for locally produced crops, vegetables, and other agricultural products.	

Livelihood standards- Income and employment

Livelihood recovery interventions for income and employment require a gender inclusive strategy. This approach will reduce the risk of undernutrition and other public health risks. A balance needs to be maintained to ensure that participation in income-earning opportunities does not undermine childcare or other caring responsibilities. Wages provided to beneficiaries should be determined based on labour rates for community members and government minimum wages for skilled and unskilled labour. Payment should be made directly to the beneficiary through direct beneficiary transfers/ vouchers or rations in case of food for work programs. All payments norms should be determined based on type of work, local rules, objectives for livelihood restoration and prevailing/ approved levels of payment in the region. Welfare schemes and safety nets need to be utilised for unconditional cash and food transfers for households that cannot participate in work/ livelihood recovery programmes.

Programmes should maintain inclusive, safe, and secure working environments and monitor the risk of sexual harassment, discrimination, exploitation, and abuse in the workplace and respond quickly to complaints, with special focus on women. Long term livelihood recovery interventions may consider partnerships with private sector and other stakeholders to create sustainable employment opportunities and provide capital resources equitably to facilitate livelihood recovery. All interventions should be environmentally sensitive while contributing to income generation to individuals and households.

Table 18: Livelihood standard- income and employment requirements as per Sphere Standards 2018

Key Actions	Indicators
• Base decisions regarding income-earning activities on a gender-sensitive market assessment	• Percentage of the target population who improve their net income during a defined period
• Choose types of payment (in-kind, cash, voucher, food, or a combination) based on a participatory analysis	• Percentage of households with access to credit

Key Actions	Indicators
• Base the level of payment on the type of work, local rules, objectives for livelihoods restoration and prevailing approved levels of payment in the region	• Percentage of the target population who diversify their income-generating activities
• Adopt and maintain inclusive, safe, and secure working environments	• Percentage of the target population employed (or self-employed) in sustainable livelihoods activities for a defined period of time (6-12 months)
• Promote partnerships with the private sector and other stakeholders to create sustainable employment opportunities	• Percentage of the affected population with physical and economic access to functioning markets and/or other livelihood support services (formal or informal)
• Choose environmentally sensitive options for income generation wherever possible	

Testing of knowledge- QUIZ

1. List three purposes for implementation of guidelines for adherence to minimum standards on food security and nutrition during disasters.
2. List three provisions of the government of India that enable and mandate access and delivery of food and nutrition relief during disaster/ crisis.
3. What is the minimum calorific value of food/ nutrition per day for adults and children mandated by the Government during disasters, and what is the water requirement?
4. Specify the minimum standards for infant and young child feeding practices in emergencies.
5. List types of malnutrition responses during disasters/ crisis.
6. Name two welfare schemes and safety nets used for ensuring food security and nutrition as part of livelihood recovery in disaster/ crisis contexts.

Brief Recap

1. Humanitarian assistance/ relief/ aid helps meet acute needs, saves lives, alleviates suffering, and maintains and protects human dignity.
2. Resilience of food security and nutrition systems boosts the capacity to absorb, prepare for, and prevent humanitarian disasters, crises, and long-term stresses.
3. Ensure men and women are supplied food with minimum calorific value of 2,400 Kcal per day and 1700 Kcal for of children / infants. A minimum supply of 3 litres per person

per day of drinking water needs to be made available at relief camps and areas where disaster affected populations are located (If other means for providing safe drinking water is not possible at-least double chlorination of water needs to be ensured).

4. Food security assessments are carried out with the objective to assess the risk, degree, and extent of food insecurity, identify the people in need and plan appropriate relief and response measures.
5. Nutrition assessment standards are used to identify the type, degree, and extent of undernutrition, those most at risk and the appropriate responses.
6. Micronutrient deficiencies are addressed with interventions that require adequate capacity building of front-line health care professionals/ staff to identify and treat micronutrient deficiencies based on established procedures.
7. Relief interventions pertaining to food assistance should be designed to provide an additional focus on the nutritional requirements of vulnerable groups by ensuring adequate quantity and quality.
8. Livelihoods in disaster/ crisis contexts are dependent on primary production mechanisms and should receive protection and support.

Case Study Discussion

Integrated Rice Fish Culture (IRFC) for Food Security despite Emergencies,

Regional Centre for Development Cooperation- Kailash Chandra Dash- Coastal Odisha, India

The Integrated Rice Fish Culture Unit for coastal farmers is designed to combine pisciculture with paddy, vegetables, and fruit trees in one acre of land. The unit which is surrounded by a raised bund on which trees are planted protects them from cyclones and flooding. Cyclones and floods impact the food and nutrition security of coastal communities across the coast of Odisha. Coastal populations feed primarily on rice and fish. This adversely impacts paddy fields, fishing, and water quality to reduce resulting in loss of yields and volume of fish catch. IRFC combined rice and fish cultivation with vegetable cultivation, duckery and horticulture trees to develop resilience of food and nutrition systems in emergency contexts. The project worked with farmers and fishermen living in coastal areas of Jagatsinghpur, Kendrapara, and Puri districts in Odisha. Women-headed households were prioritised and among them small farmers with one acre of land were chosen to participate in the pilot. The project helps utilise small land holdings for productive use as, land bunding protects lands from cyclones and inundation, agriculture workers benefit in terms of livelihood and income generation through the MENREGA scheme and local fish vendors find produce to sell. Organic produce particularly receives a good market and adds to their income. Women's complete participation and adoption is a major achievement as part of this effort.

The practice of obtaining fish from inundated paddy fields is an old practice in coastal Odisha. The concept of IRFC is innovative as both rice and fish is produced from one acre of land. The practice of raised bunding on which vegetables, and horticulture trees are planted and a duckery positioned adds synergy and value to enhance productivity, livelihoods, and income. The adoption of indigenous saline and flood-tolerant paddy varieties is rotated to increase productivity and make the model climate and disaster resilient. Vermicompost generated using crop residue built across the bunding provides the necessary fertiliser for the growing of the paddy.

Replicability

This initiative has the potential for replicability and scalability along coastal regions of India that face similar threats from climate change, cyclones, and floods. The yearly maintenance cost is low, and inputs can be easily arranged from the locality or agriculture/horticulture/animal husbandry departments. The local Krishi Vigyan Kendras can also provide knowledge inputs and the entire family can participate in the process.

Successful farmers can turn into community resource persons and help in replication. People desirous of replicating can visit the models and interact with farmers. Constructing a vermicompost unit meets both fertilizer and bio-pesticide needs. Various aspects of the model are fine-tuned by owners such as including flowering and medicinal plants in the planting cycle. Involvement of family members ensures that the farmer can take up other livelihoods and add to the family income.

Source: Ensuring Food and Nutrition Security in Climate Fragilities and Disasters: The 31 Inspiring Practices, 2022, Pg. 41

Exercise: 1. Discuss the minimum standards and indicators for livelihoods-primary productivity in the context of the case study?

2. Does the above case study fall under the category of an income and employment strategy?

3. Under which phase of the disaster management cycle is such an initiative undertaken?

SECTION 4

FOOD SECURITY AND NUTRITION NEED ASSESSMENT

Introduction

Food Security and Nutrition needs assessments are necessary in pre- and post-disaster/ crisis/ emergency situations to plan and implement evidence-based vulnerability and risk reduction measures, deploy necessary resource requirements to meet relief and recovery requirements of individuals and affected populations/ people in need with respect to food and nutrition requirements. Assessments are undertaken when there are observable changes in living conditions and geography that could lead to food insecurity. For Example: Extreme climate/ weather events, such as floods, droughts, cyclones, or other man- made hazards such as conflicts, war, pandemics etc.

Food Security and Nutrition assessments provide evidence and create information for decision making to design context specific programmatic interventions based on facts pertaining to affected communities/households/ individuals, reasons/ causes for hazard risk and vulnerability, existing resource availability to address the needs, and design specific measures for mitigation and recovery interventions. Assessments should be need based i.e., to identify necessary information gaps and address them based on evidence, use available governmental and non- governmental resources, and communication networks, technologies to collect data, work strategically with prior consideration of the political and security context, and deploy the assessment in a specified timeline.

Objective (s):

1. Enable government departments and stakeholders to understand the elements, method and need for food security and nutrition assessments
2. Understand the guidelines and tools to conduct context specific food security and nutrition assessments

3. Understand the importance of secondary data and primary data to ensure robust assessments
4. Utilization of data, analysis and reporting for design and implementation of food security and nutrition response.

Expected Time Duration- 90 minutes

Session Outline

1. Food Security and Nutrition Assessment- Need and Preparation
2. Food Security and Nutrition Assessment- Secondary review and analysis
3. Primary data collection methods and tools
4. Enable utilization of data analysis and reporting

Expected learning outcome:

1. Capacity to design and implement context specific Food Security and Nutrition Assessments
2. Identification and utilization of secondary data sources to determine need for Food Security and Nutrition assessment and response efforts
3. Deploy appropriate primary data collection tools and techniques necessary for assessments
4. Utilization of analysis and reporting for implementation of food security and nutrition interventions

Notes for the facilitator:

1. Revise the definition of Food Security and Nutrition. Contextualise the same in the context of disaster/ crisis/ emergency/ situations. Based on the minimum standards of food security and nutrition introduce the need for conducting a Food Security and Nutrition Assessment and follow through with the preparatory steps required to conceptualise, plan, and deploy a Food Security and Nutrition Assessment.
2. Introduce the phases of assessment and describe the need for a Comprehensive Food Security & Vulnerability Assessment (CFSVA). Now share the details required to be considered as part of preparation for the assessment, secondary and primary data collection.
3. Based on identification of information required for the assessment of food security and nutrition share the available primary data collection tools and the context in which they need to be used along with the method. Use the Annexures and take disaster/ crisis/ emergency specific examples to illustrate the contextualisation of primary data needed

based on available secondary information. Also share the purpose of analysis and report writing to address food and nutrition requirements of people in need.

4. Discuss the details of use of different tools and methods based on the purpose of assessment.

Food Security and Nutrition Assessment- Need and Preparation

Food Security and Nutrition assessments require dedicated time, planning and resource allocation. Such assessments can be undertaken as independent exercises or even as part of Multi- Sectoral Joint Rapid Needs Assessments or Post Disaster Needs Assessments as may be required and decided by governmental stakeholders to ascertain the need of people affected by disasters/ crisis/ emergencies to implement relief and response efforts. Assessments include secondary data analysis, primary data collection through field work and subsequent data processing, analysis, and reporting. Assessments are a prerequisite to design and implement evidence/ need based effective relief and response interventions that address the needs of food and nutrition in the affected population.

Preparation for a Food and Nutrition Security Assessment will require discussion and agreement on some of the criteria listed below by involving all stakeholders

- (a) Information Needed:** 1. Specific evidence and level of accuracy required? 2. What is the nature of data and information available, what are the data gaps, details/ nature of data required to be collected to determine specific needs in the context of the disaster/ crisis/ emergency?

For example, in the context of drought- you may have secondary information, but it is outdated and does not reflect recent changes in the affected areas. You then need to update it by collecting primary data focusing on households affected by drought and conduct a Food Security and Nutrition Assessment. But if the secondary data is still valid from a recent survey/monitoring report and you can use satellite images to estimate impact of drought on crop performances comparing data of previous/normal years. Immediate food and nutrition security assessments may not be required but some qualitative data from the field on coping strategies etc could be collected to verify and refine the existing estimates.

- (b) Security Risks/ political background/ conflict awareness/ cultural sensitivities in data collection:** Can the teams be deployed to the field to collect information. For example, in context of conflicts where security concerns are high. The immediate aftermath of floods for example is a typical case-in point where field data collection is not possible. In such cases, if a field survey is essential, remote data collection techniques will need to be implemented or estimated by analysing secondary data such

as population numbers, government monitoring data, satellite images, partner reports etc based on the availability. In any case, it is important to take all the necessary precautionary measures to ensure the safety of your team.

- (c) Resources:** Do you have enough resources to conduct assessment in terms of budget, staffing and logistics requirements? If yes, determine the allocation, reporting and monitoring standard operating procedures. If no, create avenues using existing government resources available under the disaster/ crisis/ emergency management budget heads and flexi-funds of relevant administrative authorities to enable the assessment. Availability of resources will guide the decision regarding- a household survey using representative sample or other less detailed exercises with small sample sizes, by prioritizing only worst affected areas, or use qualitative tools such as focus group discussions and key informant interviews to understand and ascertain the key food security concerns.

Phases of Assessment

The assessment process will depend on the type of disaster/crisis/ emergency, its scale and urgency of needs and the existing capacities of the national, state, and local governments to deploy resources to address the needs. During rapid on-set emergencies, assessments will normally be undertaken in phases as shown below.

1. Preliminary enquiries (1-3 days). For Example UN- World Food Programme has developed a rapid assessment tool-The 72 hour approach
2. Initial rapid assessment (3-7 days) leading to limited immediate response
3. Rapid Emergency Food Security Assessment (Rapid EFSA- 3-4 weeks)
4. In-depth EFSA 3-6 months

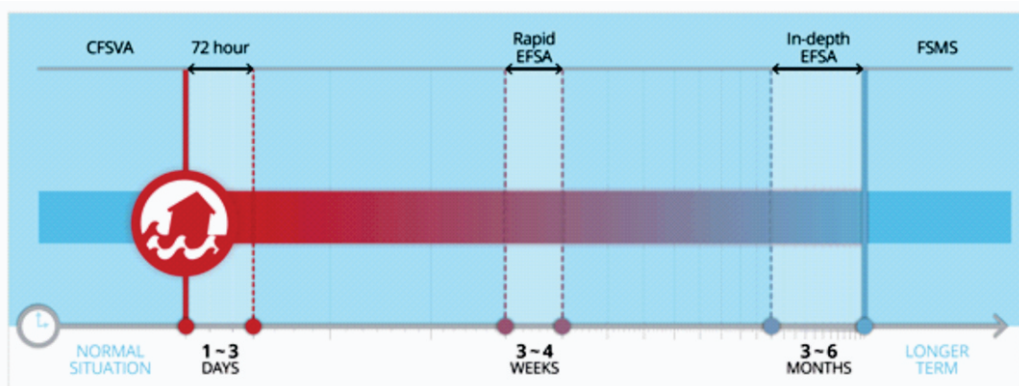


Figure 6: Phases of Food Security and Nutrition Assessment

A Comprehensive Food Security & Vulnerability Assessment (CFSVA) is undertaken as a preparedness measure, specifically in geographies at risk of slow onset disasters. A Food Security Monitoring System (FSMS) if developed provides ongoing data and updates on the food security situation- if it exists in the country. In India, no such assessment comprehensively provides the information on food security and nutrition on the ongoing basis, however the monitoring data from the safety-nets schemes such as Targeted Public Distribution System, Integrated Child Development Services (ICDS)/Poshan Abhiyan, PM-POSHAN and data from department of Agriculture can provide good insights.

Listed below are some tools to conduct such assessments, which need to be contextualized and customized based on the country/local context developed by UN- World Food Programme

Addition reading resources

- [Comprehensive Food Security & Vulnerability Analysis \(CFSVA\) - Comprehensive Food Security & Vulnerability Analysis \(CFSVA\) Guidelines - First Edition, 2009 | World Food Programme \(wfp.org\)](#)
- [Emergency Food Security Assessment \(EFSA\) - Emergency Food Security Assessment Handbook \(EFSA\) - Second Edition, 2009 | World Food Programme \(wfp.org\)](#)
- [Food Security Monitoring System \(FSMS\) - Food Security Monitoring Systems \(FSMS\) - Technical Guidance Sheet | World Food Programme \(wfp.org\)](#)

Some more references can be obtained from following links

- [Joint Approach for Nutrition and Food Security Assessments \(JANFSA\) - technical Guidance for the Joint Approach to Nutrition and Food Security Assessment \(JANFSA\) | World Food Programme \(wfp.org\)](#)
- [Essential Needs Assessment](#) - <https://docs.wfp.org/api/documents/WFP-0000074197/download/>
- [Crop and Food Security Assessment Mission \(CFSAM\) - FAO/WFP Joint Guidelines for Crop and Food Security Assessment Missions \(CFSAMs\), 2009 | World Food Programme](#)

Preparation for conducting Food Security and Nutrition Assessment

Step 1: Preparatory phase

Food and Nutrition Assessments require defining clear objectives, enrolment of an assessment team, defining the roles and responsibilities of the assessment team members, experts, and stakeholders. Based on the terms of reference for the assessment, and a preliminary investigation of stakeholder resources and available budget, along with a secondary hazard risk and vulnerability analysis, a Standard Operating Procedure for the

assessment is formulated. The assessment team should have the capacity to communicate effectively in the local language or enrol a local language translator to help interact with the affected community. The assessment team should discuss the assessment plan with the state/ district/ local administrative authorities, seek necessary permissions to undertake the assessment and coordinate with relevant line departments for necessary support. The logistics and equipment's required for the assessment should be mobilised, which includes transportation and travel plans, equipment, material required [for example for anthropometric surveys required weighing scales, MUAC tapes].

Food Security and Nutrition Assessment- Secondary review and analysis

Step 2: Secondary Information Collection

Secondary information comes in two categories- Information collected prior to a disaster/ crisis/ emergency and information collected in response to a disaster/ crisis/ emergency but prior to an assessment. The first category can include data from sources such as Census, National Family Health Survey, National Sample Survey (NSS) and other national, state, and local data sources. Some information from existing monitoring systems of the relevant government departments can also be considered. For the second category, it is important to clarify the context of the affected area/ location/ geography as there is rarely specific baseline information on key indicators. This process will also require identification of information/ data gaps and what information is required to be collected to assess the food and nutrition requirements of the affected populations. This will help determine the cost of the primary data collection process. If other sectoral needs assessments are available the same may be used to gain insight into the food security and nutrition interventions required (E.g., JRNA, MS-JDNA, PDNA).

Primary data collection methods and tools

Step 3: Primary Information Collection

Primary information collection with the required accuracy and scientific rigour is essential for determining the level of food insecurity, nutrition requirements based on vulnerability. Accurate analysis is possible only when data integrity is ensured. Primary data collection is a complex process and requires expertise and appropriate tools and techniques. The primary data when interpreted in the context of secondary data collected will provide greater accuracy in analysis that will help determine the need and contribute to designing appropriate relief and response measures. It involves information to be collected directly from the affected areas and communities before, during or after the crisis. For initial emergency food security assessment, a large community based quantitative sample survey is not recommended. Whereas, it is recommended, based on availability of resources to conduct a comprehensive

food security and nutrition assessment, especially if the area is prone to frequent disasters. The process of primary data collection should focus on 1. Identification of data collection sites and persons to speak with, 2. Details of information required, 3. Tools, techniques and approaches required for data collection.

1. Identification of data collection sites and sample population

In most disaster situations it is not possible to ensure extensive data collection hence it is important to choose a representative sample size from the affected areas to get a fair reflection of the situation and needs. The different areas, the sites for visits/survey must be selected carefully to provide a representation of all heterogeneities based on available secondary information. Following steps are necessary to determine the area to be covered for assessment.

1. Define the total area affected [for example in case of a cyclone or floods, the satellite trajectories and images will show which areas are affected and which have been severely impacted. Information from Government and media could also be helpful.
2. Map the existing information on livelihoods, type, and proportion of populations such as high concentration of tribal population, vulnerable groups migrants, levels of poverty etc. in the area from the secondary sources such as census, NSS and NFHS/Periodic Labour Force Survey
3. List the affected areas in order of priority considering probable severity of the effect on household food security and estimated number of people affected.
4. Arrange assessment visits in all affected areas as quickly as possible. [If time and resources are limited and visits to all areas is not possible, then exclude those with similar characteristics.]
5. For Internally Displaced Populations/refugee camps/or migrant sites it is important to list sites where people have congregated or live in high concentration and particularly the condition is bad. If the condition across such sites varies significantly then these could be categorized based on certain parameters and a representative number of camps/sites selected to represent each category. These are then arranged in order of priority and visits for assessments are organized as quickly as possible.
6. It is important to note that localities/sites/camps that are reported to be facing a particularly severe food situation may be visited first to initiate immediate lifesaving action, if needed. However, this should not be considered as indicative of the situation and other localities must be covered.

2. Details of information required

The gaps in the available secondary data will help identify the information required to be

collected at the district, block, panchayat, and village levels. In the context of disasters collect information on effects of disasters/crisis on the ability of different groups to access and prepare food, access, and use cooking fuel, stress observed in terms of food habits, nutritional status and deficiencies. Also document the impact on food stocks, standing crops, livestock and other livelihood groups, effect on food markets, employment opportunities, coping strategies by different groups, assistance by government or other agencies- its adequacy and expected duration, existence of social safety-nets and their disaster responsiveness, community level coping mechanisms etc. Also seek information on evolution of the potential situations to plan for enrolment of local resources, programmes, capacities, potential for food purchase, suitable warehouses, transportation facilities, type of food habits along with items available and consumed. Key informants at district level will include district collector, district officers of department of Agriculture, Food and Civil Supplies, Rural Development, Women and Child Development, School Education, Health, Water and Sanitation, roads, transport, Statistics and most importantly Disaster Management Authorities; and Staff of NGOs actively working in the affected areas and specifically responding to crisis needs, leaders and members of local associations of women, traders, transporters, agriculture cooperatives, representation from the affected communities etc.

At community/ward/ village/ camp level, detailed information on situation of the affected population at a particular location visited should be collected. The enquiry should be guided by the secondary analysis and information gathered at district level. This information should ideally consist of total population/number of households (understanding the local definition of household), means of livelihoods/social status, characteristics of each sub-group, general impact of crisis on different sub-groups and on men, women and children, specific data on current rates of malnutrition, mortality rates for under 5 children and prevalence of communicable diseases, specific concerns of women and children- care and feeding practices of infants and young children, information on marginalised groups, people with disability and other vulnerable groups. The key informants at the community level will include members of Panchayat/Sarpanch, ward members, women leaders and other community religious leaders, social workers, health workers, Anganwadi workers, ASHAs, ANMs, Agriculture extension workers. The methods and tools for data collection used could be observations/transect walk/community map/ Participatory Rural Appraisal along with focused and community group discussions.

At the household level, based on the availability of time and feasibility, a reasonably representative sample of households within the community is needed to seek information and cross check information collected through focus group discussions. Seek and verify information regarding the household's present food stock, food consumed last week/month/actual quantities of most important items consumed, diversity in the diet,

sources of food, households' ability to acquire, prepare food, effects on production/income/purchasing power and expenditures, coping strategies adopted, long and short-term effects, expected evolution of the situation in the coming weeks/months. The households for collecting the information are identified by each differentiated focused group as being typical of the subgroup and come from different part and sub-groups of the village/ward.

