

## **NTD 405 – International Nutrition and food Policy ( 2 Units)**

Food Security Concepts and Implementations. Programmes for coping with wars, famine, etc by Nations and House holds. Formulation of food and nutrition policy. The political and economic implication of Food. Conceptual approach to the global solutions of nutrition policy. Role of International Relief Organisations.

### **1.FOOD SECURITY CONCEPT AND IMPLEMENTATION**

- Definitions
- Determination of Food security status
  - Diet Diversity score
  - Food insecurity index
  - Household and per caput determination
- Analyzing the framework for food insecurity

THE DISCUSSION COVERS THE FOLLOWING:

A Framework of Potential Actions for Addressing Food Insecurity

#### **BUFFERING SHOCKS**

-Flood embankments ;-Cyclone shelters -Relief distribution  
-Therapeutic feeding -Refugee protection -Seeds/tools  
-Reforestation

#### **DIVERSIFYING LIVELIHOODS**

-Natural resource management -Asset growth -Infrastructure building  
-Market interventions -Rural processing/services

#### **BUILDING HUMAN CAPITAL**

-Education support -Nutrition education -Growth monitoring/referral  
-MCH support; -Diet diversity (gardens) -Micronutrient supplementation

#### **COPING WITH UNCERTAINTY**

-Early warning; systems/nutrition surveillance  
-Community disaster training -‘Crisis’ nutrition education  
-Supplementary feeding

#### **RAISING LABOR PRODUCTIVITY**

-Microfinance –Women -New agricultural technology  
-Water management -Nutrition monitoring/ improvement

#### **SMOOTHING CONSUMPTION**

- Grain banks -Public works -Consumption credit
- Counter-cyclical/ seasonal employment

## **FOOD SECURITY OUTCOMES**

- ADEQUATE FOOD AVAILABILITY
- ADEQUATE ACCESSIBILITY
- APPROPRIATE UTILISATION

## **FOOD SECURITY RISK TO BE SOLVED IN THE SOCIETY**

### **Natural Shocks**

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Climatic shocks; Natural resource mining and degradation;  
Yield volatility; Asset depletion; Neglect of natural  
hazard mitigation

### **Economic Risks**

Income fluctuation; Collapsed terms of trade;  
Savings depletion; Employment insecurity;  
Price volatility; High transaction costs;  
Information asymmetry; Inflation

### **Social and Health Risks**

Epidemics; HIV/AIDS; Widespread untended  
malnutrition; Risk perceptions; Corruption;  
Social disintegration; Predatory extraction by  
armed forces; Conflict; Ethnic and social discrimination

## **PRACTICAL STEPS FOR FOOD SECURITY**

Enhance Community Resiliency

### **Resources**

Natural resource sustainability;  
Productive assets; Secure livelihoods

Enhanced Livelihood Capacity

### **Productivity**

Labor productivity; Livelihood stability and

diversification

**Income**

Market integration; Purchasing power; Savings potential; Credit access

**Consumption**

Equity in intrahousehold food distribution; Food quality, quantity and diversity

Enhanced Human Capital

**Human Capital**

Nutrition; Health & sanitation; Maternal/child care; Dignity; Education; Skills  
Political voice; capacity; indigenous knowledge

**2 NUTRITION IN EMERGENCY**

**DEFINITION OF TERMS IN EMERGENCY**

Chronic Food Insecurity	An inadequate diet resulting from the continual inability of households to acquire needed food. Chronic food insecurity is generally rooted in poverty.
Complex Emergency	Human activity, including civil strife, war, and political repression, that often co-exists with and contributes to natural phenomena, such as famine. Complex emergencies frequently result in high mortality, population displacement, and the disruption of civil society and its infrastructure.
Coping Mechanism	The methods by which households deal with a crisis (e.g., making greater use of wild foods, seeking other sources of income, selling assets, migrating). Coping mechanisms should be discouraged if they reduce a household's capacity to recover its long-term food security or if they harm the environment. Others, which promote improved food security and do not have a deleterious affect on longer-term food security or the environment, should be encouraged and strengthened.
Disaster	A serious disruption of the functioning of a society, causing

