GNED 320
Food and World Hunger
Based on Fall 1991

Goals of the course
The course provides an interdisciplinary study of the world food system and hunger in the world today. How do technology, social institutions, and economic processes interact to provide people with food? Why do famines occur? Why do some countries suffer from chronic malnutrition? Is there an absolute scarcity of food in the world? Does the Green Revolution provide a basis for ending hunger? How do property relations (for example, patterns of land ownership) affect hunger and famine? What social and political institutions are most favorable to adequate nutrition for an entire population? Are there strong moral principles that should underlie our attitudes toward hunger and famine? What forms should international assistance take?

The problem of hunger in the world today is an outstanding example of an issue that demands interdisciplinary treatment by scholars and policy makers. It is a problem that cannot be solved by the agricultural specialist, the economist, the political scientist, or the philosopher alone; rather, the knowledge of all those fields is needed if we are to arrive at an integrated understanding of the problems that give rise to hunger and famine.

Requirements
There will be a midterm exam and a final exam in the course. Students will be required to complete a research project on an area of the world and a dimension of the problem of hunger in that area.

Readings

Required
Jean Drèze and Amartya Sen, Hunger and Public Action (Drèze and Sen 1989)
Atul Kohli, The State and Poverty in India (Kohli 1987)
Carl Eicher and John Staatz, Agricultural Development in the Third World (Eicher and Staatz 1990)
Gittinger, Leslie, and Hoisington, Food Policy (Gittinger et al. 1987)
D. Curtis et al, Preventing Famine (Curtis, Hubbard, and Shepherd 1988)
A. Hansen and D. McMillan, Food in Sub-Saharan Africa (Hansen and McMillan 1986)
Henry Shue, Basic Rights (Shue 1980)
**Recommended**

Timmer, Falcon, and Pearson, Food Policy Analysis (Timmer et al. 1983)
James Scott, Weapons of the Weak (Scott 1985)
Bass, Thomas A., Camping with the Prince & Other Tales of Science in Africa (Bass 1991)
Barker, Randolph, Robert W. Herdt, and Beth Rose. 1985. *The Rice Economy of Asia*  
(Barker, Herdt, and Rose 1985)

**Reading packet**

Ronald Herring, *Land to the Tiller* (selections) [xerox] (Herring 1983)
Ernest Feder, “Latifundios and Agricultural Labour in Latin America” [xerox]
Hunger, famine, and malnutrition are enormous problems in the world today. Food is produced through the world’s agricultural system. Farmers, large and small, grow crops and raise animals that enter the market system and make their way to the people who consume them. The scale of production ranges from small-holding farmers who produce for their families’ food needs to large-scale commercial farms that produce for national and international markets. The technology of agriculture shows similar range—from traditional techniques of cultivation and traditional seeds, to the most scientifically advanced bio-engineered seeds and cultivation technologies. Hungry people are found in the countryside and in cities; they are employed and unemployed; they live in democracies and dictatorships.

How does this system work? What factors lead to adequate nutrition in developing countries? What factors lead to chronic malnutrition or famine? What techniques exist to limit the severity of famine?

- To what extent are the world’s hunger problems solvable through technological advances?
- To what extent do these problems derive from inequalities within the economic systems of various countries, and among countries?
- Does population increase threaten to overwhelm the increases in agricultural productivity that the world’s food system has witnessed in the past 40 years?

Notes:

Hunger, malnutrition, famine, and disease
symptoms of poverty
extent of poverty:
  S Asia 520 million
  E Asia 275 million
  Sub-Saharan Africa 180 million
  Latin America 80 million
total: 1.1 billion out of 4 billion

Establish the connection between poverty and hunger

what causes famine?
what causes malnutrition?

food security
  production for self; domestic food security
international food trade

thesis: the primary cause of hunger is poverty, not absolute food shortage.

Limiting factors: technology or social relations?

green revolution: increasing food output through high yield varieties, intensive chemical fertilizer and pesticides, irrigation, and mechanized cultivation.

land reform and property institutions

redistributive reforms

Is population increase the heart of the problem?
Week 1: The normative basis
Shue (Shue 1980), pp. 5-64; 91-130

This week we examine several moral theories that offer a basis for moral reasoning about food availability and hunger. We focus on Henry Shue’s concept of basic rights and some of Amartya Sen’s reasoning about entitlements. We will introduce some vocabulary for talking about efficiency, productivity, and equity. Why is hunger such an important human problem?

Some of the problems we will confront include—

Is there a normative basis for judging that poverty alleviation is a high priority issue?

Why provide aid? and why provide aid structured toward poverty alleviation rather than other development goals?

Justice and rights

1. Capabilities and functioning
2. urgency of needs
3. fairness--national and international
4. basic rights; what kind of claim is this?
5. Justice and exploitation; fairness
6. Environment and future generations

International justice; national policy. Why should rich countries take a concern for the poor? How should national policy treat the poor?

fairness and justice in economic development.

Normative constraints

The relevance of normative judgment in economic development.

Several possible foundations for ethical judgment
1. The relative importance of poverty and deprivation (Sen).
2. Systemic considerations of fairness and justice.
3. Rights. Do we have “basic rights” (Shue, Basic Rights)? And what follows?
4. Policy should be designed to produce the greatest good for the greatest number. (The welfarist approach of neo-classical economics.)
5. Policy should make provisions for satisfying the basic needs of the poorest (basic needs).

Putting the poor first
The position that I argue is “putting the poor first”: that concern for poverty alleviation trumps other development goals. This has implications both for the domestic governments and international agencies.

Do normative considerations affect policy makers?

Public policy; public provisioning; growth
Week 2: Tutorial in development economics terms

In order to analyze the problem of world hunger, we need to make use of some of the concepts and theories of development economics. This week we will provide a basic explanation of the most important economic concepts that are relevant to food policy.

We also need to analyze political institutions. This requires some familiarity with the tools of political science and public policy analysis.

And we need to analyze the workings of an international and globalizing economy.

GNP (gross national product)
GDP (gross domestic product)
growth in GNP
growth in per capita GNP
  [approximation: growth in GNP - growth in population]
inflation
the need to use adjusted dollars in making cross-temporal comparisons
measures of inequalities: Gini coefficient, quintile shares of income
structural transformation
growth rates of sectors
rural-urban migration
theories of income distribution
productivity and efficiency
intensity and technical change
human capital
public policy
Week 3: Food security

Definition of food security

What is food security? By "food security" specialists often mean two different things: the capacity of a typical poor household to secure sufficient food over a twelve-month period (through farm work, day labor, government entitlements, etc.; (Drèze and Sen 1989), (Sen 1981), (Reutlinger and Selowsky 1976), Friedmann 1987); and the capacity of a poor country to satisfy the food needs of its whole population (through direct production, foreign trade, and food stocks; (Brown 1985), (Donaldson 1984)). Food security is "access by all people at all times to enough food for an active and healthy life" (World Bank 1986). This involves both food availability and the ability to gain access to food (through entitlements). There is an obvious connection between the two definitions; but because I believe that disaggregated data are more illuminating than aggregate data in this context, I will focus on household food security rather than national food security. A country may in principle have more than sufficient resources to satisfy the food needs of its population, but fail to do so because of internal inequalities. Thus achieving household food security in the less-developed world requires both equity and growth.

