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Foreign Economic Development Assistance
and
American Agricultural Exports
(A paper prepared by the staff of AID)

1. What is the Problem?

The U.S. agriculture economy is in trouble, in part due to declining exports of farm commodities.

During the 1970s, world grain exports increased nearly 90 percent and the United States was able to capture about 80 percent of the increase because:

- Developing countries grew rapidly, averaging about 5.5-6.0% annual growth rates in the two decades between 1960 and 1979.

Rapid growth of per capita income and availability of foreign exchange enabled LDCs to rapidly increase agricultural imports.

- Centrally planned economies increased imports. U.S. exports of food grains and coarse grain (used as livestock feed) grew from 615,000 tons in 1970 to 26,000,000 tons in 1981.

- The U.S. foreign exchange rate was favorable.

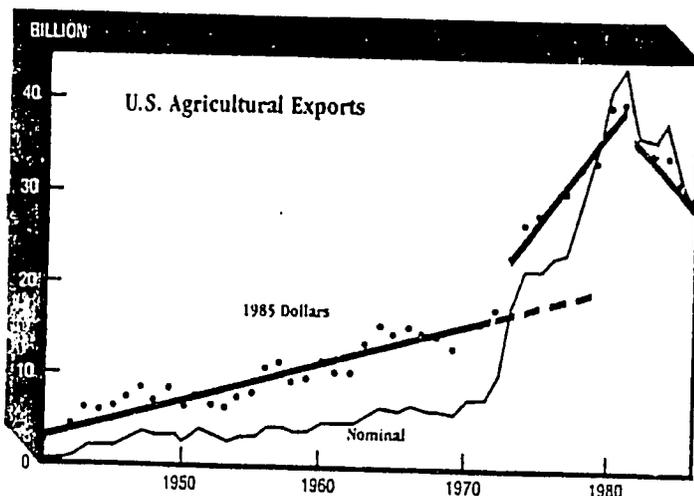
As a result of major increases in U.S. exports in the 1970s, the U.S. agricultural economy depended on exports for almost half of the gross national product which it generated.

VALUE OF U.S. AGRICULTURAL EXPORTS AS PROPORTION
OF FARM SECTOR GROSS NATIONAL PRODUCTION

<u>Category</u>	<u>1960</u>	<u>1970</u>	<u>1983</u>
	<u>-(Million Dollars)-</u>		
1. U.S. Agricultural Export Value	4,628	6,958	34,771
2. GNP of Farm Sector	21,400	28,600	70,800
3. (1) as % of (2)	21.6%	24.3%	49%

SOURCE: ERS, USDA - U.S. Foreign Agricultural Trade Statistical Report (various years)
U.S. Department of Commerce - Statistical Abstract of the United States 1982-83.

The boom in U.S. agricultural exports was abruptly halted in 1981. U.S. agricultural exports fell 37 percent in the last 5 years from the peak of \$43.8 billion in 1981 to \$31.2 billion in 1985 and an estimated \$27.5 billion in 1986.