3. Primary data collection- Tools and Methods

The recommended tools and methods used for primary data collection on food security and nutrition requirements in disasters/ crisis/ emergencies include

Method	Description
Household surveys	Household representatives are interviewed using questionnaires or semi-structured interview checklists.
Community group discussions	A mixed group of community members is interviewed with specific need-based queries.
Focus group discussions	A group of people sharing at least one common characteristic is interviewed. E.g., Pregnant and Lactating mothers, Persons with Disabilities.
Key informant interviews	Individuals with good knowledge of aspects of the community or the present emergency are interviewed.
Observation	Visible and significant aspects of the affected area are noted.

Each of the above approaches needs to be adapted to collect specific types of information. Using more than one tool will help improve the quality of data and address the information gaps observed from the usage of tools also helping with the triangulation of information with a focus on methodological rigour. Four of these five approaches to primary data collection are based on interviews or discussions. These can be conducted in a variety of ways, ranging from highly structured questionnaire approaches, through semi-structured interviews, to open-ended conversations. Usually, assessments in disaster/ crisis/ emergency contexts use household-level surveys in the form of questionnaires and semi-structured interviews.

As a predefined sample size is selected based on the nature and magnitude of the event, the questionnaires and semi- structured interviews are administered using random or purposive sampling. Standardised questionnaire surveys are most useful when there is good knowledge about the population size and location, and good physical access. Under favourable data collection circumstances statistical analysis is performed on data collected and coded in a

standardised format. Less structured household surveys are useful when access is limited, knowledge of the population is poor, or the required information is sensitive. In such cases, a purposive sampling approach and checklists are generally used, with less emphasis on statistical analysis. In some cases, households are interviewed outside the formal household survey. This occurs frequently during initial or rapid assessments, when the depth of the information is more important than its statistical representation. Household-level interviews and questionnaires can also be administered using mobile survey applications Examples: 1. Kobo collect where issues of physical access, security and cultural and political restrictions are observed. 2. Mobile Vulnerability Analysis and Mapping, or mVAM, is an evolving and expanding programme of the World Food Programme (WFP) that leverages cell phone technologies to conduct high-frequency data collection and monitoring. Computer-Assisted Personal Interviews (CAPI) is a face-to-face data collection method in which the interviewer uses a tablet, mobile phone, or a computer to record answers given during the interview.

Community Group Discussions

Community group discussions are conducted when time is limited, this tool consists of a group of individuals from mixed backgrounds, genders, and ages. Community group discussions generally take place in the following circumstances:

- A discussion is organized soon after the assessors arrive at a location, as an entry point.
- A selected cross-section of the community takes part.
- A discussion occurs spontaneously when assessors are talking to an individual or small group and other people join in. Such groups can become quite large.

It is necessary to prepare for community group discussions with questions/ areas of enquiry as they will occur and are required for the assessment of Emergency Food Security and Nutrition requirements.

Community group discussions should aim at garnering information on a wide variety of issues rather than focusing on in-depth inquiry into one issue/ sector. A detailed understanding of specific issues pertaining to particular sub-sections of the population can be addressed in more depth during focus group discussions and individual interviews. The information that can be gathered from a community group discussion includes:

- Understanding the overall situation within the community and the impact of the emergency faced by various sections of the community.
- Livelihoods of the population and effects of the disaster/ crisis on livelihoods,
- Identification of affected populations and groups along with their board/ general needs
- Insight into the status of services and infrastructure, such as health, education, markets, water installations, roads and other context-specific issues.

Interviewers should be alert to new information. Community groups are excellent opportunities for uncovering information that can be probed later during key informant and focus group discussions.

Community groups can be difficult to manage, as they often become large very quickly. Many people may want to speak, causing a chaotic atmosphere. Interviewers should try to maintain good humour and explain that people have to speak one by one. They should encourage the quieter people to contribute, without insisting if somebody does not want to talk. If the conversation gets out of control, with too many people talking, arguments breaking out, etc., the interviewers should thank all the participants and close the discussion.

Focus Group Discussions

A focus group consists of people who have attributes in common, and who can provide information about the topic or subject that is the focus of discussion. Focus groups are extremely useful for obtaining detailed information about a topic. For Example: Access to food security and nutrition benefits to children in disaster/ crisis/ emergency. They are also very useful to complement a household survey because they can provide information about sensitive subjects that are not easily addressed in a questionnaire survey, and they can be used for triangulation and cross-checking of information. For Example: Exclusive of breastfeeding practices and hygiene.

When talking to a group of no more than ten people (ideally 6-8 people), the opinions expressed by one person can be cross-checked immediately with the other members of the group. The group dynamics often result in more lively debates than would be achieved during individual interviews. There should not be significant power differentials among group members, as this often results in influential people dominating the discussion. Examples of focus groups include:

1. Farmers who use similar agricultural systems and have similar assets, such as the area of land cultivated.
2. Traders who work with similar commodities and have similar turnovers.
3. Mothers and caregivers, who have primary responsibility for childcare and food preparation in many societies; these are issues of crucial interest to Emergency Food Security and Nutrition assessments.

In societies where women are less powerful or less educated than men, or where women exercise influence out of the public arena, it is advisable to talk to them separately. Focus groups are selected according to the type of information that is sought, and the nature of the emergency.

Key Informant Interviews

Key informants are people with specialised knowledge and in-depth understanding about certain aspects of the affected area, the population, or the emergency. They should be consulted in all emergency food security and nutrition assessments. Anyone who might have an interesting perspective and knowledge about the situation can be interviewed as a key informant. The assessment team should always look out for such people during assessment planning and implementation. The selection of key informants depends on the context and the information requirements. For example: If the crisis is caused by drought, key informants might include farmers, agricultural extension officers, community leaders and market traders. There are no set rules for selecting key informants or the number to interview during the assessment, but it should be guided by the required information and objectives of the survey.

Observations

Observation is an important tool in allowing a great deal of information to be assimilated quickly. It can also guide which information to collect. For example, if flood damage or adverse road conditions are observed on the way to the assessment area, these would be obvious subjects for enquiry. Observations must be used with caution, however; a factor with a strong visual impact may assume undue weight. For example, flood damage to homes and roads may be limited to a specific location with no implications for other areas. Observation can take several forms. Some of the most useful approaches are described in the following sections.

Measuring Malnutrition

Nutritional status data must be gathered using proper assessment methods and sampling techniques, otherwise it provides misleading results. For rapid assessment, it is best to use the information from secondary reliable sources (Comprehensive National Nutritional Survey, National Family Health Survey etc).

Weight-for-height: WFP recommends weight-for-height- an indicator of acute malnutrition as a preferred method in emergencies for surveys to assess the population's nutritional status and for selecting children for special selective feeding. Measured weight and height (or length for children <2 years or <85cm) are compared with reference values in standard tables. The comparison is expressed as a percentage of the reference value or in terms of a standard deviation (SD) score (referred to as Z-score)¹⁰. It is recommended to use software such as Anthro or EPI-Info for analysis of the data. Data collection for measuring weight for height requires reliable scales to measure and trained staff.

¹⁰The SD Score (Z score) is defined as: [(observed value) - (median value)]/SD of reference population

Mid-Upper-Arm-Circumference (MUAC)

MUAC is a less reliable alternative for rapid assessment surveys and screening of children 6 months to 5 years of age if weight and height measurements are not possible. Equipment: MUAC insertion tapes to measure arm circumference and, for MUAC-for-height, a MUAC-calibrated stick (a 'QUAC' stick). The detailed process can be accessed at:

MUAC measurement: <https://www.unicef.org/supply/media/4001/file/%20MUAC-tape-child-specification-May2020.pdf>

<http://www.youtube.com/watch?v=3pQUtOsjiSY>

Body Mass Index (BMI): This index is used for adults (>18 years). This essentially requires weighing scales, a height board and trained staff.

$BMI = (\text{weight in Kg}) / (\text{height in meters})^2$

Table 19: Classification of malnutrition

CLASSIFICATION OF MALNUTRITION			
	MILD MALNUTRITION	MODERATE MALNUTRITION	SEVERE MALNUTRITION
Weight - for - height	80 - 89% (-1 to- 2 SD)	70 - 79% (< - 2 to- 3 SD)	<70% (< - 3 SD)
MUAC	12.5 to 13.5cm	12.0 to 12.5cm	<12.0cm
MUAC - for - height	..	< - 2 SD	< - 3 SD
BMI	17 to <18.5	16 to 17	<16

Additional reading

https://www.unscn.org/web/archives_resources/html/resource_000674.html

<https://reliefweb.int/sites/reliefweb.int/files/resources/1DDB64518AD4C6D4C1256C7C0039EF61-wfp-pocketbook-jul02.pdf>

Utilization of data analysis and reporting

The effectiveness of Food Security and Nutrition Assessments in disaster contexts require time bound analysis, reporting and decision making for implementation of relief and response measures. The assessment analysis should synthesise and identify:

1. Groups of people affected by the disaster and the reasons for impact, are the hazard risks caused due to rapid or slow onset disasters (natural and manmade) and the estimated duration of the impact being observed (in days/ months or seasonal).
2. Causes of the problem (including an analysis of the political, economic, social, institutional, security (conflict where appropriate) and environmental conditions or manmade/ natural disaster-related causes.
3. Data and information gaps observed and required for future data collection.
4. In the context of emerging food security and nutrition requirements develop scenario-based plans to meet requirements.
5. Identify possible response options and interventions for specific target groups based on vulnerability to hazard risks.
6. List clear processes and impact indicators with a plan for these to be monitored regularly.

Report writing and dissemination of assessment results requires the dissemination of a summary report with key findings within a few days of completing the assessment while the information is still fresh in the team's mind. All reports should be clearly written highlighting the information that readers need the most. It should be clear and concise, avoiding language that could be ambiguous or misunderstood such as jargon and the excessive use of acronyms. Ideally, the findings should also be shared with all those involved in the fieldwork including the assessed community and local authorities (time permitting). The Food Security and Nutrition Assessment report should form the basis for mobilisation of resources to address response and relief requirements.

Testing of knowledge- Assessment

1. Describe the steps and methods to undertake a food security and nutrition assessment in case of floods to address the needs of vulnerable groups (women, children, elderly, people with disability) to provide immediate relief for 30 days.

Brief Recap

1. Food Security and Nutrition assessments create information for decision making to design context specific programmatic interventions based on facts pertaining to affected communities/households/ individuals, reasons/ causes for hazard risk and

vulnerability, existing resource availability to address the needs, and design specific measures for mitigation and recovery interventions.

2. Food and Nutrition Assessments require defining clear objectives, enrolment of an assessment team, defining the roles and responsibilities of the assessment team members, experts, and stakeholders. Based on the terms of reference for the assessment, and a preliminary investigation of stakeholder resources and available budget, along with a secondary hazard risk and vulnerability analysis a Standard Operating Procedure for the assessment is formulated.
3. Secondary information comes in two categories- Information collected prior to a disaster/ crisis/ emergency and information collected in response to a disaster/ crisis/ emergency but prior to an assessment. The first category can include data from sources such as Census, National Family Health Survey, National Sample Survey (NSS) rounds and other national, state, and local data sources. Some information from existing monitoring systems of the relevant government departments can also be considered.
4. At the community/ward/ village/ camp level, detailed information on the situation of the affected population at a particular location visited should be collected. The enquiry should be guided by the secondary analysis and information gathered at the district level.
5. The recommended tools and methods used for primary data collection on food security and nutrition requirements in disasters/ crisis/ emergencies include Household surveys, Community group discussions, Focus group discussions, Key informant interviews, and Observation.
6. The effectiveness of Food Security and Nutrition Assessments in disaster contexts requires time-bound analysis, reporting and decision-making for the implementation of appropriate relief and response measures.

SECTION 5

FOOD SECURITY AND NUTRITION RESPONSE

Introduction

Food Security and Nutrition relief and response measures in disaster situations depend on the accurate and timely availability of assessments/ situation reports. Details of the needs of the affected population, existing safety nets and welfare schemes that are available, being implemented and their coverage, and information about relief and response activities undertaken by non-government organisations and other stakeholders form the crucial part of meeting, food, and nutrition requirements.

In the context of India, the large-scale coverage of food and nutrition requirements is provided by Governmental Safety Nets and Welfare Schemes such as the Targeted Public Distribution System, Integrated Child Development Services and PM POSHAN scheme (erstwhile Mid-day Meal scheme) etc which provides direct food support and Disaster Management Financial Provisions that are utilised to address relief requirements. Other schemes also provide support to improved incomes and livelihoods, thereby facilitating food access E.g., MGNREGA, NRLM, SRLM and some state-specific schemes. In disaster/ crisis/ emergency situations, additional resources are required to be mobilised to ensure food assistance by activating governmental mechanisms and resources available under the Disaster Management Act 2005. Existing safety nets and welfare schemes in such situations need to be aligned with disaster relief and response requirements and mechanisms. Similarly, resources available with non government stakeholders need to be coordinated, aggregated, and deployed to supplement governmental efforts towards timely relief and recovery interventions to address the needs of the affected populations.

Objectives

1. To enable participants to formulate, implement and co-ordinate a food security and nutrition response strategy in disaster/ crisis/ emergency situations.

2. To understand the food security and nutrition requirements based on needs and implementing contextualized relief and response measures.
3. Utilization of governmental schemes, their disaster responsiveness, and resources to address food and nutrition requirements of vulnerable populations, children, pregnant women, elderly, people with disability.

Expected Time Duration- 120 mins

Session Outline

1. Existing governmental schemes and welfare measures/ safety nets for Food Security and Nutrition
2. Design and Strategy, and Critical Components for food security and nutrition
3. Design and Implementation of food baskets in disasters/ crisis/ emergency contexts
4. Specific needs of vulnerable populations, children, pregnant women

Expected learning outcomes

1. Capacity to plan context specific strategies for food and nutrition assistance in emergencies and protracted relief/recovery operations to address needs of the affected population.
2. Capacity to formulate and implement a food assistance strategy and a detailed operational plan based on understanding how existing safety nets and governmental resources and systems can be utilised during emergencies.
3. Mobilisation of governmental resources supplemented by non- governmental stakeholder resources to implement food assistance with capacities for distribution delivery and monitoring.

Notes for the facilitator

1. Introduce the right to food security and nutrition as mandated under the provisions of the National Food Security Act, (NFSA) 2013, describe the enabling safety nets (food commodities available within the same), responsibilities for ensuring coverage and access to entitlements. Contextualise the importance of activating existing welfare schemes to ensure food security and nutrition to address the needs of disaster affected populations.
2. Describe the various types of food and nutrition security interventions and contextualise them to build capacity on designing and planning for relief and recovery interventions by leveraging governmental resources supported by non- governmental stakeholders as and when required.

3. Describe the types of food and nutrition interventions that can be utilised for relief and response interventions in the context of disasters. Explain the available governmental resources that can be leveraged (Safety nets and welfare schemes) and provide examples of how non- governmental stakeholder interventions can be aligned to fulfil needs of the affected populations. In the context of limited resource availability and time bound interventions describe the need and elements of targeting, contextualise intervention plans with existing disaster management mechanisms.
4. Explain the need for selection of food baskets based on local food habits. Explain the basic components to be ensured while designing a food basket to ensure nutritional requirement are met. Explain the need for continuation of existing schemes (ICDS, Mid-Day Meal) to ensure access to vulnerable groups as part of supplementary feeding interventions. Further discuss the special needs of pregnant and lactating mothers/children, IYCF- infant and young child feeding practices, care of sick and malnourished children and the concept of nutrition rehabilitation centres in emergencies.
5. Introduce the checklist for operational planning of relief interventions. Describe the key objectives and strategies that require consideration by government for implementation of food relief and recovery interventions. List the internal systems and capacities that need to be mobilised for effective coordination of food and nutrition interventions.
6. Describe the key considerations for implementation and distribution of food relief eliciting a few examples from the participants. Explain the sphere standards for distribution and along with the advantages and disadvantages in choosing number of distribution sites. Contextualise when to use monthly or bi-monthly distributions v/s more frequent distribution cycles. Detail the important considerations for management of distribution efforts along with the need for important consideration for inclusive coverage at the last mile.

Context

Food Security and Nutrition responses require planning and implementation of interventions in all phases of the disaster cycle. Preventing malnutrition requires provisions that enable access to nutritious food and a safe and healthy environment. The preparedness phase involves strengthening of existing systems and strategies by leveraging pre-identified governmental resources (man and material), identification of governmental schemes and welfare measures, and activation of policies and programmes that will ensure the scalability of emergency response interventions. The monitoring of nutrition information at the national and state level can provide information for decision-making in all phases of the disaster cycle. Identification of risks and vulnerabilities of the disaster-affected populations can help in the

coordination and deployment of food and nutrition assistance.

During the relief and response phases, emergency food and nutrition assistance is provided based on needs assessment and coordination with multiple stakeholders to address needs based on the vulnerability of the affected population. The priorities are to prevent hunger, malnutrition, provide supplementary food, vitamins and minerals, support and promote breastfeeding, provision for WASH and Health Care requirements.

The recovery and resilience phases require the establishment of monitoring and surveillance mechanisms to ascertain long-term food and nutrition requirements by implementing resilience-building interventions and advocating change through mobilisation, coordination, knowledge sharing, technical support, quality audits and data for decision-making benefiting the affected population.

Existing Governmental Provisions and Welfare Schemes for Food Security and Nutrition

The Government of India has implemented well-planned mechanisms and ensured adequate resource allocation under existing safety nets and welfare schemes to address the food and nutrition needs of the population. During disasters/crises/ emergencies it is important and necessary to leverage existing governmental provisions to address the needs of the affected population and vulnerable groups to deliver timely relief and aid in early recovery. It is also imperative to develop capacity, create infrastructure and allocate resources (man and material) to ensure the functioning of existing mechanisms pertaining to logistics, supply chain and distribution of food in a targeted and inclusive manner. Some of the existing governmental provisions are listed below for understanding, activation and leveraging in disaster contexts.

The National Food Security Act, (NFSA) 2013 forms the foundation to ensure access and entitlement to food at the individual and household level focussed on vulnerable households. This is operationalised by addressing the right to food security requirements through the Public Distribution System and the Targeted Public Distribution System. The Act provides entitlement and coverage to 75% of the rural population and 50% of the urban population to access and secure subsidized food grains from the Targeted Public Distribution System. This covers two third of the population i.e., about 81 crores. The provisions of the Act are designed for women empowerment where the eldest woman of the household of age 18 years or above is mandated to be the identified as the head of the household for issuance of the ration card. The Act also enables the provision for pregnant women and lactating mothers, and children in the age group of 6 months to 14 years of age to receive a nutritious meal at no cost through the Integrated Child Development Services (ICDS) centres/ Anganwadi Centres operationalised under the ICDS scheme and through schools under the PM POSHAN scheme (erstwhile Mid-day Meal scheme). Specific nutrition norms to address needs of malnourished

children up to 6 years of age have also been considered. Pregnant women and lactating mothers are further entitled to receive cash based maternity benefits of not less than Rs. 6,000 to partly compensate for the wage loss during the period of pregnancy and to supplement nutrition under Pradhan Mantri Matru Vandana Yojana (PMMVY). In case of non-supply of food grains and meals to entitled benefices, the Food Security Allowance Rules, 2015 mandates the state government to provide a food security allowance as per central government norms.

The **responsibilities** mandated by the NFSA are jointly distributed between Centre and State/UT governments. The central government is responsible for allocation of food grains to the states/UT, transportation of food grains to designated depots in states/ UTs and financial assistance for delivery of food grains from designated FCI godowns to the fair price shops (FPS). The state/ UT governments are responsible for identification of households based on eligibility, issuance of ration cards, distribution of food grains based on entitlement and eligibility through FPS, issuance, and renewal of licences to fair price shops and their monitoring, and grievance redressal mechanisms and feedback systems required for strengthening the Targeted Public Distribution System (TPDS).

The **coverage and entitlement** under NFSA are implemented under the Antyodaya Anna Yojana (AAY) and priority households (PHH). AAY households constitute the poorest of the poor and are entitled to avail/ receive 35 kgs of food grains (rice, wheat, coarse cereals) per family per month. While priority households are entitled to avail/receive 5 kg per person per month. The State Governments/UTs are mandated to evolve criteria and guidelines for identification of AAY and priority household benefices and their actual identification based on NSS Data sets and other available information as mandated under Section 10 of the Act. This helps ensure coverage under the TPDS and AAY scheme, other households that require support are then identified as priority households.

The central issue price under NFSA ensures the subsidised prices of food grains under TPDS for BPL households is INR 3/2/1 per kg until 2019 for rice, wheat, and coarse grains where the central government fixes prices not exceeding the minimum support price. For APL households under erstwhile TPDS i.e., Rs. 6.10 per kg for wheat and Rs 8.30 per kg for rice has been determined as issue price.

Direct Benefit Transfer (DBT) is a reform under the TPDS enabled by the Act facilitating cash transfers for provisions of food entitlements widely used in disaster/ crisis/ emergency contexts. In pursuance of enabling provisions under section 12 of NFSA for cash transfer, Government notified 'Cash Transfer of Food Subsidy Rule, 2015' in August 2015. This DBT provision aims to (i) reduce the need for huge physical movement of food grains (ii) provide greater autonomy to beneficiaries to choose their consumption basket (iii) enhance dietary

diversity (iv) reduce leakages (v) facilitate better targeting (vi) promote financial inclusion.

The Act also enables creation of rules that help meet context specific requirements for example under Section 39(1) of NFSA, the Central Government may, in consultation with the State Governments and by notification, make rules to carry out the provisions of the Act. The following Rules have been notified by the Central Government: i. Provisioning of Funds to State Governments for Short Supply of Food Grains Rules, 2014. ii. Food Security Allowance Rules, 2015. iii. Food security (assistance to State Government Rules) 2015 iv. Cash Transfer of Food Subsidy Rules, 2015 v. Notification of WCD and HRD

Section 40 of the National Food Security Act provides that the State Governments may, by notification and consistent with the Act and the rules made by the Central Government, make rules to carry out the provisions of this Act.

