

Drought and Famine

- Types
- Causes
- Impacts
- Mitigation

Role of Institutions

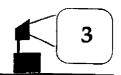
- UN Agencies
- Government
- NGOs and Donors





Learning Objectives

- Distinguish different types of drought and their causes
- Analyze the relationship between rainfall and crop yields
- Identify and predict drought impacts



How is drought defined?

"Drought is a

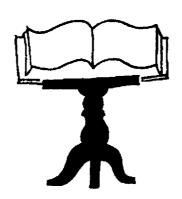
temporary reduction

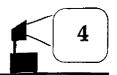
in water or moisture availability

significantly below the normal or

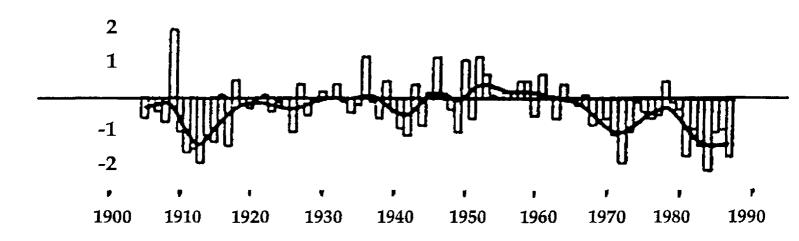
expected amount (norm)

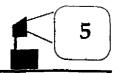
for a specified period"





Rainfall fluctuations in the Sahel





EXERCISE

Choose a drought with which you are personally familiar and briefly describe it using each of the key assumptions in the definition of drought just presented.





Causes of reduced rainfall

Immediate Causes

- lack of moisture in the atmosphere
- large scale subsidence
- no rain-bearing systems

Underlying Causes

- El Niño/ENSO
- water surface temperatures
- "Greenhouse" gases
- Overgrazing and deforestation



Types of Drought

- Meteorological
- Hydrological
- Agricultural

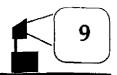




Identify a drought situation with which you are familiar.

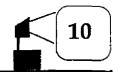
Was it a hydrological and/or meteorological drought?

What were some of its causes and consequences?



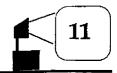
Factors affecting the severity of drought

- Amount of irrigated production
- Moisture retention of the soil
- Timeliness of rainfall
- Adaptive behavior of farmers





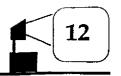
Choose a drought with which you are familiar and describe how two of the factors just shown either increased or decreased drought impacts.



Drought Impacts

Niger — 1984

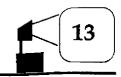
- Agricultural production down 19%
- Cereal production down 37%
- Food aid imports up 450%
- GNP at 0.4%/year instead of possible 2.0%/year





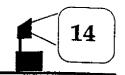
Who will be most affected?

Country A	Country B
High Income	Low Income
Agriculture— 10% of GDP	Agriculture— 50% of GDP
Water from aquifers	Water from rainfall



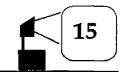
Potential drought impacts

- ✓ Farm and farm labor incomes decline
- Local spending declines
- Livestock prices decline
- Food prices increase
- Ability to acquire food declines
- ✔ Health status declines
- ✔ Heat-related illnesses increase
- Migration in search of food, water and work increases
- ✓ Disputes over available water supplies increase
- ✓ Business loan defaults increase
- ✓ School attendance declines
- ✔ Inflation rate increases
- ✔ Government revenue and foreign exchange earnings decline
- ✓ Diversion of available funding from development to relief increases
- Rates of morbidity and mortality increase





Choose a drought with which you are familiar and describe its major impacts drawing from the list just presented or others with which you are familiar.





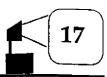
Reducing drought impacts

- Increase supplies of seeds for planting opportunities
- Improve rangeland management
- Improve water resource management
- Plant drought-resistant crops
- Implement counterdesertification measures
- Conduct public education to promote appropriate planting and consumption decisions



Summary

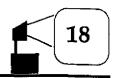
- Drought is a frequent contributing factor to famine
- Hydrological, meteorological, and agricultural droughts are the three types of drought
- Rainfall tends to vary naturally in multi-year cycles
- Drought impacts can be highly varied and widespread and are, potentially one of the most destructive hazards
- There are many actions that can lessen drought impacts





Learning Objectives

- the historical incidence of famine and some of the causes of previous famines
- different ways of conceptualizing famine
- major causes of famine
- distinguish between famines associated with a decline in overall food availability and a lack of access to food by specific vulnerable populations
- understand and determine the role of conflict in creating and sustaining famines
- support coping strategies of vulnerable populations
- analyze coping patterns to predict whether famines are developing and progressing
- interpret signs of early warning
- design programs and policies to maintain food security for vulnerable groups



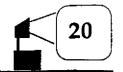


Country	Excess mortality
Ireland 1845 - 1849	1.0–1.25 million
Soviet Union 1932-34	5.0 million
Bengal 1943-46	3.0 million
China 1958-61	16.5–29.5 million



Understanding Famine

"Famine results from
a sequence of
processes and events that
reduces food availability or
food entitlements and
causes widespread and
substantially increased morbidity
and mortality."





