Module 3.
Linkages downward (projects) and upward (macroeconomics)
Instruments of strategy or policy implementation

- Legislation, executive decrees
- Projects (capital outlays)
- Programs (current outlays)
- Voluntary cooperation from private sector
The Policy Context of Projects
Agricultural development projects often involve human and social capital formation (capacity building), technology transfer, and physical capital formation (e.g., irrigation systems, hillside terraces, livestock donations, seedlings for tree crops, post-harvest management equipment).

What role does pure policy – as executive decrees and decisions, and laws – play in the success of projects?
Policies can provide economic incentives for capital goods, inputs

- Funding all or part of physical capital investments
- Subsidizing the purchase of seeds and other inputs to make them affordable
- Providing subsidized access to land
- Paying part or all of the cost of agricultural extension
Policies can facilitate entry into high-value markets

- By instituting a system of quality standards and food safety certifications, and in some cases systems of denominations of origin
- By simplifying export permissions
- By supporting marketing missions and visits to international trade fairs
- By supporting visits of buyers to producing zones, so that buyers can explain quality requirements and negotiate contracts
Policies can provide secure access to resources, to encourage their productive and sustainable use

- Fee simple titling of land holdings
- Or provision of long-term tradable leases (why tradable?)
- Legal definition of water use rights
- In some cases, joint ownership by producers of small irrigation systems
- In some cases, recognizing community ownership of forests
Policies can facilitate rural credit and other financial products

- Licensing of microfinance institutions
- Authorization of rural “banks” such as local savings and loan associations
- Modifying bank supervision rules for rural loan portfolios, recognizing the need for different reporting frequencies and risk classifications
- Supporting establishment of venture capital funds for agriculture and agri-business
Policies can facilitate rural credit and other financial products, cont.

- Giving legal status to moveable forms of collateral such as livestock, machinery, grains in storage and in processing
- Giving legal status to invoices as collateral (factoring)
- Establishing a system of grain deposit certificates
- Authorizing crop insurance operations
- Eliminating subsidized interest rates
Policies can accelerate technology development and adoption

- Allocating research funds through competitive processes
- Directing research to promising crops and to issues in post-harvest management, processing and packaging
- Making some research participatory with farmers
- Making agricultural extension responsive to farmers’ priorities
- Incorporating gender considerations in research and extension
Above all policy can establish a level playing field

- By avoiding incentives aimed at a few crops
- By avoiding price interventions
- By establishing a uniform structure of import tariffs

There is a tendency to try to define priority crops and direct support measures to them.
And policy needs to support human capital formation

And to direct programs and projects to the rural poor and to women’s groups, and always aim at sustainability
In summary, there are many ways in which good policy can enhance the effectiveness of projects, and by the same token poor policies can undermine the effects of projects.
Macroeconomic linkages in agriculture
Macroeconomic policies can have a strong effect on agricultural development. The main mechanism of transmission of macro policies to agriculture is through effects on relative (or real) prices.
Food prices have been a concern of governments from time immemorial

- More than 2,000 years ago China started buying grain from farmers at set prices.
- The Romans always kept large grain reserves in silos.
- Food prices have caused riots in many countries.
- Some say food prices were the root cause of the French Revolution and the Arab Spring in Egypt.
Price issues are varied

- Some programs try to reduce the differential between farm gate prices and consumer prices via more efficient marketing channels.
- Some try to reduce seasonal fluctuations in prices through better storage and access to storage finance.
Guatemala is the world’s largest producer and exporter of cardamom; 350,000 families produce it, and most of them are very poor, many suffering malnutrition.

Between producer and exporter, cardamom passes through five to six different hands – intermediaries – which reduces the farmers’ share of the export price. It is a very inefficient marketing chain.
But a reason why it is inefficient is that farmers need cash and sell their harvests to the first buyer that comes up the trails and rough roads to their tiny plots, but this buyer works only one area and doesn’t have direct access to exporters. Each level of intermediaries has a defined area of operations.
Another reason is rooted in history. This first buyer has a relation with the producer like the old hacienda-peon relationship. He gives the farmer credit and inputs, and then deducts the costs from the cardamom purchase price, of course charging implicit interest that is very high. This shows the challenges involved in making markets more efficient.
In Nigeria, mafia-like groups control the access to the major markets in Lagos for vegetables and root crops. An independent farmer who tries to bring in a truckload of produce without going through these groups risks being shot.
Regarding trends over time, the most meaningful agricultural “price” for policy is an index of real sector prices.