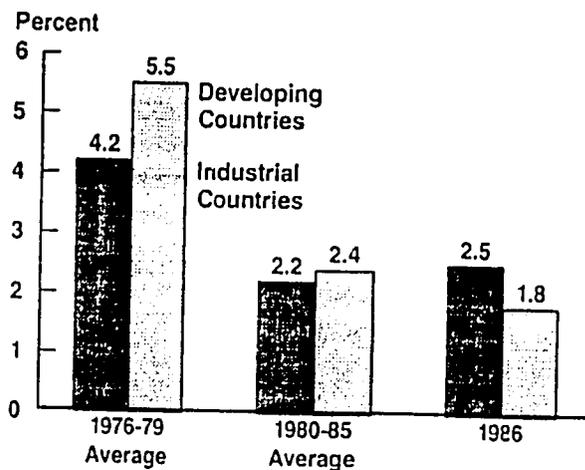


2. What are the causes of the decline in U.S. agricultural exports?

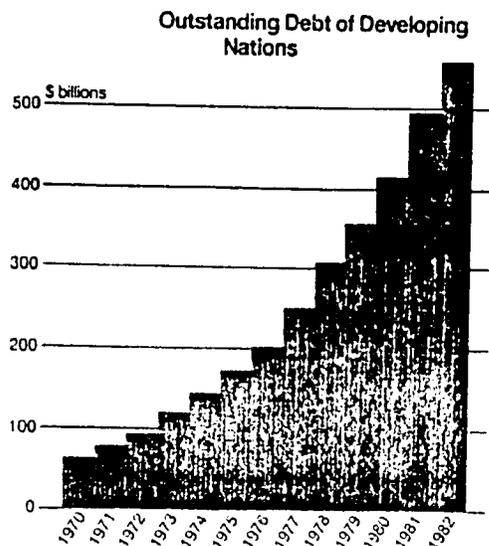
Reduced purchases by developing countries.

- The rate of economic growth by developing countries in 1981-83 dropped to almost half of the 1973-79 average.

Economic Growth Rates Abroad

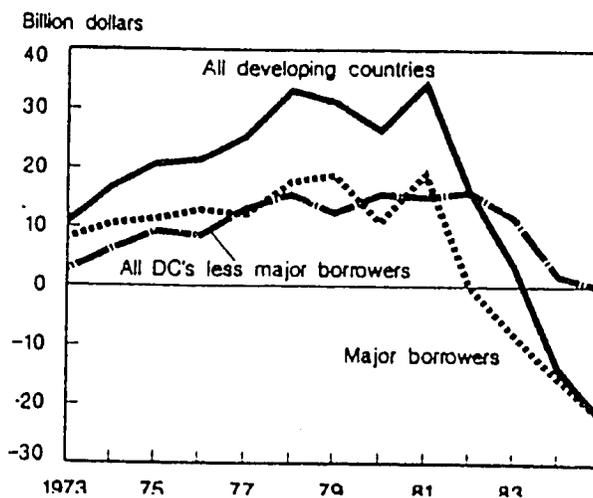


- o Developing countries had to use more foreign exchange to service their increased external debt; less was available to buy U.S. products.



Source: World Bank, *World Development Report 1983* (New York: Oxford University Press).

Net International Transfers to Developing Countries



- Because of the stronger exchange rate for U.S. dollars, it took more foreign currency to buy a U.S. dollar's worth of U.S. goods.

The centrally planned economies reduced feedgrain imports.

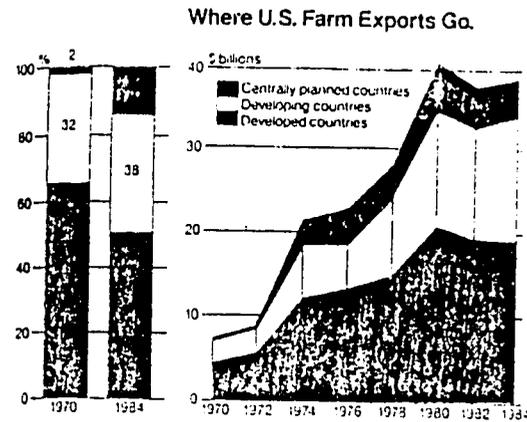
Embargos on soybeans to Japan in 1973 and on grains and soybeans to the U.S.S.R. in 1980 may have caused importing countries to raise questions about U.S. reliability as a supplier and to look for alternative sources.

Foreign crop production increased. The countries of the European Economic Community (EEC), which heavily subsidizes its farmers, increased per capita production by 16 percent and China increased per capita production by 39 percent. At the same time per capita food production in the developing countries, many of whom receive AID support, increased by only two percent. Rapid population growth has absorbed almost all of the increased production in these countries.

3. Where Do Opportunities Lie for Increasing U.S. Agricultural Exports in the Future?

High rates of economic growth enjoyed by the developing countries during the last several years have benefitted U.S. farmers. As a group, the developing countries have replaced industrialized countries as our fastest growing markets. Their agricultural

imports from the United States increased from \$1.1 billion in 1970 to a peak of \$15.4 billion in 1981.



Sources: USDA, 1982, as cited in Larry Lev, Michael T. Weber, and H. C. Bittendorfer, *Michigan Agriculture and Its Linkages to Developing Nations* (East Lansing, Mich.: Institute of International Agriculture, Michigan State University, March 1984); USDA, *Foreign Agricultural Trade of the United States* (Washington, D.C., 1985).