A representative formulation is offered by Shlomo Reutlinger:

> Food security ... is defined here as 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. Conversely, food insecurity is the lack of access to sufficient food and can be either chronic or transitory. Chronic food insecurity is a continuously inadequate diet resulting from the lack of resources to produce or acquire food. Transitory food insecurity, however, is a temporary decline in a household’s access to enough food. It results from instability in food production and prices or in household incomes. The worst form of transitory food insecurity is famine. (Reutlinger in (Gittinger et al. 1987), p. 205)

Sen’s "capabilities" understanding (developed, for example, in Drèze and Sen):

> The standard of adequacy is best understood functionally: a person, household, or population has food security if it has sufficient access to food to permit full, robust human development and realization of human capacities. (Sen and Hawthorn 1987)

A discussion of some of the main measures of food security in a given population

a. income criteria
b. consumption criteria
c. anthropometric criteria
**Nutritional criteria**

Minimal caloric intake: 2,250 calories per person per day (Moon, p. 5); nutritional consequences discussed by Beaton (Gittinger et al. 1987).

A difficulty of an absolute caloric standard: differences in environment, body size, work standards, and age give rise to substantial differences in caloric needs. Protein-energy deficiency. Most experts now agree that it is the energy side of the equation that is most significant: net caloric deficit (Falcon et al, p. 18 (Gittinger et al. 1987)).

Reutlinger and Selowsky (Reutlinger and Selowsky 1976) provide an authoritative discussion of malnutrition and poverty.

**Food adequacy standard**

Michael Lipton (Lipton 1983) is a good, authoritative source on nutrition and poverty, which includes a careful discussion of differentiated nutritional requirements.

Lipton’s central task in this work is to attempt to provide criteria for distinguishing between the poor and the ultra-poor. The ultra-poor have incomes and entitlements that are absolutely below that required to gain access to 80% of 1973 FAO/WHO caloric requirements (iii). Below this level is likely to lead to undernutrition (the failure of food security). Lipton constructs a "food adequacy standard" as a way of measuring the incidence in a given country of absolute poverty.

food adequacy standard:

Income or outlay, just sufficient on this assumption to command the average caloric requirement for one’s age, sex and activity group (ASAG) in a given climatic and work environment, will be taken as meeting the poverty FAS; this is income or outlay on the borderline of poverty, indicating a risk of hunger. Income or outlay, just sufficient to command 80% of this average requirement, will be taken as meeting the ultra-poverty FAS; this is income or outlay at the borderline between poverty and ultra-poverty, indicating a risk of undernutrition and a severe risk of important anthropometric shortfalls. (Lipton 1983): 7.

What is a reasonable caloric standard? Current standards overstate even average Western requirements, according to Lipton.

He looks also at intra-household maldistribution and its effects on undernutrition (50 ff.).

**Causes of uneven food security**

- entitlement shock
- variable availability
• price variability and price shocks

**Factors that affect national or regional food security**

• food production
• Marketing, rural infrastructure, and storage
• access depends on incomes; so the challenge of stimulating income growth among rural people is fundamental to enhancing food security.

**Household and national food security**

National food security: the capacity of a nation to produce or import sufficient staple foods to satisfy its population’s nutritional needs.

National food security depends on three factors: net food production, food reserves, and food imports.

Food security is not equivalent to food self-sufficiency or agricultural development. (Not "food self-sufficiency"; (Hollist and Tullis 1987): p. 1)

International price instability
weather variation
Buffer stocks and reserves
Food first? That is, are large-scale food imports destructive of national food security, to be replaced ideally by domestic consumption? Probably not. (Falcon et al, 20 (Gittinger et al.).)

The *Human Development Report* (United Nations Development Programme 1991) provides an estimate of daily calorie supply as % of requirements for some 160 countries (table 2).

The *World Development Report* (World Bank 1991) provides information on developing countries’ agriculture and food performance: cereal imports, food aid, and food production per capita (Table 4).

**Food availability and entitlements**

Food security as a function of entitlement and price shock. The significance of price instability militates for government price stabilization programs for staple foods.
**Food security, well-being, and welfare**

**Disaggregation of food security**

*Intra-population variation*

Aggregate data conceal substantial intra-population variation. Household studies are needed to assess the extent of transitory food insecurity at the household level (Reutlinger in (Gittinger et al. 1987), p. 211).

Emphasis is given by Shaw and Chazan (Shaw and Chazan 1988) on the political economy of food.

They emphasize as well the spatial and generational differentiation of food access problems.

Ethnic, communal, and religious cleavages are highlighted. And gender inequities surface with greater intensity. ((Shaw and Chazan 1988), p. 14)

*Intra-household variation*

Lipton, pp. 385 ff. (Gittinger et al. 1987)

*Intra-regional variation*

**Logistics of food security**

**Temporal dimensions of food and entitlement variability**

**Possible policy interventions to enhance food security**

- assure surplus stocks to stabilize prices.
- bolster incomes of worst-off segments of the population.
- famine prevention systems?

**Policy interventions**

- Food subsidies
- International aid
- Income transfers
- Raise the productivity (and hence incomes) of the poor

Nutrition-linked policy for the ultra-poor—Lipton’s list (63-64):

- direct nutrition intervention
- institutional reforms (e.g. land tenure)
- more income for the ultra-poor
- food supplementation
- nutrition planning (not much scope for policy here)
**Week 4: Institutional context of food production**

An analysis of some of the ways in which the legal and social institutions of farming have differential effects on different strata in rural society. Examples from India, Mexico, China.

**Farming systems of the less-developed world**

This is a fairly simple overview of some of the various technologies and social arrangements through which food is produced in the less-developed world. We will discuss basics like land-tenure arrangements, commercial farming vs. subsistence farming, irrigation and fertilizer resources, farm size, types of crops, etc.

Growth with Equity (Adelman (Adelman 1978), Chenery (Chenery et al. 1974))

growth of employment and distribution of real income

appropriate technology?
  - factor scarcity: don’t use tractors in a labor-surplus environment
  - local agricultural environment

urban bias: Michael Lipton (Lipton 1976)

**farming systems**

1. family farm with little or no hired labor
2. managerial farm with hired labor
3. cooperative and collective farming systems
4. land tenure systems: fixed rents, share rents; interest and credit.

**Variables**

scale of production
purpose of production: consumption, market, profits
use of labor: family labor, hired labor
technology in use:
  - water technologies
  - animal traction, machinery
  - availability of modern inputs
availability of credit; interest rates
quality of transportation and marketing system

social and distributive effects are substantially affected by differences in scale, access to credit, and labor system.

An instance: self-exploitation and agricultural involution following from family farming system. (Chayanov; *The Theory of Peasant Economy*) The neo-classical argument.
Another instance: rent-seeking behavior. When powerful agencies (private or public) occupy bottlenecks within an economy they are able to extract rents (shares of income not reflecting contributions to productivity). Government procurement agencies are one example; but monopoly of private transport can have the effect of directing a substantial part of the agricultural product into the hands of those who have access to trucks.

A third instance: differential access to credit produces differential adoption rates.

Is mechanization necessarily a bad thing? No; but it is labor-replacing, and so the overall effect depends on the expansion of demand for labor in the non-farm economy.

Intensification of cultivation on smaller plots.