- It is the weighted sum of all commodity prices in the sector (usually at the farm gate), with base-year quantities as weights, divided by the sum’s base-year value to make a (Laspeyres) index.

- And then, to convert it into purchasing power, it is divided by some economy-wide price index: consumer price index, wholesale price index, GDP deflator, or a non-agricultural price index. Usually the consumer price index is used.
Often Ministers of Agriculture will follow the price trends of only a few staple crops, and often price data for fruits and vegetables, which are among the most valuable crops, are not even collected systematically.
So decisions often are made on the basis of very incomplete information in the price realm. If data are collected on prices of many crops and livestock products, then maintaining a real sector price index up to date is not very time consuming, requiring only a few minutes on a spreadsheet.
Worldwide, real agricultural prices declined for most of the past century, on average at 0.5% to 0.7% per year.

However, in the past decade or so that trend seems to have reversed, as growing incomes increase food demand and biofuel uses absorb harvests.
Policy regarding agricultural prices
Principal policy determinants of real agricultural prices

- Tariffs on agricultural imports, sometimes reaching 300% or more in rich countries (e.g., dairy products in Japan, Canada and the U. S.).

- Barriers to imports of agricultural commodities (e.g., limits on U. S. sugar imports from Brazil).

- Agricultural export subsidies in rich countries.

- Real exchange rate movements.
Issues in tariff policies

- To exploit comparative advantage, domestic relative prices should be aligned closely with international relative prices.

- Tariff exemptions on food imports are generalized subsidies that benefit all income strata.

- Tariff exemptions for food usually exacerbate rural poverty by undercutting small farmer incomes.
The exchange rate

- Agriculture is the most tradable sector
- Most of its products are exportable or importable, or are close substitutes for products that are exportable or importable.
- Thus agriculture is especially sensitive to world market prices.
- The exchange rate transmits those prices to the domestic economy.
If the exchange rate is fixed and international prices stable or falling, domestic farm gate prices will be stable or falling.

But costs of production are strongly influenced by domestic inflation, and they can be rising while output prices are held constant or decrease, because of the exchange rate.
In Estonia after Independence from the Soviet Union

- Cumulative domestic inflation was over 400% in five years, while the exchange rate was tied to the Deutschmark.
- As a result real farmgate prices fell by more than 50% and many farms were abandoned and rural poverty worsened.
- Farmland reverted to pasture, pasture to meadows, and meadows to forest. It was the only country in Europe with an increasing bear population.
In the case of Nigeria after oil production started

- The exchange rate was held at a fixed level with respect to the pound sterling, while a black market for foreign exchange emerged with a very different exchange rate.
- The country’s agricultural trade balance changed drastically from nearly $1 billion positive to nearly $1 billion negative, in less than a decade.
- Nigerian exporters were priced out of international markets and imports came in cheaply in domestic currency, reducing domestic farmgate prices.
Price controls are counterproductive

- They don’t equilibrate demand and supply, leading to shortages or excess production.
- For food products, they generally favor urban populations and hence reduce farm incomes, and lead to lower production.
- Black markets often emerge to correct the shortages.
Guaranteed farmgate prices also are often counterproductive

- They have worked best in East Asian countries.
- They are costly because the idea is to raise farm prices and lower consumer prices, hence gov’t must take the marketing loss.
- In many countries not enough grain is purchased to influence the national farmgate price significantly.
Guaranteed farmgate prices also are often counterproductive, cont.

- Grain purchases often favor better-off farmers because they have trucks to deliver the grain to purchase sites – and the political influence to call a government official to arrange the purchase.