Salient features of National Food Security Act, (NFSA) 2013

- The National Food Security Act, 2013 (NFSA) governs the Targeted Public Distribution System (TPDS).
- TPDS entitlements can be availed irrespective of poverty status/ estimates at the individual/ household level.
- State/UT-wise coverage is determined by the NITI Aayog based on 2011-12 Household Consumption Expenditure survey of NSSO.
- The Act entitles 35 kg of food grains per Antyodaya Anna Yojana (AAY) Household per month, whereas 5 Kg of food grain per Priority Household (PHH) Person per month.
- Identification of beneficiaries/households under NFSA is done by respective State/UT Government, based on their own selection criteria.
- Highly subsidised Central Issue Prices for Coarse-grains, Wheat and Rice respectively enable country wide inclusive coverage.
- No reduction in food grains allocation to any State/UT under NFSA. Allocation gaps if any, are covered with Tide-Over allocation.
- Eldest woman of the beneficiary household (18 years or above) is considered as 'Head of Family' for the purpose of issuing ration cards.
- Grievance redressal mechanism, through State Food Commissions, DGROs, Vigilance Committees at different levels are provisioned for Women Empowerment.
- Provisions for disclosure of records relating to PDS operations, placing of beneficiaries' list in public domain/portals, for enhanced transparency Assistance to States/UTs for

meeting expenditure on intra-State transportation & handling of food grains and FPS Dealers' margin are operationalised.¹¹

Antyodaya Anna Yojana (AAY)

Antyodaya Anna Yojana (AAY) is one of the biggest initiatives undertaken by the Government of India. It is a targeted public distribution system scheme that was implemented in India in 2000. The main purpose of this system is to provide food security to the people and to end hunger in India. The scheme covers the poorest of the poor in our country through the supply of food and essential commodities for daily needs at subsidized rates. The government has spent approximately Rs 2.60 lakh crore so far on the scheme and another Rs 80,000 crore has been allotted for its implementation. The scheme is also currently referred to as the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY).

Objectives

1. Implementation of provisions to achieve Food security for the BPL populations of India
2. Inclusive Coverage and strengthening of TPDS
3. Subsidy to access basic food grains
4. Payment for the distribution and transportation costs of the food grains from government funds

Entitlements

1. Subsidised Food Costs of food and other commodities to all beneficiaries. Rice and wheat are provided and AAY families can avail 1 kg of sugar for ₹18.50 per kg via ration shops.
2. Special Ration Cards are provided base to AAY beneficiaries based on state-level criteria to avail scheme benefits.
3. Allocation to AAY families is 35 kgs of food grain per family. The authorities roughly allocate around 8.51 lakh tons of food grains every month for meeting some basic requirements of Antyodaya Anna Yojana.

¹¹ Salient features of National Food Security Act, (NFSA) 2013
https://nfsa.gov.in/portal/Salient_Features_NFSA_AA

As part of disaster relief efforts in the aftermath of disasters, Antyodaya Anna Yojana (AAY) is mobilised to support food relief distribution to the affected populations.

Pradhan Mantri Poshan Shakti Nirman (PM POSHAN)

PM POSHAN formerly known as the National Programme of Mid-Day Meal in Schools (MDM) is one of the foremost rights based Centrally Sponsored Schemes under the National Food Security Act, 2013 (NFSA). The primary objective of the scheme is to improve the nutritional status of children studying in classes I-VIII in eligible schools. The scheme is designed to address the problems of hunger and education among children by improving the nutritional status of eligible children in Government and Government aided schools. The budget 2022 document shows that the central government has allocated INR 20,263 crore (budget estimate) for expenditure under PM POSHAN which also includes allocation to the ICDS scheme under this new umbrella scheme.

Objectives

1. Improving nutrition of eligible children in government and government aided schools.
2. Encouraging enrolment of children from economically disadvantaged families and sections/ communities/ castes/ tribes to attend school more regularly and concentrate on classroom activities.
3. Ensuring nutritional support to children from drought affected and disaster affected populations throughout the year including summer holidays.

Entitlements

Following are the provisions made under the scheme

1. **Food Grains:** Supply of food grains @ 100 grams per child per school day for primary and 150 grams for upper primary at NFSA rate i.e., ₹ 1 per kg for coarse grains, ₹ 2 per kg for wheat and ₹ 3 per kg for rice.
2. **Cooking Cost:** It includes cost of ingredients, e.g., pulses, vegetables, cooking oil, other condiments, and fuel. The per child per day cooking cost is ₹ 4.97 for primary and ₹ 7.45 for upper primary w.e.f. 1st April 2020.
3. **Honorarium to Cook-cum-Helpers:** @ ₹ 1000 per month for 10 months in a year.
4. **Transportation Assistance:** As per PDS rate for transportation of food grains from FCI godown to school doorsteps. Maximum ₹ 1500 per MT for transportation of food grains from FCI godown to school doorsteps for States other than NER and 2 Himalayan States and 2 UTs.
5. **Management, Monitoring and Evaluation (MME):** @ 3% of aggregate of cost of food grains, cooking cost, Honorarium to Cook-cum-Helpers and Transportation Assistance.

6. Provision of Meals during summer vacations in drought/ disaster affected areas.
7. **Kitchen-cum-store:** As per plinth area norm and State Schedule of Rates. 20 sq meter for schools having enrolment of 100 students. Additional 4 sq meter for every addition of up to 100 students.
8. **Kitchen devices:** Linked with enrolment.
9. **Repair of kitchen-cum-stores:** ₹ 10,000/- per unit, for the kitchen-cum-stores, which were constructed 10 years ago.
10. **Fortification of food items:** Fortification of food items in a systematic manner through Food Corporation of India (FCI).
11. **Innovation / Flexibility component with no separate budgetary support:** Five percent of the aggregate of the cost of food grains, cooking cost, transport assistance, honorarium to cook-cum-helpers, and MME with no separate additional budgetary support for this component. The requirement of funds under this component will be met from available funds and implemented as per the Department of Expenditure's OM No. 55(5)/PF-II/2011 dated 06.09.2016.
12. Provision of meals to preparatory classes or Balvatika (that is before class I) in primary schools as covered in Samagra Shiksha as envisaged under the National Education Policy.¹²

In disaster and emergency situations the scheme is utilised to ensure nutrition requirements in children, adolescent girls, pregnant and lactating mothers (women).

Note: The Government of India is in the process of rolling out fortified rice in a phased manner by 2024 across India as part of India's Food Based Safety Nets (Department of Food and Public Distribution, 2021). By incorporating fortified rice into government-led food security schemes, a significant portion of the population, especially vulnerable groups at risk of nutrient deficiencies, can be reached. Currently, the rice being supplied through social safety nets is fortified with iron, Vitamin B12 and Folic acid. This combination of vitamins and minerals is used to address nutritional Anemia. FSSAI standards state that one kilogram of fortified rice must contain at least 28 mg to 42.5 mg of iron, 75 micrograms to 125 micrograms of folic acid, and 0.75-1.25 microgram of vitamin B-12 (Food Safety and Standards (Fortification of Foods Regulations, 2022).

Integrated Child Development Services (ICDS) Scheme

Integrated Child Development Services (ICDS) Scheme is a centrally sponsored scheme (states

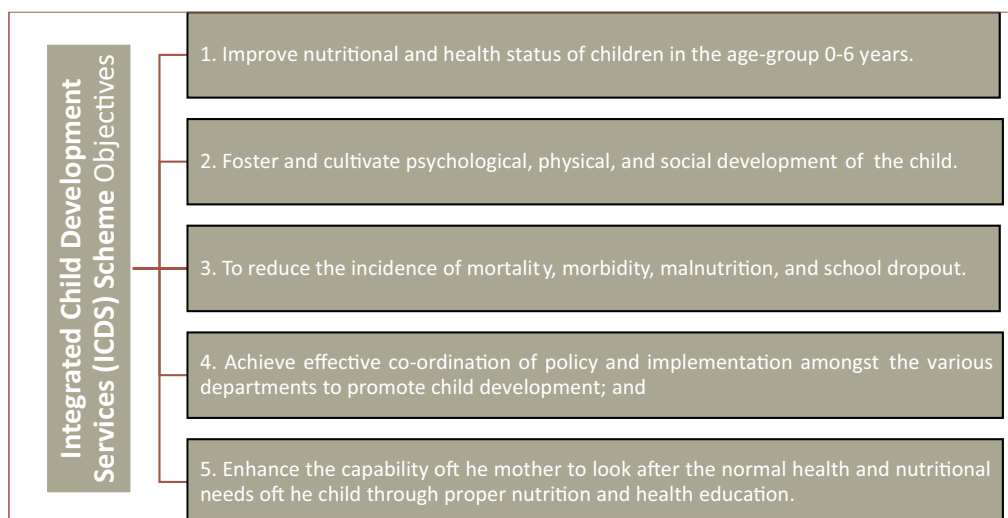
¹²Pradhan Mantri Poshan Shakti Nirman (PM POSHAN)- Department of School Education and Literacy
<https://dsel.education.gov.in/pm-poshan-scheme>

also contribute a portion of the funds required) which was launched on 2nd October 1975 for early childhood care and development. It is considered as the foremost symbol of the country's commitment to its children and nursing mothers, as a response to the challenge of providing pre-school non-formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women, and lactating mothers. The Scheme has been renamed as Anganwadi Services. The services are now offered as part of the Saksham Anganwadi and Poshan 2.0 (Poshan 2.0) - an Integrated Nutrition Support Programme for the duration of the 15th Finance Commission period i.e., from 2021-22 to 2025-26.

Some of the key targets of the scheme under Poshan Abhiyaan include

1. Preventing and reducing stunting in children (0-6 years) @2 % p.a.
2. Preventing and reducing under nutrition in children (0-6 years) @ 2% p.a.
3. Reduction in prevalence of anaemia in young children (6 -59 months), women and adolescent girls (15-49 years) @3% p.a.
4. Reduce Low birth Weight (LBW) @ 2% p.a.

Objectives



Entitlements

Integrated Child Development Services is Centrally Sponsored and provides the following six services to the beneficiaries i.e., Children in the age group of 0-6 years, Pregnant women and Lactating mothers, Adolescent Girls (14-18 years) in Aspirational Districts and North-eastern States, irrespective of caste, religion, and income criteria.

1. Supplementary Nutrition (SNP)
2. Health & Nutrition Check-Up
3. Immunization
4. Non-Formal Education for Children in Pre-School
5. Health and Nutrition Education
6. Referral services

These services are provided from Anganwadi centres established mainly in rural areas and staffed with frontline workers.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

The Government of India notified the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MGNREGA) on September 7, 2005, and MGNREGA was initiated with the objective of "enhancing livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year, to every household whose adult members volunteer to do unskilled manual work. The budget 2022 document observes that the central government has allocated INR 73,000 crore for MGNREGA expenditure. The provisions of the Act are widely used by state governments as an early recovery strategy to re-establish livelihoods and income at the individual and household level to contribute to the food basket and address food and nutrition requirements in crisis/ disaster contexts.

Objectives

1. Work opportunity for unskilled workers to improve the purchasing power of the people residing in rural India
2. One-third reservation for women as an opportunity to earn a living
3. The Act provides a legal guarantee for wage employment of INR 289 per day/ person to rural populations
4. Planning for work and site selection are collectively planned in consultation with the local population and the need, the implementation is supervised by the Gram Sabha/ Panchayat (in an open assembly). The Priority target works include water conservation, afforestation, rural connectivity, flood control, embankment repair.

Entitlements

1. MGNREGA job card validity to avail 'right to work'
2. Unemployment allowance if work is not assigned for 15 days after registration
3. Additional transportation and living expenses at the rate of 10 % extra wages for work provided more than 5 km radius from the village

4. Payments for work undertaken are settled as per daily rate every week and must not be delayed beyond 15 days

MGNREGA is widely used as an early recovery strategy post disasters to support the affected populations with income generation and livelihood assistance.

The above enlisted schemes are assets to be leveraged and integrated as part of ensuring targeted relief in the food and nutrition sector in disaster/ crisis/ emergency contexts.

Case 1- The impact of the cyclone Amphan coupled with Covid-19 caused severe disruption to the life and livelihoods and led to widespread economic losses which surpassed the local capacity of the government and people to curtail the damages and losses in West Bengal. This coupled disaster made it essential to develop and strengthen the coordination mechanism for government, non- governmental organizations including the private sector to collaboratively work towards timely relief delivery, building community resilience and creating hazard proof infrastructure. Due to the lack of adequate preparedness and mitigation measure it is observed that vulnerability reduction requires adequate investments in disaster preparedness and mitigation with necessary financial structures, risk-sharing strategies, social safety, and welfare mechanisms to deal with multi disaster responses. It was observed that children from the flood affected areas faced disruptions in their education cycle and access to adequate nutrition availed through the Integrated Child Development Scheme (Now under PM POSHAN scheme) available in government schools across the state. The Targeted Public Distribution System was also affected due to disruption of the logistics and supply chain systems disrupted due to restricted accessibility to the cyclone affected areas, affecting the food security of the disaster affected populations.

In the above case design and discuss a food and nutrition relief delivery mechanism by leveraging existing governmental resources (welfare schemes and safety nets) targeting the most vulnerable populations (children, women, elderly, PWD and marginalised groups including IDPs?

Design and Strategy, and Critical Components for food security and nutrition

Design and Strategy

The formulation of a food assistance strategy should pre- determine/ consider if the intervention is aiming to contribute to reduction of hunger/starvation or to improve nutritional intake or to improve physical access to food. It should also assess how it complements other sectoral assistance (E.g., WASH, Protection, Shelter, Health) and people's own efforts for livelihood recovery in disaster/ crisis/ emergency contexts. The strategies should be contextualised within the framework of the Disaster Management Act, 2005, the National Disaster Management Plan 2009, minimum standards of relief, location specific

disaster management plans, sphere standards, governmental guidelines and should be designed in close consultation with the government, concerned local authorities, UN agencies and NGOs operating in the area. It is also important to consider gender sensitivities, needs of vulnerable populations and environmental impacts while designing and implementing food security and nutrition interventions for inclusive coverage.

Some key points that need attention include- urgency and scale of needs, likely duration of assistance; feasibility in terms of political/security and logistics situation, existing and expected implementation capacity, impacts on local food production, food prices and marketing system, and long-term national development strategy.

Important considerations while designing food baskets include

Targeting

The two stages of targeting are- ***Geographical targeting and Household targeting.*** Allocation of food assistance to different areas is based on the aggregate needs of their populations- the number of people needing assistance and level of their needs (Example: If in a geography, 85% population is covered under TPDS and are getting cereals, and are in need of other commodities for filling the nutrition gap- then the requirement is calculated based on total requirement minus what is provided by TPDS and what the households are able to organize on their own). If within the selected geographies, there are pockets /specific communities that need assistance then the second stage of household targeting is required to be undertaken- to ensure that those who need the priority assistance, must get it. To achieve this, it is important to

- (a) finalize a feasible selection criterion to ensure food reaches the most food-insecure
- (b) get a community and local authority buy-in to this selection criteria. Political, social, and cultural factors should also be considered.

Inclusion and Exclusion Errors

Inclusion Errors are defined as proportion of total recipients who are not members of the intended target group; *Exclusion Errors* are the proportion of the intended target (entitled based on the selection criteria) group who do not actually receive food assistance.

While there should be sincere efforts to reduce inclusion and exclusion errors in practical situations during emergencies, it is not realistic to expect that every one of the intended beneficiaries will be reached while excluding other people because they do not meet the criteria. Perfect targeting may be socially or politically impossible because of the complexities and risks in managing it. It is important to note that a certain percentage of inclusion error is less harmful than an exclusion error which leaves needy people without assistance.

Sphere Standards for Targeting

1. Recipients of food aid are selected based on food need and/or vulnerability to food insecurity
2. Targeting objectives are agreed among co-ordinating authorities, female and male representatives of affected population and implementing agencies
3. Targeting criteria are clearly documented, in terms of population groups or geographical locations
4. The distribution system is monitored to ensure the targeting criteria are respected

Components, design and strategy for food security and nutrition responses during Emergencies/ Disasters

Food Security and Nutrition interventions as part of relief and response measures have three main types and can be undertaken by governmental and non- governmental stakeholders involved in humanitarian assistance.

1. General Food Distribution (GFD) is provided to affected populations/households to meet the difference between their nutritional needs (Recommended Dietary Allowance benchmarked by ICMR or the minimum standards of relief or the sphere standards on food security and nutrition) and what they are able to provide for themselves (including the benefits they are receiving through the social safety-nets) without adopting negative coping strategies that are detrimental to individual and family assets. GFD is a targeted approach that is based on identification of people in need.

Application

GFD is undertaken when large populations are faced by food shortage due to loss in access attributed to a crisis/ disaster/ emergency and is mainly used to support the affected populations re-establish their livelihoods post a crisis event with a pre-defined exit/ phasing out strategy to support the affected population become self- reliant after a crisis. GFD is either provided as dry ration in the form of ration kits or is distributed in the form of cooked food through community kitchens this is mainly practiced during the initial phases on the disaster (E.g., Cyclones, Floods, drought, pandemics, un-foreseen movement restrictions among displaced/ migrant populations, conflicts). As part of early recovery interventions, dry ration kits (contain food items based on local food habits/ pallets) are preferable as it enables larger population coverage by utilising the same resources and does not shadow/ undermine the responsibilities of families. Food Grains and items provided as part of existing safety nets and welfare schemes can be mobilised and positioned for creation of ration kits.

2. Supplementary Feeding (SF) is implemented to combat or prevent malnutrition by providing additional food/ nutrition supplements to malnourished or nutritionally vulnerable individuals. The selection of the beneficiaries is based on a criterion related to nutritional status and vulnerability. This could be an additional intervention to GFD in most cases. For Example, the food distributed under ICDS is typically supplementary food provided to nutritionally vulnerable populations such as pregnant and lactating mothers and children less than 6 years of age, and to malnourished children. Since ICDS has universal coverage- the Anganwadi centres play a crucial role, even during crisis in providing supplementary food to vulnerable populations.

Application

Depending upon the circumstances, the SF could be targeted (to rehabilitate moderately malnourished individuals, prevent them from slipping into severe malnutrition, and provide an opportunity for follow-up) or blanket (when the malnutrition is widespread). In addition to the nutritionally vulnerable groups defined above, others may include the elderly, sick and people with disabilities. Supplementary Feeding could be provided as take-home ration or on-site feeding. Take home rations are dry rations that supplement the nutritional gap with the assumption of topping up the family food. On-site feeding is more expensive and could be undertaken when households have few other sources and the take-home ration could be widely shared among family members, food preparation at household level is difficult, or there is widespread insecurity.

3. Food for work/recovery (FFW/R) or Cash for Work/ Cash based programming is implemented as a livelihood recovery and rehabilitation intervention to provide food-insecure households with opportunities for paid work and aid in economic recovery at the individual/ household level, and at the same time produce outputs that are beneficial to themselves as well as the community E.g., Post disaster debris management, water harvesting structures, building of community infrastructure. The important point to be noted is that the activities should be selected and planned in consultation with the gram panchayat/ local governance/ community and should not harm local agricultural production or other development projects. The MNREGA is a governmental scheme used in disaster recovery that utilises existing governmental resources to provide livelihoods and re-build community infrastructure within disaster/ crisis affected communities. Alternatively, Food for work/ cash/ voucher-based assistance undertaken by NGO stakeholders is also undertaken immediately after a sudden acute disaster. Short-term Food for Recovery activities can also contribute to initial recovery and serve as an alternative to free distribution. Preference is given to able-bodied individuals, and remuneration is provided daily in the form of a fixed amount of food, cash or coupons- as an incentive to help people undertake tasks that are beneficial to themselves and aid in ensuring food security at the household level.

Application

Technical, managerial, and material inputs and site supervision will be required from local authorities or supporting NGOs. FFW/R or cash-based programs are self-targeting in most of the cases- but when large number of people are in need, prioritization is done in consultation with the local administration and communities. Usually, it is not possible to implement FFW/R or cash-based programs immediately after an acute emergency and requires phased expansion, it is always helpful if the plans are prepared in advance as a 'preparedness measure.' Other types of Food Assistance such as Therapeutic feeding and Market interventions are beyond the scope of this module and hence not discussed.

Design and Implementation of a food basket in disaster/ crisis/ emergency contexts

Selection of the Food Basket

Selection of the food basket is an important aspect of any food assistance programme. It is important to distribute dry rations consisting of a "contextualized" and "customized food basket" guided by the local food preferences and nutritional requirements of the affected population. It is advised to avoid including perishable items in the food basket for the obvious reasons of spoilage, wastage, and risks of contamination. Critical aspects for consideration include choice of food items, budget, procurement measures, transportation, storage/ warehousing, distribution planning, monitoring, grievance redressal etc. In India, the main ingredients considered include cereals, pulses, oil, salt, and sugar. The preference of cereals, pulses, and oils changes from state to state. Local preferences as well as nutritional requirements across different age/ sex groups based on targeting should be considered while designing the food basket. Data from the National Sample Survey Organizations, and consumption expenditure surveys can be used to understand food preferences and the Recommended Dietary Intakes for Indians, 2020 (ICMR)¹³ can be used for calculating the nutritional requirements.

The food baskets distributed should complement the existing food available/ consumed at the community level either through their own sources or through the government's food-based safety nets such as the public distribution system, mid-day meal scheme (PM-POSHAN), integrated child development services scheme etc. Typically, in India, individuals prefer to add condiments such as turmeric, chilli powder, spices etc. to food preparations and such items must be included in the food basket/ ration kit. Since the perishable food commodities such as milk/ milk products; roots/tubers; green leafy vegetables, and other vegetables and fruits cannot be added to the food basket the question arises as to how the

¹³Short Report on Nutrient Requirement for Indians- Recommended Dietary Intake- 2020
https://www.nin.res.in/RDA_short_Report_2020.html

energy, protein and micro-nutrient gaps in the proposed food basket be addressed? An easy answer to this is to use fortified staples, oils, and salt to the extent possible.

Note: Ensure food quality and packaging conforms to the FSSAI standards during distribution (Provide labels with the date of production, country of origin, expiration or “best before” date, nutritional analysis, and cooking instructions in accessible formats and in the local language, especially for less familiar or less commonly used foods). Perform random sample testing on food stocks to ensure food safety. Provide access to water, fuel, stoves, and food storage facilities and adequate milling and processing facilities when wholegrain cereal is provided/distributed.

Calculating a Food Basket

The food basket is designed for a household as part of General Food Distribution and could be based on individual requirements if it is designed for Supplementary feeding. Estimation of food requirements are ascertained by calculating transfer value of ration and nutritional requirements based on local food habits.