In 1983, developing countries accounted for 50 percent of total U.S. grain and feed exports. If their economies grow rapidly enough, developing countries should be the primarily market for expanded U.S. exports in the future.

- 1/2 to 1 billion people in the developing world go to bed hungry.
- Between now and the year 2000 another 1.2 billion people will be added to the population of the developing world.

Traditional markets are mature and stagnant.

- Low population growth.
- Modest economic growth and relatively little of the increased income spent on food.
- Emerging protectionism

4. What is AID's role in increasing U.S. agricultural exports?

Low rates of growth in the developing countries will hurt U.S. farmers.

AID's role in improving the U.S. farm problem is to help developing countries to increase their economic growth. Economic growth generates the demand for increased U.S. agricultural exports and the foreign exchange to pay for them.

A development strategy that successfully stimulates broadly-based growth of food and agricultural production tends to lead to an even faster growth-rate of demand for agricultural products and thus for imports of agricultural products.

The historical evidence shows conclusively that as incomes rise in the developing world, food imports increase. Why? Poor people spend most of their incremental income on more and better food.

- A \$100 increase in income in developing countries leads to an expenditure of about \$60 for food.

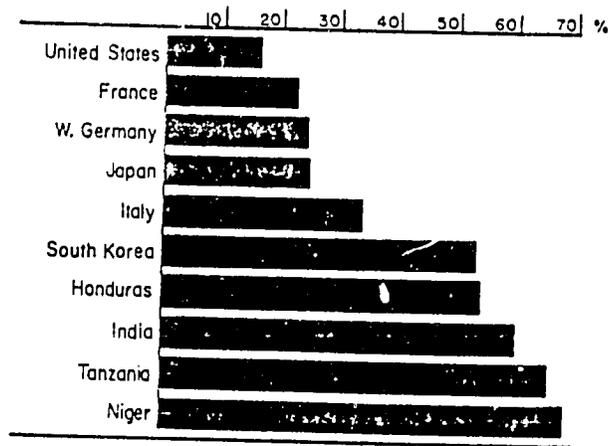


Figure 7-2. Proportion of Income Spent on Food in Selected Countries (1979)¹

¹Includes food, beverages, and tobacco

Source: Mackie, 1983.

- Researchers at the University of Illinois have found that (a) per capita imports in developing countries are positively and substantially related to per capita income, (b) agricultural imports are positively related to agricultural production in the higher-income developing countries, and (c) there is no significant evidence that indicates increasing per capita production causes a decline in imports of agricultural goods and services of developing countries.

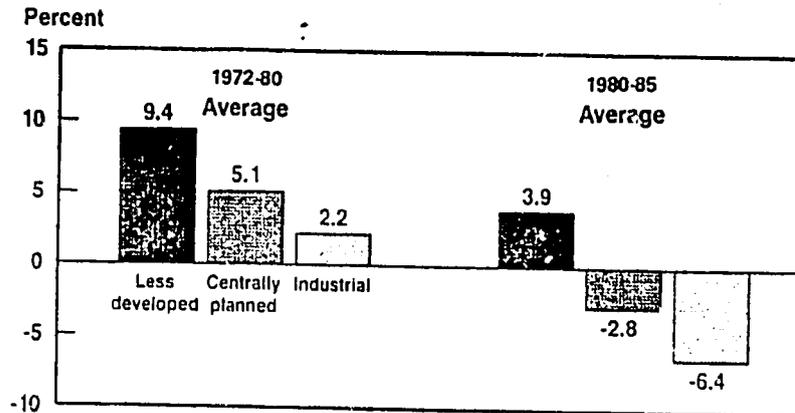
Other research has shown that:

- Between 1961 and 1970 the sixteen fastest-growing developing-country food producers expanded their net food import volume more than seven percent a year.
- Increases in commercial agricultural imports from the U.S. by countries that have been major recipients of U.S. assistance were nearly 30% greater than from other exporting countries between 1969/71 and 1979/80.

5. What are some examples of countries which illustrate the positive impact of economic development on increased imports?

Middle-income developing countries are the growing importers.