Herdt’s essay (“A Retrospective View of Technological and Other Changes in Philippine Rice Farming, 1965-1982”) summarizing a 15-year study of two regions in the Philippines. Output increased substantially from 2.2 tons per hectare to 4 tons. Input costs also increased; but even so net output increased from 2.1 to 3.2 tons (Luzon) and 2.1 to 3.9 tons (Laguna). Adoption was in the end independent of farm size: large farmers adopted first, but by the 1970s virtually all farms had adopted the new technologies. Labor usage increased somewhat: from 90 days per hectare to 100 days per hectare (Laguna).

Note an important observation: green revolution does not necessarily lead to increasing farm incomes or increasing farm wages. It depends on a macroeconomic fact--the price of the crop (rice). Real farm incomes did not rise over this time period. Equity probably improved within the sector, due to the effects of the land reform and lower land rents.

Micro: farming context.
Macro:
Institutional reform--e.g. land reform, tenancy reforms, credit reforms
terms of trade
state--elites--farmers
urban bias
subsidies and taxes
mechanization

basic needs
**Week 5: Institutional reforms and equity**
Reading: Gittinger, pp. 165-194

This topic refers to the political and economic environment of third world farming: land tenure, credit, family labor, political elites, the varieties of state policies towards peasants. These are the social and legal relations through which rural people gain access to land and capital, and through which others extract part of the surplus from the farm economy (rents, interest, profits).

**Agrarian reform in practice**

**Alternative models of development**
Reading: Hollist and Tullis, pp. 181-194
Reading: Ronald Herring, *Land to the Tiller* (selections) [reserve];
Reading: Ghose, ed. *Agrarian Reform in Contemporary Developing Countries* (selections) [reserve] (Ghose 1983)

A description of land reform programs in several countries that attempt to embody both efficiency and equity through entitlement reform. Presentation of some of the results of agrarian reform programs in several areas of the world: China, Peru, the Philippines.

**land reform**

The effects of land reform:
- better distribution of income
- more labor-employing practices are selected
- higher yields per hectare

Integrated rural development; basic needs
- agriculture, health, education, sanitation

Liberalization and getting the prices right
  Bates (Bates 1981), Timmer (Timmer 1986)

What are the institutional variables and players?
- farming system; scale and social setting of farming
- broad economic environment: markets, price and input policies, transport system
- government policy: development projects, investment plans, agricultural price and quota policies
- private lending institutions
- available and existing technologies of farming
Land reform and the politics of reform

Case: Mexico
Land reform in Mexico

1. large estates dominated by political elite of post-colonial Mexico. Often with other forms of economic control over peasants and workers.

2. Problem of redistribution of land arises around turn of century.

4 factors
1. Strong political elite is prominent; particularly important at the local level.
2. US govt has a substantial political weight in Mexican politics. Is willing to intervene militarily.
3. Large and growing Indian-Hispanic population. These are peasants and hacienda workers.
4. The hacienda system has important characteristics.

Village life has an unusual form. Ejidos. Communal villages outside boundaries of large estates. Village holds a large piece of communal property. Communal property may be redistributed periodically. Property system was customary rather than formal and legal. In 19th century population pressure on village sector increases.

The narrative

By 1940 land distribution had improved dramatically. End of 19th century Diaz was president/dictator (1876-1910). Wants to modernize through growth-led strategy. Law is passed that confiscates some ejido land and permits private sale of the land. Railroad companies and haciendas purchased 50,000,000 acres at very low prices. 80% of rural population is on hacienda; very few free villages left (10,000). Power of concentration of land is dramatic; very powerful landholding families emerge. 1 family (Terasa) owns 7 million acres of land (a large clan in Chiauha). This family runs the state government. This is the result of a deliberate strategy on the part of the Diaz presidency. By 1910 pressures against this system come from liberal political direction a Political democracy, greater equity of welfare. Land reform and land expropriation. Social justice platform.

1910: Diaz is up for reelection. Morelos has few haciendas, many ejidos. This area presents a strong demand for social justice.
Madero leads the opposition. Retreats into Texas and sets date of Nov. 20, 1910 as the day of uprising. To his surprise small armies arise. Orosquito, Pancho Villa, Zapata. Guerilla warfare ensues, moves very gradually inward toward Mexico City and central power. Center weakens rapidly as ties to provincial powerholders weaken.

Huerta succeeds Madero; attempts to restore order and central govt. Much bloodshed. Has some interest in land redistribution that is palatable to elites. Land taxes designed to stimulate land sales by largeholders.

US govt occupies Vera Cruz; Huerta forced to resign.

Guerilla leaders try to reach a pact (Zapata and Villa). This fails. Instead, a constitutional convention process is put in motion (1917). A radical constitution is produced. Imposes a democratic political system, rights of labor and labor organization, and right to land and redistribution. Land to the tiller.

Realities of political power mean that first govt doesn’t attempt to implement these provisions.

1920: 6th new president, Obregon. Makes efforts to reconcile forces. Some slight efforts at land redistribution (3 million acres). (Less than the holdings of the Terasa family.)

Calles presidency.
Retrenchment; recreation of central political power. Placate political elites, do some marginal social justice reform. Attempt to reinvigorate state’s bureaucracy.

Substantial land redistribution occurs under President Cardenas (1934). Develops his own political support, breaks with Calles. Manages to resist powerful elites; redistributes 49 million acres of land. Affects a large percentage of the rural population. Redistributed to ejidos, not individuals. One reason for delay in redistribution is fear of economic effects of breaking up large estates. Will small farms provide surpluses for feeding large cities? In fact there is a drop in grain production. Enormous political and social success. But economically it is a failure. Cities feel the pinch. Not a catastrophe. Parallel reforms: rural education and health, more resources into countryside. Credit system for rural poor. Rhetoric of Mexican Revolutionary party continued to be that of Cardenas.

Now land concentration is reoccurring.
Process has affected half the population of Mexico.
**Week 6: Approaches to agricultural development**

This week we examine several theories of agricultural policy: the social, economic, and technological changes that can be stimulated in order to bring about increase in agricultural productivity and food output. How can governments and economic actors stimulate positive agricultural development?

Why is this question of concern to us? Two reasons.

**First**, agricultural development determines the rate at which a nation’s per capita food production improves; stagnant agriculture paired with population increase leads to a downward trend on food per capita.

**Second**, most poor people are in the rural sector. Agricultural development can have the effect of raising rural incomes, which will have a major effect on the extent of rural hunger.

**Broad dimensions of choice**

- induced innovation / technology change ((Hayami and Ruttan 1971))
- application of science and technology to agriculture
- agricultural extension services
- Theodore Schultz (Schultz 1964): traditional agriculture is at an optimum. Traditional farmers are efficient but poor
- Clifford Geertz (Geertz 1963): agricultural involution

**More intensive agriculture**

- extend the range of irrigation
- press toward further adoption of HYVs
- extend the use of modern pesticides and fertilizers
- mechanization
- improve marketing, storage, and transport systems
- extend the arrable?

Agriculture first? or industry first?

Is there a labor-surplus in agriculture? Zero marginal product; self-exploitation of the peasant household (Chayanov; (Thorner, Kerblay, and Smith 1966))

Do the terms of trade turn against agricultural products?
import substitution; protection of infant industries

What is the role of agriculture within development?