Example 1: Calculation of a sample food basket for Tamil Nadu

Step 1: Based on the household size calculate and quantify the food basket components

Table 20: Sample household constructs used for calculation and quantification of food basket components

“Four” Member Household “Five” Member Household “Six” Member Household

Sample Household -1		Sample Household -1		Sample Household -1	
Husband	Adult Male (mod)	Husband	Adult Male (mod)	Husband	Adult Male (mod)
Wife	Adult Female (mod)	Wife	Adult Female (mod)	Wife	Adult woman (mod)
Elderly father	Adult Male (mod)	Elderly father	Adult Male (mod)	Elderly father	Adult Male (mod)
Elderly mother	Adult Female (mod)	Elderly mother	Adult Female (mod)	Elderly mother	Adult Female (mod)
		Infant > 6 <12 m	Child 6 – 12 months	Child 1 -3 years	Child 1 -3 years
				Child, 4 -6 years	Child, 4 -6 years
Sample Household -2		Sample Household -2		Sample Household -2	
Husband	Adult Male (mod)	Husband	Adult Male (mod)	Husband	Adult Male (mod)
Pregnant wife	Preg. Women (Sed)	Pregnant wife	Preg. Women (Sed)	Pregnant wife	Preg. Women (Sed)
Child, 18 month	Child 1 -3 years	Child, 18 month	Child 1 -3 years	Elderly father	Adult Male (mod)
Elderly father	Adult Male (mod)	Child, 4 -6 years	Child, 4 -6 years	Elderly mother	Adult Female (mod)
		Child 7 - 9 yrs	Child 7 - 9 yrs	Child, 4 -6 years	Child, 4 -6 years
				Child 7 - 9 yrs	Child 7 - 9 yrs
Sample Household -3		Sample Household -3		Sample Household -3	
Husband	Adult Male (mod)	Husband	Adult Male (mod)	Husband	Adult Male (mod)
Wife	Adult Female (mod)	Wife	Adult Female (mod)	Wife	Adult woman (mod)
Child, 18 month	Child 1 -3 years	Elderly father	Adult Male (mod)	Elderly father	Adult Male (mod)
Child, 4 -6 years	Child, 4 -6 years	Elderly mother	Adult Female (mod)	Child, 4 -6 years	Child, 4 -6 years
		Child 7 - 9 yrs	Child 7 - 9 yrs	Child 7 - 9 yrs	Child 7 - 9 yrs
				Adolescent boy	Adolescent boy, 16-17 yrs

Step 2: Based on the number members in a household and the locale specific dietary habits and requirements calculate the quantity of food requirement based on the recommended dietary intake.

For Example: Let us consider the food basket for a four-member household from Tamil Nadu as represented below.

Tamil Nadu

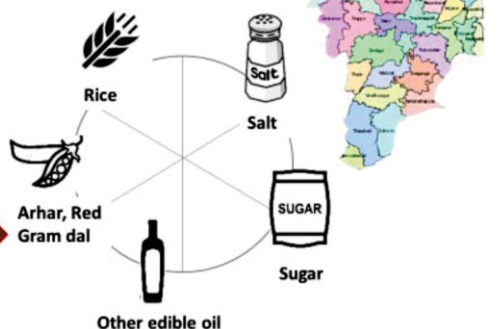
Designing a state specific food basket



Average Family / Household size
in the state (Census, 2011) :

4

What should constitute a “Food Basket” in Tamil Nadu?



*Items in the food basket reflect the most preferred Cereal / Pulses / Oils in the state (NSSO, 68th round, 2011-12).

*other edible oils include all other vegetable oils apart from mustard oil, groundnut oil or coconut oil.

Figure 7: Food basket for a four-member household from Tamil Nadu

Table 21: Recommended Dietary Intake (RDI) for food groups
as per the household composition

		Cereals	Pulses	Sugars	Oils
		gm/day	gm/day	gm/day	gm/day
Sample Household -1					
Husband	Adult Male (mod)	450	90	30	30
Wife	Adult Female (mod)	330	75	30	25
Elderly father	Adult Male (mod)	450	90	30	30
Elderly mother	Adult Female (mod)	330	75	30	25
Total Qty. / Day		1560	330	120	110
Total Qty. / Month		46.8	9.9	3.6	3.3
Sample Household -2					
Husband	Adult Male (mod)	450	90	30	30
Pregnant wife	Preg. Women (Sed)	275	60	10	60
Child, 18 month	Child 1 -3 years	60	30	15	25
Elderly father	Adult Male (mod)	450	90	30	30
Total Qty. / Day		1235	270	85	145
Total Qty. / Month		37.05	8.1	2.55	4.35
Sample Household -3					
Husband	Adult Male (mod)	450	90	30	30
Wife	Adult Female (mod)	330	75	30	25
Child, 18 month	Child 1 -3 years	60	30	15	25
Child, 4 -6 years	Child, 4 -6 years	120	30	20	25
Total Qty. / Day		960	225	95	105
Total Qty. / Month		28.8	6.75	2.85	3.15

*Other food groups such as milk and milk products, green leafy vegetables, other vegetables, fruits not included in the food basket since these are easily perishable.

Table 22: Proposed Food Basket and its nutritional value (per 100 gm)

Cereal (two variants – Cereal-1 (70%), Cereal-2 (30%); Pulse variant, Oil, Sugar, and Salt

Food Items	Energy (Kcal)	Protein (g)	Fat (g)	Calcium (mg)	Iron (mg)	Vit. A* (µg)	Vit. B1 (mg)	Vit. B2 (mg)	Vit. B3 (mg)	Vit. B6 (mg/d)	Vit. C (mg)	Vit. B9 (µg)	Mg (mg/d)	Zn (mg/d)
Cereal-1 Raw Rice, milled	342.9	7.9	0.5	7.5	0.7	0.0	0.1	0.1	1.7	0.1	0.0	9.3	19.3	1.2
Cereal-2 Wheat flour, atta	308.2	10.6	1.5	30.9	4.1	2.7	0.4	0.2	2.4	0.3	0.0	29.2	125.0	2.9
Pulse Arhar Red Gram Dal	318.3	21.7	1.6	71.7	3.9	127.0	0.5	0.1	2.1	0.2	0.0	108.0	119.0	2.6
Oil Other edible oil	820.0	0.0	92.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sugar Sugar	387.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salt Iodized salt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2176.5	40.2	95.6	110.2	8.7	129.7	0.9	0.3	6.2	0.6	0.0	146.5	263.3	6.7

*Iodized salt – Qty. <5 mg per person per day as per recommended by WHO, Essential Nutrition Actions, 2019

Step 3: Based on the recommended dietary allowance calculate the nutrient requirements fulfilled by the food basket as per the recommended dietary allowance.

Table 23: Recommended Dietary Allowance (RDA) for Nutrients fulfilled by the proposed food basket for individual households

	Energy kcal	Protein g	Fat g	Calcium mg	Iron mg	Vit. A* µg	Vit. B1 mg	Vit. B2 mg	Vit. B3 mg	Vit. B6 mg/d	Vit. C mg	Vit. B9 µg	Mg mg/d	Zn mg/d
Sample Household -1														
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
Daily HH - 1 req.	9920	230	110	2400	76	19200	5	5.8	64	8	160	800	1300	44
Monthly HH-1 req.	298 k	7 k	3 k	72 k	2 k	576 k	k	k	2 k	k	5 k	24 k	39 k	1 k
RDA fulfilled by FB	231 k	6.0 k	3.5 k	11.7 k	.9 k	12.7 k	.1 k	.0 k	1.0 k	.1 k	.0 k	16 k	26 k	1 k
% RDA fulfilled by FB	77.7	86.8	105.5	16.3	37.4	2.2	56.8	22.4	53.6	35.8	0.0	66.6	66.1	68.4
Sample Household -2														
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Preg. Woman (Mod.)	2580	78	30	1200	35	6400	1.3	1.6	16	2.5	60	500	310	12
1 - 3 Years	1060	16.7	27	600	9	3200	0.5	0.6	8	0.9	40	80	50	5
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Daily HH - 2 req.	9100	214.7	117	3000	78	19200	4.6	5.4	60	7.4	180	980	1040	41
Monthly HH-2 req.	273 k	6 k	4 k	90 k	2 k	576 k	k	k	2 k	k	5 k	29 k	31 k	1 k
RDA fulfilled by FB	197 k	4.8 k	4.4 k	9.5 k	.7 k	10.4 k	.1 k	.0 k	.8 k	.1 k	.0 k	13 k	21 k	1 k
% RDA fulfilled by FB	72.2	74.5	124.2	10.5	29.3	1.8	49.8	19.2	45.6	31.0	0.0	44.0	66.4	58.7
Sample Household -3														
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
1 - 3 Years	1060	16.7	27	600	9	3200	0.5	0.6	8	0.9	40	80	50	5
4 - 6 Years	1350	20.1	25	600	13	3200	0.7	0.8	11	0.9	40	100	70	7
Daily HH - 3 req.	7370	151.8	107	2400	60	16000	3.7	4.3	51	5.8	160	580	770	34
Monthly HH-3 req.	221 k	5 k	3 k	72 k	2 k	480 k	k	k	2 k	k	5 k	17 k	23 k	1 k
RDA fulfilled by FB	156 k	3.8 k	3.2 k	7.7 k	.5 k	8.6 k	.1 k	.0 k	.6 k	.1 k	.0 k	11 k	17 k	1 k
% RDA fulfilled by FB	70.6	84.0	99.1	10.7	30.5	1.8	49.9	19.2	42.3	31.3	0.0	60.6	72.0	56.2

Example 2: Calculation of a sample food basket for Uttar Pradesh is provided as Annex-3 under Annexures.

Step 4: Calculate the transfer value of ration to ascertain the cost of the food basket per beneficiary household and determine the financial requirement for the intervention based on number of households in need.

How to calculate a transfer value of ration?

Daily ration for a GFD beneficiary comprises of 2 Kg cereal (rice), 300 gm pulses (arhar/moong), 200 gm oil (mustard oil) and 100 gm salt. In India, the food is procured locally, and the markets are well integrated, so the local market prices can be considered. If the respective prices are Rs.50/kg, Rs125/Kg, Rs100/Kg and Rs.20/Kg, then the value of daily ration in the local market is-

$$(2*40) + (0.3*125) + (0.2*100) + (0.1*20) = 159.5 \text{ Rs}$$

If ration is to be distributed for 60 days, then total transfer value = $60*159.5=9,570\text{Rs.}$ per beneficiary. And quantity requirement would be $(2* 60) = 120$ Kgs of cereal per household, $(0.3*60) = 18$ kgs of pulses, $(.2*60) = 12$ kgs of oil and $(0.1*60) = 6$ kgs of salt. This calculation will determine the quantity of food items required per household. Now multiply the price and quantity into the number of affected households that require assistance to arrive at the budget and quantity of food required to address the needs of the affected population. For detailed Recommended Dietary Allowance (Nutritional requirements) the ICMR guidelines should be referred- which differ by age, sex, physiological conditions, and level of work.

Operational Planning

The purpose of operational planning at the state and district level is to enlist the actions that need to be carried out at each stage of a food assistance/relief intervention. A checklist/ SOP needs to be defined and agreed in collaboration with the government, non-government stakeholders/ partners, community leaders as per nationally mandated policy guidelines, mechanisms, and resources available. Committees should be formed for planning and implementation based on the nature of the disaster/ crisis (rapid onset or slow onset), type of intervention (relief/ recovery or both) and duration for which relief is required based on the need assessment reporting.

Some of the key considerations during planning include

- Identification and estimation of people/ population groups (tribals, marginalized, SC/ST population) in need and type, or level of the assistance required.
- Situation analysis and mapping of existing/ ongoing responses of the Government (including the status and coverage of existing social protection and welfare schemes in the pre and post disaster context).
- Expected and ongoing assistance in food and nutrition, related sectors and stakeholders involved.
- Contingency planning for context specific interventions.
- Adherence to humanitarian and operational principles during the interventions.

Key aspects to be agreed by the Government and other stakeholders/partners include:

Interventions should be designed with food assistance strategies and priorities for evidence based inclusive coverage that include components on resource deployment and management, evaluation, phasing out and logistics.

Implementation Arrangements include overall management and partnerships, food commodity acquisition and delivery (monthly requirement, sources of procurement, delivery schedules, if transportation is required- the mode of transfer, storage requirements/ infrastructure, security arrangements, responsibilities and means of transport and delivery etc.), beneficiary selection and distribution, monitoring and supervision, guidelines and training, reporting and information management, contingency plans (how change in beneficiary numbers, locations, pipeline problems will be managed- identification of other potential contingency resources and how they will be managed).

Key aspects that need to be planned internally within the government include

Internal systems and capacity: Roles and responsibilities of administrative officials, reporting formats at the district level for integration into the States monitoring data base, operational capacities (financial systems, procurement and contracting systems, physical facilities-offices/storage, transport, telecommunications, vehicles required etc.)- Based on existing allocation of funds provided by the state government and funds available within the district administration (including NDRF, SDRF, 15th Finance Commission allocations and Flexi Funds), staff and training (surge capacities and need for additional recruitment and trainings), information management (commodity tracking, pipeline management for larger operations and database management), communication and relation management with external stakeholders including non- government stakeholders, donors and community leaders, panchayats etc. including the establishment of GO-NGO coordination committees and engagement strategies at the state and district levels, logistics plan, distribution, monitoring and evaluation, security arrangements and preparedness for exigencies- risk analysis and mitigation plans (including activation of coordination mechanisms between the ECO's at the district and state levels, DDMA's and SDMA's).

Food Distribution systems should consider the following operating principles for inclusive coverage

Fairness: Ration allocation based on assessment of needs, size of household and individual needs

Accountability to beneficiaries: Social, cultural, and political sensitivities of populations should be considered. Community views and feedback considered during design and

implementation and independent monitoring is undertaken during and after food distribution.

Transparency: Information on ration entitlements, method of distribution, time is widely disseminated. Any problems in food supply, changes in ration, distribution schedules should be communicated to the beneficiaries well in advance. Distributions are made openly in public places.

Respect: The distribution process recognizes the physical and psychological vulnerability of the recipients and is specifically designed to preserve dignity and self-respect.

Gender sensitivity and inclusion of people with disability: Women and other vulnerable groups should have representation in food committees. Distributions should be planned keeping convenience of the vulnerable groups in mind and avoid putting them under any risk.

Implementation and Distribution

The implementation of food assistance/ relief undertaken by the district administration should be undertaken in consultation with and supported by the administrative officials and line departments, non-government actors, affected population and other stakeholders. The local government and community should be enrolled to maintain the neutrality, independence and impartiality for effective and inclusive relief coverage based on humanitarian principles. The recipients and beneficiaries should be informed of their ration entitlement and its rationale based on local conditions and prescribed standards. Some of the important consideration for distribution are listed below:

Sphere Standards for Distribution

1. People are aware of the quantity and type of ration being distributed for each distribution cycle, and reasons for any differences from the established norms.
2. People receive the quantities and types of commodities as planned.
3. The method of distribution is readily accessible, and distribution is scheduled at convenient times to minimize disruption to everyday activities.
4. Recipients are involved in deciding the most efficient and equitable method of distribution; women are consulted and have an equal role in decision-making.

Frequency of distributions (monthly or more frequently) should consider the following

1. The cost of transporting commodities from the distribution centre.
2. The time spent travelling to and from the distribution centre; and
3. The security of recipients and commodities during and once distributed.

Distribution Sites

Site selection should be undertaken by administrative officials in consultation with representatives from the affected community for beneficiary convenience. The decision must be taken based on the context and availability of resources weather relief delivery should have few or many distribution sites.

Table 24: Pros and cons of number of sites for food distribution

ADVANTAGES AND DISADVANTAGES OF FEW SITES VS. MANY SITES	
ADVANTAGES	DISADVANTAGES
<i>FEW DISTRIBUTION SITES</i>	
Less staff, Less infrastructure and Less transport is required	Longer journey's/ travel time for beneficiaries - might act as barrier Crowd management is difficult Difficult access for weaker/vulnerable groups
<i>MANY DISTRIBUTION SITES</i>	
Few crowd management problems Better access to weaker sections including women Shorted journeys / travel time from home/ shelter Everyone can see distribution-greater transparency	More staff and transportation is required More infrastructure, roads, transportation is required Monitoring can become challenging Security issues at multiple places need to be managed
[Adapted from Commodity Distribution, UNHCR, 1997]	

Considerations for choosing a distribution site

- Ideally open areas located away from crowded places such as markets or hospitals
- Should be accessible in all weather conditions with proper place for queues, distribution, and storage of food stocks. There should be emergency exits
- Water, shelter, sanitation and first aid facilities should be available for staff and beneficiaries

Note: Fair price shops, schools, panchayat buildings and community halls can also be considered as distribution sites- if all the above criteria are complied.

Distribution frequency in emergencies is determined based on context specific requirements and ground realities. *Frequent distributions* take less time as the food kit/ quantity is easy for beneficiaries to carry/store with lesser risk, and provides flexibility when supply chain and logistics are uncertain. But this could be inconvenient to beneficiaries as they need to visit distribution centres more frequently and devote more time for food collection, this approach needs more frequent organization and monitoring. Distribution at long intervals on the other hand are convenient if beneficiaries must travel long distances and involves lesser cost for distribution and monitoring but it takes more time for distribution and beneficiaries have to carry large quantities and store food aid at their home/ shelter- which might be difficult at times. The potential of selling, theft, spoilage etc. is higher- specially in conflict situations.

Management of Distribution Sites

Ration distribution should begin early in the day- almost at the same time in all locations in a locality (if distributed at multiple sites), adequate number of staff should be deployed to distribute rations, guard, clean, supervise etc., involve community leaders in organizing and mobilizing people and ensure the inclusion and exclusion criteria is known to all. Non-authorized people should be excluded from the area. Ensure to designate an official to be responsible for security at each site, ensure food that is not distributed is returned to stock, and maintain cleanness of the site. Do a thorough beneficiary estimation and requirement calculation and communicate in clear terms who will get how much. If there is short-fall-prepare a strategy to manage the situation in consultation with the stakeholders.

Distribution Monitoring

Distribution monitoring should ensure effective utilization of resources, inclusive coverage of target recipients, operational plans are implemented as per determined SOPs and guidelines, food reaches the target beneficiaries, operations proceed as planned in pursuit of the defined objectives; and adaptation of plans to address any dynamic and emerging needs.

Monitoring at distribution centres

Within distribution Centres check the distribution process and what beneficiaries are receiving (quality, quantity, and coverage), and record the perspectives/ feedback/ grievances of the beneficiaries.

Exit Surveys and Food Basket Monitoring interviews beneficiaries as they leave the site to record quality, quantity, inclusive coverage, and receive feedback/ grievances on the food and nutrition intervention.

Monitoring at Community Level seeks feedback directly from women, men and children, persons with disabilities, marginalized groups on their access to, use of and satisfaction with the relief intervention.

Specific needs of vulnerable populations, children, pregnant women

IYCF-E considerations for effective Food Security and Nutrition Response

In the context of disasters and emergencies the specific needs of mothers, infants, and young children include promotion and practice of breastfeeding in dedicated safe environments. Measures to manage unscientific practices that undermine the safety and health of infants and mothers in the context of IYCF-E require timely implementation such as strict monitoring of donation of baby foods, feeding equipment and breast milk substitutes. Such efforts require anticipatory action like the development of management plans, policies and procedures that provide communication, sensitization, and training at all levels and sectors, to support IYCF-E.

As recommended by WHO and UNICEF mothers should initiate exclusive breastfeeding to infants within one hour of birth and continue exclusively breastfeeding for the first six months of life. After this time, infants should continue breastfeeding to two years of age or beyond while also receiving age-appropriate, nutritious, and hygienic complementary foods.

Baby Friendly Corners/ Baby Friendly Spaces

Emergency situations and disasters impact breastfeeding practices and consequently child nutrition, health, and survival. Lack of privacy in shelters or camp settings restricts a mother's ability to comfortably breastfeed and due to heightened stress levels. In disaster contexts other risks such as post-traumatic stress, illness, sexual violence, reduced access to food and severe depression can cause mothers, to reject their infants or the act of breastfeeding.

Baby-friendly corners/ spaces, also called baby-friendly corners, are safe, low-stress spaces where mothers can breastfeed, rest, eat and receive skilled counselling and targeted advice about breastfeeding and nutrition.

Key Considerations for Set-up and Operation include safety, accessibility, ventilation, hygiene, access to food and water, counselling services and information for mothers and caregivers that the space is available for them. Special attention should be given to newly responsible caregivers (of orphaned children, for example), and special arrangements with supervision made for women who might be building up their breast milk supply using both artificial feeding and breastfeeding during the re-lactation process.

Special needs of pregnant and lactating mothers and children/ Supporting the nutrition and health of breastfeeding mothers and Infants

It is important that breastfeeding women and infants receive an adequate diet – both in terms of the quantity and quality of the food. Additional food rations and micronutrient supplements are recommended for pregnant and lactating women, and infants in emergency situations. Furthermore, fluid intake is a particular concern with populations on the move, in severe drought conditions and during natural disasters that contaminate water. Dehydration may interfere with breast milk production, as well as health of mother and child.

The following actions should be implemented at baby-friendly corners to ensure that breastfeeding women and infants have safe access to sufficient food and water:

1. Ensure that drinking water and food rations are available in the baby-friendly space and provide drinking water wherever women and infants are subject to long waiting periods.
2. Assist with registration of new-borns (in a camp situation) so that the family receives an additional ration that the breastfeeding mother and infants should use.
3. Ensure baby-friendly corners provide rations for home preparation if required and ensure the rations provided are sufficient to support the household and the breastfeeding women. A lactating woman may require 1,000 to 1,200kcal per day in addition to the standard household ration.
4. Identify women who need to or would like to re-lactate. A seriously ill or severely undernourished woman should get appropriate treatment first; re-lactation can be started once her condition improves.
5. Designate an area where women can receive assistance in re-lactation and provide a lower-stress area that will be beneficial to breastfeeding in general (such as a baby-friendly tent).
6. Provide a safe and comfortable environment, including adequate nutrition and sufficient fluids.
7. Make sure that women and infants have access to skilled assistance and equipment to access and maintain good health.

Note:

All breastmilk substitutes must comply with Codex Alimentarius and the Code. Access to adequate WASH services is essential to minimise the risks of artificial feeding in emergencies. The distribution system for breastmilk substitutes will depend on the context, including the scale of intervention. Do not include infant formulas and other breastmilk substitutes in general or blanket food distributions. Do not distribute dried liquid milk products and liquid milk as a single commodity. Indications for and management of artificial feeding should be in accordance with the Operational Guidance and the Code, under the guidance of the designated IYCF-E coordinating authority.

Give preference to ready-to use infant formula in liquid form, since it does not require preparation and carries fewer safety risks than powdered infant formula. Appropriate use, careful storage and hygiene of feeding utensils are essential for ready-to-use infant formula. Ready-to-use infant formula is bulky and therefore expensive to transport and store. In children over six months, use alternative liquid milks. Alternative milks include pasteurised full-cream milk from a cow, goat, sheep, camel, or buffalo; ultra-high temperature liquid milk; fermented liquid milk; or yogurt.