Grain Import Growth Abroad Wheat and Feed Grains



Low-income countries generally cannot afford significant commercial imports of food. Low-income countries generally cannot afford significant commercial imports of food and feed. AID assistance, often focusing on agricultural development, attempts to move countries from low-income to middle-income status.

- In 1981 alone, the U.S. sold \$2.1 billion in agricultural products to Korea. This exceeded the total value of PL 480 food aid provided to Korea between 1955 and 1979.
- Taiwan was a net grain exporter in the early 1950s. Although Taiwan's food production increased very rapidly over the next thirty years, it now imports 60 percent of all cereals consumed, virtually all in the form of feedgrains.
- Malaysia has developed into a consistent net exporter of agricultural products, and because of this, an ever-increasing market for U.S. agricultural exports. From 1967 to 1983, Malaysia increased its imports of food, feedgrains, and oilseeds (primarily soybeans) from a wheat equivalent basis of about one million metric tons to almost 2.4 million metric tons. Even though they are the world's leading exporter of palm oil which competes with soybean oil for some uses, they have become significant importers of soybeans since 1979, due to development of a livestock industry.

- Brazil grew rapidly from 1970-81 with much of its growth generated by agricultural production which increased almost 5 percent per year. Although Brazil emerged as a strong competitor in the export market for some commodities, especially soybean meal and oil, they substantially increased their imports of U.S. agricultural products.
- The quantity of U.S. agricultural exports to Brazil increased by 14.7 percent per year. The value of these exports grew by 24.8 percent per year.
- U.S. agricultural imports by Brazil changed from 64 percent of the total being government-supported to 99.92 percent being commercial, i.e., private cash purchases.
- U.S. exports to Brazil of wheat and wheat products, corn and corn products, and soybean products increased rapidly during this time of rapid Brazilian agricultural growth.

Brazil's imports of U.S. agricultural products increased on the heels of their increased domestic agricultural production. The increased production contributed to the development of the non-agricultural sector. The combined growth of the agricultural and non-agricultural sectors dramatically increased availability of foreign exchange.

6. Doesn't AID assistance for agriculture lead to (a) displacement of U.S. agricultural exports and (b) increased exports from developing countries which compete with U.S. exports?

No, it doesn't. Most of the people in the developing world -- 50 to 75 percent -- are rural and the agriculture sector usually provides the best opportunities for increasing incomes and stimulating overall growth in these economies. That is one reason why AID focuses much of its assistance on improving agricultural performance. Since much of the additional income earned by farmers is used to purchase food, often meat and meat products fattened up with American feed grains, agricultural imports increase as incomes rise.

Farmers also use their additional income to purchase basic agricultural equipment and other semi-industrial commodities often produced in-country (but also sometimes imported). This supplies additional money to the people who work in LDC industries, which they also spend to buy more and better quality food.

In the process of development, some developing countries may become exporters of specific agricultural commodities which may compete with U.S. exports. These countries must earn foreign exchange if they are to buy our exports. As noted earlier, there is no significant evidence that increasing agricultural production in the developing countries leads to a decline in imports of agricultural goods and services. To the contrary, it leads to increasing imports. The important point is that these countries will become much larger agricultural importers from the United States.

It is AID policy to avoid supporting the production of agricultural commodities for export by developing countries when the commodities would directly compete with exports of similar U.S. agricultural commodities to third countries and have a significant impact on U.S. exporters.

7. What Is the Perceived Concern about Foreign Assistance?

Despite the well-documented economic causes of declining exports, some spokespersons for the U.S. agricultural community and members of Congress representing agricultural districts have attacked foreign aid for contributing to the demise of U.S. agricultural markets. These attacks assert that A.I.D. (and other donors such as the World Bank), through research and technical assistance programs, have helped developing countries become strong competitors for U.S.-produced commodities on the world market.

Specific assertions which we are aware of and responses to these assertions are found below:

Assertion #1: Land Grant Colleges. AID spent \$341 million in FY 84 which was "provided to land grant colleges and other colleges for overseas projects, many of them in countries that compete with the U.S. for export markets." "much was used to expand foreign agricultural production." "much of which was used to improve soybean and agricultural production in foreign countries." "to expand foreign farm production."