- food production; wage goods
- poverty: rising incomes to the rural sector have a profound effect on poverty rates
- stimulate demand
What factors determine whether a strategy will be successful? At the micro-level, we need to know how the strategy affects the interests and life-prospects of the farmers who will implement it.

Mellor et al: (Mellor 1966)
- emphasize the income-enhancing effects of agricultural development
- expanded effective demand
- lower-cost wage goods
- expanded employment in other consumer good industries as a result

dependency theory: periphery is locked into a process of unequal exchange with the industrialized world
Week 7: Women and development

Women are central within the process of economic development, and they are central as well within the circumstances of world hunger.

West Africa:
women raise food and own the product.
They feed themselves and their children; possibly their men.

effect of shift to cash cropping.

shift to migratory labor for men; implications

societal and legal constraints on the use of income: Kenya laws about legal control of women by men.

appropriate technologies often increase incomes to women. Not always.

community organization approach:
create communal villages (Kenya).
Intent is to satisfy group’s needs, increase equity.
In fact it didn’t work very well; women worked more but didn’t improve incomes.

10/7/91
Week 8: Green Revolution
Gittinger, pp. 106-132
Hollist and Tullis, pp. 139-180
Robert Herdt, “A Retrospective View of Technological and Other Changes in Philippine Rice Farming, 1965-1982” (EDCC 35 1987) [xerox]

A basic lecture on the main technological innovations of the Green Revolution and some of the effects.

green revolution: increasing food output through high yield varieties, intensive chemical fertilizer and pesticides, irrigation, and mechanized cultivation.

rice and wheat; 2-3 times yields
research focused at Maize institute, IRRI.
GR is a political pun. Green rather than red.
food availability and price improvement followed almost immediately.
India has tripled its grain production (1961-1980).

1) rise in supply
2) rise in income to farmers who could absorb new varieties.
3) noticably drop in prices of cereals.
4) diminishing of intercropping.
5) increase of multiple cropping.
6) requires intensive care: irrigation, weeding, pest control. Increase in demand for labor.
7) changes in system of production
   a) larger farmers can shift to mechanization. labor demand falls.
   b) gains are productivity gains; but this doesn’t necessarily disaggregate into gains for the whole of society.

List of criticisms
1) needs good irrigation
2) intense fertilization
   a) cost
   b) environmental effect
3) pesticides needed
4) credit needs of farmers are much
5) greater than before.
6) monoculture has risks
7) crop failure can be disastrous
   a) ecologically potentially dangerous. [though note Rob’s point.]
   b) Have to buy the seeds.
Did large farmers have an advantage?

*Case: India*

Green Revolution in India

food crops
Rice comes to replace coarse grains (e.g. sorghum).

coarse grains were ignored by new variety research.

two general criticisms:
equity problems
technology is being brought in from outside the village.

absolute and relative perspectives on GR: do the poorest get more income and food? and do the poorest gain against the more affluent?

Does the relative worsening have implications for future social development?

Do regional inequalities rise during GR process? Certainly; sorghum areas don’t do well.

biorevolution
nitrogen fixing; cut down on fertilizers
biological pest control systems.

breeder’s perspective and farmer’s perspective.

breeders have cared most about quantity.
farmer pays attention to risk and cost of inputs.
farmer is interested in intercropping.
intercropping smooths out risks and demand for labor.

call for sustainability: can these technologies be used in practice over indefinite time?

What about non-farming poor?

Impact of new systems on prices, wages, and new structure of labor market.

GR witnessed rising farm wages.

Will the second GR have the same effect?

Is family labor or wage labor the primary form?
distribution of female and male labor. Will it change?

10/9
Week 9: Population and family planning

Does population increase cause malnutrition and famine? Does population increase keep pace with increases in agricultural productivity—with the effect that per capita grain production is stagnant? This week we will examine the dynamics of population increase in the developing world.

Demographic transition: high fertility, high mortality => low fertility, low mortality
The “family security” rationale for large families
Gender preferences within families

Case: Indonesia
Family planning in 1968
Linked to medical care; credit link—FP performance affects credit.
Famine is the most visible and terrible of the crises associated with the availability of food. Famines in India, China, Ethiopia, Sudan, and North Korea have occurred in the 20th century. This week we will consider several fundamental questions: why do famines occur? What should be done to prevent or ameliorate famines? We will find that famines usually have a complex nature. They are not caused by an absolute inavailability of food in a region, but rather in a sudden “entitlement” crisis in which many people cannot afford to purchase food at market prices for an extended period.

We will present the main elements of Sen’s theory of famine.

Sen: Poverty and Famines  
Drèze and Sen, Hunger and Public Action

**Food availability decline?**
entitlement failure?

Entitlement system

capabilities and needs

Public policy alternatives?

early warning systems

price shocks; grain trade

food subsidy programs

the Chinese famine; Indian malnutrition; free press and parliamentary institutions

public employment

10/12

Bengal famine 1942-45

Per capita production was higher.

Entitlement shock.

Public policy alternatives

Early warning; famine response by the state

food subsidy program; fair price grain shops

Cyclone; 12000 deaths.
Flooded paddy and wood sources.
Landless workers, fishermen, urban wage earners hardest hit.
Calcutta is well protected in a stratified way.

Chinese famine and Indian malnutrition. Free press.

DL
Famine
Famine prevention systems.
Early warning systems
policy options: food supplies, subsidies, massive import of grain into affected areas.
Emergency employment schemes.

Undernutrition and health status

<table>
<thead>
<tr>
<th>growth strategy</th>
<th>social policy strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count on economic growth to produce rising incomes, leading to rising nutritional status</td>
<td>use state revenues to support health, education, welfare</td>
</tr>
</tbody>
</table>

Case: China
Socialist development, food security, and famine

Socialism, equality, and food security
China’s poverty—pre-revolution, post-revolution
land reform
egalitarian ideology
consequence: food security

Socialism and bureaucratic reform
Great leap forward famine
1958-61; 16.5 - 29.5 million excess deaths
Collective agriculture and market reforms in agriculture
consequences of the reforms
output

grain: 283 million tons 1977 to 407 million tons 1984; 394 million tons 1988
slowdown: reduced finance for water-control.
more farmer choice => less grain production.

increasing inequalities

regional, intra-regional
health care effects of reduced commune finance?

*data*
Great Leap Famine deaths
pace of collectivization
grain output series; per capita grain production
price policy
other food production
level of malnutrition and poverty
life expectation at birth

![Grain Production–China](image)

**figure 0. Grain production—China**

![Grain Consumption per Capita](image)

**figure 0. Grain consumption per capita—China**
Week 11: Poverty reform in the developing world

What can states in developing countries do to improve the food security of their populations? What sorts of reforms are feasible to improve the nutritional status of the poor? Is poverty reform possible? What factors either enhance or inhibit the effectiveness of poverty reforms within developing countries? This week we will examine the question through the work of Atul Kohli. Kohli provides a detailed analysis of the nature of poverty reforms in three states in India, and finds that they are markedly different in terms of commitment and effectiveness.

Case: India


The state and development.

