Famine, Conflict & Disasters: The roles of food aid & nutrition

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Famine

“the regional failure of food production or distribution entitlement systems, leading to sharply increased mortality due to starvation and associated disease”
(modified according to Sen)

A function of:
• Endowments/assets (land, labor)
• Productive possibilities (seeds, technology)
• Exchange opportunities
• Legal claims (food stamps, welfare)
• Socially approved and operative norms

Example 1
Irish Potato Famine (1846-47)

• Came after years of chronic poverty and annual hunger for the Irish peasantry
• Completely dependent on the potato; Blight struck in 1846
• Peasants had neither food nor money and no means of obtaining either
• Despite this:
  – Substantial exports of wheat, barley, oats, and oatmeal to England continued undiminished, along with shiploads of cattle, pigs, eggs, and butter
  – Peasants who produced wheat, oats, or barley sold produce to pay rent landlords who demanded rent under the threat of eviction

Death toll: 2-3 million
Summary points: understanding famines

- Pay attention to the working of the entire economy and society
- Usually not a simple decrease in food supply
- Famines rarely affect > 5-10 % of national population
- Local phenomena shape the story
- National averages usually not useful
Vulnerability = Hazard (risk) - Coping ability
(opposite: Resilience)

Stages of Household Entitlement to Food

Food Insecurity

Coping Mechanisms
- Reversible Coping
- Preserving Assets
- Reduced Intake

Food Crisis

Food Insecurity

Coping Mechanisms
- Reversible Coping
- Preserving Assets
- Reduced Intake
- Irreversible Coping
- Sale of Assets

Famine

Coping Mechanisms
- No more Coping
- Migration
- Starvation and death

Mortality Risk

Coping Mechanisms
- Irreversible Coping
- Sale of Assets
- No more Coping
- Starvation and death
**Social consequences of famine**

- Normal social behavior gradually disappears, including personal pride and sense of family ties.
- Replaced by struggle for personal survival (division of families).
- Increasing disintegration of social structure, lawlessness
  - Hoarding and related pathologies (smuggling, black market profiteering, crime)
- Out-migration increases.

*Extreme examples of coping behavior*

**Famine prevention**

"Famines are, in fact, so easy to prevent that it is amazing that they are allowed to occur at all. (p. 175)"

- Public health infrastructure to prevent widespread debilitation
- Social protection to reduce vulnerability of poor
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Severe drought in Maharashtra state, India in 1973
5 million temporary jobs created
70% ↓ in food production, but no significant increase in mortality or food production.

Irish famine: governors continue to export high quality food to Ireland, despite massive malnutrition and death
Tanzania during recent food crisis: Pres. Kikwete banned lucrative food exports to preserve domestic food supply

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Famines are prevented by:

- Prevent shocks
- Strengthen pro-poor P, I, P (including democracy)

Increase livelihood assets of the poor (social protection)

Sustainable livelihoods framework
What is food aid? Two definitions:

“The international sourcing of concessional resources in the form of or for the provision of food.” (Barrett and Maxwell, 2005)

“All food supported interventions aimed at improving the food security of poor people in the short and long term, whether funded via international, national public and [sic] private resources.” (von Braun, 2003)

This definition currently in use in FAO publications, including the following slide.

FAO. The State of Food and Agriculture 2006.

- Programme: transferred government to government (declining)
  - May be monetized (sold to convert to cash)
- Project: government to project or NGO (growing)
  - Usually targeted to specific beneficiaries
  - E.g. food-for-work, maternal-child nutrition, etc.
- Emergency: Targeted to food insecure populations in times of crisis

FAO. The State of Food and Agriculture 2006.

Conflict-affected countries, 2008

Impact of armed conflict on health

Abused
Mental
damage

Primary consequences
Secondary consequences
Impact on individuals

FAO. The State of Food and Agriculture 2006.

Conflict
D R Congo: Africa’s World War

- The deadliest global conflict since WWII
- Estimated 6 million deaths
  - Exceeds sum of Darfur, Iraq, Afghanistan, Bosnia & Rwanda
- Hundreds of thousands of women systematically raped as a weapon of war
- Annual growth rate of GDP lowest in Africa: -6.3%
- Tremendous agricultural potential: most rainfall in Africa
- Enormous mineral wealth: The Natural Resource Trap
- Half of the difference in the projected gap for MDG 1 is DRC.

Sources:
Pinstrup-Andersen, & Watson, forthcoming
BBC Country Profile: http://news.bbc.co.uk/2/hi/africa/country_profiles/1076689.stm
"In fact, the remainder of SSA was within 2 percentage points of being on target to accomplish the MDG before the food price swings of 2007-08.”