FAO World Bank

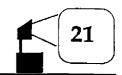
The concept of food security embraces three main objectives:

- 1. adequate supply
- 2. stable supply
- 3. access to supply

Food security is access by all people at all times to enough food for an active, healthy life.

Its essential elements are the availability of food and the ability to acquire it.

Food insecurity, in turn, is the lack of access to enough food.

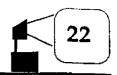


EXERCISE

Choose a famine with which you are familiar.

Was it the result of chronic or transitory food insecurity?

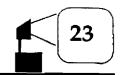
What were the events and processes that encouraged the famine to develop?"



Causes of Famine

Decline in food availability

Reduction in access or ability to acquire food





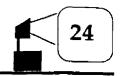
Factors causing a decline in food availability

Natural

- agricultural drought
- floods and high winds
- cold spells and frosts
- animal and crop diseases
- pest infestations

Human-made

- war and civil strife
- refugee influx
- economic embargoes and external economic shocks
- governmental policies
- hoarding and smuggling



Factors affecting peoples' ability to acquire food

- significant loss of income
- significant increase in the cost of food
- erosion of welfare support systems
- conflict
- governmental policies





"Famines are, in theory, preventable"



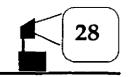
The Role of Conflict

- direct destruction of life, property, food, animals, and crops
- abandonment of land and productive resources
- disruption of commerce and coping strategies
- barrier to relief efforts



Common factors increasing vulnerability to famine

- Low income country with high proportion of very poor people
- Food production impacted by climatic changes and pest infestations
- Internal and external trade poorly developed
- Media restricted and government criticism not tolerated
- Limited options for individuals and households





Stage One: Insurance mechanisms

Changes in cropping and planting practices Sale of small stock

Reduction of current consumption levels

Collection of wild foods

Use of inter-household transfers and loans

Increased petty commodity production

Migration in search of employment

Sale of possessions (e.g. jewelry)

Seeking off-farm employment

Stage Two: Disposal of productive assets

Sale of livestock

Sale of agricultural tools

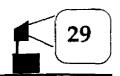
Sale or mortgaging of land

Credit from merchants and moneylenders

Further reduction of consumption levels

Stage Three: Destitution

Distress migration

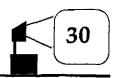




"Why is it important to develop the capacities and support the coping strategies of famine victims?"

Describe a programme which successfully accomplished this.

Describe a programme which had the opposite effect.



Famine Early Warning Systems

Local

- nutritional surveys
- crop production analysis
- NGO field staff reports

■ National

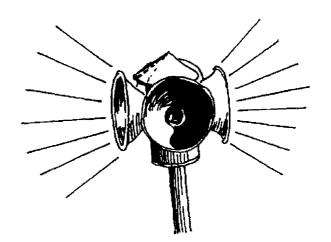
- FAO/WFP assessment missions

■ Regional

- CILSS
- SADCC

■ Global

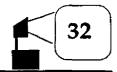
- GIEWS





Measures to maintain food security

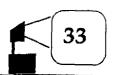
- Price stabilization
- Food subsidies
- Employment creation programmes
- General food distributions
- Supplementary feeding programmes
- Special programmes for livestock and pastoralist populations
- Complementary water and health programmes





Price stabilization

- Maintenance of domestic grain reserves and buffer stocks
- Commercial imports of food
- Government subsidies
- Local "grain banks" and increased storage capacity



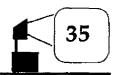
Food subsidies

- Subsidize selected commodities
- Target specific geographical areas
- Restrict participation



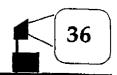
Employment-creation programmes

- Provide employment cash and in-kind income to selected people
- Can be used to create assets like food and roads
- Avoid dependence associated with free food
- May not be appropriate for certain groups
- Require administrative and technical capacity



General food distribution programmes

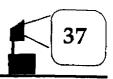
- Used when existing food distribution channels are inadequate and employment programs are not feasible
- Food rations frequently must be able to meet entire caloric and micro-nutrient needs
- Partial rations often result in the selling of rations to buy other necessary food
- Increasingly done by NGOs
- Frequently require targeting measures