Response: The \$341 million total in FY 84 is a tabulation of Life-cf-Project totals of a number of projects compiled from the AID publication "Current Technical Service Contracts and Grants Active during the Period October 1, 1983 through September 1, 1984." The technical assistance includes everything from family planning to child health care to coca substitution. A single project, "Improved Varieties of Soybeans," implemented by the University of Illinois, had terminated in 1982 but was carried forward for contractual reasons under the old title but with increased emphasis on utilization.

Assertion #2: Soybeans in Brazil. AID support for agricultural research in 1970s was a major factor in increased soybean production in Brazil. More recently, the University of Illinois International Soybean Program (INTSOY) has aided foreign soybean production, particularly in Brazil and Argentina.

Response: AID programs in the 1970s did have an impact on Brazilian development, but many other factors have had even more significant impact on the Brazilian agricultural sector than AID's investment. Brazil received less than \$1 million in assistance specifically for soybeans, less than 0.1 percent of the total \$1.5 billion in total assistance the United States provided to Brazil from the 1950s to the mid-1970s.

In recent years the University of Illinois program INTSOY has cooperated with Argentina and Brazil in their international Soybean Variety Experiments. To date, no varieties included in the trials have been incorporated into use in Argentina or Brazil. In fact, Brazil contributed more varieties to the international trials than any other participating LDC; thereby the U.S. gains access to a greater variety of germplasm by which to improve U.S. varieties.

Assertion #3: Pakistan. In Pakistan, AID initially opposed the removal of a tariff on soy imports even though soybeans are one of the United States largest agricultural exports.

Response: Pakistan's edible oil imports now cost up to \$500 million annually; the second largest import after petroleum. Given Pakistan's overall balance of payments problem, the size of the edible oil import bill and its rapid growth are an important concern to the country, especially when domestic production has shown little growth. An import duty on edible oils that was recently adopted by Pakistan is close to the policy recommended by USAID. It is expected to create a more stable and predictable market and to induce a modest increase in domestic oil production. Imports are still expected to increase to meet the continuing rapid growth in demand, although at a more manageable rate.

Assertion #4: Kenya. In Kenya, AID objected to the importation of soymilk processing equipment which would have created a potential market for 100,000 bushels of soybeans a year because AID feared it would make Kenya dependent on U.S. imports.

Response. Inquiries with AFR/TR/ARD; USAID/Nairobi; the USDA Agricultural Attache in Nairobi; PRE; St. Louis office of the American Soybean Association; USDA/FAS/ Oilseeds Division; and U.S. soymilk manufacturers and equipment manufacturers have not revealed any knowledge of USAID objection to import of soymilk operation in Kenya.

Assertion #5: Thai Rice. AID, through support to the University of Kentucky, has supported rice production in Thailand, a major export competitor with the U.S.

Response. The University of Kentucky project in Thailand assists rainfed production in farming systems of the very-low-income Northeast where subsistence rice is usually the major food crop. It is optimistic to associate significant production gains with this project and little if any rice exports come from this region.

Assertion #6: Sudan. In the Sudan, AID has supported production of corn flour and grain sorghum, although the U.S. Wheat Growers claimed that it would be less costly for the Sudan to import U.S. wheat.

Response. AID has not supported corn production in the Sudan. The negligible amount of corn that is produced domestically is primarily intercropped on traditional farms in the southern part of the country. AID has supported the production of sorghum in the Sudan; this has been a success story that resulted in a 1 million ton surplus in 1985. Imported wheat is estimated to cost 50 percent more than domestically grown sorghum. Sudan has a \$9 billion foreign debt which constrains imports significantly. The foreign exchange earned from exporting sorghum puts the country in a better position to purchase U.S. goods.

Assertion #7: Guatemala Apples. Since 1978, USAID has pumped over 22 million dollars into the Guatemalan apple industry, displacing U.S. exports.

Response. AID-supported diversification of agricultural production in Guatemala does not focus on apples although some general marketing assistance has been provided to a cooperative of poor highlands Indians and some producers may have benefited from general credit lines. Although Guatemala has banned imports of U.S. apples, the USAID Mission is attempting to remove the ban as part of its PL480 negotiations.

Assertion #8: Paraguay Cotton. AID has supported cotton production and exports in Paraguay.

Response. AID assistance was not directed at cotton, although general assistance to improve the extension service may have indirectly affected cotton production. Paraguay produces long-staple cotton. The U.S. produces largely short-staple cotton.