Use of infant formula in children over six months will depend on pre-crisis practices, resources available, sources of alternative liquid milks, adequacy of complementary foods and humanitarian organisation policy. Indications for using breastmilk substitutes may be short or longer term. Follow-on, growing-up liquid milks, and toddler liquid milks marketed to children over six months are not necessary. A qualified health or nutrition worker can determine the need for infant formula through individual assessment, follow-up, and support. Where individual assessment is not possible, consult with the coordinating authority and technical humanitarian organisations for advice on assessment and targeting criteria. Provide infant formula until the child is breastfeeding or at least six months. When providing breastmilk substitutes to children who need it, do not inadvertently encourage breastfeeding mothers to use it also. Do not use feeding bottles; they are difficult to clean. Encourage and support cup feeding.

Nutrition Education

The baby-friendly corners should also provide nutritional education to address common misconceptions and poor practices that exist regarding IYCF in a population. It is important to identify the key decision-makers and those who have influence regarding infant feeding decisions (for example, grandmothers and fathers) and include these individuals in educational sessions.

Additional Reading

<https://www.wvi.org/nutrition/article/breastfeeding-emergencies>

https://nhm.gov.in/images/pdf/programmes/maternal-health/guidelines/my_safe_motherhood_booklet_english.pdf

Nutrition Rehabilitation Centres

The Government of India's Ministry of Health and Family Welfare has established 1,151 Nutritional Rehabilitation Centres (NRCs) across the country under the National Health Mission as of 2020. They provide facility-based care for children with Severe Acute Malnutrition (SAM) and medical complications. These NRCs offer appropriate feeding of children, careful height and weight monitoring, and counselling to mothers and caregivers on age-appropriate caring, nutrition, and growth monitoring. In the aftermath of disasters and emergencies preventive treatment to malnutrition should be initiated for children below 5 years by utilising resources available at Nutritional Rehabilitation centres at facility, community, and household level to prevent and treat malnutrition. The key objectives of facility-based management of SAM are:

1. Clinical management to reduce mortality among children with severe acute malnutrition, particularly among those with medical complications is present.
2. Promotion of physical and psychosocial growth of children with severe acute malnutrition (SAM).
3. Building the capacity of mothers and other care givers in appropriate feeding and caring practices for infants and young children.
4. Identification of social factors that contribute to children slipping into severe acute malnutrition.

The NRC should function to fulfil the following objectives

1. Availability of essential medicines, micronutrients, and Nutritious food.
2. Availability of appropriate anthropometric and diagnostic equipment for correct diagnosis of SAM and associated complications.
3. Conform to SAM management protocols for case management.
4. Follow the admission and criteria for discharge of children.
5. Ensure empathetic & courteous behaviour of the staff.
6. Ensure hygiene and cleanliness as per IP & BMW management protocols.
7. Ensure use of Personal Protective Equipment's during all procedures.

Testing of knowledge

1. (a) In the context of a disaster (choose a disaster based on the hazard profile of your state) create a Food and Nutrition Relief and recovery Plan to cater to the needs of the disaster affected population for 3 months post the event.
1. (b) Highlight the existing resources, collaborative partnerships (inter-departmental and multi- stakeholder) that you will leverage to address the needs of the most vulnerable populations (women, children, elderly, marginalised groups – choose two groups).
1. (c) Now Describe the food basket and food intervention types along with frequency of delivery for the two groups chosen under 1. (b) for an urban population and a rural population in need.

Brief Recap

1. Food Security and Nutrition relief and response measures should be accurate and timely based on available assessments/ situation reports which detail the needs of the affected population, existing safety nets and welfare schemes that are available, being implemented and their coverage, and information about relief and response activities undertaken by non- government organisations and other stakeholders as part of meeting, food, and nutrition requirements.
2. The Government of India has implemented well planned mechanisms and ensured adequate resource allocation under disaster management funding, finance Commission allocations, safety nets and welfare schemes to address the food and nutrition needs of the population during disasters.
3. Food Security and Nutrition interventions as part of relief and response measures have three main types of general food distribution, supplementary feeding, food for work/ cash-based assistance.
4. The formulation of a food assistance strategy should pre- determine/ consider if the intervention is aiming to contribute to reduction of hunger/starvation or to improve nutritional intake or to improve physical access to food. It should also assess how it complements other sectoral assistance (E.g., WASH, Protection, Shelter, Health) and people's own efforts for livelihood recovery in disaster/ crisis/ emergency contexts.
5. Selection of the food basket is an important aspect of any food assistance programme. It is important to distribute the dry rations consisting of a "contextualized" and "customized food basket" guided by the food preferences and nutritional requirements of the affected population.
6. The purpose of operational planning is to enlist the actions that need to be carried out at each stage of a food assistance relief intervention. A checklist/ SOPs for implementation ensures all aspects are covered. It is also important to see which aspects need to be

defined and agreed in collaboration with the government, non-government stakeholders/ partners, community leaders as per nationally mandated policy guidelines, mechanisms, and resources available.

7. The implementation of food assistance undertaken by the government should be in consultation with other line departments, non-government actors, affected populations and other stakeholders. Acceptance of the local government and community should be ensured to maintain the neutrality and impartiality and independence of the response efforts for effective and inclusive coverage based on humanitarian principles.
8. Distribution monitoring should ensure that resources are properly used, and food reaches the target beneficiaries and that operations proceed as planned in pursuit of the defined objectives; and to detect changes in the situation that might call for the adjustment of objectives, plans or procedures.

Case Study Discussion

Community action to avert food and nutritional insecurities during emergencies via community grain banks

Pallishree- Prasanta Kumar Sahoo- Jajpur, Odisha India

Grain banks in Odisha served as an interim lifesaving intervention allowing families and community members to rely on the very grains, vegetables, and dry rations that they had saved through the year, and which could now meet their nutritional needs till aid and relief poured in in the aftermath of disasters.

Solution

In the year 2016, the idea was implemented in the four pilot villages of Bari Block in Jajpur District in Odisha. Women from the village were collected and the problem discussed before mooted the idea of setting up a grain bank that stockpiled necessary food items through their own efforts and which they could be utilized during the lean and emergency periods. The grain banks are now an integral part of the community's disaster preparedness efforts.

The approach that was followed to get the grain bank operationalised, functioning and sustainable over a long period was to facilitate women centric organisations to handle it. By empowering them with the know-how and requisite steps of how to set it up, replenish it and disburse its stocks was therefore a wise decision. The grain bank relied on vegetable stocks grown and nurtured on high homestead land or on rooftop of homes. Based on climatic conditions a variety of dry vegetable substitutes were grown for emergency use in common kitchens. This provided relief to the women of the house. Each family contributed a handful of rice to a common grain bank every day round the year. This collection was then utilised for emergencies on a collective basis.

With the grain bank, community members were encouraged to also grow vegetables keeping the climate-disaster land condition in mind. In all villages, climber type of vegetables was promoted as they provided protection to thatched houses and could be grown in the local context.

Results

More than 500 people benefitted through this process with each habitation collecting 3-5 quintals of rice for emergency use on an annual basis. Ever since the grain banks were set up the communities experienced several small to medium disasters. They met these with greater resilience, safe in the knowledge that come what may they and their families would not have to sleep hungry. In no time their grain bank would come to their rescue and help them address their food insecurities.

By contributing a handful of rice on a daily basis, target families could easily organise and avail of common kitchens during emergencies. Their vulnerability was reduced as they found a legitimate and manageable way to cope with the situation without causing any stress or burden on any single individual. The larger objective was to ensure the availability of food sufficient for two meals a day consisting of staple foods that the local population were accustomed to. In a few places, the common kitchen continued up to four days.

Replicability

The practice has potential for upscaling and replicability in small villages, hamlets, and household micro groups where people are vulnerable to disasters and have reduced access to the outside world immediately post disaster. Engaging with youth, panchayati raj members and community leaders and influencers will be a step in the right direction. Eventually, the role of women who are at the center of this novel intervention must be strengthened and community ownership remains a key success factor.

Source: Ensuring Food and Nutrition Security in Climate Fragilities and Disasters: The 31 Inspiring Practices, 2022, Pg. 59

Exercise:

1. Name three key conditions for operational planning applicable to establish community grain banks?
2. Are sphere standards of distribution applicable for implementing community grain banks, if yes, name one standard?
3. Name three schemes/ interventions where community grain banks can be integrated and utilised?

SECTION 6

MONITORING FOOD SECURITY AND NUTRITION RESPONSE INTERVENTIONS

Introduction

The purpose of monitoring food security and nutrition response efforts/ interventions is aimed at maintaining quality and ensuring coverage of interventions by leaving no one behind. Context specific activities are undertaken in congruence to governance policies and guidelines to demonstrate accountability and improve the quality of activities implemented to address the needs of the affected populations.

Need assessment of food security and nutrition requirements of the affected population along with implementation of relief and recovery interventions needs to be strengthened with monitoring and reporting mechanisms that practice and document accountability ensuring need-based adaptations to plans and resource allocations. First, a monitoring system must be established to ensure that any inadequacies in the ration are discovered in a timely manner. Secondly, a strategy outlining actions to be taken in response to food shortages or inadequate rations should be in place. Thirdly, given that access to food can change dramatically over time, and the opportunities for obtaining food through the population's own means or through safety-nets/social protection schemes differ significantly between situations, it is essential to make strong links between food aid and the potential for food production from the outset of the emergency. (Food and nutrition need in emergencies, WHO, 2004).

Objective (s)

1. Understand the need and components of monitoring food and nutrition interventions in emergencies.
2. Monitoring implementation of food and nutrition interventions in emergency contexts with special focus on accountability to the affected population.

3. Understand the need for implementing grievance redressal mechanisms/ Complaint and Feedback Mechanism and documentation of lessons learnt to address future relief and recovery requirements.
4. Understand the importance and process to organize independent evaluations as part of the Food Security and Nutrition response strategy.
5. Understand the mechanisms for taking decisions based on evidence for future and corrective actions for long-term rehabilitation and recovery measures.

Expected Time Duration- 60 minutes

Session Outline

1. How and what monitoring systems are required
2. What are the key monitoring and reporting indicators
3. How Accountability to Affected Population can be ensured
4. Specific needs of vulnerable populations, children, pregnant women, old people, disabled and key populations, gender and inclusion considerations
5. What are Complaint and Feedback Mechanisms
6. Post facto assessment and learning documentation
7. Evaluating the Food Security and Nutrition Response Strategy

Expected learning outcome

1. Capacity to undertake monitoring of food and nutrition interventions and co-create adaptive strategies for need based relief and response efforts.
2. Ability to develop effective targeted interventions to address the needs of the at risk and vulnerable groups based on evidence and mandatory inclusion criteria in disaster contexts.
3. Implement robust grievance redressal mechanism/ complaint and feedback mechanism to ensure rights-based coverage and document lessons learnt and good practices for future relief and response interventions.
4. Plan, implement, and utilize evidence-based evaluations for response activities under the Food Security and Nutrition Sector.

Notes for the facilitator

1. Introduce the purpose and objectives of undertaking monitoring and reporting processes and practices. Elaborate the components of food basket monitoring and community monitoring as part of the monitoring process. Mention the uses of sitreps and the role they play in addressing the needs of the affected populations.

Contextualise monitoring and reporting interventions with minimum standards of relief, sphere standards of food and nutrition assistance.

2. Describe the important processes of food distribution programmes, subsequently introduce the various monitoring and evaluation tools and checklist of items that need to be considered while designing and implementing monitoring and reporting processes.
3. Provide a background on the usage of monitoring and reporting indicators. Describe the methodology and indicators for ration distribution monitoring. Introduce the strategies adopted to address concerns emerging from monitoring and reporting processes (food inadequacy, inequitable distribution, micronutrient deficiencies, transport, and logistics). Also enlist the principles to address food and nutrition requirements for inclusive coverage.
4. Introduce Accountability to Affected populations and its need while designing and implementing food and nutrition programmes. Co-relate the enabling governance and policy frameworks and guidelines of the Government of India that enable accountability to affected populations. Describe the enabling provisions under the domains of leadership and governance, transparency, feedback and complaints, participation, and data, monitoring and evaluation that need context specific utilization for successful food and nutrition aid interventions.
5. Describe the importance of addressing specific needs of vulnerable population, children, pregnant women, elderly, disabled and key populations. Provide linkages to the implementation of complaint and feedback mechanisms for inclusive coverage of vulnerable groups. Also describe the key indicators to be considered as part of effective grievance redressal as part of food security and nutrition relief and response efforts. Co-relate this to the value of learning documentation for addressing future relief interventions and recovery needs.

How and what monitoring systems are required

Monitoring of food and nutrition response interventions involves quality monitoring and maintenance/ adherence to the adopted/ assigned standards for effective delivery during emergencies. The process involves maintaining checks on the food and nutrition assistance being coordinated and distributed to the affected population. Feedback from the beneficiaries on the food and nutrition being received is recorded for improving delivery of the aid/assistance. Monitoring at distribution centres includes documentation and reporting on quantities/ inventory of commodities, storage facilities, random quality checks, loss and damage during transportation, community participation, inclusive distribution (to vulnerable groups) and human resource availability from government and non-government stakeholders.

Food basket monitoring is undertaken using exit surveys, random checks, and interviews once beneficiaries have collected their food and nutrition assistance from the distribution centres/sites. This process includes monitoring ration cards based on eligibility, coverage based on inclusion criteria and entitlement, expectations/ feedback based on rations received and need expressed, and feedback on the functioning of the grievance redressal mechanism.

Community level monitoring of food and nutrition assistance is undertaken to understand the usage patterns and effect of the food aid, observable changes in the food security and nutrition levels in beneficiaries for adaptive planning as part of the ongoing interventions. This process is usually undertaken 1 to 2 weeks after the distribution of ration using tools of careful observation, sensitive listening, informal semi structured interviews/ enquiries, key informant interviews and focus group discussions. It is important to record feedback from the most vulnerable groups (women, children, elderly) directly to assess the aspects of access, use, inclusion, coverage, and satisfaction with the intervention outputs. Ensuring inclusive coverage specifically addressing the needs of the vulnerable groups need to be ensured. Monitoring can be conducted by enrolling ASHA and Anganwadi Workers to observe and record risk of malnutrition among children, appropriate infant and young feeding practices among mothers and status of nutrition of pregnant and lactating mothers. Needs of the elderly and People with Disabilities (PWDs) and other marginalised groups should be monitored by relevant line department and support from NGO stakeholders. During emergencies, the needs of at-risk groups remain invisible unless dedicated efforts are made to proactively prioritise and address them, leading to avoidable deaths.

An important part of food and nutrition interventions is to have a robust and well-planned system to monitor food movement, stocks, delivery, distribution, and post distribution monitoring. Logistics and supply chain arrangements form an important pillar of food and nutrition assistance. This process involves monitoring and reporting on commodity weights/ quantities, record of receipts, record of dispatches and information exchange. Emergency intervention plans also require periodical sitreps to determine status and emerging humanitarian needs with respect to target populations/ beneficiaries, food procurement and supply status, logistics requirements, food distribution and use, monitoring using a simple MIS, contingency planning and emergency preparedness, actions of government and other stakeholders, resource mobilization and management needs.

What are the key monitoring and reporting indicators?

Monitoring food security and nutrition response interventions requires holistic reporting which considers evolving food and nutrition requirements and status of food production systems, food access in post disaster/ emergency settings. The objectives of monitoring and reporting indicators should expose inadequacies in ration distribution based on need,

determine actions to address food shortages and any inadequacy in ration requirement of the affected population, and understand how livelihood recovery is contributing to the food basket and addressing the needs of vulnerable populations at the individual, household, and community levels.

Monitoring of general food distribution programmes requires reporting on aspects of food procurement and supply (resource availability, quality, logistics and transportation, stock, and warehousing), food distribution process (frequency, location of distribution, availability, accessibility and inclusion). As part of food and nutrition interventions monitoring and reporting is an ongoing process that helps increase coverage and ensures stability in food and nutrition access at the individual, household, and community levels. In emergencies apart from ensuring inclusive access and coverage of food security and nutrition interventions for the vulnerable target groups. The administration should activate coordination and delivery of intersectoral services. For example, the department of health and family welfare should conduct regular health check-ups for pregnant and lactating mothers and infants, the department of women and child development should provision for counselling of mothers on Infant and young child feeding practices. Similarly, the needs of other vulnerable groups should be addressed using monitoring mechanisms to deliver assistance by utilising government and non- government stakeholder resources.

Ration distribution is monitored using the following methodologies and indicators that help in the assessment of food and nutrition needs:

1. *Food Basket Monitoring*- Investigate the actual quantity of food v/s committed quantity assured at the start of the intervention and conduct random/ systematic checks weighing the individual item received in the food basket to determine amount of food received per person per day.
2. *Qualitative Rapid assessments*- Helps identify the adequacy and appropriateness of interventions based on dietary habits, local food basket and cultural norms on the satisfaction with response measures. Also, assess the infant and young child feeding practices, continuity of breastfeeding, and the food and nutritional needs of pregnant and lactating women as well as the elderly population.
3. *Quantitative assessments at the household level*- Provide insights into identification of vulnerable groups that require supplementary nutrition, based on demographic data, mortality rates, morbidity, food stocks, food use and child feeding practices.
4. *Anthropometric and micronutrient deficiency disease surveys*- help assess the prevalence of malnutrition and micronutrient deficiencies assessment of (i) visible clinical signs of micronutrient deficiencies (e.g., goitre); and (ii) sub-clinical deficiencies through biochemical assessment (e.g., serum retinol, haemoglobin, or urinary iodine).

5. *Household food Economic Assessments*- assess the capacity at the household level to produce food in emergency contexts and estimate the shortages at the household level between different socio-economic groups. This also includes market assessments and local food prices.
6. *Food and livelihood Security Assessment*- understand the existing provisions for food and livelihood security offered by the government as disaster relief, also assess the ongoing recovery interventions of to re-establish pre- disaster livelihoods.

Based on the outputs received from the monitoring and reporting exercises following strategies can be adopted to address

1. Food inadequacy- based on analysis adequate for additional food aid by providing accurate assessment of people in need, develop contingencies to meet need of vulnerable groups, based on coping capacity and recovery aided through existing safety nets/ welfare schemes provide targeted feeding/ supplementary feeding to vulnerable groups.
2. Inequitable distribution- address access, inclusion, and coverage related matters by enrolling all administrative authorities and non-governmental stakeholders to address the needs of the vulnerable groups.
3. Micronutrient deficiencies - Based on documented indicators provide fortified foods to address the need.
4. Transportation and logistics- Focus on items that form the bulk of the food basket (cereal and pulses), develop alternative mechanisms for transportation and delivery.

As part of delivery of assistance during emergencies the existing mechanisms and resources for implementation of the ICDS and TPDS system need to be adapted to support general, supplementary, and targeted feeding based on the need assessment of food and nutrition in the disaster/ emergency affected areas. The interventions are implemented under the leadership of the District Collector/ Deputy Commissioner with support from line departments and NGO- stakeholders.

The principles that need to be considered while estimating food and nutrition requirements include

1. Food Security Approach- that considers post disaster needs, livelihood recovery and coping strategies.
2. Food Availability, consumption patterns, nutritional status- this need to be considered in the context of health determinants, caring capacity, social behaviours, breast feeding and complementary feeding practices among vulnerable groups (infants and young children).

3. Understand social, cultural, and political contexts- monitor the food security situation, nutritional status and factors that affect food access.
4. multi-stakeholder participatory approaches to understand and address food security and nutritional requirements of the affected populations.

How Accountability to Affected Population can be ensured

Accountability to the affected population remains the primary focus while designing and implementing food and nutrition relief and response efforts. Need based interventions help reduce the risk of food insecurity and malnutrition. There are existing governance frameworks/ provisions, for example, the Indian Constitution makes the Right to Food a guaranteed Fundamental Right which is enforceable by virtue of the constitutional remedy provided under Article 32 of the Constitution. Article 47 on the other hand spells out the duty of the State to raise the level of nutrition and standard of living of its people as a primary responsibility.

The Disaster Management Act 2005 and the minimum standards of relief also enable a right based approach for affected populations to access food and nutrition requirements in disaster contexts. Hence, empowering the affected population by involving them in the planning and implementation of the efforts undertaken to address their needs is critical. Engagement and involvement of the affected population help with the identification of context specific needs, addressing specific vulnerabilities and preferences, and facilitates programme implementation in an effective manner.

The Inter-Agency Standing Committee (IASC) defines accountability to affected populations as: "An active commitment to use power responsibly by taking account of, giving account to, and being held to account by the people humanitarian organizations seek to assist." Humanitarian Action is guided by the IASC's five Commitments on Accountability to Affected People/ Populations (CAAPs) and the Core Humanitarian Standard (CHS) which sets out nine accountability commitments which places: "Communities and people affected by crisis at the centre of humanitarian action and promotes respect for their fundamental human rights. It is underpinned by the right to life with dignity, and the right to protection and security as set forth in international law."

As part of the monitoring and reporting protocols for food and nutrition response, it is necessary to integrate the following commitments as part of the implementation strategies for inclusive coverage of the interventions.

1. Leadership and Governance- Is demonstrated by ensuring that feedback and accountability mechanisms are integrated into disaster relief, response and recovery strategies, programme proposals, monitoring and evaluation SOP's, recruitment, staff

inductions, trainings and performance management, partnership agreements, and highlighted in reporting. This requires dedicated resources to be utilised to strengthen leadership and governance mechanisms by integrating good practices that focus on addressing the need of the most vulnerable populations and building capacity within management structures and responding stakeholders to ensure needs are met with no one left behind. At the district level a vigilance committee needs to be formed with a dedicated mechanism for monitoring, reporting and information sharing between the Food Security and Nutrition Village task force, Panchayat representatives and officials, Tahsildars, EO of the Taluka Panchayat, CEO- ZP and Deputy Commissioners/ District Collector. This process will support gathering information for decision making and facilitate the inclusive coverage of interventions.

2. Transparency- Requires the provision of accessible and timely information to the affected populations on administrative procedures, structures and processes that affect them to ensure that they can make informed decisions and choices and facilitate a dialogue between the administration and the affected populations over information provision for timely access of aid/ assistance. As part of ensuring rights-based entitlements to the affected populations it is important to ensure dissemination of information with respect to the relief and response measures are undertaken using multiple communication channels at the district, taluk, and village levels. Also ensure a two-way communication mechanism is implemented to enable inputs being shared by the people in need/ affected populations for effective resource deployment. The government and all stakeholders require to integrate transparency protocols into relief and response mechanism that enable inclusive access and address the need.