D programmes Supplementary feeding

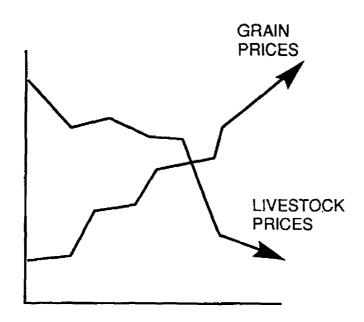
- Targeted on particular groups especially children under 5, pregnant and nursing mothers, the elderly and disabled
- May be on-site or take-home ration
- Should not be substituted for general food distribution programmes especially when the general ration is inadequate

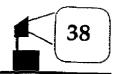




Livestock and pastoralist populations

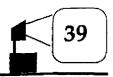
- Designed to maintain livestock assets
- May include cattle camps or fodder distribution programmes
- Includes interventions to support the price of livestock





Complementary water programmes

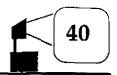
- Especially important in drought-related famines
- Used to reduce water-borne diseases
- Interventions include
 - assistance in transport of water
 - maintenance of existing boreholes
 - drilling new boreholes
 - expanding well capacity
 - expanding water-holding capacity





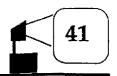
Complementary health programmes

- Famines result in increased morbidity due to reduced food intake, poor hygienic practices, and deterioration of water quality
- Interventions include
 - provide oral rehydration solution
 - ensure adequate supply of basic medicines
 - expand immunization programmes
 - distribute vitamin A



Comprehensive programmes through a mix of interventions

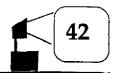
- Keep food prices at affordable levels for affected households
- Protect the capacity of households to procure food and minimize the selling of key assets
- Limit the increase in morbidity





Summary

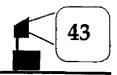
- Famines have occurred throughout history
- Famines are the result of a series of events and processes and conflict is frequently a contributing factor
- Famines result in the inability of certain vulnerable groups to procure food
- Famines, in theory, are preventable
- "Victims" of famine use many creative actions to maintain their households and interventions should be designed to support the "coping mechanisms"
- Early warning systems help alert authorities to developing famines
- Many different types of programmes have proven successful in minimizing famine impacts





Learning Objectives

- Differentiate the drought and famine roles of various UN agencies, national governments, NGOs and donors.
- Understand the potential new roles for the UN in famines which involve civil conflict and intense political consideration
- Specify how and when rehabilitation programs should be established





National government roles

- Requires preparedness
- Requires sustained response capacity
- Should be the first intervenor
- Should guide the international response to relief
- Should support a variety of different programmes



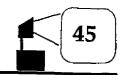


Roles of the key UN agenices in mitigating transitory food insecurity

	uinerability Reduction	Prepar- edness	Early Warning	Relief Provision Food — Non-food		Relief/Recovery Coordination	Rehabi- litation	Conflict Resolu- tion & Protection
UNDP	*			_	x	*	*	_
WFP	x	*	*	*	x	x	x	-
FAO	*	*	*		x	x	*	-
UNHCR	-	x	x	x	*	x	*	*
UN Secretaria HA-UNDRO	t- ★	*	_	*	*	*	x	*
UNICEF	*	x	×	x	*	x	x	x
wно	*	x	_	-	x	x	x	-
ILO	*	-	_	-	-		x	-
WORLD BANK	< ★	x	_	_	_	x	*	_

Note: The mandated roles of the agencies may vary according to local circumstances

- = no role or involvement x = some role involvement \pm = important role or involvement





Resolution 46/182

- Affirms that humanitarian assistance must be provided in accordance with principles of humanity, neutrality, and impartiality
- Provides a revolving cash fund for emergencies
- Establishes a register of specialist personnel
- Provides for a high level coordinator
- May require specially negotiated terms for providing assistance in militarily contested areas





Donor and NGO roles

- Bilateral donors provide 80% of total emergency food aid
- Donors are increasingly preferring to implement their programmes through NGOs like CARE, Oxfam, Save the Children Fund, and Catholic Relief Services
- Donors prefer NGOs because they
 - doubt the effectiveness of government agencies
 - doubt the commitment/ability of governments to reach those most in need
 - fear corruption and "leakage"
 - are especially useful in areas of contested sovereignty





How does
Resolution 46/182
affect UN roles in
meeting famine needs?



Goals of rehabilitation programmes

- Replace lost assets
- Re-establish livelihoods
- Comprehensively meet needs
- Be tailored to unique situation
- Function alongside relief programmes



Seed rehabilitation programmes

- Require targeting resource-poor households
- Require timely distribution
- Require appropriate varieties of seeds
- Should limit use of imported seeds