Assertion #9: IRRI -- Rice in Asia. AID has supported rice research with the International Rice Research Institute (IRRI) which has displaced U.S. rice exports in Asia.

Response. IRRI has had a significant impact on rice production in Asia but it is not clear that this program has displaced U.S. commercial rice exports to Asia. Thailand is our major competitor in Asia. Yet, only 13 percent of Thai rice area is sown to IRRI-derived varieties.

8. What About the Caribbean Basin Initiative (CBI)?

The Caribbean Basin Recovery Act (known as the Caribbean Basin Initiative or CBI) has been very successful during its three years of implementation. In part, it focuses on increasing the exports of the region as a means of increasing incomes.

U.S. imports of horticultural products from the CBI-beneficiary countries during 1985 totalled \$573 million.

- Bananas and plantains, which are non-competitive items with U.S. production, accounted for 75 percent of total horticultural imports from the region.
- Imports from CBI-beneficiary countries which are competitive with U.S. agricultural products totalled \$111.4 million, representing 1.7 percent of total U.S. horticultural imports. The fastest growing are frozen concentrated orange juice (which accounts for 40 percent of the increased imports of previously dutiable competitive items, but still only 1 percent of U.S. FCOJ imports), pineapples, other citrus juices, other melons (excluding cantaloupes and watermelons), and oranges. None of these items are produced under AID-funded or supported projects.
- Most horticultural products produced under AID-supported projects enter the United States during the February-May period when U.S. production generally does not meet the domestic demand.

9. Are There Exceptions to The Argument that Increased Agricultural Production in Developing Countries Will Result in Increased U.S. Agricultural Exports to These Countries?

Yes, in China, for example, a remarkable fifty percent farm production increase since since 1978 has led to dramatic increases in both rural and urban per capita income, but so far exports to China, and specifically U.S. exports of feedgrains, have gone down instead of up. India is the other leading example of a country which has not followed the usual pattern, in part due to a strong desire to achieve food self-sufficiency.

On the other hand, in some countries, such as Egypt, agricultural imports have grown even though there has been only modest agricultural sector growth. Egypt presently imports ever larger quantities of wheat and wheat flour to make up for the faltering performance of its own farm sector. A large portion of these imports were concessional sales or otherwise financed by foreign assistance.

Similarly, in some oil-exporting countries, such as Nigeria and Mexico, farm imports increased rapidly during the 1970s in response to a combination of oil export earnings and faltering domestic farm production.

10. Does U.S. Foreign Assistance Directly Benefit U.S. Agricultural Production?

Yes, developing countries are the primary origins of almost all of the crops we grow. Corn came from Central America, soybeans from Asia, and wheat from the Middle East. In recent years, these native species have provided genes for dwarf stature, resistance to insect pests and diseases, day-length insensitivity, and high-yield potential -- which have been incorporated into modern crop lines and varieties to increase productivity.

- Semi-dwarf wheat varieties were sown on almost two-thirds of the area grown to wheat in the U.S. in 1984. Virtually all of this wheat contains dwarfing genes brought here from Asia.

Diseases and insect pests are often more serious in tropical areas, where selection for survival is made by nature as well as by humans. A vital resource of new and improved pest control technology in the U.S. can come from countries where pesticides have not reduced biological control agents for diseases, weeds, and insects. Before certain crop diseases become established in this country, we study them on the same crops in their native setting.

- The genetic source of golden nematode resistance in potatoes is Peru.
- The genetic source of modern resistance to wheat rust is Kenya.

We also develop vaccines and diagnostic tests in countries where diseases exist before they get to the U.S.

- Collaborative research in Kenya produced an effective vaccine for the prevention of contagious caprine (goat) pleuropneumonia (CCPP) which causes high mortality among herds in the U.S.

Collaboration between U.S. scientists and scientists elsewhere means that U.S. growers will be better prepared to combat problems now being addressed in developing countries by the collaborative programs. We cannot buy the varieties and technologies "off the shelf"; they are identified only through collaborative research. These arrangements include sharing the new technologies with the countries in which the problems were first detected. U.S. agriculture would surely suffer if we ceased to participate in the international collaborative research that resulted in these findings.