Atul Kohli notes that the situation of the poor in India has scarcely changed since independence in 1947, in spite of the economy’s respectable rate of growth in that period. However some states in India have done better than others in poverty alleviation. What are the social and political factors that influence the welfare of the poor in the process of third-world economic development? Kohli undertakes a comparative study of the economic policies of three Indian states (West Bengal, Karnataka, and Uttar Pradesh). He finds that the welfare of the poor is not correlated with the overall prosperity of a state. Instead, the critical variable is the type of regime in power during the process of economic development. Regimes formed by strong, competent political parties of the Left succeed in tilting the process of development toward poverty alleviation, whereas weak regimes and those dominated by the propertied classes have a poor record of performance in poverty reform. The Communist Party, Marxist (CPM) in West Bengal succeeded in bringing tangible benefits to the poor through poverty reforms including tenancy reform and rural credit and employment programs. CPM is a leftist party with a coherent redistributivist ideology, competent party organization extending down to the village level, and effective leadership. The Urs regime in Karnataka also possessed a redistributivist ideology but lacked effective political organization and had a fragmented leadership; its efforts at poverty reform were not successful. And the Janata Party in Uttar Pradesh was dominated by the rural landowning class and lacked the will to implement poverty reforms. Kohli explains the presence or absence of poverty alleviation in a state, then, as the result of the presence or absence of a regime that has both the will and the means to implement poverty reform.

Why does Kohli focus on state govs?
Because states have substantial resources and responsibilities for development.

National independence movement required cooperation of highly different interests.
Indian federal structure.

The Congress Party places importance on poverty.
Doesn’t promise redistribution. But its efforts are ineffective and undetermined.

Colonial India
three chief political players:
   British government; viceroy
   Indian landowning elite; zamindars; princely families
   British effort to bring educated class into civil service.

in late 1860s educated group gives rise to independence movement; proto-Congress movement.

How does this small educated elite connect with a mass mobilization and national independence movement?
1890s: some rebellions in tribal areas. Proto-nationalist rebellions.

No-revenue movements
Movements tended to involve local elites to oppose the British. This meant that elites had a good deal of influence in subsequent policy.

Examples of Congress trying to create a national movement often show British ability to use ethnic and religious divides.

around 1900 Congress under Gandhi made a substantial step forward in mass mobilization. Gandhi succeeded in welding together very different groups and interests.

Non-violence.

Gandhi is openly anti-industrial. Wants a preservation of traditional community and agriculture.

Urban industries were developing; trade unions were acquiring support. Gandhi didn’t like class politics and conflictual politics.

Non-cooperation movement 1921-22
Peasants occupy lands. Gandhi rejects this strategy.

Poverty?
Hard to address given the conflicting interests of the powerful political groups.
What is food policy? It is the suite of economic tools through which the state can affect
the availability and price of food on domestic markets.

Consider an ensemble of policies a state can adopt that affect the price and supply of
food:

- input price policies
- farm price policies
- consumer price policies
- import and export restrictions
- macro-policies that affect inflation, unemployment

What are some of the goals of a food policy?

- to keep food prices low for urban consumers
- to prevent upward pressure on urban wages
- to stimulate food production
- to assure food security
- to stimulate growth of rural wages and employment
- to cushion consumers and producers from fluctuations in world food prices

Note that these goals are substantially inconsistent.

examples:

- mandatory acquisition schemes with low fixed prices
- food subsidy schemes
- subsidy programs for inputs--e.g. fertilizers, water, or pesticides (to encourage higher
  productivity)

What is the problem with subsidies according to an economist? Allocative inefficiency.
Prices should reflect opportunity costs of goods; otherwise the economy will produce
radical misallocations of resources that could be better used elsewhere.

E.g. if chemical fertilizers are subsidized they will be more extensively used. If,
moreover, there are important externalities--e.g. groundwater contamination--this will be
a sharply counterproductive effect.

Are there simple measures of the overall effect of a government’s food price policy?
There are, since we can compare farm prices, retail prices, and border prices. If farm
prices are lower than border prices, then we can conclude that the government has
adopted a package of pricing and marketing policies that discriminate against producers
and in favor of urban consumers. (SEE TABLE 5, P. 9) If farm prices are higher than border prices, there is protection of farmers (e.g. Korea, Japan). And if the ratio of retail to farm price is substantially lower than 2:1, we can conclude that government is subsidizing retail prices. And we can track the ratio of nitrogen-to-paddy prices; higher ratios indicate a tilt against farmers, whereas lower ratios indicate protection and subsidy of farmers.

What about this simple advice: “get the prices right”; that is, introduce whatever institutional reforms that are necessary to permit prices to adjust to market levels determined by resource scarcity and demand? There are political constraints: e.g. the food constraint. Governments cannot survive sudden increases in the prices of consumption goods. E.g. the bread riots in Poland in the late 1970s.

There are different ways of influencing food prices:

- direct (China) use of mandatory acquisitions and quotas
- indirect (Indonesia) influence the market through large purchase and sale of state-held reserves; restrict imports and exports to raise or lower domestic prices.

**Case: Indonesia**

Timmer.

A food logistics agency BULOG was created in the mid-1960s to maintain retail price stability for rice through largescale purchase and sales. Might purchase 10-15% of the harvest.

It might be noted that BULOG had its origin as a quartermaster organization for the military and civil service.

Two goals were in mind: keep consumer prices low to keep urban wages low, and keep farm prices high to stimulate growth of production. Couldn’t do both.

Budget restrictions prohibited a substantial food subsidy: difference between farm price and retail price.

In the 1970s things change. Budget revenues soar because of oil prices. BULOG became more administratively competent. At the same time international rice prices sharply rose in the world food crisis of 1973-74. Food self-sufficiency became a high-priority goal.

Indonesia turned to a range of input subsidies for rice intensification. In 1984 fertilizer subsidy was 60 percent of budget for agricultural and irrigation development!

Price stability through market intervention was reasonably successful (SEE CHART P. 27).
The mechanism was to set a floor price and ceiling price, and then to intervene through purchase and sale when these triggers are met.

Another urban bias point: when price policies for inputs are tilted against the farmer the urban worker benefits twice: the sale of his product is artificially high, leading to higher income; and the food that is produced has lower price (and lower profit) for farmers, leading to a second bump in the urban real wage.

The state’s role in agricultural development

The main line: liberalization, reduce state interference in prices; let markets do the work.

What role is there for the state in stimulating agricultural development, improving urban and rural welfare, enhancing food security, improving equity of distribution, or stimulating industrial and agricultural efficiency and growth?

*Where should governments intervene?*

general agreement on:

- Agricultural research
- Agricultural extension
- Irrigation investment
- marketing infrastructure

disagreement on:

- land tenure
- encouragement of farmer organizations
- marketing boards
- price interventions

government-sponsored rural development (Donaldson in (Timmer 1991))

  aimed at improving the productivity of the rural poor
  
  not a basic needs approach, which focuses on improving the welfare of the poor through improved social services.
  
  pays attention to organization, institutional development, and social factors
  
  The goal: to change local circumstances in such a way as to increase the ability of villagers to produce and sell a surplus or other resources (161).
  
  e.g. new irrigation resource, marketing access, highway, new production technology
  
  The social model: how to stimulate the changes in village organization, growth of linkages, and institutional developments necessary to implementing economic changes.
Week 13: Food subsidies in developing countries

Goals of consumer-oriented food subsidies:
- improve real purchasing power of all or certain groups of consumers
- reduce calorie and nutrient deficiencies in low-income groups
- improve household food security
- maintain low urban wages
- assure social and political stability

Policy instruments
- explicit price subsidies
- basic ration to all or targeted groups
- food stamps targeted to groups or commodities
- implicit price subsidies and transfers without targeting
- producer subsidies

Differential effects of food subsidies on the poor and non-poor
In several programs food subsidies represent 15-25 percent of real income.
Better-off households receive larger absolute benefits.