3. Feedback & Complaints- Processes to record the views/ complaints/ grievances of affected populations are required to be developed and implemented at the district, taluka, and village levels. This ensures improvement in policy and practice in programming, ensuring that feedback and complaint mechanisms are streamlined, appropriate and robust enough to deal with (communicate, receive, process, respond to and learn from) complaints about breaches in policy and stakeholder dissatisfaction with respect to access and utilisation of relief and response measures. Specific issues raised by affected individuals regarding violations and/or physical abuse that may have human rights and legal, psychological, or other implications should have the same entry point as programme-type complaints, but procedures for handling these should be adapted accordingly. The SOPs should include the enrolment and participation of non- government stakeholders, sector experts, community representatives and paralegals. As part of the relief and response delivery mechanism the administration should establish a help desk/ kiosk or a platform or facility where communities can provide feedback on the on-relief interventions and their coverage at the village, taluka,

district levels for individuals, households, and communities to utilise. Aid recipients should be able to file complaints and have information regarding the grievance redressal mechanism and the procedures that follow. All concerns need to be addressed with importance and priority to ensure timely delivery of humanitarian assistance.

4. Participation- Create opportunities for affected populations to play an active role in the decision-making processes that affect them through the establishment of clear guidelines and practices to engage them appropriately and ensure that the most marginalised (E.g. tribals, dalits, adivasis, migrants, transgenders, sex workers, destitute populations) and affected populations are represented and have influence to be included into the formalised relief and response efforts of the administration/ government. For this the government should provision time, personnel, and resources to enable mapping and participation of all sections of the affected population and stakeholders including the most vulnerable and marginalised communities to ensure a consultative process during planning and implementation of relief and response interventions.

5. Design, Monitoring & Evaluation- It is required to mainstream the operating principles of accountability to affected populations into the processes of need assessment, design, monitoring and evaluation activities, inclusive participatory process and session for learning and development with the involvement of the affected populations and responding stakeholders. Some of the practices to ensure this include provision for flexibility in project proposals and budgets, undertaking multi-stakeholder coordination and planning workshops to discuss and jointly implement the best practices and methodologies that apply to address needs. Undertake participatory consultation processes such as Participatory rural appraisal (PRA) to jointly develop context specific response measures by leveraging local stakeholder resources. Timely impact evaluations are used to document good practices and enable future humanitarian requirements.

Specific needs of vulnerable population, children, pregnant women, old people, disabled and key populations/ gender and inclusion considerations

Food and nutrition interventions in disaster contexts should consider the challenges and obstacles faced by vulnerable and disadvantaged groups and take special measures to address their needs. This entails guaranteeing non-discriminatory treatment as well as adopting proactive reporting measures to enable right based aid access to those suffering from structural discrimination (for example, ethnic minorities or indigenous people). Affirmative action and other proactive measures should aim at diminishing or eliminating conditions that give rise to or perpetuate discrimination, and at countering stigmas and prejudices. Women, the elderly, adolescents, youth, children, persons with disabilities, indigenous populations, refugees, migrants, chronically ill, and populations at risk (such as sex

workers and transgenders) experience the highest degree of socio-economic marginalization, and therefore are most at risk of food insecurity and malnutrition. Intersectionality (disability, religion, ethnicity, gender identities, being a female head of households, poverty status) can exacerbate vulnerability in hazard prone areas. These groups therefore need to be covered on priority basis in food and nutrition programmes both in humanitarian and development contexts.

During monitoring, evaluation and reporting processes with respect to addressing needs of marginalised and vulnerable groups record observations with regards to basic demographic information utilised/ considered during formulation of response plans, information considered under baseline assessments and community perception surveys, weather implementation plans have included specific provisions and resources to address the needs of the vulnerable groups, and measures undertaken during implementation to address stigma against vulnerable groups to ensure inclusion and coverage of relief and response measures.

What are the Complaint and Feedback Mechanisms?

Complaint and feedback mechanism (CFM) can be defined as “a set of procedures and tools formally established and used to allow crisis affected populations to provide information on their experience of a humanitarian agency or of the wider humanitarian system. Feedback and Complaint Mechanisms can function as part of broader monitoring practices and can generate information for decision-making purposes.” (ALNAP).

Complaint and Feedback Mechanisms should be designed to increase participation of the affected communities, to achieve transparency and efficiency of relief and response efforts, and to reduce the possibility of corruption and abuse of power while providing humanitarian assistance.

Grievance redressal and feedback mechanisms involve multi- stakeholder processes that encourage humanitarian actors to function under an inter-agency mechanism led by the government. This requires processes to be built into monitoring and evaluation processes to record the number of complaints received, the type of response/ relief provided, and protocols adopted to ensure the safety and confidentiality of the complainants and timely resolutions provided.

Relief and response efforts should be flexible to address needs for relief and recovery measures arising from the feedback from the affected communities and provide solutions to the complaints received. Protection of vulnerable groups requires establishment of safety mechanisms and strategies that work towards the prevention of sexual exploitation and abuse of affected people by humanitarian actors.

Participatory processes should be activated to enrol and record the views of affected populations regarding the relief and response interventions. This will improve policy and practice in programming, ensuring that feedback and complaint mechanisms are streamlined, appropriate and robust enough to deal with (communicate, receive, process, respond to and learn from) complaints about breaches in policy and stakeholder dissatisfaction. Hence the relevance of establishing feedback and complaint mechanisms as part of all phases of the disaster cycle to ensure early action, address protection requirements, maintain quality and effectiveness interventions in adherence to standards and SOP's and achieve accountability benchmarks.

Following are some the indicators to consider while monitoring complaint and feedback mechanisms

1. Number of individual complaints received and addressed from vulnerable groups and feedback received from beneficiaries regarding the solutions provided.
2. Satisfaction regarding participatory processes and inclusion with respect to food and nutrition programme design and implementation.
3. Awareness regarding beneficiary rights and entitlements and available information to access relief and response requirements and interventions, with special focus on inclusion criteria of vulnerable groups.
4. Availability of information, liaison and facilitation support required to access and record grievances for receiving timely solutions, along with escalate cases where relief is not provided due to inaction.
5. Proportion of relevant nutrition programme documents that document and report on community feedback and programme adjustments made as a result.
6. Proportion of non- government stakeholder/ agencies who have implemented complaints and response systems, or who participate in joint systems in adherence to governmental guidelines and advisory.
7. Proportion of humanitarian professionals, front line workers and staff to have capacities built to know how the complaints and feedback mechanism works, and their roles in receiving and responding to complaints, especially sensitive complaints.
8. Registration of complaints citing sexual harassment in exchange of humanitarian aid and time bound resolution of such complaints, along with protection measures provided to the victims.

Case Study: Implementation and Functioning of Complaint and feedback Mechanisms for Food and Nutrition Security Responses during emergencies

'We are Committed to Listen to You': World Vision's experience with humanitarian feedback

mechanisms as part of Sudan's food assistance programme in South Darfur camps for internally displaced persons (IDPs). Darfur is characterised by ongoing conflict and restricted access to certain camps and regions. In addition, certain areas of programming are proscribed due to the unresolved conflict and the dilemma of protracted displacement.

Description of feedback collection channels used in World Vision's (WV's) feedback mechanism

- Community Help Desk (CHD) is the primary channel for feedback from camp residents about food assistance received. CHDs function in all camps and are staffed with two 'focal points' – unpaid camp residents selected by a committee of fellow camp residents and World Vision staff. They are given training and use a logbook to record requests, complaints, and feedback from affected populations during monthly food distributions. CHD focal points are encouraged to resolve simple questions on the spot. The logbook is transferred to the Food Assistance Monitoring & Evaluation (M&E) team who analyse the data. All data from CHD logbooks is regularly summarised and shared with the Food Assistance Team and senior management in Khartoum. Camp residents also approach CHD focal points between monthly food distributions and submit written notes to be included in CHD logbooks.
- Feedback boxes (suggestion boxes) are also used by the Food Assistance Team to gather feedback. The boxes are typically located outside the temporary school buildings where WV runs school feeding programmes. World Vision staff open the boxes in the presence of the principal, staff, and pupils. A pre-printed form invites the pupils and teachers at the school to provide suggestions, feedback and complaints about World Vision programmes and staff conduct. Users can remain anonymous, and responses are given through school-wide announcements and individually.
- Several informal channels for capturing feedback, requests and complaints from camp residents include periodic community meetings and focus group discussions conducted by staff from the food assistance programme and other programme units (health, WASH, child-friendly spaces, etc.). Regular post-distribution monitoring visits provide additional opportunities for IDPs to provide feedback. Beyond the food assistance programme, children's committees use community meetings to facilitate educational and recreational activities and encourage feedback from children using drawings. Camp leaders and residents have also used phone calls and office visits to raise questions and issues with staff.

Some programmatic changes based on feedback from camp residents are

1. Changes to the content of food rations,
2. structural improvements in the food distribution areas and temporary school buildings,
3. Enhanced extracurricular programming for children,
4. Introduction of a milling voucher programme.

Reference: HUMANITARIAN FEEDBACK MECHANISMS- Research, evidence, and guidance-
Francesca Bonino with Isabella Jean and Paul Knox Clarke

<https://www.alnap.org/system/files/content/resource/files/main/alnap-cda-study-feedback-mechanisms.pdf>

Exercise: Considering a local disaster and design a complaint and feedback mechanism for aid recipients- explain the objectives, tools, chain of command for issue resolution, issues you choose to address as part of inclusive access to Food and Nutrition Security and steps for stakeholder engagement?

Post facto Assessment and Learning Documentation

Lessons learnt documentation is evidence-based assessment of results and measurement indicators to address food and nutrition requirements of the affected community and determine future relief and recovery needs for inclusive coverage.

Some of the key success factors to ensure coverage and inclusion based on good practices include

1. Involvement of existing local governmental resources and community platforms for intensification of food and nutrition interventions. E.g., As part of preparedness measures emphasise the need for detailed planning and development of mechanisms for food and nutrition as part of the Gram Panchayat Development Plans. Also integrate the mobilisation of panchayat level resources as part of the village disaster management plans through participatory planning processes at the village level.
2. Utilisation of existing safety nets and welfare schemes to help address food and nutrition requirements of households with vulnerable groups (women, children, elderly, PWDs).
3. Successful interventions are achieved when adequate human and financial resources are allocated to emergency management and response activities that are essential for delivery of food and nutrition interventions.

4. Community level communication platforms and ICT tools (social media) should be utilised to communicate positive behaviours and rights-based entitlement of humanitarian assistance (E.g., caregiving practices for children, use of essential services and sanitation, mapping of at risks groups and need requests can also be coordinated using appropriate and accessible technological interventions).
5. Mechanisms for engagement of non-government actors should be activated and supported by local governments to ensure effective coverage of relief to the affected communities. Non- Government stakeholder resources can also be utilised to supplement governmental efforts and ensure timely relief delivery and coverage.
6. Documentation of innovations to deliver food and nutrition interventions that have been successfully tested during crisis and learning from these should be utilised for systems improvements during the recovery phase.
7. Resilience building with respect to food insecurity should consider integrating local agricultural approaches (such as cropping patterns, home gardens) in emergency interventions.
8. Measuring beneficiary feedback helps address bottlenecks and improve implementation.
9. Measuring the results of nutrition interventions during the relief and recovery phases is important for accumulating learning on what works, this is relevant to design future interventions.
10. Examine how to effectively link monitoring and process evaluation to decision-making processes to achieve results.
11. Document lessons on how to sustain monitoring systems from pilot to scale as part of implementing humanitarian aid interventions.
12. Assess how to manage monitoring across multiple, integrated interventions.
13. Document how to carry out effective supportive supervision, especially in contexts with high turnover of humanitarian actor, stakeholders, professionals, and staff.
14. Determine how to enable relief and recovery interventions to achieve food security and nutrition requirements by strengthening activities at all levels.

Evaluating the Food Security and Nutrition Response Strategy

The purpose of evaluating an emergency response is two-fold: (a) to generate “learnings” on whether the response strategy and activities are sufficient to address the needs, (b) ensure “accountability” of the deployed resources. Evaluations are typically undertaken after the immediate response and early-recovery phases. They often leverage evidence from existing

assessments and monitoring systems, as well as collect more specific data to answer the following:¹⁴

- To what extent did the Food Security and Nutrition response meet peoples' needs?
- What was the extent and quality of the response?
- Have the deployed resources been used efficiently?
- What are the factors that explain the performance Food Security and Nutrition response?

Hence, evaluations provide critical feedback on building-back-better by strengthening programme design and future Food Security and Nutrition response strategies for various situations.

What is the relevance of evaluations?

Evaluation is a structured evidence-based analysis which draws together data (quantitative and/or qualitative) to answer questions about the relevance, effectiveness, efficiency, coherence, sustainability, and impact of the Food Security and Nutrition response strategy using clear criteria and standards for assessing 'successes' against desired outcomes.¹⁵ Evaluations, especially in a post disaster situation, are important to review the accountability (i.e., whether funds or activities were undertaken as per plan), and learning dimensions (i.e., what can be improved) within the overall Food Security and Nutrition response strategy.

When to do evaluations?

Typically, evaluations are scheduled to capture the status of relevant indicators before and after the implementation of any programme. However, in the context of disaster relief or situations where there is a rapid onset of disasters, evaluations are undertaken ex-post (i.e., 3-4 months after the disaster relief and response activities). This is sometimes termed as a "final evaluation" on the overall Food Security and Nutrition response strategy, activities, and drawing lessons to improve future course of disaster response planning.¹⁶ There are also disasters which are slow onset and protracted emergencies such as conflicts. Evaluation in this case could be undertaken at the end of the response for documenting and course-correction of the response strategy.

¹⁴WFP, 2022, Evaluation Methods Advisory Panel. https://docs.wfp.org/api/documents/WFP-0000145930/download/?_ga=2.212837719.276417154.1684738892-1978820281.1675153723&_gac=1.20729162.1684738892.CjwKCAjwpayjBhAnEiwA-7ena-cPIUUhWjUicLOnX6X3fxqX_XaExjOQGvd01BEA2Lwc1niFNodktxoCNVoQAvD_BwE

¹⁵The Australia & New Zealand School of Government, 2016. https://knowledge.aidr.org.au/media/4783/ausnz-school-of-govt_mpluse-framework-for-disaster-recovery-programs.pdf

¹⁶United Nations, 2008. https://www.unisdr.org/files/2909_Disasterpreparednessforeffectiveresponse.pdf

What are the evaluation criteria, approaches, and methodologies?

Evaluations, like other empirical research studies, start by identifying a list of criteria and questions to be answered for a particular context. There is a global agreement on six evaluation criteria and their associated questions which can be used for evaluations, prescribed by OECD-DAC¹⁷. They are as follows:

Table 25: Evaluation Criteria by OECD-DAC

Criteria	Questions
Relevance Is the Food Security and Nutrition response strategy doing the right things?	To what extent does the strategy objectives and design respond to beneficiary needs and priorities?
Effectiveness Is the strategy achieving its objectives?	To what extent did the strategy achieve, or is expected to achieve, its objectives, and its results?
Efficiency How well are the resources being used?	To what extent has the strategy delivered, or is likely to deliver, results in an economical and timely way?
Coherence How well does the strategy fit with other programmes/ efforts?	How compatible is the strategy with other programmes operating in the same context?
Impact What difference has the Food Security and Nutrition strategy made?	To what extent the strategy has generated or is expected to generate significant positive or negative higher-level effects?
Sustainability Will the benefits last?	To what extent the net benefits of the strategy have continued, or are likely to continue?

Mixed-methods approach¹⁸ is recommended for undertaking evaluations. This includes collecting both quantitative and qualitative data and information from stakeholders to answer the evaluation questions comprehensively. Evaluations also adapt several research methodologies to respond to the evidence needs. In the context of post-disaster recovery, ex-post or post-facto or retrospective designs are better suited.¹⁹ These include participatory designs like outcome harvesting, contribution analysis, and process tracing which require and support mixed-method approaches.²⁰

¹⁷<https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

¹⁸Bamberger et al 2006, <https://gsdrc.org/document-library/mixed-method-evaluation/>

¹⁹Beardmore et al 2023. <https://www.sciencedirect.com/science/article/pii/S0149718923000125>

²⁰Beardmore et al 2023. <https://www.sciencedirect.com/science/article/pii/S0149718923000125>

What are the data sources?

Evaluations will source data from both primary and secondary sources. Since evaluations in the post-disaster relief situations often operate without a baseline, the secondary data sources from Food Security and Nutrition assessment reports and monitoring systems gain priority. Subsequently, evidence from primary sources can be collected to address evidence gaps as required. Data can be collected using quantitative tools like household or beneficiary surveys, and qualitative tools like Focused Group Discussions, and In-Depth Interviews.

What are the key steps involved in evaluations?

There are seven essential steps involved in undertaking evaluations²¹:

- **Planning:** Identifying the evaluation scope, questions, approaches, methodology, and resources required. Various types of evaluation methodologies are considered at this stage.
- **Drafting the Terms of Reference (ToR):** Clearly articulating the objectives and evaluation questions, scope of the evaluation, and implementation plan.
- **Creating a Technical Advisory Group (TAG):** Comprising of relevant stakeholders to guide the evaluation, provide oversight, and utilize the resulting evidence for decision-making.
- **Request for Proposal of the Evaluation:** Develop the Request for Proposal for hiring an independent evaluation agency to undertake the evaluation.
- **Finalizing the methodology and inception meeting:** The evaluation questions, approach, and full methodology are finalized and presented to the TAG members for their approval as part of the inception meeting.
- **Data collection and analysis:** Including both primary and secondary data collection and collation from relevant stakeholders such as beneficiary individuals/ households/ community, government & non-government partners, implementing agencies, etc.
- **Reporting and dissemination:** The data is analysed to answer the research questions, and findings are presented to the TAG for further action. Findings and recommendations of the report are shared in the public domain after approval from the TAG.
- **Drafting management response:** A simple matrix which specifies the actions that the stakeholders have agreed to take to address each evaluation recommendation along with corresponding implementation deadlines.

²¹WFP, 2021. https://docs.wfp.org/api/documents/WFP-0000002653/download/?_ga= 2.256886856.276417154.1684738892-1978820281.1675153723&_gac=1.226157032.1684738892.CjwKCAjwpayjBhAnEiwA-7ena-cPIUUhWjUicLOnX6X3fxqX_XaExjOQGvd01BEA2Lwc1niFNodktxoCNVoQAvD_BwE

Testing of knowledge

1. Draft a brief strategy note on 'ensuring food and nutrition access to women, girls, pregnant and lactating mother, children, PWDs and elderly' which will be implemented by the government as part of an emergency. The strategy note should include (a) objectives (b) stakeholders (c) entry points (d) government platforms/ departments which need to be utilised, and (e) Describe the elements of a grievance redressal mechanism ensuring accountability to the affected population for the above intervention.
2. What is the purpose and objective of conducting an evaluation in a disaster response strategy.
3. Detail out the process of conducting an evaluation in a disaster situation. (Group Work)
4. How the evidence generated through evaluation are being used for future planning and course-correction of the disaster response strategy/action.

Brief Recap

1. Monitoring of food and nutrition response interventions involves quality monitoring and maintenance/ adherence to the adopted/ assigned standards for delivery of humanitarian aid. The process involves maintaining checks on the food and nutrition assistance being coordinated and distributed to the affected population.
2. Monitoring food and nutrition response interventions requires holistic reporting which considers evolving food and nutrition requirements and status of food production systems in post disaster/ emergency settings.
3. Accountability to the affected population remains the primary focus while designing and implementing food and nutrition relief and response efforts. Need based interventions help reduce the risk of food insecurity and malnutrition.
4. Food and nutrition interventions in disaster contexts should consider the challenges and obstacles faced by vulnerable and disadvantaged groups and take special measures to address their needs.
5. Grievance redressal and feedback mechanisms involve multi- stakeholder processes that encourage humanitarian actors to function under an inter-agency mechanism led by the government.
6. Lessons learnt documentation is evidence-based assessment of results and measurement indicators to address food and nutrition requirements of the affected community and determine future relief and recovery needs for inclusive coverage.
7. Evaluation is a structured evidence-based analysis which draws together data (quantitative and/or qualitative) to answer questions about the relevance, effectiveness, efficiency, coherence, sustainability, and impact of the FS&N response strategy using

clear criteria and standards for assessing 'successes' against desired outcomes. They are used as an accountability and learning tool to further strengthen the FS&N response strategies.

8. In the context of disaster relief or situations where there is a sudden onset of disasters, evaluations are undertaken ex-post (i.e., 3-4 months after the disaster response and relief activities).
9. Evaluations collect and analyse both primary and secondary data to address the research questions. In absence of a baseline, the evidence from FS&N assessments and monitoring systems are used to establish causality.
10. There are six steps for undertaking evaluations – planning for the evaluation scope and methodology, creating a Terms of Reference for the evaluation with articulates the scope well, creating a TAG for guidance, oversight, and use of evaluation findings, inception meeting to initiate the evaluation, data collection and analysis, reporting and dissemination of the evaluation findings and recommendations, and drafting of the management response.

Case Study Discussion

Women Champions as Organic Change-makers in Public Distribution System (PDS) Public Affairs Centre

Public Affairs Centre (PAC)- Aishwarya Mallavaram- Karnataka

Women self-help groups from within the community in 30 districts in Karnataka adopted the “3A Framework of Awareness-Advocacy-Action” to question gaps in PDS and strengthen food security of the marginalised populations to facilitate building a resilient and disaster proof PDS system. In Karnataka, one crore households comprise of BPL cardholders and 10 lakh AAY cardholders who account for 14% of the total state beneficiaries belonging to priority households. Provision of support for grievance redressal in the context of emergencies is a priority to ensure inclusive access to food and nutrition for marginalised households. A Cadre of trained citizen monitors was trained to build awareness to access rights and entitlements and facilitate grievance redressal.

Solution

Citizen Monitors were elected at the community level through community meetings and trained on relevant regulations concerning PDS entitlements of ration cardholders. Accordingly, they checked Fair Price Shops (FPS) for compliance with government regulations, sharing information, and enabling access to entitlements to the marginalised populations.

Community-led monitoring processes were designed to improve awareness among

beneficiaries about their entitlements, increased adherence to standard protocols by FPS owners and an active engagement with government officials. The intervention implemented by PAC was driven by an innovative process that entailed beneficiaries driving change through systematic monitoring of community engagement and advocacy. Simultaneously, a mutually beneficial relationship was built between the community, FPS owners, Food & Civil Supplies Department officials and women SHG members. Another barrier of resistance from FPS owners was addressed by following a systematic approach of consultation and mediation with local Government bodies and Food and Civil Supplies Department officials. The barrier related to political interference on account of well-connected FPS owners hindering performance of women SHG members could not be mitigated by PAC team.

Results

The project identified more than 716 community champions of which 600 were women. Qualitative interviews with 360 Citizen Monitors showed that 303 women and 54 men wanted to continue as monitors. The women monitors ensured FPS were shifted to safer places and made accessible for women. Ensuring involvement of concerned stakeholders led to a belief in the project's scalability and sustainability. PAC developed a detailed Implementation Manual for transfer of knowledge for Citizen Monitors using the Training of Trainers (ToT) model that comprises of a training manual and SOPs. The initiative improved access to food entitlements to 101,826 beneficiaries across the state.