	widespread human, material, or environmental losses that exceed the ability of the affected society to cope using its own resources.
Emergency	A demonstrably abnormal event that produces dislocation in the life of a community on an exceptional scale. Emergency is defined as an urgent situation in which there is clear evidence of an event causing human suffering or loss of livestock and the relevant government has not the means to remedy.
Evaluation	A periodic examination of the efficiency, effectiveness, and results-intended and unintended-of interventions in relation to their objectives.
Food Security	When all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life (USAID 1992).
Impact	The long-term changes, planned and unplanned, brought about by an <b>intervention</b> . They are the highest order of results in the sequence: outputs, outcomes, and impacts.
Indicator	Signs of progress resulting from an <b>intervention</b> . Qualitative or quantitative indicators may be chosen to measure the success of a process and its outputs, as well as outcomes and impacts. Indicators may be either direct or indirect (i.e., proxy), but should allow reasonable independent observers to agree if progress has or has not been made as planned.
Inputs	The goods, services, personnel, and other resources provided for an <b>intervention</b> to produce outputs and achieve objectives.
Livelihood	The capabilities, assets, and activities required for making a living. A livelihood is sustainable when an individual or household can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets, while not undermining its natural resources base.
Logical Framework	A format for summarizing or analyzing a project's hierarchy, the assumptions underpinning it, and the framework for assessing its results.
Monitoring	The continuous oversight of an activity's implementation, which seeks to ensure that input deliveries, work schedules, desired outputs, outcomes, and other required actions are proceeding

	according to plan.
Objective	The desired outcome of an activity.
Outcome	Change caused by the outputs of an <b>intervention</b> .
Output	The tangible products of an <b>intervention</b> produced by the transformation of the inputs through the <b>intervention</b> processes.

SOURCE : UNU, FOOD AND NUTRITION E-LIBRARY, 2004

## **2B.NUTRITIONAL ASPECT OF DISASTER**

What to do in disaster?

What is disaster?

Many definition.

Parish definition:

- Epidemic or manmade calamity in which 25 or more people are injured or killed.

International Red cross definition:

Any event or services of events due to which a great number of people suddenly find themselves in need of food, cloth, shelter, medical a nursing care, adversary services or any other help of utmost urgency.

### **Beech definition-**

A relatively sudden and violent destruction of a social system of a community cause by some external agent or event over which those involved have no control of component, qualitative, quantitative and duration.

### **Quantitative- Size**

Number of people affected.

### **Qualitative-Severity**

Nature

Destruction of services

Supply of infrastructure

Communitin, houses.

**Duration-** Time

How long

The duration determine measures to take.

There can be social disaster in which man eat man.

### **Organisational relief**

Deploy High skill officer

- He decides to make implementation.
- Gather information, about the disaster, the seriousness of the disaster.
- Prognosis in terms of dense and duras.
- Resource for assistance for relief.
- Mobilise fund.

In disaster area.

Find out whether there is:

1. Drinking water.
2. Food available or how to get food there.
3. Nutritional status of people.
4. Other priorities.

### **Distribution**

Government (authority) take over all food stuff.

Reason- equal distribution

Rationing.

Food are given to pregnant women and then lactating mothers.

Give supplementary feeding.

In disaster 3 types

- Short term (3 weeks e.g earthquake)
- Medium term (weeks)
- Long term (months)

In short term: Speed action is essential .Priority here is to save time. First providing in nutrition is water supply, quality of food here is not essential. Give what is available. All kinds of handy food is essential.

3 groups needs to be covered.

1. Artificial Feeds for babies.
2. Hospital patients.
3. Manual workers- because they are needed for relief.

In medium terms (few weeks) if people are well nourished before take care of the babies (on formular) and lactating mothers, if people are already malnourished cover the following:

- Artificial feed for babies.
- Lactating mother.
- Children (U2yrs)
- Pregnant mothers.
- Pre-school and school children.
- Manual workers.
- Old people
- Rest of people.