Excluding DRC, the increasing trend in undernourishment for SSA disappears!

“In fact, the remainder of SSA was within 2 percentage points of being on target to accomplish the MDG before the food price swings of 2007-08.”

Disaster

Disaster: An occurrence disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community. (WHO, 2002)

Complex emergency

Is “a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/or the ongoing United Nations country program.”

(IASC, December 1994)

Famine, Conflict and Disasters all create refugees

- Extreme vulnerability
- Livelihoods have failed completely
- All forms of public health support critical—including nutrition
  - Disease control
  - Water & sanitation
  - Mental health
  - Nutrition

Most refugees are hosted by poor countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of refugees per 1 USD GDP (PPP) per capita, 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>735</td>
</tr>
<tr>
<td>Dem. Rep. of Congo</td>
<td>498</td>
</tr>
<tr>
<td>Tanzania</td>
<td>202</td>
</tr>
<tr>
<td>Eritrea</td>
<td>289</td>
</tr>
<tr>
<td>Chad</td>
<td>230</td>
</tr>
<tr>
<td>Kenya</td>
<td>111</td>
</tr>
<tr>
<td>Uganda</td>
<td>944</td>
</tr>
<tr>
<td>Nepal</td>
<td>118</td>
</tr>
<tr>
<td>Jordan</td>
<td>102</td>
</tr>
<tr>
<td>Slovenia</td>
<td>90</td>
</tr>
</tbody>
</table>

Children in refugee situations are very vulnerable

<table>
<thead>
<tr>
<th>Severity of the nutrition situation</th>
<th>Prevalence of GAM</th>
<th>Number of surveys</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptable</td>
<td>&lt; 5%</td>
<td>13</td>
<td>32%</td>
</tr>
<tr>
<td>Poor</td>
<td>5% – 9%</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>Serious</td>
<td>10% – 14%</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Critical</td>
<td>&gt; 15%</td>
<td>18</td>
<td>44%</td>
</tr>
</tbody>
</table>

GAM = Global Acute Malnutrition = Wasting = WHZ < -2

SAM = Severe Acute Malnutrition = WHZ < -3 or MUAC < 11 cm or bilateral edema

Guha-Sapir & Gomes, March 2006
CRISIS Briefing note: Refugees and emergency thresholds in 2005: A data review of field surveys in 2005 from CE-DAT

Nutrition in Emergencies: Basic Principles

- Coordination amongst actors
- Context-specific
- Food basket based on providing 2100 kcal per person / day
  - This figure can be refined based on pop'n
- Timely distribution
  - Critical to prevent need for more intensive support
- A standard food ration (non-preferential)
  - Attention to biologically vulnerable groups
- Community participation
- Monitoring, adjusting, targeting as situation changes and stabilizes

WHO, 2004
1. **Guiding principles for feeding infants (0-6 months) during emergencies**

   - **Infant formulas:** Including breast milk or other infant formulas approved by the Ministry of Health and Population, are the best way to feed infants during emergencies.
   - **Feeding practices:** Infants should be fed exclusively on breast milk for the first 6 months of life.
   - **Complementary feeding:** Introduces solid foods to the diet after 6 months of age.

2. **Complementary foods and feeding practices for older children:**

   - **Solid foods:** Introduce solid foods gradually, starting with iron-fortified complementary foods.
   - **Meals and snacks:** Encourage regular meals and snacks to meet nutritional needs.

3. **Promotion of breastfeeding:**

   - **Exclusive breastfeeding:** Breastfeeding for the first 6 months is crucial.
   - **Complementary feeding:** Integrate solid foods and continued breastfeeding.

4. **Nutritional education and counseling:**

   - **Breastfeeding promotion:** Encourage breastfeeding practices.
   - **Nutritional counseling:** Provide guidance on healthy feeding practices.

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**Table 1: Complementary interventions needed for the maintenance of breast milk production and lactation**

- **Fortified foods:**
  - Fortified milk products, designed to provide 10-15 percent protein and 2% energy from fats, can be incorporated into the diet. These foods must be fortified with a balanced mix of all vitamins and minerals.
  - The first priority should be to provide balanced meals and snacks, which include foods high in iron, zinc, and other nutrients essential for lactation.

- **Supplementary feeding:**
  - Fortified foods should be included in the diet, especially during times of food shortages.
  - Emphasis should be placed on complementary feeding practices.

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**Fact:** The crisis in the Horn of Africa is unlike any other — killing, starving, or displacing over 13 million people.

![Image of the Horn of Africa with a map showing 2 million in 2004, 3 million in 2019, and 13 million in the future.](http://www.youtube.com/usaidvideo)