Source: Ensuring Food and Nutrition Security in Climate Fragilities and Disasters: The 31 Inspiring Practices, 2022, Pg. 13

Exercise:

1. Discuss and identify the ration distribution monitoring methodologies applied in the above case study?
2. Identify the monitoring and reporting strategy used to address gaps in ration access?
3. Is the above case study categorised as a complaint and feedback mechanism (Yes/No)?

SECTION 7

INTER-SECTORAL AND MULTISTAKEHOLDER COORDINATION IN INDIA

Introduction

Disaster relief and response interventions are led by the government and respective local administrations in the disaster affected areas. Relief and response efforts in emergencies are always a multi stakeholder operation/ intervention and involve coordination at the government and non- government levels. At the governmental level multi- sectoral coordination is required between and within line departments and at the non- government level multi- stakeholder coordination is required between sector specific organisations, sectoral experts, and private stakeholders. This approach is especially important to ensure food security and nutrition as nutritional outcomes are closely linked to sectors of WASH, health, education, food security and nutrition, livelihoods, and protection. Inter sectoral and multi-stakeholder coordination if well integrated into planning of disaster relief and response activities under food security and nutrition interventions will yield positive results. Preparedness and mitigation measures based on well documented SOP's and coordination mechanisms are an essential part of emergency response.

Objectives

1. Understand the different stakeholders and their roles.
2. Understand the methods to operationalise inter sectoral/ stakeholder coordination while implementing food security and nutrition interventions.

Expected Time Duration- 60 minutes

Session Outline

1. Who are the stakeholders
2. What are the existing mechanisms for coordination

3. How these can be effectively implemented

Expected learning outcome

1. Deployment and implementation of an inter sectoral and multi stakeholder approach to food security and nutrition in emergencies.

Notes for the facilitator

1. Introduce the various stakeholder and sectors related to ensuring food and nutrition security as part of relief and response efforts.
2. Describe the institutional mechanisms available at national, state and district level that facilitate the enrolment of multiple stakeholders and inter sectoral resources to address food security and nutrition needs.
3. Introduce and describe the mechanism for GO-NGO coordination at the state and district levels, which can be adopted to suit specific contexts to provide effective and timely delivery of relief and response efforts.
4. Describe the key focus areas that require to be implemented to successfully implement a multi- sectoral approach to relief and response delivery by establishment of the GO- NGO coordination mechanism.
5. Introduce and describe the protocol for NGO stakeholders as part of relief and response efforts.

Who are the stakeholders

Experiences from humanitarian interventions have visualised the need for an appropriate and effective mechanism for coordination and collaboration within/ between the Government and Non-Government Organisations, Civil Society Organisations, UN Agencies, faith-based organisations, the private sector, and other stakeholders operating during the disaster relief, response, and recovery phases.

Coordination within/ between the Government and Non-Government stakeholders on a single platform facilitated by the Government helps deliver effective disaster relief, response, and recovery interventions by understanding the emerging multi sector needs and context specific requirements to address the food security and nutrition requirements of the affected populations. In post disaster scenarios coordination and consolidation of multi sector resources and identification of sector specific organisations/actors supports the efficient utilization of available resources. This process when undertaken in partnership with the Government co- creates an effective GO- NGO disaster response and recovery mechanism for Disaster Risk Reduction and Management as required to address all the phases of the disaster cycle.

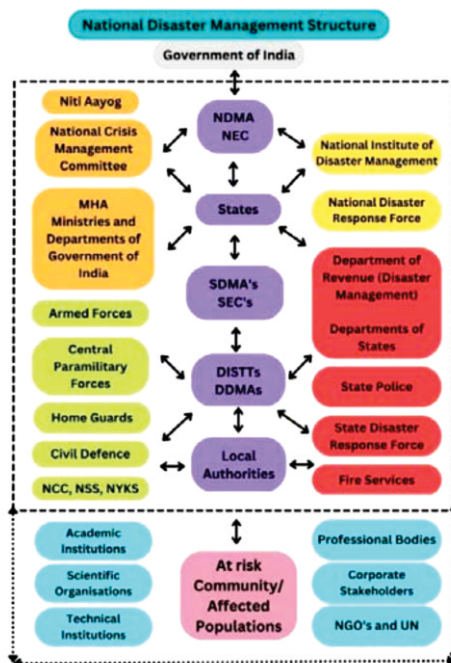


Figure 8: National Disaster Management Structure of the Government of India

What are the existing mechanisms?

An appropriate institutional mechanism reduces operational constraints of inter sectoral actors providing food and nutrition assistance. This mechanism facilitated by the Government strengthens the coordination process involving all stakeholders with accountability, responsibility, and effective operations throughout the disaster cycle, addressing the needs of the affected populations in a timely manner; directly reducing losses in terms of life, livelihood, health, property, ecology, and economy and most importantly ensuring food security and nutrition at the individual and household levels.

Institutional mechanisms for these processes have been vested at district, state, and national levels as part of section 35 and 38 of the Disaster Management Act, 2005. Creation of such a mechanism to address food security and nutrition needs in emergencies to ensure multi stakeholder engagement and inter sectoral coordination for all phases of the disaster cycle is the responsibility of the Government/ Administration, State Disaster Management Authority, and the District Disaster Management Authorities with the support from relevant line departments and guidance from the National Disaster Management Authority.

The National Policy of Disaster Management, 2009 clearly lays the foundation of roles and responsibilities of stakeholders by including the last mile integration of policy, plans, awareness creation, capacity development for execution of preparedness, relief and response, mitigation, and resilience building measures, along with dissemination of early warning.

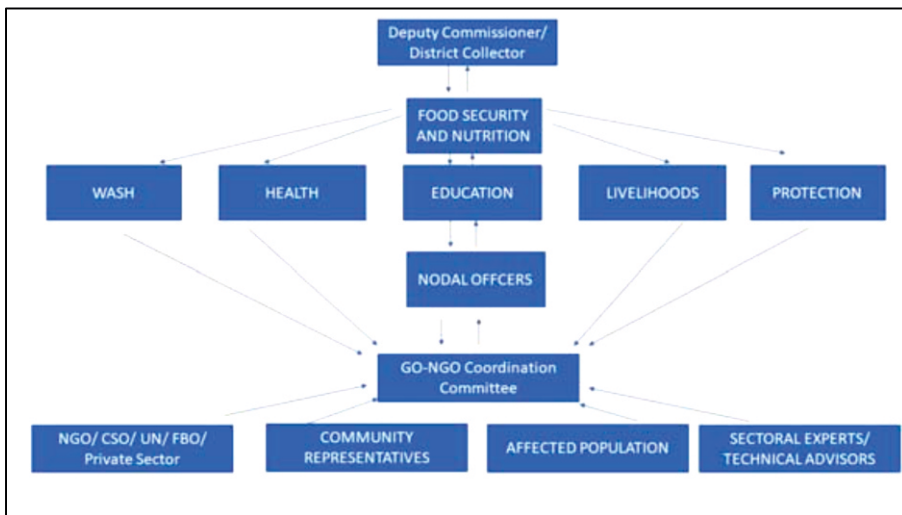


Figure 9: Coordination mechanism for food and nutrition relief and response interventions

Enabling mechanisms operationalised for contributing to food security and nutrition through relevant sectoral line departments during relief and response interventions

1. Inter-departmental coordination protocols for multi-sectoral convergence within the government and a functional GO- NGO coordination platform for multi-stakeholder collaboration during the Disaster cycle to address the food and nutrition needs of the affected populations.
2. Creation of sectoral committees within the government should be mobilised to address the food and nutrition requirements through multi-sectoral interventions that address short-, medium- and long-term needs, strengthened by the participation of all stakeholders.
3. Protocols for accessibility to disaster-affected areas and identification of focal points/ nodal officers for GO-NGO coordination at local, district and state levels, are necessary to ensure the integration of non-government stakeholder resources with the Government ongoing relief and response interventions.
4. Accessibility to context specific information for decision making will help address the multi sector linkages to address food security and nutrition.
5. Commitment to implementing of minimum standards for relief and response through GO- NGO partnerships.
6. Institutionalising knowledge creation and management for capacity building of all stakeholders ensuring rights in crisis and accountability to the affected populations for inclusive access to food and nutrition.

7. Establishment of a GO- NGO platform to facilitate awareness, information dissemination and advocacy initiatives that contribute to inclusive coverage and relief access, disaster recovery, mitigation, preparedness, and resilience-building efforts.

State level Mechanism

1. Creation of guidelines for GO- NGO coordination and partnerships for addressing food security and nutrition requirements.
2. Call, Empanelment guidelines and multi sector database of Nodal officers from line departments, Non-Government Organisations, Civil Society Organisations, domain experts, representatives from the SDMAs and DDMA, other stakeholders working/ responding to food and nutrition needs forms the Resource Directory.
3. Identification of multi sector priorities for GO- NGO partnerships to address food and nutrition recovery needs, in consultation with vulnerable communities, district administration and line departments.
4. Identification of focal points for food and nutrition, requires coordination at state level and district level (SDMA, DDMA, Nodal officers, head of line departments and interagency coordination committee representatives from NGOs, CSOs and other stakeholders- Core Group)
5. Formation of SDMA- NGO advisory committee/ sector committees for GO-NGO led food and nutrition interventions.
6. Facilitate the formation of Inter Agency Coordination platform for a GO-NGO coordinated response through the Disaster cycle addressing food and nutrition needs of the most vulnerable populations.
7. Implementation of multi stakeholder capacity building programmes for needs assessment, preparedness, mitigation, response, rehabilitation, recovery, and resilience building for food security and nutrition.
8. Provide linkages with authorities and access to knowledge on hazard monitoring along with last mile connectivity for dissemination of early warning to at risk populations and stakeholders.
9. Create a mechanism for information dissemination, research and good practice development and adoption before, during and after disasters.
10. Create a grievance redressal mechanism ensuring accountability of GO- NGO stakeholders and the coordination process, ensuring inclusion of needs of the most marginalised, vulnerable, and high-risk populations and stakeholders.
11. The State Level GO- NGO coordination mechanism will be practiced under the guidance and leadership of Secretary, Department of Revenue (Disaster Management) and

Director/ Secretary State Disaster Management Authority and Nodal officers for food security and nutrition relief and response efforts, with support from line departments.

District level Mechanism

1. Deputy Commissioners/ District Collectors supported by the CEO-Zilla-Panchayat are the focal points for the district to initiate the call for I/N-NGOs, local NGOs, CSOs and other stakeholders to setup the Inter Agency Group and develop criteria for engagements to respond to food and nutrition needs disaster needs. This also requires linkages with the existing administrative committees formed for coordination of resources within and between line departments. At the taluka level the Tahsildar, the Executive Officer of the Taluka Panchayat supported by the Panchayats facilitate the implementation of food security and nutrition interventions for inclusive coverage under the leadership of the district administration. The mechanism functions under the overall guidance of Secretary Revenue Disaster Management, Relief Commissioner and Revenue Minister.
2. The Inter Agency Group will be guided by the guidelines for engagement of GO- NGO coordination and partnerships determined at the State level.
3. A representative from the DDMA/ Nodal Officer appointed by Deputy Commissioner will facilitate the functioning and coordination of the Inter Agency Group to address the sector food and nutrition needs.
4. Deputy Commissioner assigns representatives from line departments, local authorities/ departments, to facilitate partnerships with NGOs, CSOs and other stakeholders to address needs.
5. The Inter Agency Group/ GO-NGO coordination committee will develop a data base of NGOs, local NGO's, CSO's, domain experts, institutions, local leaders, and other stakeholders. This data base will include details of operational areas/locations, local partners, sector/response details, beneficiary details etc.
6. Facilitate the assessment of food and nutrition needs and responding capacities at the district level in terms of response, rehabilitation, recovery, reconstruction, mitigation, and preparedness.
7. Create a contact point and platform for information dissemination before, during and after disasters. Also facilitate and support research, documentation, and dissemination of good practices for replication and scaling.
8. Create a knowledge management platform and grievance redressal mechanism to address food and nutrition of the most marginalised, vulnerable, and high-risk sections of the population.

9. Work in coordination with the State Level Mechanism established under the guidance and leadership of Secretary, Department of Revenue (Disaster Management) and Director, State Disaster Management Authority and Principal Secretary, Department of Rural Development and Panchayat Raj to communicate and implement food security and nutrition relief and response interventions.

Table 26: Roles and responsibility of actors and stakeholders
during food and nutrition response

Actors and stakeholders	Indicative roles and responsibilities
Principal Secretary (Revenue-Disaster Management)	Overall advisory and coordination with line departments, District Administrations, and stakeholders at the state level to ensure mobilization of resources to meet food and nutrition requirements
Director, State Disaster Management Authority	Overall advisory and coordination with District Disaster Management Authorities to ensure mobilization of resources to meet food and nutrition requirements
Deputy Commissioner/ Deputy Collector/ District Magistrate	Overall advisory and coordination with line departments, Zilla Panchayat, Tehsildar, and stakeholders at the district level to ensure mobilization of resources to meet food and nutrition requirements
Director, Food and Civil Supplies Department	Overall responsibility of procurement and logistics of food relief operationalised through the TPDS infrastructure
Tehsildar	Overall responsibility of food and nutrition distribution to the affected population in the taluka
Executive Officer - Taluka Panchayat	Overall responsibility of monitoring food and nutrition distribution to the affected population in the panchayats under the taluka
Director, Women and Child Development Department	Overall responsibility to ensure nutrition needs of children, women, pregnant mothers are addressed by ensuring the functioning of existing schemes and mobilisation of additional resources during emergencies
Nodal Officers	Single point of contact for inter departmental and stakeholder resource mobilisation to address food and nutrition relief requirements
District Disaster Management Authority	Overall advisory and coordination between GO -NGO stakeholders to ensure mobilization of resources to meet food and nutrition requirements

Actors and stakeholders	Indicative roles and responsibilities
Village Accountant/ Village Officer/ Panchayat Development Officers/ Councillors	Overall monitoring and reporting of delivery of food and nutrition relief at the last mile to beneficiaries and facilitation of grievance redressal through appropriate mechanisms at the taluka and district level
NGO Stakeholders	Supplement the effort of the government actors to ensure inclusive right based access to food and nutrition requirements of the vulnerable and affected populations

How these could be effectively implemented

Delivery of food and nutrition interventions require coordination, alignment and synergy with existing administrative structures activated for the implementation of disaster relief and response efforts, line departments that are responsible and linked to food security and nutrition (Departments: Food and Civil supplies/ consumer affairs, Health and Family welfare, Education, Public Works Department/ Rural Drinking Water Supply, District Collector/ Deputy Commissioner, Zilla Panchayat, Education, Department of Education, Department of Women and Child Development etc). As part of the Non- Government Stakeholders the coordination requirements mandate the enrolment of sectoral experts and organisations (Sectors: Food Security and Nutrition, WASH, Gender and Child Protection, Health, Shelter, and Education) that are closely related to the access and delivery of relief and response efforts.

The formation of GO-NGO coordination committees/ mechanisms at the district and state level form the foundational platform for the formalised functioning of the multi- stakeholder approach to addressing the food and nutrition needs of the affected population in an effective, timely and inclusive manner without duplication of efforts and wastage of resources. To ensure food security and nutrition needs are addressed it is beneficial to set up a sectoral working group that acts as an advisory platform for pre- positioning and deployment of resources based on need assessments and analysis.

Based on the resource availability and capacity analysis the government departments involved in and linked to food and nutrition should be strengthened with trainings, tools, and techniques (minimum preparedness activities) to manage relief operations. This process is required at all levels of governance and administration.

Some functions that can enable effective implementation include

1. Supporting relief delivery includes- providing a platform for enabling food and nutrition interventions as per the agreed priorities and targeting approaches while developing mechanisms to eliminate duplication of relief and response activities.

2. Information for strategic decision-making for the Humanitarian Relief and Response efforts includes needs assessment, monitoring and evaluation, complaint and feedback mechanisms and response gap analysis using a multi- sector approach to ensure accountability to the affected population.
3. Planning and Strategy Development requires sectoral planning by mobilisation of resources in adherence to existing standards and guidelines for implementation and delivery of food and nutrition relief.
4. Advocacy provides information for dissemination that facilitates inclusive relief delivery to the affected population.
5. Monitoring and Reporting assesses the implementation of the response strategy to achieve measurable results; recommending corrective action where necessary.
6. Contingency Planning/Preparedness/Capacity Building is required in situations where there is a high risk of recurring or significant new disasters and where sufficient capacity/ resources exists to respond to needs.

Protocol for Non-Government Stakeholder Engagement during Emergency Preparedness and Response

1. District Administration/ State Administration puts forth a written appeal/ call through official communication channels and media requesting enrolment of non- government stakeholders interested to respond to the needs of the affected population.
2. Stakeholders with sector specializations and domain expertise submit a proposal addressed to the Deputy Commissioner/ District Collector/ Principal Secretary (Revenue Disaster Management) detailing the food security and nutrition intervention action plan, outputs, outcomes, timelines, and budgets- As per the resources available currently and expected future capacity.
3. District Administration/ State Administration facilitates the enrolment of non-government stakeholders as part of the district/ state data base. Based on the intervention the District Administration will provide necessary approvals/ issue a letter (if required) to concerned line departments, Police, DDMA with a copy to SDMA (if required) regarding the intervention being undertaken by stakeholders. The District Administration will issue a letter of approval (if required) addressed to the stakeholders to undertake the proposed intervention as per the proposal and timeline submitted. Copy of the same will be sent to all concerned/ relevant line departments, Panchayats, Police, SDMA, DDMA and other authorities as may be required for smooth facilitation and movement.
4. Focal point for non-government stakeholder coordination will be a designated Nodal Officer at the district level/ state level appointed by the Deputy Commissioner/ Principal

Secretary (Revenue Disaster Management), to facilitate, coordinate, monitor, document, and report on the interventions of Non-Government Stakeholders. Also maintaining and updating the sector specific data base of non-government stakeholders operating in the district/ state.

5. Department of Police with support from SDMA/ DDMA/ District Administration will verify the credentials of the non- governmental stakeholders enrolled in the data base. Department of Police will facilitate the safe movement and operation of stakeholder interventions proposed in the district and state.
6. All non- government stakeholders are required to submit monthly reports on specific food security and nutrition interventions being undertaken in the district (with photographs). The Report should contain details on nature of intervention, progress made/ outputs achieved, next month's plan, learning and challenges in the field and specific support requests from the district administration. A similar report is to be submitted at the end of the proposed intervention or project cycle. The report should be addressed to the Deputy Commissioner with copies marked to local partners. The reporting should be focused on the food security and nutrition interventions and how allied sectoral interventions have contributed to achieve food security and nutrition outcomes and livelihood recovery.
7. Non-government stakeholder coordination meetings are to be conducted on a bimonthly basis in the presence of the Deputy Commissioner/ Principal Secretary at the district level/ state level, relevant department representatives, Panchayat representatives, Police representative, Focal point for non-government stakeholder coordination, district/ state Inter Agency Group coordinators, local partners and non-government stakeholder representatives operating in the district/state. This will be a forum for briefing/ debriefing, updating on status of the various interventions being implemented in the district. Instructions/ SOP's and facilitation of resolution of challenges faced in the field should be addressed during the meeting to facilitate effective, efficient, and timely field interventions.
8. Monitoring and evaluation of the non- government stakeholder field interventions will be carried out through ground truth verification exercises in presence of the representative of the affected community/ beneficiaries, non-government stakeholder representative, local partners, representative from the District Administration. Feedback given as part of this process will be incorporated as part of the consolidation of the field intervention and shall be included in the lessons learnt section of the final project report.
9. Non-government stakeholders on completion of the field intervention will submit a project completion report addressed to the Deputy Commissioner submitted to the District Administration for with copies to DDMA, Department of Police, relevant line

departments, Panchayats, local partners, and the Inter Agency Group. The report will be verified and the data base for non- government stakeholders will be updated with status as 'Complete.'

10. A letter of completion will be addressed to the non – government stakeholder written and signed by the District Administration acknowledging the contribution and closure of intervention in the field. This letter will be copied to all concerned officials and departments for documentation and future communication.

Testing of knowledge

1. Undertake group work to set up a mock drill to undertake GO-NGO coordination meeting to develop partnerships between government stakeholder and non-government stakeholders to address food security and nutrition needs of a drought/ flood affected population.

Brief Recap

1. Disaster relief and response interventions are led by the government and respective local administrations of the disaster affected areas. Relief and response efforts in emergencies/ crisis are always a multi stakeholder operation/ intervention and involve coordination at the government and non- government levels. At the governmental level multi- sectoral coordination is required between and within line departments and at the non- government level multi- sectoral coordination is required between sector specific organisations, sectoral experts, private stakeholders.
2. Coordination between the Government and Non-Government Organisations, Civil Society Organisations, and other stakeholders on a single platform, facilitated by the Government helps mainstream effective disaster relief response and recovery by understanding the emerging multi sector needs and context specific requirements to address the food and nutrition needs of affected populations.
3. An appropriate institutional mechanism reduces operational constraints of inter sectoral actors providing food and nutrition. Institutional mechanisms for these processes have been vested at district, state, and national levels as part of section 35 and 38 of Disaster Management Act, 2005.
4. Intersectoral coordination requires alignment and synergy with existing administrative structures activated for the implementation of disaster relief and response efforts, line departments that are responsible and linked to food and nutrition security (Departments: Food and Civil supplies/ consumer affairs, Health and Family welfare, Education, Public Works Department/ Rural Drinking Water Supply, District Collector/ Deputy Commissioner, Zilla Panchayat, Education, Department of Education, Department of Women and Child Development etc). As part of the Non- Government

Stakeholders the coordination requirements mandate the enrolment of sectoral experts and organisations (Sectors: Food Security and Nutrition, WASH, Gender and Child Protection, Health, Shelter, and Education) that are closely related to the access and delivery of Humanitarian Assistance.

5. The formation of GO-NGO coordination committees/ mechanisms at the district and state level from the foundational platform for the formalised functioning of the multi-stakeholder approach to addressing the needs of the affected population in an effective, timely and inclusive manner without duplication of efforts and wastage of resources.

Case Study Discussion

Evidence Based Advocacy and Campaign for Inclusive Humanitarian Response by the Government ensures Food Security, Nutrition and Survival of the most Marginalised Communities in Kerala- Excluded no more, Kerala's marginalised communities get their due attention.