### **Organisation of feeding in disaster**

1. General feed disaster (dry ratio).
2. Mass feeding (cooked food)
3. Supplementary feeding of vulnerable.
4. Therapeutic feeding.

All the 4 may be combined depending on the need of the people.

Minimum amount of energy required to sustain life.

Age	Emergency sustenance for few weeks	Temporary maintenance
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0 – 1	800kcal / day	800 kcal / day
1 – 3	1100	1,300
4 – 6	1,300	1,600
7 – 9	1,500	1,800
18yr <sup>+</sup> male	1,700	2,800
Female	1,500	1,800
Pregnant/lactating	1,900	2,200

Minimum water required

1 month – 400ml /day

4 months – 600ml

12 months – 800ml

3 years – 1000ml.

### **Long term (famine)**

In menu planning consider the food habit and cultural factors. In long term communicable diseases should be notified . Nutritional deficiency especial vitamin A deficiency vitamin C deficiency must be treated. Surveillance should be able to identify and classify malnutrition in order to serve resources so that most necessary nutrition need would be faced first. Take nutrition assist officer to know extent of treatment.

### **CLASSIFY THE VULNERABLES.**

	Mild / normal	Moderate	Severe
Length or ht / Wt	100 – 91	90 – 71	< 70
Wt / Age	100 – 76	75 – 61	< 60
Arm circumference	100 – 71	70 – 61	< 60

Give food supplementation for severely malnutrition with treatment and feed.

### 25% loss of body – 5 month feeding

1 -3 day	1,500 kcal
4 – 6 days	1,800 kcal
2 weeks	2,000
3rd week	2,300
4th week	2,000
5th week	3,000
6th week	3,300

- Food supply continue until gain in weight.
- Physical and social activities disturbed.
- Health activity e.g immunization.
- Agric distribution
- Sanitary service.
- Make recommendation against future reoccurrences.

### **General administration of relief**

- Staff for relief duties.
- Appoint a single relief commission and overriding powers.
- Executive work on local government authorities.
- National committee to liaise between ministries.
- Supplement government staff emergency appointed temporary official to supervise food distribution.
- At point of food distribution, soldiers and police men can be useful.
- Set up emergency cooking and feeding centre using experience men in hotels restaurants and clubs, hospitals and schools.
- Make use of field equipment as wireless communication.
- Army and police for order.
- First task to establish affected areas.

- Establish number of people.

Internal and for food supply, clearance at port is very necessary.

## EXAMPLES

Saharan Africa, suggesting that South Asia is in a constant state of ‘acute food and livelihood crisis’ that requires emergency nutrition interventions.

**Table 2: Countries with under-fives wasting levels of 10 per cent and more: 1996-2005**

<b>Country</b>	<b>% Wasting</b>
Burkina Faso	19
Djibouti	18
Somalia	17
India	16
Sudan	16
Cambodia	15
Lao People’s Democratic Republic	15
Chad	14
Mauritius	14
Niger	14
Sri Lanka	14
Bangladesh	13
Democratic Republic of the Congo	13
Eritrea	13
Madagascar	13
Maldives	13
Mauritania	13
Pakistan	13
Timor-Leste	12
Togo	12
Yemen	12
Albania	11
Ethiopia	11
Guyana	11
Kuwait	11
Mali	11
Saudi Arabia	11
Guinea-Bissau	10
Nauru	10
Sierra Leone	10

Note: Wasting refers to % < -2SD weight for height

Source: United Nations Children's Fund, *The State of the World's Children 2007*, UNICEF, New York, 2007.