- In Honduras a study found the net effect of the guaranteed prices was: a) little effect on national prices, b) the few benefits were regressive in their incidence.

- The declared purchase prices can be inconsistent with a free trade policy.
Pricing policy can be more complicated for industrial crops such as cotton, sugarcane, oil palm and others.

For these crops, there are relatively few processing plants and hence few buyers (oligopsonies or monopsonies).
In these cases the aim is for producers and processors to eventually forge a cooperative relationship instead of one that is antagonistic over prices.

This can happen if producers are organized and well informed, and if processors share with producers the benefits of increases in market prices for the processed products.
It can also happen if processors respect international norms regarding the ratio of raw product price to processed product price. For example, the international average for the price of the sugar content of cane and the processed sugar price has been around 53-54%.

The government role can be to facilitate such agreements.
Strategic grain reserves to avoid price spikes:

◆ They are expensive for the national Treasury.
◆ Stored crops deteriorate and need rotation (beans become hard and difficult to cook).
◆ Buying and selling for rotation can distort the market if not handled well.
◆ Government silos are often managed inefficiently (10% capacity utilization in Honduras and El Salvador under government ownership).
Hence, even though the Romans did it, strategic grain reserves are generally not an effective policy

A preferable policy is allowing imports with no bureaucratic barriers such as issuing import permits, which can take a long time and foster corruption

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An early warning system on food sufficiency in poor and remote areas.
Food aid

- It is essential in times of famine and natural disasters, and in regular times for the poorest families.
- If delivered in the form of food, it is preferable that the food be purchased from local farmers, to not undercut their prices.
- Many countries have opted to deliver food aid in the form of coupons to the women in the poorest families (Brazil, Mexico, Guatemala, others), which can be exchanged for food purchases.
Food security

- The important consideration is FOOD SECURITY FOR FAMILIES, not national self sufficiency.
- Singapore, Finland, Switzerland and other countries are not self-sufficient in food but do not have malnutrition.
- Studies have shown the main determinants of family nutrition are, in order: i) income, ii) education, and iii) health.
- National food self-sufficiency (autarky) goes against comparative advantage and thus reduces income growth prospects in agriculture.
Privatization in agriculture
Governments may own agricultural processing and storage facilities either for historical reasons (greater government role in the past economy) or because they construct the facility in the absence of private initiative.

Whatever the origin of government ownership, it is rarely efficient in the long run. Governments’ policy roles are extremely important but they rarely are good managers of production or marketing operations.
But privatization raises issues, chiefly:

- How to obtain a market price for the asset (and not implicitly subsidize an influential buyer with a low price – case of Russia)?
- How to avoid creating private monopolies or oligopolies with the privatized assets?
- How to ensure a transparent process of privatization?
Public auctions of the assets are often used as an (apparently) transparent approach.

However, in poor countries there may be only one buyer with the resources and expertise to be interested in bidding. A common occurrence is that mandatory first rounds of bidding are vacated for lack of bidders and then a price is negotiated privately with the one interested buyer.
The incentives for corruption in this kind of procedure are obvious. In addition, the buyer may gain a monopsony or monopoly position for the product.

An alternative is to require that shareholdings in the privatized company be partly owned by producers. In El Salvador, State sugar mills were privatized under the provision that 55% of the shares go to cane cutters.
The approach of sharing the shares can avoid the problems mentioned but sometimes is not easy to implement.

Large entrepreneurs and small farmers may not find it easy to work together. A long process of education on both sides may be needed. Also, how are the farmers or field workers going to pay for their shares? Selling their product to the mill at a discounted price for several years is one approach.
In Honduras joint ownership of privatized grain silos & marketing operations failed because the farmers paid themselves too high a price when the grain was delivered to the facility, and that cost could not be recovered when the grain was sold. Lack of management expertise was the issue.
Policy issues are numerous and diverse, and there is no single best answer.

What is required is creativity, cooperation with the producers and other agents in the sector, and a willingness to learn from other experiences, always seeking efficiency, equity and sustainability.
Blackberries grown on steep slopes for export by an association of poor farmers in Guatemala