An example: sugar in Egypt. Fixed nominal price/international price

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>22%</td>
</tr>
<tr>
<td>1977</td>
<td>100%</td>
</tr>
<tr>
<td>1978</td>
<td>144%</td>
</tr>
<tr>
<td>1980</td>
<td>29%</td>
</tr>
</tbody>
</table>

Notice that fixed prices shelter consumers from price fluctuations, whereas food stamps do not.
Sri Lankan food stamp program: real value of stamps has decreased dramatically since the beginning of the program in 1970s.

Question: will food subsidies or food stamps inevitably increase consumption? Will it necessarily have a greater effect than cash transfers? No and no.

A study in Kerala, India, showed that the marginal propensity to consume food varied among women’s incomes, men’s incomes, and in-kind incomes from gardens (Pinstrup-Anderson 10).

Intrafamilial food distribution and consumption is a question mark. E.g. studies in Mexico and the Philippines show substantial leakage away from targeted preschool children to adults.
Human capital returns from food subsidy programs: positive effects of health and nutrition improvements on labor productivity (13). Targeting—problems and benefits

Strong urban bias in China, Bangladesh, Mexico, and Pakistan; none in Sri Lanka and Kerala slight rural bias in Egyptian policies.

**Fiscal costs**

Egypt: 2 billion dollars a year; 16-18 percent of government expenditures.

Wage effects

Do food subsidy programs inevitably have the effect of improving real incomes to the poor? No. A depressing effect on wage rates would be expected. Wage subsidies.

**Producer effects**

Here the central question is, who is subsidizing the low prices—producers or government budgets? In Egypt it is the former.

Egypt
all consumers have ration cards for monthly allotments of sugar, tea, oil, and rice at a low subsidized price. Open-market private trade is also permitted.

Production
Rice is procured on the basis of mandatory fixed quotas; wheat is not.

**Case: A hypothetical case of agricultural reform**

Suppose we are minister of development in a new government democratically elected. The country has the following economic characteristics:
- slack food production: 2% growth of production
- moderate population growth -- 2%
- significant rural underemployment
- some large commercial farms; many small peasant farms
- imports of 25% of annual grain consumption (1$/volume)
- Agriculture is 50% of GNP; 75% of population

In agriculture there is substantial land stratification:

<table>
<thead>
<tr>
<th>5%</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Managerial farms
3% 20% landlords
50% 60% peasant owner-operators
30% 20% share-cropping farmers
15% 0% landless workers

International grain prices fluctuate greatly.
Price policy: marketing boards acquire crop through mandatory price of $.75.
   (This sometimes subsidizes producers, more often subsidizes urban consumers)
Fixed-price shops sell bread at $.75.
   (This represents a further subsidy, since marketing, storage, and transport costs are
   absorbed by the state.)
There is substantial pressure on government budgets, which are based on a consumption
tax.

What are the chief problems represented here?
What are the policy options?

leading problems:
1. need to increase food production
2. need to reduce imports
3. need to expand employment in rural sector
4. subsidies of urban food production are a problem.
5. Price marketing board is a central problem; negative incentives to producers.

Possible policy instruments:
1. land reform
2. public works projects
3. price reform and marketing board abolition
4. cooperatives
5. encourage industrial expansion, perhaps through foreign investment
6. Reverse the incentives leading to in-migration into cities.
Week 14: International aid
How does the international system of food assistance work? Does it effectively address food crisis? Does it effectively address chronic malnutrition? In what ways could this system be improved?

A basic lecture on World Bank and other major sources of finance for rural development. Description of the system fairly generally.

International context
the institutions
food aid and agricultural investment aid

food aid
before 1963 food aid was mostly in the form of bilateral concessional sales. Much was American surplus grain under Public Law 480. 3% of world consumption took this form. This was 1/3 of all US aid. 480 was intended as a way of disposing of US surpluses. Also to gain future markets and political influence. Top 5 recipients: only 1 was listed by UN as in serious need of assistance.

World Food Program 1963 (FAO) The idea was that we need a world stock of grain about 3% as a reserve. Canada, EEC, Japan begin to supply some food aid after 1964.

After 1972 the new donors begin to change the US behavior. We reduce food aid under 480 and move toward other forms of aid.

A shift in the 1970s toward multilateral aid and private agencies. Oxfam, War on Want. Mutual food agencies: CLISS was a west African food bank.

Mid 1980s: 2/3 of food aid is still bilateral.

Forms of food aid:
Bulk supply of food. This has proved problematic. Commercial and distributional problem. Downward price pressure in domestic markets. Administration of this aid is problematic as well.

Local purchase of food with finance from outside. Creation of strategic grain reserves in regions.

Another kind of aid: investment in agricultural development.
Here the goal is to aid governments and countries to develop their agricultural systems.
Broad multilateral agencies in the past 20 years.
US-AID is bilateral.
Multilateral:
World Bank (though the US has substantial say on Bank policies)
These agencies offer some grants and some concessionary loans.
Long paybacks, concessionary lending, grace periods.

Administrative structure: project aid and program aid.
The latter includes funding to the national health ministry.

Tied and untied aid: much aid is tied to spending in the donor country.

Volume of aid:
1/3 % of most countries’ GNP goes to aid.
Represents about 10% of non-national investment in 3rd world.
(Much of the rest comes from multinationals and commercial lending.)
Agri

More specific examples:
technical aid through Rockefeller and Ford Foundations provided technical assistance to
India.
Research institutions, training in the industrialized world.
This is area-specific.

Official development is often area-specific.
Africa, South Asia.

Africa
25 agencies involved in agricultural development.
World Bank, African Development Bank, OPEC consortium.
Africa was the largest per capita recipient.
$21/person; 5/person in Asia.

Case: Africa
Trends of development aid
mostly project aid.

Technical aid is about 20% of the total.
An example: importation of non-national personnel for technical expertise.
France has been a large donor of such services.

Cameroon
French project: integrated development project.
integrated priority action zones; concentrated rural development.
The project created a set of private companies. These were subsidized to start, with the expectation that they will become economically viable. Goal is to have one adviser for every 150 farmers. Results after 10 years: mixed. Cocoa production has risen in these areas. Problems with pests and rot have diminished. Ground nuts and bananas have increased. Little success in crop rotation and new drying technologies. But: little progress on commercial viability. Marketing system has been a dismal failure. The extension services need large continuing government investment. The project didn’t have a research component. So the assistance had to rely on pre-packaged technology and knowledge. Couldn’t tailor assistance to social and ecological circumstances. No component involving training of extension agents. So it remains dependent on outside providers.

12/3/91

international aid
technical aid
food aid

problems

inappropriate foodstuffs
disincentive impact of food aid: producers lose incentive because of supply-induced low prices.

Must look at the context of the situation in which food aid is being provided. It is possible to avoid the price-drop effect.


Press emphasized the political difficulties and resettlement problems. But in fact it was much more successful as an instance of food aid.