***Summary of food crises and famines classification systems with thresholds***

<b>Classification system</b>	<b>Level</b>	<b>Mortality and malnutrition indicator</b>
<b>UN SCN thresholds 1995</b>	Alert	<b>CMR</b> 1/10,000/day <b>U5MR</b> 2/10,000/day <b>Wasting</b> 5–8%
	Severe	<b>CMR</b> 2/10,000/day <b>U5MR</b> 4/10,000/day <b>Wasting</b> >10%
<b>ODI level and type of food security 2003</b>	Chronic (or periodic) food insecurity	<b>CMR</b> 0.2–1/10,000/day <b>Wasting</b> 2.3–10% <b>Stunting</b> >40%
	Acute food crisis	<b>CMR</b> 0.2–2/10,000/day <b>Wasting</b> 2.3–10% or increases
	Extended food crisis	<b>CMR</b> 1–2/10,000/day <b>Wasting</b> 15–30%
	Famine	<b>CMR</b> > 2/10,000/day <b>Wasting</b> > 25% or dramatic increases
<b>Howe and Devereux famine magnitude scale 2004</b>	Food security conditions	<b>CMR</b> < 0.2/10,000/day and <b>Wasting</b> < 2.3%
	Food insecurity conditions	<b>CMR</b> ≥ 0.2 but < .5/10,000/day and/or <b>Wasting</b> ≥ 2.3 but < 10%
	Food crisis conditions	<b>CMR</b> ≥ .5 but < 1/10,000/day and/or <b>Wasting</b> ≥ 10 but < 20% and/or oedema
	Famine conditions	<b>CMR</b> ≥ 1 but < 5/10,000/day and/or <b>Wasting</b> ≥ 20% but < 40% and/or oedema
	Severe famine conditions	<b>CMR</b> ≥ 5 but < 15/10,000/day and/or <b>Wasting</b> ≥ 40% and/or oedema

	Extreme famine conditions	<b>CMR</b> $\geq 15/10,000/\text{day}$
<b>FSAU/FAO integrated food security phase classification 2006</b>	Generally food secure	<b>CMR</b> $< 0.5/10,000 /\text{day}$ <b>Wasting</b> $< 3\%$ <b>Stunting</b> $< 20\%$
	Chronically food insecure	<b>CMR</b> $< 0.5/10,000/\text{day}$ U5MR $< 1/10,000/\text{day}$ <b>Wasting</b> $> 3\%$ but $< 10\%$ <b>Stunting</b> $> 20\%$
	Acute food and livelihood crisis	<b>CMR</b> $0.5-1 / 10,000/\text{day}$ U5MR $1-2/10,000/\text{day}$ <b>Wasting</b> $10-15\%$ , $>$ than usual, increasing
	Humanitarian emergency	<b>CMR</b> $1-2 / 10,000 / \text{day}$ , $> 2x$ reference rate, increasing U5MR $> 2/10,000/\text{day}$ <b>Wasting</b> $> 15\%$ $>$ than usual, increasing
	Famine/Humanitarian catastrophe	<b>CMR</b> $> 2/10,000 /\text{day}$ (e.g., $6,000 / 1,000,000 / 30 \text{ days}$ ) <b>Wasting</b> $> 30\%$

Note: Malnutrition here refers to acute malnutrition or wasting ( $\% < -2SD$  weight for height)

CMR = Crude Mortality Rate

UN SCN = United Nations Standing Committee on Nutrition

ODI = Overseas Development Institute

FSAU/FAO = Food Security Assessment Unit (for Somalia)/Food and Agriculture Organization of the United Nations

**Source: United Nations Children's Fund, *The State of the World's Children 2007*, UNICEF, New York, 2007.**

### 3.FOOD POLICY FORMULATION

Food and Nutrition Policy

Typology of food policy

The food policy process

The food policy instruments

Formulation and implementation of food programmes

Objectives and determination of food interventions

## PRACTICAL CLASSES WITH AGRIC ECONOMICS STUDENTS TO COVER

-Food and Nutrition Policy in Nigeria, and other Africa countries.

Samples of food and Nutrition Policies to observe the following:

Goals,

Objectives,

Strategic Planning.

### 3B Food Balance Sheet

- Definition
- Considerations
- Computation
- Constraints and advantages
- Determinants of Household access to food
  - Internal factors
  - External factors

### Food Demand and supply situations

- Causes of food stress
- Food intervention programme
  - School feeding programme
  - Income approach
  - Refugee nutrition
  - Food supplementation and Fortification

## 4.SEMINAR AND ASSIGNMENT ON THE ROLE OF INTERNATIONAL ORGANISATIONS IN NUTRITIONAL STATUS OF NIGERIANS.