RIGHTS- Ajay Kumar VB- Kerala

A unique geo-tagging exercise helped identify marginalised communities and then used the evidence to advocate with the government to access flood relief benefits and avail other government entitlements and social protection schemes. The Kerala floods 2018 affected the most vulnerable and marginalised families, most of whom belonged to the Dalit, Adivasi and other excluded communities which remained outside the purview of governmental response projects. Once this fact was noticed, deeper study revealed how they had failed to benefit from previous emergency and disaster relief operations too. These communities were excluded for reasons that related to their socio- economic or locational disadvantaged position within society. The inequitable distribution of food, funds, clothes, and other materials at a time when the floods had caused massive disruption was worse for them as they now faced serious issues related to food security, malnutrition, and survival.

Solution

RIGHTS in collaboration with Oxfam India undertook a geo-tagging exercise that helped locate many families belonging to the marginalised sections of society and had either not heard of the government relief efforts or had reconciled to not being a recipient. While it was not intentional, the data eligibility of recipients collected and reported by the government ended up overlooking the Dalit, Adivasi, and other excluded communities. An 'Inclusion study' using geo-tagging was conducted across the four districts of Kerala immediately after the floods of 2018 to identify the cases of 'Exclusion' in the list of eligible recipients of government support during the post- floods period. The cases of exclusion were geotagged, and the

consolidated list was shared with the government with a request for reconsidering the list to ensure their 'Inclusion.' This helped generate solid evidence in the form of authentic data from specified geographic locations. Through continuous follow-up with the government via several rounds of delegations and discussions, attention was drawn to the gap in the system. The government finally agreed to include the names of the excluded people and issue a notification in this regard to activate district authorities for revision of the list. The data with the geotagging and accurate information regarding the excluded population made the government realise the gap and motivated them to reconsider the listing. Once the inertia at the level of government to acknowledge the gap in the system was confirmed and exclusion of eligible recipients noted, it was only a matter of time before the correction got reflected in official government records. The sustained advocacy led to their Inclusion in the safety net of numerous social protection schemes.

Replicability

This strategic engagement with the government has helped in ensuring the inclusion of the most vulnerable people under the coverage of government entitlements to ensure their food security and nutrition during any given disaster situation. The innovative solution being process and results driven makes it replicable and scalable in different settings and contexts.

Source: Ensuring Food and Nutrition Security in Climate Fragilities and Disasters: The 31 Inspiring Practices, 2022, Pg. 94

Exercise:

1. In the context of the above case study describe the enabling mechanisms operationalised to ensure delivery of relief needs to the affected population?
2. Name three functions of the implementation mechanism that are attributed to mobilization of relief as part of this case study?
3. Name three activities that need to be followed to comply with GO-NGO coordination protocols by implementing NGOs?

ANNEXURES

Annex 1: Indicative baseline (pre-crisis) information to be collected from secondary data sources.

Assemble information on the pre-crisis situation regarding the following aspects: (Session 4)

Normal availability of and access to food

Agriculture

1. Food crops and cash crops produced, seasonal sowing and harvest seasons (Rabi and Kharif)
2. Main sources of food for urban areas; the relative importance of local production and inter district and inter-state procurement
3. Food and livestock trading patterns
4. Food commodity market prices, including seasonal variations
5. Government policies and social welfare schemes, subsidies that affect food production, marketing, and access

Livelihoods

6. Main sources of employment and cash income in different areas
7. Distinct food-economy/livelihood zones and population groups
8. Normal sources of food and income and their relative contributions for the different groups
9. Agricultural activities: who prepares the land, plants, and harvests
10. Inputs required and how farmers normally obtain them; the role and coverage of extension services
11. Livestock: their importance; who owns them; who tends them; the availability of veterinary services

12. The importance of hunting, fishing, gathering wild foods, etc.
13. Normal (seasonal) migration patterns
14. Traditional coping strategies at times of stress

Food Consumption

15. Normal use of food (food habits)
16. Items that different groups usually consume; how these are prepared for the family in general and for weaning and young children
17. Cultural/religious restrictions on food in general and on the feeding of young children, expectant, and nursing mothers
18. Cooking fuel used; its source; its cost; the environmental impact

Nutrition and Health

19. Normal nutritional status and health conditions
20. Usual rates of malnutrition among different groups; seasonal variations
21. Prevalent (chronic) nutritional deficiency diseases
22. Usual crude mortality rates and under-5 mortality rates
23. Usual prevalence of diarrhoeal diseases, respiratory infections, measles, and malaria; seasonal variations

Disaster/ Crisis / Emergency

24. Impact of previous crises and related assistance
25. The effects of previous crises on household food stocks, government stocks, market supplies, market prices, standing crops, tools, seed stocks, livestock, hunting, fishing and the employment and other income-earning opportunities available to different groups
26. The types of post-disaster food assistance that have been provided; the effectiveness of targeting/selection arrangements; the effectiveness of the assistance in saving lives, preserving livelihoods, and expediting recovery for the neediest; the lessons learned

Capacities to manage and distribute food

27. Performance of specific government entities and NGOs in managing the reception, storage, transportation and/or distribution of food commodities in ongoing or previous operations; the problems and constraints encountered; the lessons learned
28. Probable extent and limits of existing capacities to manage logistic and distribution aspects of the anticipated operation in the areas of concern; the training or other measures that are likely to be required.

Annex 2: Example of Interview Checklist (Session 4)

Composition of community (demographic profile)

1. Are the people residents of this area, since when? Are there refugees or displaced people? Have people moved out, when and why? What makes people stay here?
2. How many households are there? What is their composition (for example, number of children, women and elderly)?
3. Has anything changed recently concerning the movements of people? Why? Are certain household members leaving? Why and where are they going?
4. What are the ethnic/ tribal groups or any marginalised/ minority groups? Have there been any recent changes in this? Why?
5. Do men live in the community year-round? If not, why do they move?

History and sequence of events

6. Have there been major changes recently, including sudden hazards, slow development of a Crisis/ disasters/ emergency? When did this take place?

How people make their living

7. In general, and in normal years: What are the major agricultural activities? Which crops are grown, cash or food crops? Who does what on the land? Who has access to land? Who owns the land?
8. What are the types of livestock? Who owns them? Do herds move, when and where? How big are the average herds for poor and wealthy people?
9. What other types of income exist? What labour is there, for money or goods? Who works as a labourer?
10. Have people received aid in recent years, why and how?
11. How do different people in the community earn an income? What are the different livelihood groups? (Make sure you are able to build a typology or profile of the different livelihood groups in the community.)
12. How has all of this changed? How might this change (in case of disaster preparedness assessment)?

Agriculture (more specific)

13. What is the harvest in a normal year? What will it be this year? What is the percentage of crops planted (now and in a normal year)? How is the crop performance? What agricultural problems do the people face? Is this exceptional, why?

14. How much should the harvest be for a minimum income?
15. What is the quality of the seeds, tools, and fertilizers? Who owns the tools? Has anything changed recently?

Livestock

16. Have there been changes in herd sizes? How is the availability of water and veterinary drugs?
17. How is the milk and meat yield? Are there currently changes in that, why?
18. What are major problems now and in a normal year? Are these exceptional, why?

Income

19. What are the main sources of income on average in a normal year (per livelihood group or per community if it is similar)? Does this change over the year, how? Has this recently changed, why and how? What income differences are there? What is a minimum income for a household of a given number of people?

Examples of income categories: sale of food crops and cash crops; milk and other dairy sales; livestock sales; labour (agriculture, construction); trade (transport, resale of goods); sale of wild foods; craftwork (mats, baskets, pots); gifts, zakat (gifts normally offered in Islamic communities); and other production and collection and sale (firewood, charcoal, grass).

Expenditures

20. What are the main costs for the people on average in a normal year (per livelihood group or per community if it is similar)? Does this change over the year, how? Has this recently changed, why and how?

Examples of expenditure categories: food (specify); firewood, charcoal, kerosene; household items (soap, clothes); transport fees; drinking water (for people, for animals); school fees; gifts or zakat; taxes; housing (rent); investment (livestock purchase or stocking); health (consultation and drugs for people, for animals); and miscellaneous (rent for land, seeds, fertilizers, tools, electricity, entertainment, alcohol).

How do people obtain their food?

21. In a normal year, how do people obtain their food? Does this change over the year, how?

Has this recently changed, why and how?

Examples of food source categories: own crop production; purchase; own livestock products (milk, meat); exchange for labour or food for work; wild food collection; milk and other dairy sales; gifts of food; food aid; barter (exchange one product for another); loans; stocks; food at work, at school; and fishing, hunting.

Labour (for wages or food)

22. What kind of labour opportunities do people have? Who does what? Has this changed recently? Why and how?
23. What are the average salaries in a normal year and now?
24. Do children work in a normal year? What kind of work? Has this changed recently?
25. Is it difficult to get work?

Food consumption patterns

26. What is the average family diet in a normal year? Who is responsible for meeting the food needs? What is the number of meals? Who prepares these and how?
27. Where does the food come from (production, market, exchange, donation, solidarity)?
28. Who eats what? Are there differences in diet between children, women, and men? What are they?
29. Are there seasonal shortages of food in the household in a normal year? What do people do to meet their food needs then? Do you normally collect wild foods, what kind?
30. Has there been any change recently in the people's diets, since when and how? Why?
31. What do people do to avoid food shortage in the family?

Market prices and evolution

32. Can you give me prices of important commodities (cash crops, food crops, as well as sugar, salt, vegetables)? What were the prices a year ago of these commodities? Do you see any strong trends over the last few months or years? Why?
33. Do you think the prices will fall or rise? Why?
34. How is the access to market? What are the main market days? Have there been any changes in people selling or buying? Why?

Ask the same questions about livestock, milk, and meat.

35. What is the livestock/grain ratio, for example, how much grain do you need to buy one goat?

Has this changed over time? When how and why?

Make a table or figure with some current prices and prices from past years (see Annex 9).

Perception of main problems

36. At the moment, what do you think are the main problems for the community?

Can you describe them?

37. Has this always been the case? If not, when, and how has this changed and why?

Will these problems become worse, why?

38. What did people do in the past to overcome these problems? What are they doing now?

Do a pair-wise ranking if you can.

General issues, including health and water

39. Who is engaged in firewood or coal collection or purchase? Is it difficult to obtain this? Have there been any recent changes?

40. Who collects water, how is the quality of the drinking water? Where do the people collect water? Is it far and safe? Is there enough?

41. Are there any seasonal diseases? What are their local names and symptoms? Has there been a change in this pattern, if so, how, and why? Have there been any major disease outbreaks?

42. Where are the functioning health centres? Do people attend these, if not, why?

43. Do people need to pay for drugs or for consultation, how much? Have there been any changes in this?

Infrastructure, including transport, housing, and school

44. Have there been any changes recently in the quality of road, housing, school, or transport (buses, trucks)? What were these changes?

45. Who is affected and why? What do people do to cope with this?

Daily activity pattern

46. On average, what are the daily activities for men, for women, for children? Has this changed recently, how, and why?

47. Do children attend school, if not why?

Security

48. Does the community feel safe here? If not, why? Have there been any recent changes?

49. Is looting a major problem, for whom?

50. Are there internal conflicts?

Miscellaneous

51. Have any other organizations been in the community to do an assessment? If so, who, when and did they provide aid?

52. Will people migrate when the situation does not change or becomes worse? To where?
53. Ask other questions depending on your objectives and the situation.

Annex 3: Example:- Calculation of a sample food basket for Uttar Pradesh (Session 5)

Step 1: Based on the household size calculate and quantify the food basket components

Table A: Sample household constructs used for calculation and quantification of food basket components

"Four" Member Household

"Five" Member Household

"Six" Member Household

Sample Household -1		Sample Household -1		Sample Household -1	
Husband	Adult Male (mod)	Husband	Adult Male (mod)	Husband	Adult Male (mod)
Wife	Adult Female (mod)	Wife	Adult Female (mod)	Wife	Adult woman (mod)
Elderly father	Adult Male (mod)	Elderly father	Adult Male (mod)	Elderly father	Adult Male (mod)
Elderly mother	Adult Female (mod)	Elderly mother	Adult Female (mod)	Elderly mother	Adult Female (mod)
		Infant > 6 <12 m	Child 6 – 12 months	Child 1 -3 years	Child 1 -3 years
				Child, 4 -6 years	Child, 4 -6 years
Sample Household -2		Sample Household -2		Sample Household -2	
Husband	Adult Male (mod)	Husband	Adult Male (mod)	Husband	Adult Male (mod)
Pregnant wife	Preg. Women (Sed)	Pregnant wife	Preg. Women (Sed)	Pregnant wife	Preg. Women (Sed)
Child, 18 month	Child 1 -3 years	Child, 18 month	Child 1 -3 years	Elderly father	Adult Male (mod)
Elderly father	Adult Male (mod)	Child, 4 -6 years	Child, 4 -6 years	Elderly mother	Adult Female (mod)
		Child 7 - 9 yrs	Child 7 - 9 yrs	Child, 4 -6 years	Child, 4 -6 years
				Child 7 - 9 yrs	Child 7 - 9 yrs
Sample Household -3		Sample Household -3		Sample Household -3	
Husband	Adult Male (mod)	Husband	Adult Male (mod)	Husband	Adult Male (mod)
Wife	Adult Female (mod)	Wife	Adult Female (mod)	Wife	Adult woman (mod)
Child, 18 month	Child 1 -3 years	Elderly father	Adult Male (mod)	Elderly father	Adult Male (mod)
Child, 4 -6 years	Child, 4 -6 years	Elderly mother	Adult Female (mod)	Child, 4 -6 years	Child, 4 -6 years
		Child 7 - 9 yrs	Child 7 - 9 yrs	Child 7 - 9 yrs	Child 7 - 9 yrs
				Adolescent boy	Adolescent boy, 16-17 yrs

Step 2: Based on the number members in a household and the locale specific dietary habits and requirements calculate the quantity of food requirement based on the recommended dietary intake.

For Example: Let us consider the food basket for a r six-member household from Uttar Pradesh as represented below.

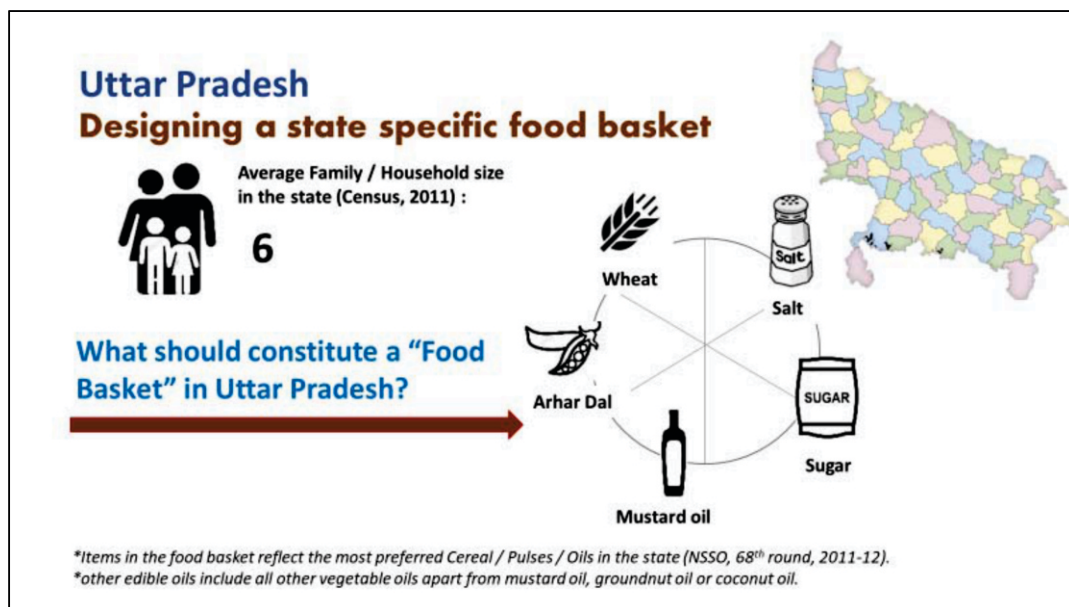


Figure A: Food basket for a six-member household from Uttar Pradesh

Table B: Recommended Dietary Intake (RDI) for food groups as per the household composition

		Cereals gm/day	Pulses gm/day	Sugars gm/day	Oils gm/day
Sample Household -1					
Husband	Adult Man (Mod.)	450	90	30	30
Wife	Adult Woman (Mod.)	330	75	30	25
Elderly father	Adult Man (Mod.)	450	90	30	30
Elderly mother	Adult Woman (Mod.)	330	75	30	25
Child-1	1 - 3 Years	60	30	15	25
Child-2	4 - 6 Years	120	30	20	25
Total Qty. / Day		1740	390	155	160
Total Qty. / Month		52.20	11.70	4.65	4.80
Sample Household -2					
Husband	Adult Man (Mod.)	450	90	30	30
Pregnant wife	Pregnant woman (sed)	275	60	10	60
Elderly father	Adult Man (Mod.)	450	90	30	30
Elderly mother	Adult Woman (Mod.)	330	75	30	25
Child-1	4 - 6 Years	120	30	20	25
Child-2	7 - 9 Years	180	60	20	30
Total Qty. / Day		1805	405	140	200
Total Qty. / Month		54.15	12.15	4.20	6.00
Sample Household -3					
Husband	Adult Man (Mod.)	450	90	30	30
Wife	Adult Woman (Mod.)	330	75	30	25
Elderly father	Adult Man (Mod.)	450	90	30	30
Child-1	4 - 6 Years	120	30	20	25
Child-2	7 - 9 Years	180	60	20	30
Child-3	16 - 17 Years (Boys)	450	90	30	50
Total Qty. / Day		1980	435	160	190
Total Qty. / Month		59.40	13.05	4.80	5.70

*Other food groups such as milk and milk products, green leafy vegetables, other vegetables, fruits not included in the food basket since these are easily perishable.

Table C: Proposed Food Basket and its nutritional value (per 100 gm)

Cereal (two variants – Cereal-1 (70%), Cereal-2 (30%); Pulse variant, Oil, Sugar, and Salt

Food Items	Energy (Kcal)	Protein (g)	Fat (g)	Calcium (mg)	Iron (mg)	Vit. A* (µg)	Vit. B1 (mg)	Vit. B2 (mg)	Vit. B3 (mg)	Vit. B6 (mg/d)	Vit. C (mg)	Vit. B9 (µg)	Mg (mg/d)	Zn (mg/d)
Cereal-1 Wheat flour	308.2	10.6	1.5	30.9	4.1	2.7	0.4	0.2	2.4	0.3	0.0	29.2	125.0	2.9
Cereal-2 Raw rice, Milled	342.9	7.9	0.5	7.5	0.7	0.0	0.1	0.1	1.7	0.1	0.0	9.3	19.3	1.2
Pulse Arhar, Red gram dal	318.3	21.7	1.6	71.7	3.9	127.0	0.5	0.1	2.1	0.2	0.0	108.0	119.0	2.6
Oil Mustard oil	820.0	0.0	92.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sugar Sugar	387.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Salt Iodized salt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2176.5	40.2	95.6	110.2	8.7	129.7	0.9	0.3	6.2	0.6	0.0	146.5	263.3	6.7

*Iodized salt – Qty. <5 mg per person per day as per recommended by WHO, Essential Nutrition Actions, 2019

Step 3: Based on the recommended dietary allowance calculate the nutrient requirements fulfilled by the food basket as per the recommended dietary allowance.

Table D: Recommended Dietary Allowance (RDA) for Nutrients fulfilled by the proposed food basket for individual households

	Energy kcal	Protein g	Fat g	Calcium mg	Iron mg	Vit. A* µg	Vit. B1 mg	Vit. B2 mg	Vit. B3 mg	Vit. B6 mg/d	Vit. C mg	Vit. B9 µg	Mg mg/d	Zn mg/d
Sample Household - 1														
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
1-3 Years	1060	16.7	27	600	9	3200	0.5	0.6	8	0.9	40	80	50	5
4-6 Years	1350	20.1	25	600	13	3200	0.7	0.8	11	0.9	40	100	70	7
Daily HH - 1 req.	12330	266.8	162	3600	98	25600	6.2	7.2	83	9.8	240	980	1420	56
Monthly HH-1 req.	370 k	8 k	5 k	108 k	3 k	768 k	k	k	2 k	k	7 k	29 k	43 k	2 k
RDA fulfilled by FB	261 k	7.6 k	5.2 k	20.9 k	2.1 k	15.8 k	.2 k	.1 k	1.4 k	.1 k	.0 k	25 k	63 k	2 k
% RDA fulfilled by FB	70.5	89.4	105.0	13.3	63.1	0.2	94.5	30.8	69.6	50.2	0.0	50.2	104.7	76.8
Sample Household - 2														
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Preg. Women (Sed.)	2250	78	30	1200	35	6400	1.2	1.4	14	2.5	60	500	310	12
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
4-6 Years	1350	20.1	25	600	13	3200	0.7	0.8	11	0.9	40	100	70	7
7-9 Years	1690	29.5	30	600	16	4800	0.8	1	13	1.6	40	120	100	8
Daily HH - 2 req.	12980	302.6	170	4200	119	28800	6.6	7.7	88	11	260	1320	1470	61
Monthly HH-2 req.	389 k	9 k	5 k	126 k	4 k	864 k	k	k	3 k	k	8 k	40 k	44 k	2 k
RDA fulfilled by FB	277 k	7.9 k	6.4 k	21.7 k	2.1 k	16.4 k	.2 k	.1 k	1.4 k	.1 k	.0 k	26 k	65 k	2 k
% RDA fulfilled by FB	71.0	89.4	105.0	13.3	63.1	0.2	94.5	30.8	69.6	50.2	0.0	50.2	104.7	76.8
Sample Household - 3														
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
Adult Woman (Mod.)	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
Adult Man (Mod.)	2730	60	30	600	17	4800	1.4	1.6	18	2	40	200	340	12
4-6 Years	2230	55	25	600	21	4800	1.1	1.3	14	2	40	200	310	10
7-9 Years	1690	29.5	30	600	16	4800	0.8	1	13	1.6	40	120	100	8
16-17 Years (Boys)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily HH - 3 req.	11610	259.5	140	3000	92	24000	5.8	6.8	77	9.6	200	920	1400	52
Monthly HH-3 req.	348 k	8 k	4 k	90 k	3 k	720 k	k	k	2 k	k	6 k	28 k	42 k	2 k
RDA fulfilled by FB	296 k	8.6 k	6.2 k	23.6 k	2.3 k	17.7 k	.2 k	.1 k	1.6 k	.2 k	.0 k	28 k	71 k	2 k
% RDA fulfilled by FB	85.0	89.4	105.0	13.3	63.1	0.2	94.5	30.8	69.6	50.2	0.0	50.2	104.7	76.8

Step 4: Calculate the transfer value of ration to ascertain the cost of the food basket per beneficiary household and determine the financial requirement for the intervention based on number of households in need. **Refer Page 81 for the formula and calculate for a six-member household from Uttar Pradesh Accordingly.**

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