31 million people, large area.

different organizations. There was effective organization of famine relief within Ethiopia already in place. Managed to absorb vast amounts of aid. 3-4 months saw largescale distribution. Organized camps. Organized monthly food packets to villages to try to keep people in the villages. This required a great deal of transport. Road network is poor to impassable for 4 months a year (June-Sept.). Domestic airline stops flying in rainy season. Large air drops were organized for remote areas. Military lines interfered with delivery of food. But northern provinces were being supplied from the north anyway, so the military lines did not interfere. Press reports seem to derive from reporters finding themselves on the front, rather than a large picture.

By 1984-85 the estimates of the needy were 7.5 million people. 1986: 5.5 million were receiving aid. About .5 million died throughout the time of famine. This is small relative to the total needy population.

What happens afterwards? Where do the residents in massive encampments go? Does resettlement occur smoothly?

Aftermath was very successful. By providing small utensils for farming the villagers were able to return to farming. Less successful was the handling of disease in the camps.

1987: another massive drought and famine.
Case: **Egypt**  
World Development Report 1990

<table>
<thead>
<tr>
<th>Population 1988</th>
<th>50.2 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP per capita</td>
<td>660</td>
</tr>
<tr>
<td>growth rate</td>
<td>3.6% (higher than average)</td>
</tr>
<tr>
<td>life exp.</td>
<td>63</td>
</tr>
<tr>
<td>Literacy</td>
<td>70.56%</td>
</tr>
<tr>
<td>Agr/GDP</td>
<td>21%</td>
</tr>
<tr>
<td>cereal imports</td>
<td>8.5 million tons</td>
</tr>
<tr>
<td>Remittances</td>
<td>3.4 billion dollars</td>
</tr>
<tr>
<td>Development assistance</td>
<td>1.5 billion; 4.3% of GNP</td>
</tr>
<tr>
<td>External debt</td>
<td>50 billion dollars</td>
</tr>
<tr>
<td>Projected growth of population</td>
<td>2.3%</td>
</tr>
<tr>
<td>crude birth rate</td>
<td>43; 34 (demographic transition occurred?)</td>
</tr>
<tr>
<td>infant mortality</td>
<td>172 (1965); 83 (1988)</td>
</tr>
<tr>
<td>daily caloric supply</td>
<td>2400 (1965); 3342 (1986)</td>
</tr>
<tr>
<td>Urbanization</td>
<td>41% (1965); 48% (1988)</td>
</tr>
<tr>
<td>female life expectancy</td>
<td>50 vs. 48 (1965); 64 vs. 61 (1988)</td>
</tr>
<tr>
<td>Human development report data</td>
<td></td>
</tr>
<tr>
<td>HDI</td>
<td>.501</td>
</tr>
<tr>
<td>HDI rank</td>
<td>45</td>
</tr>
<tr>
<td>HDI rank – GNP rank</td>
<td>-4</td>
</tr>
<tr>
<td>Gini coefficient</td>
<td>.38 (1967-85)</td>
</tr>
<tr>
<td>income share of lowest and highest</td>
<td>40%; 16%</td>
</tr>
<tr>
<td>ratio of 1st to 5th quintile</td>
<td>8.5</td>
</tr>
<tr>
<td>[compare India: 16%, 7, .42]</td>
<td></td>
</tr>
<tr>
<td>[compare Brazil: 7%, 33.7, .57]</td>
<td></td>
</tr>
</tbody>
</table>

**Appraisal**

Egypt’s economic development experience is a respectable one. It has shown an average rate of growth of 3.6% per year per capita (1965-88), with a population growth rate of 2.5% (1980-89).

Egypt’s level of income inequalities are moderate to low: a Gini coefficient of .38 (1967-85) and 16% of income flowing to the poorest 40%. This means that the percentage of the population below the poverty line is predicted to be relatively low.
Egypt’s HDI index rank is about the same as its GNP rank (-4). Life expectancy and literacy compare well with other middle eastern countries, suggesting that social welfare systems work relatively well in Egypt.
Term Project Assignment

Each student is required to complete a 15-20 page research project on a topic relating to the issues raised in the course. The papers should show substantial acquaintance with relevant empirical data and should involve analysis of development processes and development policy strategies along the lines of some of the works you have read in the course.

Papers must be typed or word-processed, double-spaced, with standard footnoting practice.

Possible topics:

1. Choose a country whose development experience is of interest to you. Do extensive reading on the country's development experience, taking note of the main characteristics of that experience relating to growth, development policies, poverty performance, food security, general welfare performance (infant mortality, educational attainment, longevity), agricultural development, and the like. Your paper should then focus on what you think are the most salient features of this experience and should present a thoughtful discussion of the challenges presented to the country, the policy options that have been adopted, the success or failure of these choices, and some recommendations for better policy choices.

2. Do a comparative study of two countries (perhaps in different regions of the world) which were similar in some important respects but whose development experience was quite different. For example, it might be interesting to compare Korea and Mexico, or Nigeria and Indonesia. Your papers should be analytical as well as empirical, making an effort to identify the factors that led to similarities and differences in outcomes. The point of comparative studies is to attempt to identify the causal factors that affect social processes.

3. Choose a single development issue and provide an extensive discussion of the merits of the case. Examples include: has the Green Revolution increased rural inequalities, decreased inequalities, or left them unchanged? Are food subsidy programs (for example, in Egypt or India) economically satisfactory policy instruments? What types of family-planning programs have had the greatest success in developing countries? How should food-aid programs be designed in famine relief?

Finally, we are more than happy to discuss other possible topics with you if you have thought of a project you would like to work on that does not fall within this general framework.

Papers are due December 3. Late work will be penalized!
midterm exam

Part I: topics

12; choose 10

HYV
integrationist development strategy
urban bias
growth-led strategies of development
Lorenz curve
female farming
share tenancy
the nationality of the Prince
demographic transition
entitlements
GNP per capita
structural transformation
food security
Malthusian model
food availability decline famine
“Great Leap Forward” famine
subsistence rights
justice as fairness
family responsibility system (China)
PED (protein-energy deficiency)
sustainable development
appropriate technology
public goods problems
inter-generational justice

Part II: Concepts

1. integrationist development strategy: a strategy for improving the position of women within developing economies that involves bringing women into a wider variety of income-earning positions in the economy at all levels, beginning with the most educated women.

2. urban bias: Developing country governments typically give preference to urban populations over rural populations in their public policies. Examples include price policies that favor urban consumers over rural producers and famine programs that favor urban over rural residents. Urban bias is common because urban centers generally have greater influence on policy makers, either through the threat of unrest or the fact that
policy makers themselves live in urban areas. Also significant is the assumption that modernization means industrialization, not improvement of agriculture.

3. growth-led strategies of development: Sen’s analysis of a family of development strategies that give primary emphasis to economic growth as a way of remedying poverty. Upward shifts in per capita GNP will eventually shift the incomes of the poor upward as well.

4. Lorenz curve: a cumulative graph of percentage of income by percentile of population. It gives an indication of the degree of inequalities in the distribution of income and provides the basis of defining the Gini coefficient.

5. female farming: a common system of agriculture in Africa in which women are the primary cultivators. This system also advantages women within the household, since it gives them the power to distribute food within the household.

6. share tenancy: a system of land tenure in which the land owner makes land and sometimes inputs available; the tenant cultivates the land; and the landlord takes a fixed share of the crop as rent (often 50%).

7. the nationality of the Prince: the Prince was British.

8. demographic transition: the pattern of population growth in developing economies in which an equilibrium of high mortality, high fertility population behavior is followed by a period of low mortality, high fertility population increase (resulting from modern health care and improved nutrition), followed finally by a new equilibrium of low mortality, low fertility (with a substantially larger base population).

9. structural transformation: the process of modernization of a developing economy that leads from a largely agricultural economy to one in which industry and the modern sector predominate. It is also accompanied by a process of urbanization.

10. Malthusian model: a theory of the dynamics of population growth that says that populations will tend to increase in size more rapidly than resources and food availability can increase, leading to chronic pressure on food supplies. Malthus believed that there could be negative checks on fertility (family planning and economic constraints on fertility) or positive checks (famine or war).

11. GLF famine: The great famine produced in China in 1959-61 as a result of drought and the uncontrolled rush to collectivization of agriculture. Perhaps 30 million excess deaths occurred.

12. justice as fairness: John Rawls’s theory of justice, according to which just institutions and laws are those that everyone would accept unanimously in ignorance of their situation within society. Rawls defend a “difference principle” to regulate inequalities:
inequalities are acceptable insofar as they work to improve the conditions of the least well off in society.

13. PED: the basic form of malnutrition in developing societies, resulting from insufficient food. PED refers to a diet that fails to provide a sufficient quantity of calories and protein; it can be addressed by increasing staple foods (grain, cooking oil).

14. public goods problems: Social situations in which individuals’ private incentives lead them to actions which lead to collective harms. Environmental pollution is an example: it is cheaper for each household to burn firewood than to purchase heating oil, but the collective cost is a substantial increase in air pollution. Public goods involve free-rider problems.

two of three essay questions
10 of 13 concepts to define or explain.

Will be based on readings and lectures.

terms
Final examination

Part I (60 minutes)  
Choose 15 of the following and provide brief, accurate explanations.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Law 480</td>
<td>credit access</td>
</tr>
<tr>
<td>ejido</td>
<td>tenancy security</td>
</tr>
<tr>
<td>human capital</td>
<td>patronage system</td>
</tr>
<tr>
<td>displacement of women farmers</td>
<td>growth-mediated security</td>
</tr>
<tr>
<td>non-farm income</td>
<td>human development index</td>
</tr>
<tr>
<td>disaster avoidance (w/reference to fertility)</td>
<td>targeted population</td>
</tr>
<tr>
<td>biotechnology</td>
<td>state autonomy</td>
</tr>
<tr>
<td>appropriate technology</td>
<td>Panchayat</td>
</tr>
<tr>
<td>price policy</td>
<td>desired family size</td>
</tr>
<tr>
<td>multi-lateral aid</td>
<td>client-agent problem</td>
</tr>
</tbody>
</table>

Part II (60 minutes)  
Choose one topic from each group and write a clear, well-organized, and detailed essay in response. Your essays should reflect the readings and lectures of the course and should make specific reference to country experience, policy options, and political or social mechanisms.

A.

1. Discuss the positive and negative features of food subsidy programs. Consider both direct and indirect subsidy strategies. Be specific, using examples from Indonesia, China, or Egypt.

2. What are some of the benefits and costs of a program of land reform? Be specific using evidence from Mexico or India.

B.

1. Discuss some of the shortterm and longterm policy remedies that are possible to alleviate the occurrence and severity of famine. Be specific, discussing the experience of India or Africa.

2. Discuss the political factors that influence the direction and character of government policies toward poverty alleviation. Be specific, discussing the experience of India (and, if you choose, Mexico). Your essay should involve a significant discussion of Kohli’s analysis.
Be sure to put parts I and II in separate exam books. They will be graded by different people.
topics:
1. What is required of politics to bring about redistributive reforms?
2. What is the role of democracy in development?
3. What features of the state, the regime, the electoral system, and the party system make poverty reform more likely?
4. When does the state have “autonomy” from powerful social actors—e.g. landlord class?
6. The CPM regime: communist but committed to electoral politics.
7. The conundrum of the left: pro-poor policies will stimulate economic crisis (through capital strike and capital flight).
9. Wage and employment schemes. Food for Work Program (FWP)
10. Credit schemes.

Topics:
1. capabilities and functionings; welfare; nutrition, health parameters
2. agricultural development and farming systems
3. the world food economy
4. Economics of development: growth, transformation, income distribution
5. entitlement systems: income streams, employment, land tenure
6. population movements
7. markets and efficiency
8. role for the state
9. public provisioning
10. institutional reforms: land reform, better protection of unskilled labor
11. poverty-first strategies of development
12. international development aid

Revisions for future

This course would be much better with a two-country focus. Learn a lot about Indonesia, Guatemala and Kenya.

Final thoughts

The structure of the course:

1. The problem: famine, malnutrition, and disease are all too common.
2. Diagnosis: several factors are relevant. But the key factor is poverty.
Policy prescriptions: institutional reform, entitlement reform, agricultural development, food subsidies, more efficient marketing systems, getting the prices right.

The motivation for the course: to bring together empirical and theoretical tools in application to a difficult and important problem; and to begin to acquire the skills of analysis that permits one to think about the pros and cons of various strategies and policies.
References


Hunger is the world’s biggest health threat. About 900 million people suffer from not having enough to eat every day. Hunger kills more people than AIDS, tuberculosis and malaria combined. Global Food Crisis. In the past year food prices around the world have gone up sharply. There are many reasons for this: Rising oil prices have increased transport costs. China and India—the two most populous countries in the world—need more and more food. The United States and many other western countries have begun to use crops to make biofuels. More and more people around the world have stopped farming and began to move to cities in search of a better job. Map of World Hunger. GNED 320 Food and World Hunger Based on Fall 1991 Goals delittle/hunger revised.pdf Food and World Hunger. HUNGER AND THE LAW: FREEDOM FROM HUNGER AS A FREESTANDING freedom from hunger as a freestanding. Malnutrition and Hunger. Hunger, food security and welfare policies: Issues and Hunger, food security and welfare policies: The Color of Hunger: Race and Hunger in National and International Perspective. Hunger and poverty. Science with a Soul Zero Hunger Lab - Content presentation Global challenge to end hunger What has been. Congregations, Food Systems and Hunger - ?Â· Congregations, Food Systems and Hunger â€œMoneyâ€œ Hunger and famine. GNED 320 Food and World Hunger Based on Fall 1991 Goals delittle/hunger Food and World Hunger. Documents. 4. World Hunger. Health & Medicine. World Hunger and Food Justice. Documents. A World Without Hunger - Microsoft World Without Hunger Stop Hunger Now and Rotary Stop Hunger Now â€œ Our Vision: A world without hunger. â€œ GNED 320. Food and World Hunger. Based on Fall 1991. Goals of the course. The course provides an interdisciplinary study of the world food system and hunger in the world today. How do technology, social institutions, and economic processes interact to provide people with food? Why do famines occur? Why do some countries suffer from chronic malnutrition? Is there an absolute scarcity of food in the world? Does the Green Revolution provide a basis for ending hunger?Â The World Development Report (World Bank 1991) provides information on developing countries’ agriculture and food performance: cereal imports, food aid, and food production per capita (Table 4). Food availability and entitlements. Food security as a function of entitlement and price shock.